

**Factors influencing discharge decisions in
dermatology outpatients:
checklist and educational methods to
support appropriate discharge**

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For my parents who will always be my wisest decisions,

For my husband Hazrin, who is undoubtedly my pillar of strength,

For my three boys, Abdurrazzaq, Abdurrahman and Abdurrahim, who affectionately, are my tears and joy.

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ABSTRACT

The decision whether or not to discharge an outpatient is vital in determining outpatient clinic attendance numbers, directly affecting overall patient care efficiency. A review of the factors influencing discharge decisions revealed that there was limited evidence of these factors and a lack of understanding how clinicians take discharge decisions. This project's objectives were to describe the influential factors on discharge decisions from the clinicians' and patients' perspectives, to demonstrate the development and clinical evaluation of a novel "Traffic-light" design dermatology outpatient discharge information checklist to improve appropriateness and consistency in discharge decision-making.

Semi-structured interviews were carried out with 40 consultant dermatologists across England. 148 influences were generated and thematically analysed manually and using NVivo10 software. A wide array of nonclinical factors, clinician-based, patient-based, practice-based and policy-based, influence discharge decision-making.

Observations of 64 consultations and 56 semi-structured interviews with dermatology outpatients were carried out to understand their experience concerning the decision for their discharge. Twelve of 31 patients (39%) who were discharged considered their discharge inappropriate.

A three-round Delphi exercise with 17 dermatology consultants (100% response) was carried out to reach agreement on what a high quality discharge information checklist should contain. There was strong inter-rater reliability ($ICC=0.958$) and fair inter-rater agreement (Fleiss Kappa=0.269). Thirteen items were identified that formed the "Traffic-light" design checklist. Twelve (67%) dermatology clinicians who evaluated the checklist found it useful.

This study has demonstrated the importance of approaching discharge decision taking in an informed, structured manner. The checklist provide the basis for making discharge decisions more systematic, auditable and transparent, improving patient safety and optimising healthcare costs. These methods are potentially useful in other clinical disciplines.

THESIS STRUCTURE

Chapter 1 gives a general introduction about the importance of outpatient discharge decision taking. This chapter also defines judgement and underlies decision making, what describes appropriate decision making and the importance of making appropriate clinical decisions, in particular outpatient discharge decisions. A review of the literature concerning what factors influence outpatient discharge decisions, particularly in the dermatology outpatient setting and examples of models used in the discharge decision making processes were highlighted.

Chapter 2 describes in detail the methods used to carry out the whole PhD project. These included qualitative interviews of dermatology consultants and patients, observation of discharge consultations, the Delphi study, the creation and evaluation of the “Traffic-light” design dermatology outpatient discharge information checklist.

Chapter 3 demonstrates the results of 40 in-depth qualitative interviews conducted with dermatology consultants across England. The main aim of this study was to explore what factors influence dermatology clinicians’ discharge decision making in the outpatient setting, the process of making discharge decisions, the challenges faced in carrying out these decisions and the strategies they use to improve discharge decision making.

Chapter 4 demonstrates the results of observing 64 discharge consultations, and of 56 dermatology patients’ in-depth qualitative interviews in one outpatient clinic in a tertiary centre in Wales. The main aim of this study was to explore the experience of dermatology patients concerning their discharge (or follow-up decision) from the outpatient setting.

Chapter 5 describes the Delphi study involving 17 dermatologists, how the “Traffic-light” design dermatology outpatient discharge information checklist was developed from the results of this study and the results of the checklist evaluation by 18 dermatology clinicians.

Chapter 6 consists of a general discussion of the literature review, methods, potential use of the newly developed “Traffic-light” design dermatology outpatient discharge information checklist along with limitations and recommendations for future research.

LIST OF ABBREVIATIONS

BAD	British Association of Dermatologists
BMA	British Medical Association
DOH	Department of Health
CCG	Clinical Commissioning Group
GP	General Practitioner
GPwSI	General Practitioner with Special Interest
HSCIC	Health & Social Care Information Centre
ICC	Intra-class Correlation Coefficient
IOT	Internet of Things
IQR	Interquartile Range
IRR	Interrater Reliability
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
PADSS	Postanaesthesia Discharge Scoring System
SMDM	Society for Medical Decision Making
SOP	Standard Operating Procedure
SHO	Senior House Officer
QoL	Quality of Life
UHW	University Hospital of Wales
WHO	World Health Organisation

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CHAPTER ONE

General introduction

BACKGROUND

One of the most common and complex decisions a clinician has to make is whether or not to discharge a patient (Armitage 1981; Sullivan 1993; Burkey et al. 1997a; Finlay et al. 2000; Hajjaj et al. 2010b; Pashley et al. 2010). Although a lot is known about factors that influence clinical decisions in general (Hajjaj et al. 2010a) there is very limited literature available on the various factors influencing discharge decisions (Sullivan et al. 1992; Sullivan 1993; Burkey et al. 1997a) with even less being available on factors affecting discharge decisions in dermatology specifically (Finlay et al. 2000). Patient discharge can be divided into two: 1) inpatient discharge and 2) outpatient discharge. The term “discharge” can relate to several different situations. First, it can be applied to complete or absolute discharge of inpatients or outpatients. Patient discharge can result from a referral to a consultant in another specialty or a referral to a different consultant within the same specialty. Outpatient discharge can occur if the patient did not attend or has defaulted on multiple appointments or if patients request for self-discharge. Second, discharge may be “conditional or partial” where patients are discharged but given an option of open access return either for a limited or extended period of time, usually between six to twelve months. The decision to discharge or to follow-up a patient is principally the same decision, though sometimes influences to discharge may predominate the influences to follow-up or the other way round. Outpatients can also be partially discharged to nurse-led specialist clinics to be educated, supervised for continuous monitoring of long term therapy or for the management of chronic diseases such as eczema or psoriasis (British Association of Dermatologists 2014a).

In the context of inpatient care, discharge is not a solitary event but rather a stage in the process of patient care situated at the end of the continuum occurring when the patient leaves the hospital, which involves a period of readiness and resulting consequences (Armitage 1981). Jewel (1993) stated that the process of discharge begins at admission through a sequence of four stages which include the initial assessment of the patients, followed by the goals for admission, planning of patient care and finally the monitoring of the patient’s progress. Inpatient discharge occurs when a patient is admitted to the hospital ward and discharged either to outpatient specialist care or discharged directly to the care of the patient’s general practitioner (GP) or to a nursing home. Outpatient discharge on the other hand, refers to patient discharge from the outpatient specialist clinic to a GP clinic with or without open access return. Open access return simply means that patients have the option of re-attending the outpatient clinic within 6-12 months of discharge if the need arises. They would be automatically discharged if their re-appointment is missed. Patients who are discharged without open access need to be

re-referred by their GPs for an appointment for specialist care. Clearly, discharge decisions are an integral part of clinical practice and play a central role in ascertaining the availability of hospital beds in the inpatient setting and the number of outpatient attendances in the outpatient setting. The number of outpatient attendances directly affects the overall efficiency of outpatient clinical services (Sullivan 1993). Lengthy waiting times for specialist care in the hospital setting are a major concern in some healthcare systems such as in the UK (Burkey et al. 1997a), Italy (Mariotti et al. 2014) and Australia (Department for Health and Ageing, Government of South Australia 2014).

A delayed discharge can reduce the capacity to receive patients for hospital admissions or treatment for secondary outpatient care. In addition, a premature discharge from the hospital ward may result in unwarranted hospital re-admissions which evidently impact the smooth running of healthcare services. Similarly, a premature discharge from the outpatient setting will result in unnecessary re-referrals from primary care to the outpatient clinics, which will result in delays in seeking specialist care due to the inevitable long waiting lists. The inappropriateness of discharge decisions whether premature or delayed are both costly events to the patient (Kydd and Brinkmann 2009), the patient's family member and the GP. Patient safety may be at stake. The patient would have to bear the pain and anguish of a misdiagnosed condition or receive inappropriate treatment. Likewise skin patients are likely to be re-referred to secondary care for the same reasons or if they had a recurrence. Besides that, poorly made discharge decisions will result in inefficient use of clinicians' time and hospital resources. For example, the primary care provider (GP) will need to rewrite a new referral for the patient and this can be measured as less effective use of the GP's time and increase the burden of financial cost to the primary care providers, since a new referral is much more costly than a follow-up appointment. It is the skill to strike a balanced approach that is much required amongst clinicians during the process of making discharge decisions. In this PhD project the researcher has confined her research to the dermatology outpatient setting for the reasons below:

Dermatology in clinical practice

Dermatology is one of the most diverse clinical specialties, where dermatologists see a wide range of cases from mild to severe or even life threatening disorders across all age groups. Patients' diseases vary from chronic, inherited, inflammatory, and malignant skin disorders to acute allergic skin reactions. Unique to skin problems, the visibility of the condition may leave dermatology patients psychologically handicapped by their disease (Richards 2001), even though treatment has been completed and the disease has been "cured". For example acne is often a chronic disease for which treatment only

provides control, not cure. Following treatment there may remain unwanted facial scarring or residual pigmentation as a side effect of treatment which cannot be completely removed. To the dermatologist, the diagnosis has been confirmed, treatment has been completed and therefore the patient is ready to be discharged. However, patients with skin disease may have a different perspective and may not consider that discharge is appropriate. Any form of disfigurement can be a serious cause for concern, depending on the individual patient's disease acceptance. Persisting abnormal skin appearance caused by skin diseases, whether acute (such as urticaria) or chronic (such as vitiligo), can leave a patient emotionally distraught concerning their overall appearance (Kent and Al'Abadie 1996; O'Donnell et al .1997).

In the UK most inpatient units for skin disease have been closed. Patients previously had the liberty and benefit of getting admitted and, in the past, inpatient admission significantly improved patients' quality of life (Kurwa and Finlay 1995). Patients with skin disease today are mainly treated as outpatients: only patients with severe life threatening skin diseases, such a toxic epidermal necrolysis, severe bullous pemphigoid or an extreme flare of atopic eczema are admitted. Whenever appropriate, patients are encouraged to be treated as outpatients and are expected to be discharged from the outpatient service at the earliest possible time. Aggressive discharge policies and demands from hospital managers to pursue cost saving policies may lead to inappropriate outpatient discharges. In view of this, dermatologists must take active clinical responsibility for ensuring that appropriate outpatient discharge decisions are taken. There must be accountability and adaptability to the changing needs of skin patients while clinicians juggle, with reasonable skill, the wide range of factors that influence discharge decisions, even under time and resource constraints. At the end of the day, if a patient is to be discharged, it is essential to ascertain that a happy and contented patient walks out of the hospital clinic after the decision to discharge is taken.

The shift of dermatology practice from an inpatient to an outpatient setting has increased considerably over the years (Ayyalaraju et al. 2003; British Association of Dermatologists 2014b). Whereas 50 years ago large numbers of dermatology patients were admitted for inpatient treatment, now very few patients are admitted. In another shift of emphasis, dermatology was identified as one of the six key outpatient practices needing effective transfer of healthcare from the hospital setting to community care (Roland et al. 2006). There has been increasing demand for dermatology services, fuelled partly by concern over detecting skin cancer: this has inevitably led to very high numbers of outpatient attendances (Donnellan et al. 2010). In 2014-2015 the Hospital Outpatient Activity reported 107.2 million appointments, of which 85.6 million (79.9%) were hospital outpatient attendances in England. Almost 3.2 million were dermatology

attendances, the 5th highest after trauma, ophthalmology, general surgery and gynaecology (Health & Social Care Information Centre 2015).

The increasing incidence of skin tumours, novel skin treatments and the greater cosmetic awareness of patients have contributed to the increasing number of referrals leading to an increase in new appointments. This has resulted in an increase in workload pressure on the dermatology services that might have an effect on the efficiency of dermatology practice. Moreover, high rates of follow-up attendances, along with some inappropriate attendances, have contributed to the high number of patients being cared for in the outpatient clinics. The transfer of inpatient care to outpatient settings has also added to the load on clinics.

In general, several strategies and policy initiatives had been implemented to improve the outpatient clinic waiting time (Schofield et al. 2005; Roland et al. 2006; NHS Institute for Innovation and Improvement 2010). Consultants were encouraged to pool their referrals so that their patients' appointment lists are balanced in number for each consultant. The introduction of nurse led clinics and consistent monitoring of waiting list performance regularly by hospital Trust managers are some examples of some of the steps employed.

In dermatology, newly referred patients' access to secondary care has been affected by the introduction of Teledermatology services (van den Akker 2001; Roland et al. 2006; Finch et al. 2007; BAD 2014b), which encourage GPs to seek specialist advice via electronic mail uploading photos online (Finch et al. 2007), the training of General Practitioners with Special Interest (GPwSIs) in dermatology (Schofield et al. 2005; Schofield et al. 2009), the development of specialist dermatology nurses (Gradwell et al. 2002) and the encouragement of GP-led follow-up (Murchie et al. 2009). In addition attempts have been made to improve the understanding of GPs as to how they should perform appropriate GP referrals to secondary care (Forrest et al. 2006). Dermatologists are also expected to increase their outpatient discharge rates in order to meet new to follow-up patient ratio targets specified by their Trust (Bamji 2011). In England, dermatologists are encouraged to increase their outpatient discharge rates in order to "meet new to follow-up" ratios (Hill et al. 2010; Schofield et al. 2009). The target for 'new to follow-up ratio' is set by managers at a level that has the smallest number of follow-up patients possible whilst hopefully avoiding overt patient risk.

Although discharge criteria and guidelines have also been formulated to ascertain safe and timely discharge, most of these guidelines were mainly for inpatients. Moreover, these guidelines were designed to be disease-specific such as those for colorectal surgical patients (Fiore et al. 2012) or discipline-specific for anaesthetic patients (Chung

et al. 1995; Phillips et al. 2014) and as such were mainly targeted to improve the overall discharge process or planning (Grimmer et al. 2006; Herring et al. 2011). Recently the British Medical Association Patient Liaison Group (2014) designed a discharge checklist to help patients with their discharge (BMA Patient Liaison Group 2014).

Details of this checklist will be discussed in the discussion chapter. There were very few articles describing how discharge decisions should be taken in the inpatient (Jette et al. 2003; Lin et al. 2009) and outpatient setting (Burkey et al. 1997b) and literally none in dermatology. Although various discharge strategies and policies have been launched to improve outpatient specialist care (Department of Health 2001; Roland et al. 2006) there has yet to be an in-depth study which explores the process of discharge decision-taking, how discharge decisions were made and the factors influencing this decision-making process. Based on existing literature it was concluded that a thorough understanding of the factors influencing discharge decision-making process is critical to ascertain an appropriate discharge.

Discharge decision taking is ethically sensitive (Chadwick and Russell 1989) and there has been recent emphasis on shared decision-making which calls upon clinicians to be morally responsible in sharing clear and evidence based decisions (Salzburg Global Seminar 2011). However, there are no specific “rules” for dermatology outpatient discharge in the UK. Clinicians are assumed to discharge patients when they think it appropriate. In some specific situations there may be guidance available, for example ‘management guidelines’ concerning skin cancer (Marsden et al. 2010). Most of the rules or criteria in the discharge decision-making process are described in the surgical setting. Physicians may face the risk of litigation if the patient is discharged prematurely and they advocated using discharge criteria to minimise this risk. Essentially, the aim is to maximise capacity for receipt of new referrals and reduce the risk of errors in making discharge decisions. However, there is little guidance on how to carry this out.

DECISION MAKING

A brief understanding of “judgement” and “decision-making”

Everyone makes decisions: whether you are a student, a professional or a politician. Decision-making is at the core of our daily activities and varies greatly in its complexity, depending on who decides and what the decision is made for. Some decisions are simple and basic; others are risky and complicated (Smith and Forster 2000; Gray 2009; Hajjaj et al. 2010a; Hunink et al. 2014). Before considering this in detail, owing to the overlapping areas between judgment and decision-making, it is important to define these terminologies to avoid ambiguity. Judgement refers to a state when individuals

make use of numerous evidences or cues to interpret an event or situation (Eysenck and Keane 2014). Standing (2008) defines judgement as a series of small thinking steps beginning from a situation where there is no time to plan an action (such as having an intuition), then moving gradually towards having lots of time to plan an action (such as performing a critical review of evidence). Clinical judgement is a cognitive arm of the decision-making process (Bazerman 2002) and fostering this is central to high quality and appropriate decision-making, including decisions concerning discharge of patients from outpatient clinics. Judgement is a process of integrating external information (Dhami and Harries 2001; Harte and Koele 2001) or internal information, i.e. from memory (Maule 2001), and decision analysis involving different options and using causal reasoning, i.e. consideration of the situation (Smith et al. 2001), to make a single evaluation (Maule 2001; Betsch 2008). Therefore, it may be reasonable to assume that the clinician's ability to judge will influence the accuracy of his or her decision taking, hence the importance of good judgements (Dowding and Thompson 2004). Judgement made under uncertainty clearly involves an element of risk (Gigerenzer 2003). To weigh the risks, those making judgements need to balance a multitude of factors to reach the right decision. A good judgement is rational and clear with maximum certainty despite any conflicting or unavailable information, made by evaluating the possible risks and benefits of actions before settling on a particular action (Standing 2014). In the healthcare setting, decisions are often made in a dynamic process, under a climate of uncertainty, time pressure and personal stress (Groopman 2007; Gray 2009). Tiffen et al. (2014) had defined clinical decision making as:

“...a continuous, back and forth process that may involve data gathering from multiple sources, including the history and physical; data interpretation with further data gathered as necessary; data evaluation with consideration of the data for relevant and irrelevant information; and the formulation of a decision.”

The Society for Medical Decision Making (SMDM) describes clinical (medical) decision making as a science that seeks to explain how clinicians and patients normally make decisions; it is this knowledge that helps in the development of tools to improve decisions in clinical practice (Schwartz and Bergus 2008). It can be concluded that the skills for effective decision making are based on first, identifying the possible options; second, identifying the possible consequences that follow from each option; third, evaluating the desirability of each of the consequences; fourth, assessing the likelihood of each consequence. For example, if the likelihood of losses is greater than zero but less than one, then perception of risk is regarded as a vital element in the decision making process ; and finally, combining all of these to identify the best option using a “decision rule” (Furby and Beyth-Marom 1992). Whether in the fields of healthcare,

education, judiciary, business or manufacturing (Swets et al. 2000), the process of making decisions can pose various challenges amongst professionals and business organisations resulting in decision inappropriateness.

What is decision “appropriateness”?

Gray (2009) defines “appropriateness” as a measure of the way in which an intervention is used in clinical practice. In the health context, decision appropriateness is based on a subjective judgement about whether it is right to give a particular intervention (treatment or service) to an individual (the patient), or to a group of patients or population. It is assessed based on the probability of doing *good*, the measure of doing harm and also taking into account the availability of resources. The best decision is choosing the option that does the most good and as Baron (2009) highlighted, good is the extent to which we achieve our goals. In his book on Decision Support Systems in the 21st Century, Marakas asks: “How do we really know if a decision is a good one?” (Marakas 1999). He argues that a decision is only considered *good* if the decision maker is able to attain his or her objectives within the constraints (boundaries) of the situation. Simply put, if the problem is solved without any negative or harmful consequences following the decision, then it must have been a good choice. However, in reality, one can never be too sure whether the decision was appropriately made until *after* making the decision.

Why is there a need for appropriate decision-making?

There are three main reasons why it is critical in clinical practice to determine whether decisions are appropriate:

Finite healthcare budget

It is widely understood that the National Health Service (NHS) is fully funded by the government and tax payers, and as with all healthcare systems, has budget constraints. Finite healthcare budgets and increasing patient demands have always caused difficulties within the NHS healthcare system, currently reaching “crisis” levels. The NHS needs to achieve savings to function and this is very unlikely to happen without improving the efficiency of the delivery of health services. Clinicians’ decisions have a direct influence on the cost of delivering and the efficiency of health services (Gray 2009). Therefore, clinicians must focus on making appropriate decisions in clinic practice. As an example, in 1994, a more rational approach to prescribing was advocated in general practice (Giley 1994). “Rational” is a term used in health economics which takes into account efficiency, safety, appropriateness and economy; not cheaper prescribing (Gilley 1994). Clinicians were urged to prioritise and rationalise

healthcare resources (Elliott and Payne 2005). The terms “prioritise” and “rationalise” are viewed as “the outcomes of a process of decision making that maximises net individual health gains within society’s available resources” (Buetow et al. 1997). Policies are geared towards improving the many millions of clinical decisions, such as concerning diagnosis, treatment and discharge, which are made about individual patients each year in the UK (Gray 2009). Since this research project is focused on patient discharge as examples, the following are policies which advocate improvement in discharge decision taking undertaken in various countries such as the UK, Canada and Australia. Clinicians on the one hand, are required to incorporate patient values with evidence-based medicine when making clinical judgements (Hajjaj et al. 2010a; Hunink et al. 2014). Health policy makers have to make trade-offs, compare risks and benefits, and consider healthcare costs and patient preferences using a utilitarian approach (Gray 2009). Appropriate audit systems should be developed to ensure accountable, patient centred, high quality healthcare (Wright and Hill 2003). Those who allocate resources should consider various options by asking themselves where current resources are invested, considering the effectiveness of resources and determining the best ways to invest resources based on patients’ needs (Gray 2009).

The advent of shared decision-making or patient-centred care

The White Paper, Equity and Excellence: Liberating the NHS, described the UK Government’s vision of, when making clinical decision, placing patients and the public at the forefront with the tag line: “*no decision about me, without me*” (Department of Health 2012). Basically this White Paper encouraged patients to voice their opinions and choices over their care and treatment, with the aim of improving quality of healthcare. In short, it was felt that greater patient involvement in their healthcare decisions would enhance patient centred care. Clinicians are also expected as a basic premise of the practice of medicine to always endeavour to skilfully incorporate the values and perspectives of their patients into their clinical decision-making. In a typical consultation, Gray (2009) has illustrated that many factors drive consultant-patient decision-making. Since The Salzburg Statement (Salzburg Global Seminar 2011) called on clinicians to be morally responsible in sharing important decisions effectively with patient, decisions all the more need to be skilfully judged and made appropriately. Just as one of the moral musings of the Ninth Century Irish Triad the clinical judgement of the clinician practising in the 21st century requires the following: wisdom, penetration and knowledge (Powell 2016) to handle greater uncertainties (Gray 2009; Hunink et al. 2014).

On the issue of shared decision making the RCGP has delivered a detailed position statement (Department of Health 2012) which states:

“The potential benefits of SDM [shared decision-making] include better consultations, clearer risk communication, improved health literacy, more appropriate decisions, fewer unwanted treatments, healthier lifestyles, improved confidence and self-efficacy, safer care, greater compliance with ethical standards, reduced costs and better health outcomes.”

Furthermore, it has been found that patients’ safety may be at risk if there were inadequate and untimely communication of essential information surrounding patient discharge at the secondary-primary interphase (Forster et al. 2003).

The advancement of health technology and explosion of medical data

Clinical decision-making will increasingly become more complex with the increasing availability of medical technologies and access to wider sources of information. As a result decisions will be influenced by how well informed or expert in accessing data a doctor is and how interconnected healthcare stakeholders are within the web of healthcare systems. The next section on “Big Data” and “The Internet of Things” sets the scene on how technological advancement in the 21st century has changed the way medicine is practiced, which inevitably impacts on clinical decision-making and how the structuring of massive amounts of medical data is critical in the decision-making process.

Big Data and decision making

Medical data is projected to double every 73 days by 2020, but 80% of medical data is “inaccessible” (Evans 2015). The process of converting vast amounts of unstructured information to structured data, which can be further analysed to help individuals or organizations attain key objectives, is an evolving technology (Murdoch and Detsky 2013). The term “Big Data” has been coined by computer scientists to express this evolution. Data handling companies have pioneered novel, highly intelligent and capable techno-savvy machines to “data handle” vast volumes of information effectively and accurately (Murdoch and Detsky 2013). Doctors have no choice but to embrace the era of cognitive healthcare (Murdoch and Detsky 2013). A smart technological platform such as IBM Watson Health which reads 40 million documents in 15 seconds is expected to help doctors make faster and more accurate decisions. Today, not only do we have potentially a massive array of DNA script on every patient to decipher, but also, arising from this, many possible novel diagnostic and treatment modalities may develop. Due to the available information being much greater and more readily available, more challenges are posed for doctors to contend with. Doctors are now potentially able to receive information, analyse it, compare and contrast with other data and finally

demonstrate a clear management plan at the touch of a button. Doctors may now have to cope with a longer list of differentials and a wide array of treatment choices to consider. The question arises as to how doctors can best juggle all this information within the short span of a consultation, and makes the right clinical decision? Dermatologists make clinical decisions under time constraints (Poirier et al. 2012). Unless doctors skilfully make decisions under pressure, there is always a likelihood of making clinical errors. The increase in availability of medical data may increase the chance of making errors.

Internet of Things in healthcare

Not only has the application of “Big Data” technology affected how doctors make decisions, the Internet of Things (IoT) has also started to change the way medicine is practiced (Miller 2015). The “Internet of Things” is a descriptor for marketing purposes to indicate a special web of computer-generated networks which connect things or devices (Miller 2015) through the internet using its own IP address (Miller 2015). The use of such connectivity in Intensive Care Units (ICUs) or in devices in Emergency Departments is a clear example of medical interconnected-ness within the hospital environment. Doctors are now faced with a double edged sword; on the one hand, doctors now have better information access to the latest medical advancements and evidence-based research when making clinical decisions, but on the other this has in the same way dramatically increased patients’ expectations and the ability of patients to take part in their disease management decision taking. Increasingly, clinicians’ clinical management decisions are influenced by “high tech” decision support services or decision support software programmes (Sim 2001). Telemedicine is defined as clinical practice, for diagnosis, review, or management (Chaudhry et al. 2007) undertaken synchronously or asynchronously through the medium of information and telecommunications technologies (excluding telephone and fax). Examples of IoT are the connectivity of medical devices such as the pace maker to monitor a patient’s heart rate remotely, or technology such as in Teledermatology or Teleradiology services to create better communication and collaboration between healthcare stakeholders: the specialist doctor, the patient and the GP, remote patient monitoring through mobile technology can reduce the need for outpatient visits (Chaudhry et al. 2007) and enable remote prescription verification and drug administration oversight, potentially significantly reducing the overall cost of medical care.

What are the consequences of inappropriate decision-making?

Clinicians make hundreds of decisions in a day. It was demonstrated that dermatologists make up to 21 types of decisions in the outpatient setting (Hajjaj 2010). Three of the

most common types of decisions are: diagnostic decisions, starting treatment and discharge decisions. According to an assessment of 247 dermatology procedures over a 10 year period from 2004 until 2013, three of the most common errors in clinical practice were nonsurgical treatment errors, followed by diagnostic and surgical treatment errors (Lehmann et al. 2015). A retrospective analysis of dermatology consultations seen in a public tertiary hospital in Australia showed an accuracy rate of only 54.5% when documenting diagnostic decisions in discharge summaries (Zhao et al. 2016). A poorly documented consultation can potentially result in litigation issues (Salz 2012). A delayed discharge occurs when a patient who is clinically ready for discharge, remains in or under the care of the hospital because of incomplete handling of social support, accommodation or lack of finance to cover the fees for a care home place. Patients may be at risk for adverse outcomes if emergency doctors wrongly discharge patients (Calder et al. 2015).

Clinicians handling discharge must be aware of the nonclinical factors that influence the decision to discharge a patient. Unwarranted delays can contribute to an inefficient running of the healthcare system. It is clear that errors and misjudgements can occur in the decision-making processes. Errors can also occur in other professional fields such as the judiciary and in business transactions. For example in a courtroom, bail decisions matter (Sull and Eisenhardt 2016). Judges have to make the complex decision as to whether to deny or grant bail to defendants. If defendants are released (discharged) unwisely or inappropriately, this might pose risks to society at large. Conversely, if bail were denied, defendants may be subjected to unnecessary or inappropriate punishment. The sudden loss of employment may also directly impact on the quality of life of defendants' families. Similarly, poor business decisions frequently happen. Failure of a company to succeed often takes companies by surprise. For instance, the tables turned after Porsche's bid to own Volkswagen in 2008 failed as a result of poor decision making. Instead, Volkswagen became the world's number-one carmaker in 2012 after buying up the remaining shares of Porsche (Drummond 2012; The Guardian 2012).

The history of medical education

The literature is rife with proof that medical education has involved shifting pedagogical variations throughout the centuries; balancing the theoretical or practical and scientific or humanistic aspects of medicine (Cole et al. 2015). These pedagogical variations do not just involve the contents of medical curriculae but also the personal and moral characteristics of what defines a physician. Before the fifth century BCE, physicians' clinical judgement of health and disease was largely based on mystical connotations

(Cole et al. 2015). Even then, physicians were expected to have discipline and integrity. The Ayurvedic Sanskrit text from ancient India, on which teachers based their medical knowledge, placed emphasis on the morals of chastity, truthfulness and obedience (Puschmann and Hare 2010). In Egypt, where religion and medicine were closely interrelated, students studied medicine under the strict tutelage of their teachers (Cole et al. 2015). However, after the fifth century BCE, Hippocrates (c. 460-377 BCE) was responsible for the separation of religious beliefs and medicine (Cole et al. 2015). Following the tenants of ancient Greek medicine, Hippocrates stressed the skills of *observation* and *experience* and denounced supernatural explanations (Cole et al. 2015) to diagnose or treat diseases. After the fall of the Roman Empire, scores of Greek medical texts were translated to Arabic and preserved by Arab scholars. After the ninth century CE medical texts mainly encompassed three subjects: classical philosophy, observation of the patient and practical advice (Talbot 1970). The Renaissance era gave continuing emphasis to medical knowledge and ethics. The importance of observing the patient was further stressed by Thomas Sydenham who in the 17th century insisted that physicians learned through their eyes rather than just through medical books. In summary, clinical observations and patients' views had become an extremely important aspect of medical education.

The great reformation of medical education started in the 18th century when medical students were expected to gain knowledge by the bedside rather than through books (Cole et al. 2015). In the 20th century medical schools became an integral part of academic healthcare centres or healthcare delivery services (Cole et al. 2015). Faculty scholarship declined and, by the late 20th century, there were increasing pressures on clinicians to focus on increasing their hospitals' financial wellbeing by seeing more patients rather than to devote their time to education and research (Ludmerer 1999). The change in how doctors were educated had profound implications on how doctors or clinicians viewed patients and inevitably how patients were discharged, as evidenced by the results in Chapter Three and Chapter Four. We found that some clinicians were pressured by hospital managers to conform to aggressive discharge policies and to challenging new to follow-up ratios (Bamji 2011). Due to growing ethical concerns, in 1993 the General Medical Council increased the emphasis on the more humane and moral aspects of medical care by proposing "Tomorrow's Doctors: Recommendations on Undergraduate Medical Education" (General Medical Council 2009). This required changing how doctors should be trained in the UK by exposing medical students to communication skills, moral teaching and the humanities, with less emphasis on the basic medical sciences.

Needless to say, understanding how appropriate decisions should be made is extremely important. It is evident from the aforementioned scenarios that one critical aspect of clinical decision-making which needs urgent attention is to understand the factors influencing the discharge decision making process and how clinicians take discharge decisions. This PhD project has focused on outpatient discharge decisions, particularly in the dermatology outpatient setting. It is therefore imperative to critically review the relevant literature concerning factors influencing outpatient discharge decision-making.

REVIEW OF THE LITERATURE

This literature review had two main objectives: first, to identify literature which described factors influencing outpatient discharge decisions, in particular dermatology outpatients. The second was to identify literature which described the process of making *outpatient* discharge decisions. Due to the paucity of literature on this subject, inpatient studies were also included. However, only studies which clearly focused and described the process of making discharge decisions in detail were selected. Only three models fitted the selection criteria for the inpatient setting and one from the outpatient setting. Preliminary knowledge of this decision-making framework is critical to understand how discharge decisions are taken so that we might develop tools to teach or guide clinicians how to arrive at an appropriate discharge decision.

METHODS

Search strategy and selection criteria

Two key questions guided this review which had an emphasis on dermatology and the outpatient setting. First, what are the factors influencing discharge decision making from the perspective of clinicians (physicians/nurses/therapists) working in secondary care? Second, what is the process of discharge decision-making? Published literature was searched from 1970 to May 2016 in Medline, Embase, PsycINFO on Ovid, CINAHL, PROQUEST and Google Scholar. The literature search was limited from 1970 onwards because after placing the relevant keywords, the researcher did not find any relevant literature pertaining to patient discharge decision taking before 1970. Journal articles are indexed using keywords, hence the importance of identifying the right keyword to gain a comprehensive range of literature (Aveyard 2010). Google Scholar was used as a place to start searching, especially when identifying the keywords. The databases used were mainly linked to medicine and professions allied to medicine such as Medline and nursing databases such as CINAHL (Cumulative Index to Nursing and Allied Health Literature) because it has been found that literature on the discharge process is frequently found in nursing journals. Psych INFO as a database of psychological

literature was chosen because decision making is closely related to cognitive science and psychology. The use of an * or \$ facility assists greatly in expanding all probable endings of a keyword. For example, instead of using “discharge”, the word discharg* was used which can also mean discharging or discharged.

A record of the search terms used is given in in Table 1.1. Key terms were searched in the title or/and the abstract or/and the body of text such as ‘patient discharge’, ‘discharge decision*’, ‘factors influencing discharge*’, ‘clinical decision making’, ‘discharge decision making’, ‘process of discharge decision’, ‘outpatient*’, ‘follow up*’, and ‘dermatology’ as illustrated above. Studies were only included if factors influencing the discharge decision process were discussed. To expand the literature search, the reference lists of the key articles were also scanned for their relevance. The researcher made it a point to include articles read in their original form and not to rely on secondary sources.

Table 1.1 Literature review search terms

Patient discharge	Decision Making	Dermatology	
Patient discharge/	Explode 'decision making'/all subject headings	Dermatology.tw.	<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Joined by "Ob" </div>
Discharg* adj2 patient*	Decision making.tw.	Dermatolog*	
((Patient* or client) adj3 (discharg*))	Decision-making.tw.	Skin.tw.	
Discharge*.tw.	Discharge decision-making.tw.	Explode Skin disease/	
Outpatient*	Discharge decision*		
Follow up*	Process of discharge decision		
Termination of care	Discharge process		
	Discharge* adj3 decision* adj3 process		
	Clinical decision making		
	Factors influencing adj2 discharge		
			<div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">AND</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">AND</div> </div>

One of the inclusion criteria was the search for literature only in the English language. Articles relating to mental health, paediatrics, obstetrics and emergency settings were excluded, except for two (Calder et al. 2015; Wu et al. 2012). These two emergency medicine articles were included due to the high relevance of discharge decision taking in emergency medicine. It was not possible to include articles in other languages because of practical translation difficulties. The categorising of influential factors on outpatient discharge decisions in this literature review were based on earlier frameworks (Sullivan et al. 1993; Finlay et al. 2000; Hajjaj et al. 2010b). Due to the paucity of literature on the

subject, relevant articles relating to outpatient discharge decisions from other settings were included. These disciplines included rheumatology, cardiology, general and vascular surgery, physical therapy (also known as physiotherapy), specialist palliative care and speech language therapy. Another section on inpatient discharge is briefly included which might contribute further to the understanding of discharge decision making in the outpatient context.

RESULTS

Eighteen key articles relating to influences on outpatient discharge were identified of which seven concerned dermatology (Table 1.2). Fifteen described prospective studies, two described retrospective studies and one described general views of the clinicians. Major clinical influences included diagnosis and disease severity. Non-clinical influences included physician, patient, practice and policy-related factors as described below. Due to the lack of literature on outpatients stated earlier, examples describing the inpatient discharge decision making process (how clinicians took discharge decisions) will be included as well as outpatient information to understand best practice on how such decisions should be taken. Fifteen inpatient articles and one abstract (dermatology) were retrieved (Table 1.3). Influences were mainly patient related factors, organisational support and communication between hospital providers, patients and community care providers. Twelve were prospective studies, two retrospective studies and two reviews were described. Ethics as an influential factor was described only in articles describing inpatient discharge and not found in the articles describing outpatient discharge. However, due to its importance, it was decided to include it in this review. The conceptual framework (influences) on discharge decision-making are summarised in Figure 1.

Figure 1: Summary of influences on the discharge decision making

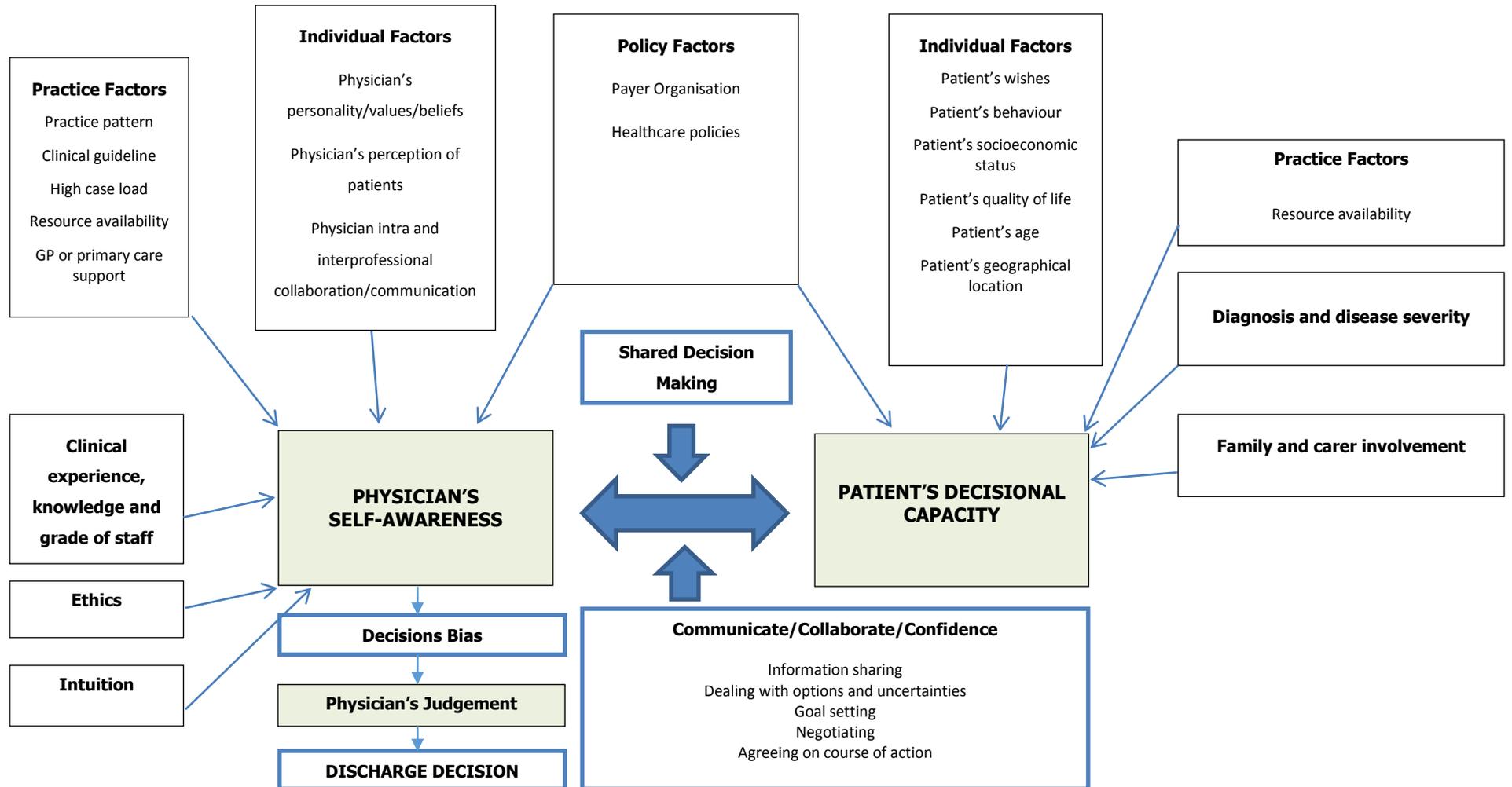


Table 1.2

Study characteristics and factors influencing discharge decisions in outpatient dermatology and other outpatient settings

*abstract

Author	Country/ Speciality	Design	Participants	Clinical Influences	Non-clinical Influences			
					Physician-related	Patient-related	Practice-related	Policy-related
				Disease-related				
Sullivan et al. (1992)	UK (Dermatology, Rheumatology, Vascular surgery)	Prospective (Questionnaire)	Physicians, patients and GPs	Diagnosis Disease severity	Expertise Staff grade	Age Employment Wishes	Hospital equipment and facilities	
Sullivan (1993)	UK (Rheumatology and Vascular surgery)	Prospective (Clinical Vignette)	Physicians of all grades	Diagnosis Cured Disease not within speciality Disease severity		Age Recurrent defaulter Wishes not to be followed up Wishes to be seen by GP Attending other clinics Distance to clinic	GP's capability to follow up GP's interest in following up Patient study completed	Clinic policy
Faulkner et al. (1995)	UK (General Surgery)	Prospective (Questionnaire)	Surgeons				Routine follow-up practice Poor discharge arrangement	
Burkey et al. (1997)	UK (General medical and surgical)	Prospective (Observation & Interview)	Physicians		Uncertainties about GP care Perception about their role and responsibilities Feelings of guilt for discharging	Feelings of loss	Additional paper work Communication difficulties with GP	
Finlay et al. (2000)*	UK (General medical and surgical including dermatology)	Prospective (Observation and interviews)	Physicians and surgeons	Disease at GP management stage Disease self-limiting Disease needing GP care Diagnosis firm Medication		Asymptomatic		

Table 1.2 (continued)

Author	Country/ Speciality	Design	Participants	Clinical Influences	Non-clinical Influences			
Hughes et al. (2003)	UK (Cardiology)	Prospective (Questionnaire)	Physicians	Symptoms assessment	Habits of retaining patients		Discharge preparation time constrain Discharge plan availability Nurse led clinics availability	
Sampson et al. (2004)	UK (General Practice)	Prospective (Postal survey)	General Practitioners and patients		Deteriorating relationships with patients	Abusive behaviour Non-compliance Drug abuse Complaint or litigation Inappropriate demand for treatment	Poor communication	
Kingdon et al. (2006)	USA (Surgery)	Prospective (Delphi Technique)	Nurses	Symptoms assessment	Intuition Education Experience Personal belief	Family support		
Farber et al. (2007)	USA (General medicine and family medicine)	Prospective (Questionnaires of hypothetical scenarios)	General internists and family physicians		Age	Demanding behaviour Non-compliance Missed appointments Non payment Alcoholic Falsifying prescriptions	Limited medical resources	
Pashley et al. (2010)	Canada (Orthopaedic Physiotherapy)	Prospective (Interviews)	Physiotherapists	Clinical progress such as quality of gait Disease chronicity	Expertise Confidence Ability to negotiate Ability to balance preferences and funding constraints Ability to educate Ability to quantify clinical progress	Attitudes towards funding limitation Attitude towards the chronicity of their disease Ability to self-manage	Limitations set by insurers	

Table 1.2 (continued)

Author	Country/ Speciality	Design	Participants	Clinical Influences	Non-clinical Influences			
Hajjaj et al. (2010b)	UK (Dermatology)	Prospective (Interviews)	Dermatologists		Staff grade Perception that discharge preparation is consuming	Non-compliance to medication Rude behaviour	Private practice Limited services or medical resources	
Hajjaj et al. (2010c)	UK (Dermatology)	Prospective (Observation and Interviews)	Patients	Diagnosis Disease at GP management Disease chronicity Skin condition	Staff grade Senior physician's advice Consultant's presence Perceived patient's non-adherence	Quality of life Wishes Relatives and friends	Clinical guidelines	
Hersh (2010)	Australia (Speech Language Therapy)	General Literature Review	Speech language pathologists		Awareness pertaining to discharge Attachment to the patient Coping with their emotions such as sadness Retaining professional control over discharge Confidence Communicative skills	Self-care skills Difficult acceptance of discharge amongst patients and their families Level of autonomy.	High case load pressures. Limited medical resources. Community support and services availability	Policy emphasising on early discharge.
Salek et al. (2012)*	UK (Dermatology)	Prospective (Interviews)	Dermatologists of all staff grades (22)	Diagnosis Diagnosis manageable at primary care level Type of treatment Skin condition	Experience Fear of litigation	Age Wishes	Waiting list pressure	Local policy

Table 1.2 (continued)

Author	Country/ Speciality	Design	Participants	Clinical Influences	Non-clinical Influences			
Poirier et al. (2012)	UK (Dermatology)	Retrospective (Audit)	Clinic practice	Diagnosis			Job pressure Commissioning Practices	
Wu et al. (2012)	Taiwan (Emergency department)	Retrospective	Emergency Physicians		Uncertainty of patient's wishes Staff grade		Coordination of care	
Foley et al. (2012)*	UK (Dermatology)	Prospective		Diagnosis				
Calder et al. (2015)	Canada (Emergency department)	Prospective	Emergency Physicians	Presenting signs and symptoms Investigations Diagnosis No indication for admission or outpatient treatment	Clinical judgement Clinical criteria		Good follow-up available	
Total	18 studies	15 prospective, 2 retrospective and 1 general review						

Table 1.3 Study characteristics and non-clinical factors influencing discharge decisions in inpatients

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
				Physician-related	Patient-related	Practice-related	Policy-related
Armitage (1981)	UK (General medicine)	General Review	Physicians, nurses, general patients and their carers	Perceptions towards patient's negotiation regarding discharge	Attitude concerning carer support and the time of discharge Attitude such as manipulating doctors Relatives level of interaction with the hospital staff Support availability post discharge		
Chadwick and Russell (1989)	UK (Geriatric)	Prospective (Observation in geriatric ward)	Geriatrician, nurses, physiotherapists, occupational therapists, social workers, pharmacists, dieticians and representatives from the Hospital Discharge Service	Judgement of choosing institutional care Ethical sensitivity in respecting patient wishes Negotiating abilities	Negotiating abilities Preferences on post-discharge care whether for professional rather than informal care	Limited resources e.g. limited beds	Community care policies which encourage more private sector residential care

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Jewel (1993)	UK (Geriatric)	Prospective (Interviews)	Physician, nurse, GP, carer, physiotherapist, occupational therapist and social worker.	<p>Knowledge on the medical, functional, social and psychological aspect of the patient</p> <p>Awareness of their professional dominance</p> <p>Judgement ability of patients' clinical progress</p> <p>Communication ability with community care providers and GP</p>	<p>Needs and preferences</p> <p>Carer participation</p>		
Wells (1997)	Canada (Geriatric)	Prospective (Case studies)	Patients	Perceptions of the patient's potential to recover	<p>Lack of information prior to discharge can lead to anxiety</p> <p>Lack of discussion with patient or families concerning discharge</p> <p>Age of patient</p> <p>Presence of carer</p>	Limited resources	
Jette et al. (2003)	USA (Physical Therapy)	Prospective (Interview)	Physical therapists and occupational therapists	Experience	<p>Attitude towards rehabilitation such as motivation</p> <p>Expectations</p> <p>Supportive care</p>	Institutional factors	Funding resources

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Myra (2004)	USA (Geriatric)	Prospective (Interview)	Administrators of assisted living facilities		Behaviours change due to dementia progression Need for more assistance on activities of daily living Aggressive behaviour Deterioration in cognitive and functional status	Availability of staff support and facilities	
Rydeman & Tornkvist (2006)	Sweden (Geriatric)	Prospective (Interview)	Nurses and social workers	Basic values and ethical awareness Awareness of one another's professional knowledge	Cognitive ability Wishes Socioeconomic status Participation	Organisational Factors	

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Moats (2006)	Canada (Geriatric)	Prospective (Interview)	Occupational therapists	Experience Frustrations over doctors' dominance i.e. doctor-driven discharge rather than a team opinion Awareness of balancing patient's autonomy and safety Strong self-opinion Negotiation ability e.g. intimidating or coercive	Cognitive function and medical frailty Families' involvement Wishes have to be respected but it is difficult with the cognitively impaired	Institutional environment Limited time to assess patients Resource availability	
André Renzaho (2007)	Australia (Cardiology)	Retrospective (analysis of the data from the Australian Institute of Health and Welfare)	Cardiology patients	Differing views regarding discharge criteria	Language barriers and communication problems led to self-discharge Ability to communicate in English		
Lin (2009)	Australia (ICU)	Literature Review	Nurses	Perception that discharge decision is a physician's responsibility Lack of knowledge or experience in the discharge process Presence of ICU liaison nurse	"Do Not Resuscitate" orders encouraged earlier discharges	Resource availability Effectiveness of teamwork Communication between healthcare professionals	

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Kasinkas et al. (2009)	USA (Physical therapy)	Prospective (Survey)	Physical therapists	Knowledge on the discharge destination Skill in handling the discharge process	Mobility Carer availability Cognitive status Home accessibility Needs	Community resources such as visiting nurses and meals on wheels Financial resources Suitability of discharge location Insurance requirements	Limitations by Medicare and other third party payers
Sherley-Dale et al. (2010)*	UK (Dermatology)	Prospective (audit)	Patients			Delay in dispensing/applying medication	
Broyles et al. (2010)	USA (A wide range of specialities)	Retrospective	Analysis of information collected from 286,120 patients Inpatient Public Use Data File		Complex diseases Age e.g. patients above 70 years have longer hospital stays Gender e.g. male patients experience longer stay Married patients have shorter stays Ethnicity e.g. African American patients experience longer stay than White Americans	Acute medical events Insurance status e.g. Medicare beneficiaries experience longer stays Admission status e.g. patients admitted at the weekend were more likely to experience longer stay in the wards Emergent rather than elective cases have longer hospital stay	

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Hekmatpou et al. (2010)	Iran (Cardiology)	Prospective (Interview)	Cardiologists, nurses, patients and families	Sensitivity to patient's needs Motivation Teamwork Communication	Lack of education on post discharge needs Lack of motivation for continuing therapy Lack of demand for a discharge plan	Managers of healthcare centres lack of sensitivity towards the discharge process Limited and poor use of resources Lack of healthcare professionals High caseloads/work pressure	
Atwal et al. (2012)	UK (Geriatric)	Prospective (clinical vignettes)	Physiotherapist, occupational therapists	Perception and management of risk Feelings of anxiety	Cognitive capacity, functioning and safety Home environment Ability to self-manage Mobility Decisional capacity Family support Wishes		

Table 1.3 (continued)

Author	Country/ Speciality	Design	Participants	Main influences in the discharge decision-making process			
Hesselink et al. (2012)	5 European Countries (Netherlands, Spain, Poland, Italy and Sweden) (Medical)	Prospective (Interviews)	Physicians, nurses, GPs and patients and families	Lack of time and prioritization of discharge Lack of using a standardised discharge consultation Lack of understanding of patients' characteristics	Cognitive, emotional and psychosocial state Ability to self-manage Agreement on time of discharge Patient's involvement Patient's preference Conflict on discharge destination	Organisational factors Limited resources Poor preparation in receiving patients in the community Work pressure and different work shifts.	
Total	16 studies	12 prospective studies, 2 retrospective studies and 2 reviews					

Disease-related influences

Diagnosis and severity of skin disease are the main influences reported on discharge or follow-up practice. For example, a retrospective audit of basal cell carcinoma follow-up in the UK proposed follow-up based on clinical influences such as features relating to the tumour, treatment factors such as the complexity of surgery and patients with organ transplants (Poirier et al. 2012). In that study, more than 70% of uncomplicated excisions were discharged, in contrast to the greater likelihood of follow-up for complicated excisions. A small study in hospital outpatient clinics (dermatology included) highlighted that being asymptomatic or having self-limiting disease were the most distinctive features in influencing discharge decisions (Finlay et al. 2000). Likewise, patients with benign lesions and improvement in their condition were more likely to be discharged after their first visit (Sullivan 1992; Foley et al. 2012). Other specialities showed similar relationships between clinical responses and discharge outcome (Sullivan et al. 1992). The stability of vital signs, orientation and patient alertness were critical factors considered using the Delphi method in determining surgical outpatient discharge readiness. In general, patients with diseases that are “cured” are obviously more likely to be discharged and usually will not need any arrangements for further follow-up in the primary care setting. Non-clinical influences such as medical intuition or experience were less influential in these obvious clinical situations. Patients with recalcitrant skin problems or conditions that have responded poorly to treatment are likely to be discharged (Hajjaj et al. 2010b). Also, chronic communication disabilities in aphasic patients influence discharge decisions (Hersh 2010). Having a skin condition which is manageable at primary care level is regarded as a discriminating factor influencing discharge (Hajjaj et al. 2010c). However, this influence was only seen twice in the observation of 61 consultations conducted in a dermatology outpatient clinic in Wales.

Clinician-related influences

Different clinicians vary in their opinions when determining a patient’s appropriateness for discharge, indicating the use of their personal judgement (Salek et al. 2012). For example, physicians continue to use their personal experience in making decisions which, in part, influences their clinical judgement (Hajjaj et al. 2010b). It might be reasonable to assume that the physician’s judgement forms the basis for physician-related factors. Little is known about the nature of physicians’ judgements concerning healthcare decision making and much less is known in the area of discharge decision making, hence the need for further empirical research. The literature suggests that many non-clinical factors influence a physician’s judgement in discharge decision making,

including the physician's experience and expertise, the physician's level of seniority (Sullivan 1992; Hajjaj et al. 2010b; Hajjaj et al. 2010c), the physician's gut feelings, the physician's personality (Hughes et al. 2003) and the physician's perceptions of the patient.

The clinician's experience and expertise

In the UK, 68% of dermatologists considered clinical experience as an influence on discharge decisions (Salek et al. 2012.) It is unknown whether this experience is broadly personal or specifically clinical. Likewise in Canada, physiotherapists who were interviewed considered experience as the most important factor governing their discharge decisions, as evidenced by new graduates who found it challenging to discharge patients from their practice. Furthermore, physiotherapists felt that their confidence level and clinical judgement in discharging patients improved with time and experience, besides better understanding of patients' preferences. The need for supervision of a patient by a consultant was the most important reason for continued clinic attendance stated by consultants and junior doctors (Sullivan 1993), and GPs and patients (Sullivan et al. 1992). This study also demonstrated that access to hospital expertise and equipment influenced both consultants and patients but not the GPs (Sullivan et al. 1992). Emergency physicians under pressure relied on their clinical judgement in 87.6% of their decisions and only used guidelines to inform 12.4% of their decisions (Calder et al. 2015). In the inpatient setting, the doctors' (Jewel 1993; Moats 2006), nurses' (Lin et al. 2009) and therapists' (Jette et al 2003; Kasinskas et al. 2009) clinical experiences and knowledge regarding patients' medical and psychosocial wellbeing influenced discharge decisions profoundly.

The clinician's level of seniority

Discharge rates amongst senior clinicians are higher than for junior staff (Sullivan et al. 1992; Farber et al. 2006). In a UK study, consultant dermatologists discharged patients at 48% of their outpatient consultations, clinical assistants (general practitioners who work in dermatology outpatient clinics) discharged 29% and senior house officers discharged no patients (Sullivan et al. 1992). A similar pattern is seen in other specialities. The reason behind this disparity in discharge behaviour is unclear, but is likely to be due primarily to experience and confidence. This suggests that educating junior doctors on how to carry out appropriate discharge and having supportive discharge tools for clinical use may improve discharge rates.

In contrast a small study in the UK, involving interviews and observations of consultations, did not find any difference in the discharge practices between senior and

junior doctors (Finlay et al. 2000). No further explanation is available from the abstract but the small number of patient consultations studied might account for the lack of difference reported. In a reversal of the outpatient situation, Wu et al. (2012) reported that senior clinicians in emergency departments were more cautious in their discharge practices and discharged the least number of patients compared to junior doctors. Since junior doctors depend on senior clinicians for discharge advice (Hajjaj et al. 2010c; Sullivan 1993) it is important that this non-clinical influence is understood. More coordinated team care between different levels of healthcare professionals can be implemented to prevent unnecessary premature or delayed discharges.

The clinician's intuition or "gut feelings"

The "gut feelings" of physicians, as an influence on discharge decision taking, has not been widely described in the literature. In an outpatient surgery setting in the USA, Kingdon and Newman (2006) reported that nurses considered their gut feelings or medical intuition in determining patient readiness for discharge. Though not considered as an important influence, it contributed to the final discharge assessment for outpatient surgical patients.

The clinician's personality

People vary in their personality traits. Some physicians struggled, with great difficulty, to come to a decision to discharge patients who had been on long term follow-up (Hersh, 2010). Some physicians also struggle with guilt (Burkey et al 1997a) and feelings of anxiety (Atwal et al. 2012) in discharging patients who have been on long term follow-up. Other physicians may have no qualms over discharging or referring on demanding patients from their list (Hajjaj et al. 2010b) and may exercise intimidation and coerciveness in persuading discharge (Moats 2006). Clinicians require the art of negotiating with patients (Armitage 1981; Chadwick and Russell 1989; Moats 2006; Pashley et al. 2010) and community care providers (Jewell 1993), maintaining professionalism (Hersh 2010) having a sense of self-confidence (Hersh 2010; Pashley et al. 2010) and ethical awareness (Chadwick and Russell 1989; Wells 1997; Rydeman and Tornkvist 2006) to carry out wise discharge decisions. Negotiation is part of the discharge decision process (Armitage 1981; Pashley et al. 2010) and speech-language therapists invest a huge amount of emotional energy in balancing the tensions of negotiating discharge with patients whom they have cared for over a long period. Moreover, uncertainties in patient's wishes (Wu et al. 2012) do happen in discharge decision taking, hence the need for skilful judgement. In addition, the lack of prioritising discharge consultations (Hesselink et al. 2012) with limited appreciation of patients' preferred time of discharge (Armitage 1981) may upset patients resulting in poor

discharge decisions. The exertion of medical dominance in decision making (Jewell 1993; Moats 2006; Lin et al. 2009) may also serve as a barrier to appropriate discharge practices especially when discharge decisions were left to the sole discretion of the doctor (Lin et al 2009). Some inpatients felt that they may run the risk of being labelled as “difficult” by physicians or nurses if they attempt to negotiate their discharge timing in a medical ward setting (Armitage 1981). Consequently, patients may be less inclined to discuss discharge with physicians. To date, it appears that no studies have identified this concern of patients in the outpatient setting. The need to maintain professionalism whilst fostering patients’ involvement in discharge decision making is vital in the decision making process (Salz 2012). In the inpatient setting, physicians have limited appreciation of the patients’ role in the timing of discharge. For example, the efforts by patients to negotiate their preferred time of discharge are not always recognised by the attending physician and even when patients’ views on discharge are acknowledged by the physician, some physicians might construe the patient as being manipulative.

The clinician’s perceptions

The clinician’s perceptions of the conditions surrounding a discharge are an important influence on discharge decision-making (Sullivan 1993; Burkey et al. 1997a). The main influences are clinicians’ perception of being more capable than GP colleagues and the perception of their role in outpatient care (Sullivan 1993; Burkey et al. 1997a). Other influences include the perception of the need for more secondary intervention (Hughes et al. 2003) and whether the disease can be managed at a primary care level (Finlay et al. 2000; Salek et al. 2012). Dermatologists would continue to follow-up patients if they perceived a lack of patient’s adherence to medication (Hajjaj et al. 2010b). In a UK study, surgeons continued to follow up patients, such as those with breast cancer, as they felt they traditionally needed routine follow-up (Faulkner et al. 1995). Some clinicians did not discharge patients in order to avoid the additional perceived workload involved in discharge (Burkey et al. 1997a). In inpatient discharge negotiations, physicians’ perception of the patient’s potential to recovery (Wells et al. 1997) influence discharge decisions. If patients are perceived as being manipulative (Armitage 1981), this may lead to inappropriate discharges.

Patient-related influences

The patient’s behaviour

Patients’ behaviour may influence dermatologists’ discharge decision taking (Hajjaj et al. 2010b). Fifty-two percent of dermatologists said that they would discharge rude or demanding patients early or refer them for a second opinion (Hajjaj et al. 2010b).

Similarly, a UK based study revealed that 64% of GPs would remove patients off their list if they were violent or abusive (Sampson et al. 2004). In contrast, 33% of the dermatologists said they were not affected by patients' behaviour. In a study addressing similar issues, primary care physicians and general internists in the USA were asked to respond to questionnaires involving scenarios reflecting different behaviours. Forty percent of the physicians would discharge patients if they were verbally abusive or if they were violent. This study was limited to considering hypothetical scenarios which may not be a true reflection of what occurs in reality (Farber et al. 2008). In another study, demented patients documented to be more aggressive (Aud 2004) or cognitively impaired (Aud 2004; Moats 2006; Kasinskas et al. 2009) were discharged from assisted living facilities to nursing homes. In the same study, physicians would discharge patients if they were non-adherent to medication (23%) or to appointments (16%). However, this attitude was not reflected amongst dermatologists in Wales, who would likely allow more follow-up appointments to improve treatment adherence (Hajjaj et al. 2010b).

Patients' preferences and expectations

Thirty-six of 392 patients expressed their wishes to be discharged though it was not mentioned whether the physicians in this study agreed to the patients' wishes. A prospective study in the UK revealed that patients' wishes were considered if the patient had decided against being followed-up (Hajjaj et al. 2010c). Physicians and dermatologists would consider patients' wishes if the patient decided to be discharged (Sullivan 1992; Hajjaj et al. 2010c; Salek et al. 2012). However, while attempting to balance patient autonomy and resource funding; most physicians would face decisional conflicts in discharging patients (Moats 2006; Pashley et al. 2010). Ethical awareness (Chadwick and Russell 1989; Wells 1997; Rydeman and Tornkvist 2006) and proper management and perception of risk in discharging elderly patients (Atwal et al. 2012) is pertinent when considering patients preferences for discharge destinations or on discharge timing (Hesselink et al. 2012).

Patients' quality of life

A patient's quality of life is the most significant influence on management decision taking in dermatology outpatients, after diagnosis and disease severity (Hajjaj et al. 2010c). This influence was identified twice during interviews with patients (Hajjaj et al. 2010c), compatible with the view that little QoL discussion takes place during dermatology consultations (David et al. 2005). Clinicians' perceptions of the degree to which patients are bothered by their skin problem will influence the likelihood of having a QoL discussion. Measuring the patients' quality of life as part of the discharge process may

be a possible surrogate indicator for measuring the appropriateness of discharge, though this study was in an inpatient setting (Woods et al. 2008).

Patients' socioeconomic and functional status

Aspects of the patient's socioeconomic status such as age (Sullivan et al. 1992; Salek et al. 2012; Broyles et al. 2010), sex (Broyles et al. 2010), ethnicity (Renzaho 2007; Broyles 2010), language (Renzaho 2007), employment status (Sullivan et al. 1992) and home accessibility (Sullivan 1993) influence discharge decisions. Elderly patients had lower discharge rates whereas patients who were employed were more likely to be discharged. In some instances, patients in Australia, with a non-English speaking background tend to self-discharge due to poor communication with the healthcare provider (Renzaho 2007).

Patients' ability to self-manage

The ability of patients to mobilize and care for themselves does influence discharge amongst elderly and rehabilitation patients (Moats 2006; Rydeman and Tornkvist 2006; Kasinskas et al. 2009; Pashley et al. 2010; Hesselink et al. 2012).

Patient's relatives or carers

Families of dermatology patients do influence follow up decisions (Hajjaj et al. 2010c) and therefore delay discharge, however this is less likely to occur with therapists in the geriatric setting (Atwal et al. 2012).

Practice-related influences

Practice patterns

High numbers of patients on a waiting list (Salek et al. 2012) and caseload pressure (Hersh 2010) influenced discharge decisions by dermatologists in the UK and by speech language therapists in Australia (Hersh 2010). The delay in dispensing topical application after prescribing has resulted in the postponement of discharging dermatology inpatients (Sherley-Dale et al. 2010). In addition, patients experiencing adverse medical events and those patients who are admitted over the weekend have longer mean hospital stay (Broyles et al. 2010).

Resource constraints

Limited funding in physiotherapy practice has a likely impact on reducing the number of treatment sessions per patient and might result in early discharge. However, this

restriction may encourage patients to take their treatment plan more seriously and promote faster recovery (Pashley et al. 2010). It is possible that there may be differences in discharge ratios in private self-pay settings versus other settings. In private practice, fewer follow-ups are advocated to reduce patient costs which might signify earlier discharge in order to reduce the burden of costs to their patient (Hajjaj et al. 2010b). On the other hand, the extra income generated by additional follow-up appointments might influence physicians not to discharge. If there is a lack of facilities for optimal treatment in a particular clinic setting, dermatologists would refer patients to another hospital where treatment is available and where discharges are less likely, even if there are no senior clinicians available for further advice (Hajjaj et al. 2010b). Most dermatologists felt pressured to discharge patients due to the size of the waiting list in their clinic (Salek et al. 2012) and 4% of junior physicians would not discharge patients because they viewed preparing discharge letters time consuming (Hajjaj et al. 2010b). The delay in getting prescribed topical applications that were actually applied in the inpatient setting, has resulted in the postponement of the discharge of dermatology inpatients. In addition, adverse medical events have been shown to influence discharge decisions resulting in longer inpatient hospital stay, emphasising the need for more vigilance in patient management. Understanding these influences is of paramount importance in designing more efficient clinic or ward services.

General Practitioner or community care support

The level of interest, capability (Sullivan et al. 1992) and availability of GP (Burkey et al. 1997a) or nurse led clinics (Hughes et al. 2003) can facilitate earlier discharge, thereby avoiding unnecessary follow-up.

Ethics

None of the studies discussing outpatient discharge decision taking highlighted ethics as an influence on decision making. Only one article highlighted ethics as an influence in the geriatric inpatient setting (Chadwick and Russell 1989).

Policy-related influences

A clinic policy encouraging early discharge influenced discharge practice amongst speech language therapists in Australia (Hersh 2010). Payer organization requirements may influence discharge decisions amongst dermatologists in private practice in the UK. Likewise, in the USA, senior citizens on the national healthcare program have longer hospital stays than those without (Broyles et al. 2010). In the NHS, commissioning requirements may influence discharge decisions (Poirier et al. 2012). However, the

targets for outpatient new to follow-up ratios may not be realizable, given the increasing complexity of the clinical problems remaining in the outpatient secondary care loop, as less complex cases get discharged to primary care (Bamji 2011).

Models of discharge decision-making processes

Despite the critical importance of discharge decision taking, up to now there has been no clear definition of the process of discharge decision-making in the outpatient setting. However, Sullivan (1993) had earlier highlighted that discharge decisions must be considered in great detail and thoroughly thought through. Based on the descriptions of previous studies, it might be reasonable to describe the outpatient discharge decision process as a continuous back and forth procedure of thoughtful consideration, negotiation and exploration of steps whilst balancing alternatives in the patient's best interest. For example, in Canada physiotherapists in the outpatient setting would educate and prepare patients for self-management, negotiate and set mutually agreed realistic goals and quantify patients' clinical progress as part of the discharge decision making process (Pashley et al. 2010). On further scrutiny, none of the outpatient articles described a step by step process on how to make appropriate discharge decisions. Sullivan (1993), Kingdon and Newman (2006) and Salek et al. (2012) have listed the factors which influence discharge decisions but did not give any in-depth account of describing how discharge decisions should be taken. Burkey et al (1997a) attempted to develop discharge criteria but did not describe the process of making discharge decisions. These discharge criteria took the form of three questions which clinicians are supposed to ask when deciding discharge. These questions are:

- 1) Is the exploration and formulation of the patient's problem complete?
- 2) Is the treatment regimen stable?
- 3) Does the patient's condition require follow-up?

At the bottom of the list, it was highlighted that the discharge letter must contain a management plan, indications for re-referral and the most efficient route for re-accessing secondary care. These discharge criteria were developed through group discussions with five clinicians, and circulated for comments to 12 specialists and 12 GPs.

As demonstrated above there has been no concrete description of the discharge decision process in the outpatient setting. In view of this, the model for inpatients is taken as best practice to illustrate the discharge decision making process. From the literature the inpatient discharge decision process includes three main steps involving the process of discharge decision-making, the process of discharge preparation and the process of handing over the patient to other services. This process follows a dynamic

and fluid sequence which starts from admission until leaving the hospital and a number of clinical and non-clinical factors influence this process (Armitage 1981). There is a crucial need for good negotiation and communication skills with effective interprofessional collaboration (Huby 2007; Jewell 1993) within a multidisciplinary teamwork. The negotiation between the clinician and the patient takes place before or as the patient is being discharged. The discharge decision making have also been explored in the inpatient setting, mainly amongst physiotherapists (Pashley et al. 2010; Jette et al. 2003). Although Jette et al. (2003) described in detail the decision making process, the focus of this qualitative study was to determine how physiotherapists decided where to send their patients (discharge destination), rather than determining patient discharge or follow-up. The opening question for this study was: How do you make decisions about where a patient should go when he or she is discharged? Discharge from the intensive care unit (ICU) setting was also described in detail, but this mainly concerned the transfer from the ICU to a general ward and not to the patient's home. Furthermore, this is an inpatient setting. Although, paediatric patients were not included in the literature review, this article was selected to demonstrate best practice using a "discharge criteria list" to determine patient discharge. To ascertain timely discharge, a web-based software application called "Patient Tracker" was developed and used to manage a bed use efficiency issue in academic paediatric units in hospitals. The use of the "Patient Tracker" improved the flow of the overall discharge process whereby there was a decreased surgical procedure cancellations and an increase in the number of inpatient admissions (Maloney et al. 2007). The software system allowed a unique multidisciplinary communication between clinicians, nurses and the hospital managers on a single screen on the monitor. All healthcare professionals involved in patient management can communicate through a single web page using the Patient Tracker. The system had incorporated in it a specific list of discharge criteria which quantified specific medical statuses such as "tolerating feeds", "gaining weight" and "improved child fussiness". An automatic discharge recommendation is triggered when the full criteria are met, indicating that the patient can then be discharged (Maloney et al. 2007). In conclusion, there is only one model which is closest to supporting clinicians' discharge decision making process and it is for generic use (Burkey et al. 1997a). There is none for dermatology. Other models to guide discharge decision making processes are designed for inpatients and are mainly discipline specific. One model that closely describes in great detail the process of clinical decision making is demonstrated in the book on Decision making in Health and Medicine by Hunink et al. (2014). Hunink et al. (2014) demonstrated in great detail a systematic approach on how clinical decisions should be made using the PROACTIVE method (Table 1.4) (Hunink et al. 2014).

Table 1.4 The PROACTIVE approach to clinician decision making

	STEPS
P	Define the P roblem
R	R eframe from multiple perspectives
O	Focus on the O bjective
A	Consider all relevant A lternatives
C	Model the C onsequences and estimate the chances
T	Identify and estimate value T rade-offs
I	Integrate the evidence and values
V	Optimise expected V alues
E	E xplore assumptions

Source: Adapted from Hunink et al. (2014)

Drawing on psychologists' views on decision making, the latest version (Hunink et al. 2014) included the importance of considering "values" and biases in the decision making process. However, it needs to be emphasised that the steps recommended in that book were targeted for diagnostic and treatment decisions and not for discharge decisions, which unlike diagnostic or treatment decisions, involve a binary decision making: to discharge or not to discharge. Therefore, perhaps some adjustment needs to be made to incorporate the good points of this model while incorporating the elements of good discharge decisions. Decision making models, in general, are designed to improve clinical outcomes, encourage mutual doctor-patient participation and reduce healthcare expenses (Gray 2009).

CONCLUDING REMARKS

Every clinician is responsible for making a wide array of management decisions in their clinical practice (Hajjaj et al. 2010a). The lack of literature highlights the scarce level of attention given to this area and this is one of the reasons for wanting to carry out this review and subsequently this PhD project. A wide range of clinical and nonclinical influences on clinical decision taking in dermatology outpatients were identified from the literature. These include clinical disease-related influences and non-clinical influences relating to patient, physician and to practice (Hajjaj et al. 2010a) (Figure 1). Other varying issues such as how far the patient lives from the hospital (Sullivan 1993), the

personality of the physician (Hersh 2010) and the quality of life impairment of the patient (Hajjaj et al. 2010c) have been identified. All of these factors may be taken into account when clinicians make judgements as to whether a patient is suitable for discharge or follow-up. The aim of a quality discharge process is to integrate the appropriate influences and minimize inappropriate non-clinical influences, preferably in a structured manner. It occurs in an ethical framework which requires the art of integrating evidence-based medicine and non-clinical influences including the patients' preferences, values and healthcare resources (Hunink et al. 2014; Gray 2009). Although, dermatologists and other practitioners consider these factors in the discharge decision-making process, two major gaps exist in the literature.

Firstly, the nature of the outpatient discharge decision-making process and how it unfolds in relation to these influential factors has yet to be explored. Previous studies have focused on improving the overall discharge planning and process (Grimmer et al. 2006; Moats 2010; Shepperd et al. 2013), discharge preparation (Lin et al. 2009) and the outcome of patient discharge (Burkey et al. 1997b; Hesselink et al. 2012; BMA Patient Liaison Group 2014). The inpatient discharge process involves three main steps; the process of discharge decision-making, the process of discharge preparation and the process of handing over the patient to the next care service (Jette et al. 2003; Lin et al. 2009). This process follows a dynamic and fluid sequence which starts from admission until leaving the hospital (Jewel 1993) and a number of factors influence this process including negotiation between the clinician, patients and the GP or community care provider (Armitage 1989; Pashley et al. 2010). In contrast, the outpatient discharge decision process hinges to a great extent on the individual clinician's choice during the clinic consultation rather than on prolonged discussions involving a team of healthcare providers.

Secondly, very little is known about the clinicians' thought processes on how they arrive at an outpatient discharge decision. The clinician serves as a (hopefully) ethically responsible conduit of clinical reasoning whereby a network of intricate influences is funnelled through his or her thought processes prior to making a judgement on discharge decision. How these influences are moulded, interpreted or judged, very much depends on the clinician's sense of confidence, self-awareness (Smith et al. 1999) and perception of the circumstances surrounding the discharge process, the patient's capacity for making decisions and finally the effectiveness of communication and extent of trust in the physician-patient relationship (Rungapadiachy 2007; Harun et al. 2014).

This review has demonstrated that besides clinical experience, clinicians use at least two elements of judgement (Standing 2008) when making discharge decisions. These

elements include intuitive judgement and patient aided judgement. The process of decision-making involves carefully considered steps leading to either a highly structured or a spontaneous decision making which involves identifying and potentially solving problems, dealing with choices and uncertainties, providing specific information and understanding patient's reactions, exploring patient's opinion and needs, agreeing with the patient, implementing the course of action and finally arranging patient follow-up and assessing the outcome of the decision made. It is the process of making an informed judgement in the interest of patient's treatment and demands the task of balancing relevant information with the physician's prevailing personal beliefs or experience (Sullivan 1993; Groopman 2007). It can be divided into two levels: first, the mechanism of arriving at a decision at a neuronal level (an aspect of cognitive sciences) explaining what happens in the brain when a decision is about to be made or being made. Second, the mechanism of arriving at a decision at a behavioural level for economic, social, organizational and health reasons (an aspect of behavioural sciences). These reasons inform the factors which influence decision-making.

Needless to say, the appropriateness of clinical decisions greatly impacts on the efficiency and smooth running of any clinical organization. Doctors can make medical errors (Graber 2005; Groopman 2007). Unfortunately, clinicians rarely view themselves as contributing to these errors (Graber 2005). In theory, decision making is simple, but in the real world decision making can be very complex, because by its nature it involves taking calculated risks (Gigerenzer 2010) and making judgements in the face of uncertainty (Tversky and Kahneman 1975; Hunink et al. 2014). If an overarching aim is to minimise decision errors and increase decision appropriateness, there is a strong need to better understand what factors influence the decision makers' decision taking. It is also important to understand the manner in which a person makes a decision (Marakas 1999) and to overcome the pitfalls which come with inappropriate decisions (Drummond 2012; Russo and Schoemaker 2000). In response to this, it is believed that one critical aspect of clinical decision-making which needs urgent attention is to improve outpatient discharge decision taking. This PhD project addresses this crucial aspect of healthcare services.

AIM AND OBJECTIVES OF THE STUDY

Aim of the study

To develop a structured approach towards taking appropriate outpatient discharge decisions in dermatology.

Objectives of the study

- To explore and understand the literature on clinical decision making
- To investigate the clinical and nonclinical influences which contribute to a consultant dermatologist's decision whether to discharge or follow-up an outpatient.
- To observe and explore the views of dermatology outpatients concerning their experiences during the consultation, whether or not they were discharged.
- To identify the essential pieces of discharge information a dermatologist needs to know in order to maximise the likelihood of taking an appropriate discharge decision.
- To develop a discharge decision information checklist using the essential pieces of information for clinicians to use when performing patient discharge.
- To measure the impact of the use of the discharge decision information checklist on the appropriateness of a clinician's discharge decision making.
- To identify the educational, organisational and other needs of clinicians in order for clinicians to take appropriate discharge decisions.

CHAPTER TWO

Study rationale and methodological framework

This PhD project consists of four separate studies (Figure 2.1) Since this PhD project involved qualitative research and explored a complex phenomenon, the results have been reported as a consolidated framework: the EQUATOR/COREQ checklist (Tong et al. 2007). This checklist consist of a 32-item checklist depicted in Appendix EE.

STUDY RATIONALE

Although previous studies acknowledge that outpatient discharge is one of the most common and complex decisions in clinical practice, (Sullivan 1993; Finlay et al. 2000; Pashley et al.2010) there is limited literature on two major aspects of discharge decision taking, as stated in Chapter One. Firstly, on *how* clinicians make discharge decisions in the outpatient setting (Sullivan 1993; Pashley et al. 2010) and secondly, on what are the numerous factors influencing the process of discharge decision taking (Burkey et al. 1997; Farber et al. 2008; Hersh et al. 2010; Hughes et al. 2003; Kingdon and Newman 2006; Pashley et al. 2010; Wu et al. 2012). Each of these references represent different various specialties such as general medical outpatients, family medicine, speech language therapy, cardiology, surgery, physical therapy, and emergency care. There is even information in the literature specifically reporting research about factors affecting discharge decisions in dermatology (Sullivan et al. 1992; Finlay et al. 2000; Salek et al.2012).Clinical factors such as diagnosis and disease severity that influence discharge decisions are fairly easy to recognise or measure (Mushlin and Greene 2010), however there is a component of non-clinical factors influencing decisions, which are not as easy to recognise (Hajjaj et al. 2010b). These nonclinical factors include clinicians' level of expertise (Kingdon and Newman 2006; Pashley et al. 2010) and clinicians' feelings of guilt (Burkey et al. 1997a) or attachment towards their patient (Hersh 2010). Other influences include clinicians' personal beliefs, intuition (Kingdon and Newman 2006) and clinicians' uncertainty towards patients' wishes (Wu et al. 2012) or general practitioner (GP) support (Burkey et al. 1997a) after discharge.

Figure 2.1 General overview of the study flow chart

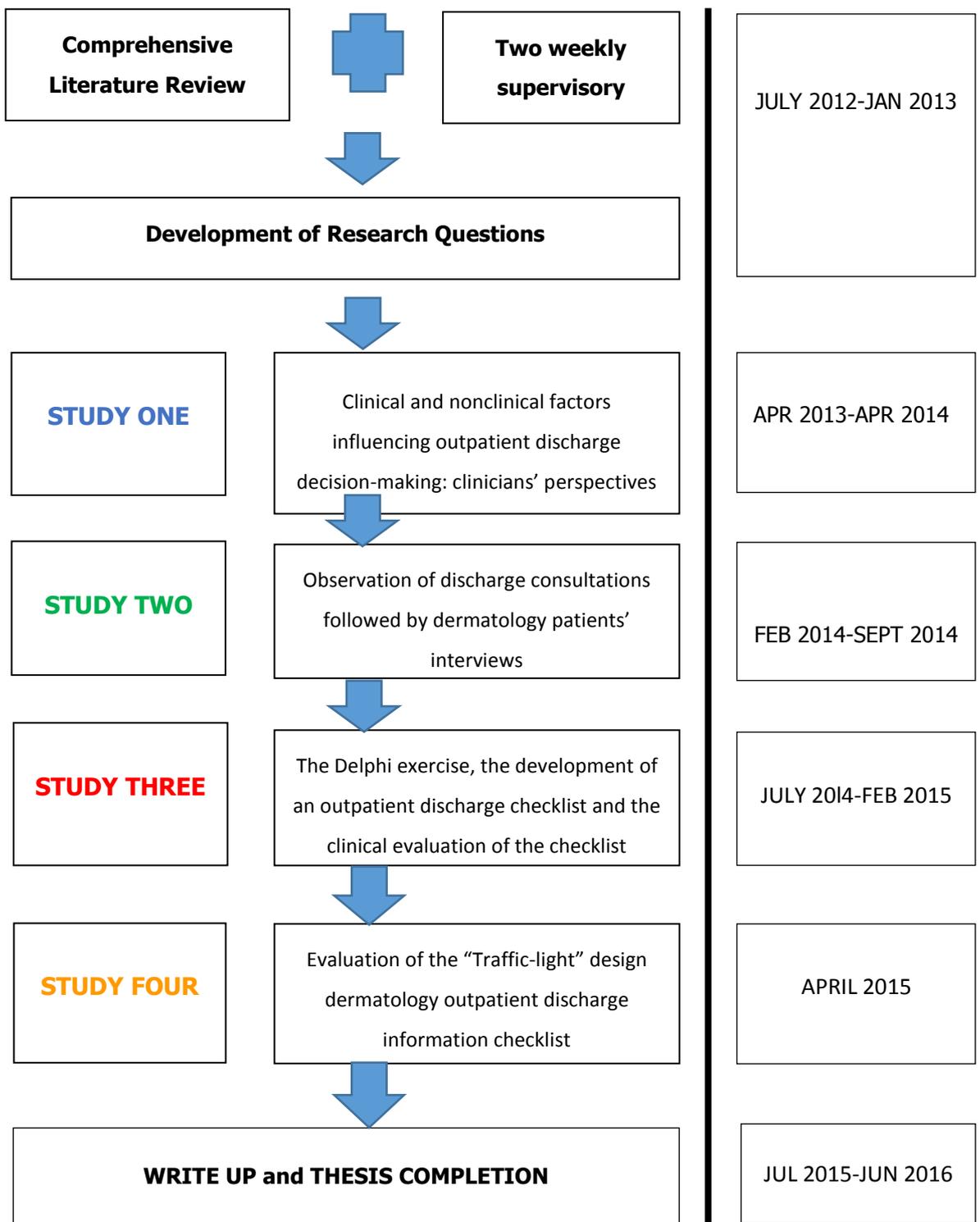
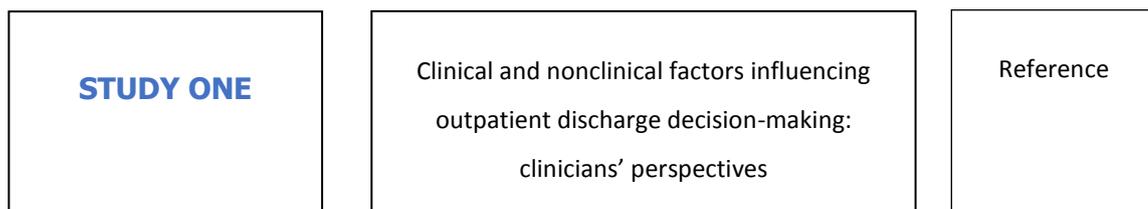


Figure 2.2 Flow chart: Clinical and nonclinical factors influencing outpatient discharge decision-making: clinicians' perspectives



Timeline

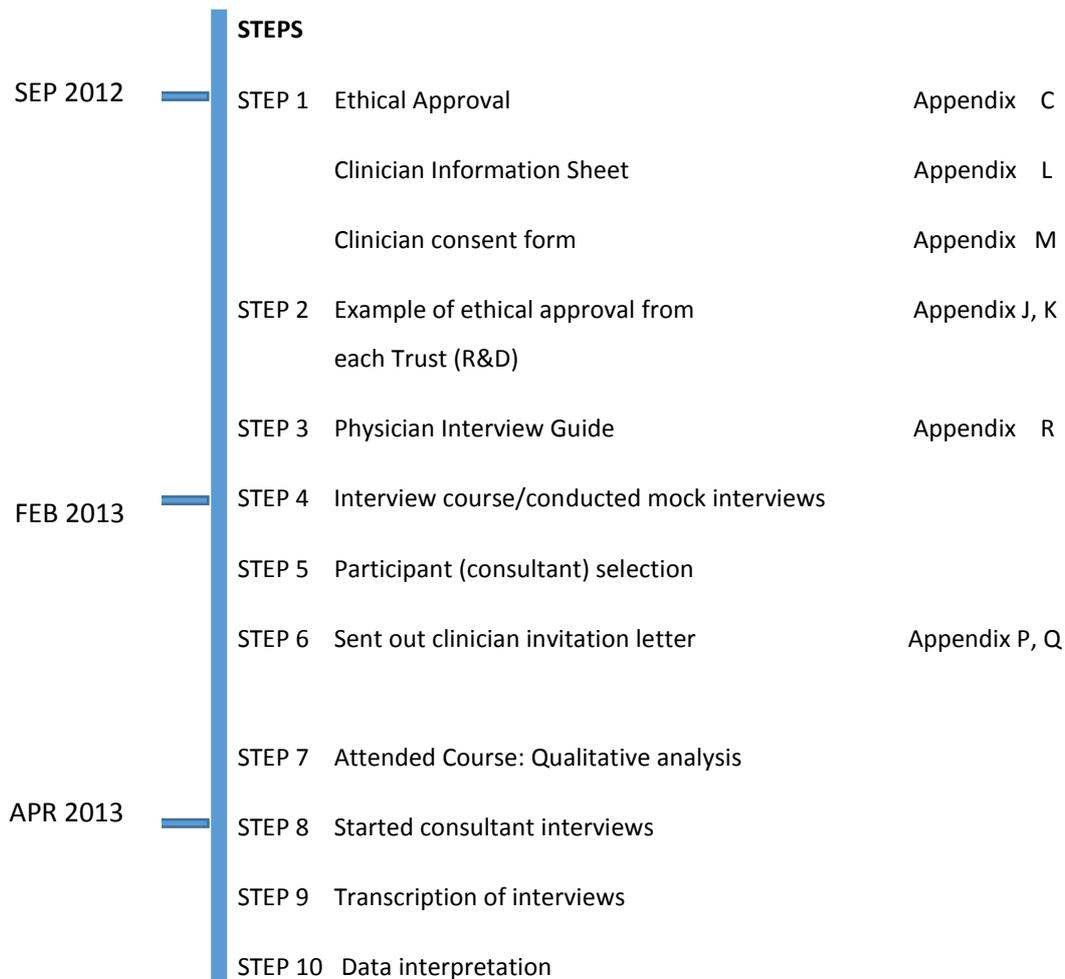


Figure 2.3 Flow chart: Observation of discharge consultations followed by dermatology patients' interviews

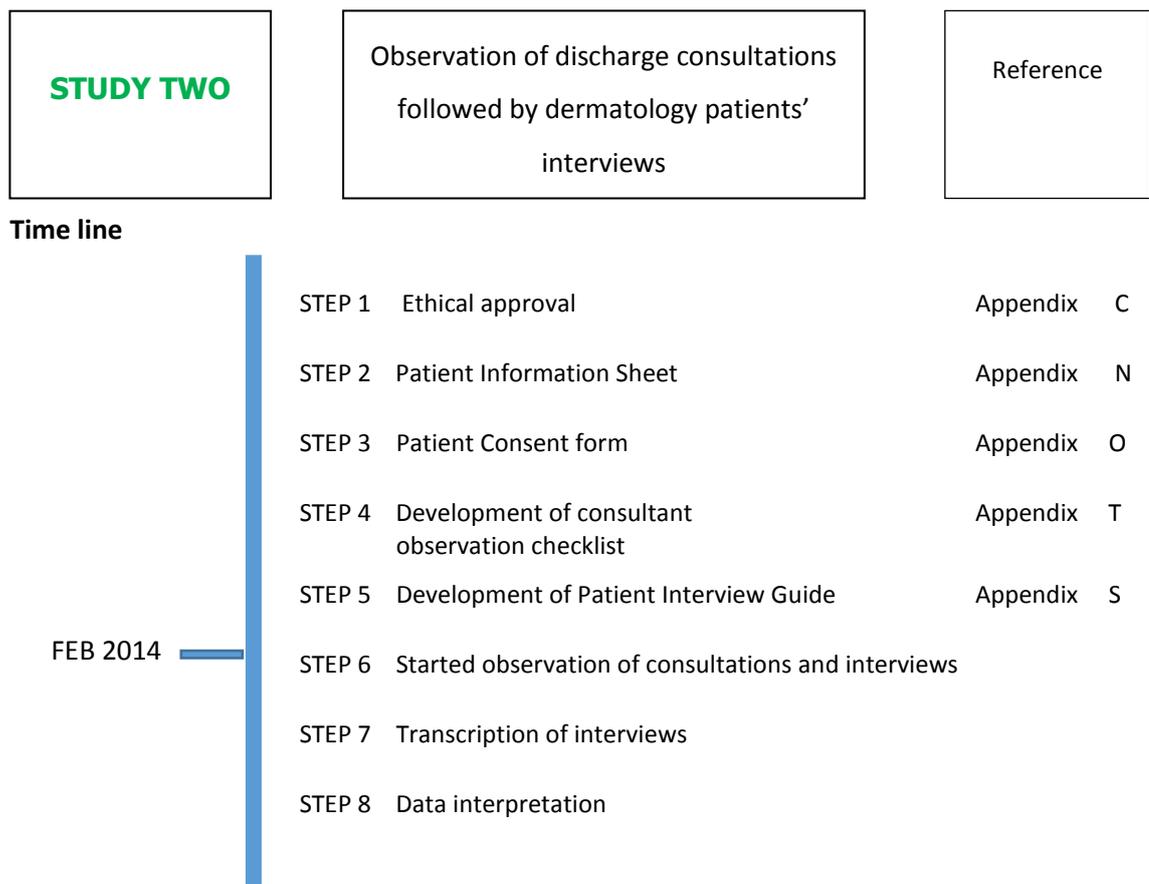


Figure 2.4 Flow chart: The Delphi exercise, the development of an outpatient discharge checklist and the clinical evaluation of the checklist

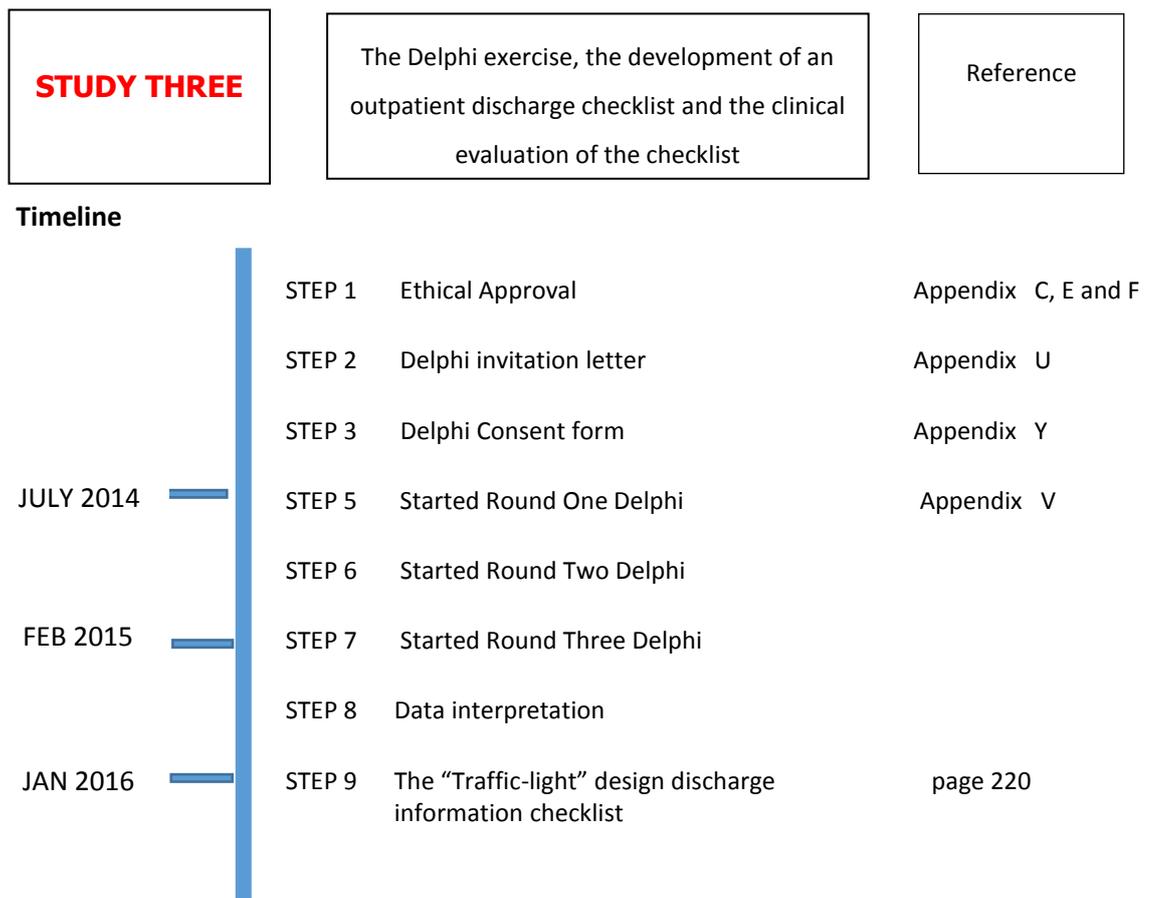
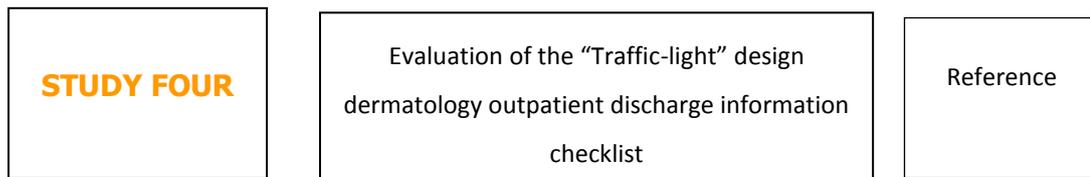
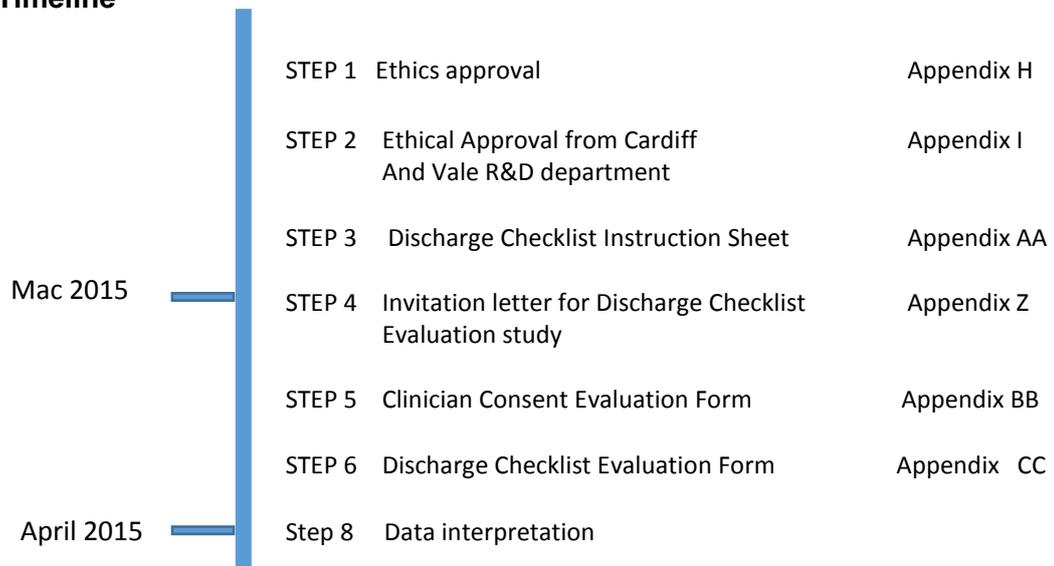


Figure 2.5 Evaluation of the “Traffic-light” design dermatology outpatient discharge information checklist flow chart



Timeline



Patient associated influences which may remain unrecognised include patients' noncompliance to treatment (Farber et al. 2008; Hajjaj et al. 2010b; Sampson et al. 2004) or patients' capability of self-managing after discharge (Hersh 2010; Pashley et al. 2010). A few studies have highlighted that clinicians may be challenged by the scarcity of medical resources present in their practice (Farber et al. 2008; Hajjaj et al. 2010b; Hersh 2010) or they may be reluctant but pressured to discharge more patients due to the long waiting list for specialist care (Salek et al. 2012). Drawing on the previous work mentioned above, it was concluded that a high quality discharge decision making process demands detailed consideration and integration of both clinical and nonclinical influences within a non-biased but systematic, evidence-based and ethical framework.

Much of the existing published work on discharge decision taking focuses on strategies to increase the efficiency of patient discharge, mainly by creating clinically-oriented discharge checklists (Fiore et al. 2012; Kingdon and Newman 2006), and usually in the inpatient setting. Other checklists focus solely on enhancing patients' safe transition from hospital to home (Jette et al. 2003; Grimmer et al. 2006; Shepperd et al. 2013) without involving or acknowledging clinicians' thought processes. A recently developed hospital checklist had been designed taking account of the clinicians', patients' and carers' perspectives; however, this 10-item checklist for patients was targeted for patients and not to guide the clinician's thought process. In general, currently published discharge checklists in the UK are designed to ascertain that patients' needs are met. These needs include the mode of transport home, the prescription of new medicines and suitability of the discharge destination for the elderly (National Audit Office 2003).

Previous work from our team in the Dermatology Department in Cardiff University has investigated in depth dermatologists' (Sullivan et al. 1992; Finlay et al. 2000; Hajjaj et al. 2010b; Salek et al. 2012; Harun et al. 2014) and dermatology patients' perspectives (Hajjaj et al. 2010c) on decision taking, but there is little work in this area from other centres in dermatology. A systematic review conducted by Sibbald et al. (2007) showed that strategies used to reduce demand on hospital outpatient clinics included relocating outpatient clinics to primary care settings, introducing telemedicine for outpatients and advocating specialists to work with general practitioners at their surgery. This review highlighted that one aspect of the strategies suggested was to give no follow-up for discharged outpatients, patient-initiated follow-up or follow-up suggested by the GP. Furthermore, several policies such as the "Outpatient Services and Primary Care" policy document (Roland et al. 2006) mainly concentrated on discharge instructions rather than focusing on clinicians' discharge decision taking practice, highlighting that a gap in knowledge about this may make inappropriate decisions more likely. Further empirical research is crucial in order to understand how to make appropriate discharge decisions.

Research should be able to help identify the most critical factors to consider before discharging an outpatient from the perspective of both the clinician and the patient. In addition, understanding patients' expectations surrounding their discharge is in accordance with getting patients to be actively involved in making clinical decisions (Salzburg Global Seminar 2011). These pieces of essential information can inform discharge appropriateness and possibly reduce unwarranted referrals back to outpatients. This may also translate into a shorter waiting list for specialist care for other patients. If this information is available to clinicians, they will also be reminded to be more aware of the subtle influences that affect their decision taking and this would perhaps serve as an initial step towards changing, i.e. improving, professional behaviour when taking discharge decisions. A robust discharge checklist will be developed in a later part of this PhD project. This checklist is planned to guide clinicians to discharge patients in a more systematic and transparent manner, by ensuring that clinicians have the necessary basic information on which to base their discharge decision. The factors associated with outpatient discharge decision taking may be measured systematically in this study for the first time, contributing to the orderly structuring of the previously unstructured data that influences discharge decisions. One aspect of the efficiency of outpatient clinical practice and its cost effectiveness may be measured by including using this proposed discharge checklist. This PhD project aims to identify important personal, educational and organizational needs of the clinicians and patients' expectations surrounding the discharge decision process. The rationale for understanding this subject of outpatient discharge is to find out critical background information to help improve the quality and appropriateness of discharge decision in order to develop a discharge checklist.

Careful planning with a clear purpose is vital in qualitative research (Berg and Lune 2014). Miles et al. (2014) describe the design stage as a time when the researcher formulates the research questions which underpin all other facets of the study. This includes formulating the overall background, the choice of participants, the development of topic guides, generation and collection of data, the analytic process and reporting of the study (Ritchie et al. 2013). Interest in influences on outpatient decision taking was initiated by one of our team members, leading to a small study in Cardiff on factors influencing discharge in general outpatient clinics (Finlay et al. 2000). Following further review of existing research and literature including group discussions with clinicians, our Cardiff team carried out two major studies relating to influences on clinical decisions and decision taking within the National Health Service (NHS) in Wales (Hajjaj et al. 2010b; Hajjaj et al. 2010c; Salek et al. 2012), as part of another PhD (Thesis: Hajjaj 2010).

These studies confirmed the complexity of making clinical decisions and revealed that a myriad of clinical and nonclinical factors influence clinical decision taking. Dermatologists working in outpatient clinics across hospitals in Wales who participated in these studies emphasised that the nonclinical influences were usually not recognised or acknowledged in the process of making decisions and represent an untrained and subconscious component of their clinical judgement (Thesis: Hajjaj 2010).

A comprehensive literature search to develop a thorough understanding of discharge decisions was carried out at the start of this project (Table 1.1 in Chapter One). The widespread areas of interest collated from the review were reduced to smaller sections (Ritchie et al. 2013) and unexplored areas were carefully identified to prevent a replication of previous work. Clearly, a thorough understanding of the literature will help sensitise a researcher to the relevant points of a study (Flick 2009), enabling the researcher to more easily winnow through challenges that might be faced during stages of the study. The result of the literature search is presented as a literature review in Chapter One. Published review methods were combed through thoroughly so that the selection of the most suitable methods for the whole PhD project was possible. The information extracted from the review served as “bedrock” material about themes which might be of relevance during the designing of topic guides for the in-depth interviews with participants. The nature of the data to be collected, the resources and time available, skills of the researcher and the participants that needed to be recruited were meticulously considered when choosing the most suitable methods for the four stages of the project (Ritchie et al. 2013). It was decided that new primary data and not secondary data from previous research would be used as the basis of this project. Therefore “generated data” through individual interviews also known as “researched-provoked data” will be analysed (Silverman 2011). This PhD project follows closely on previous work (Hajjaj et al 2010b; Hajjaj et al. 2010c) but focusing specifically on the outpatient discharge decision in dermatology. This study will interview consultants within several National Health Service (NHS) Trusts in England, whereas the previous studies by Hajjaj et al. (2010b), Hajjaj et al. (2010c) and Salek et al. (2012) were based in Wales. Only consultant dermatologists will be selected because of their wider experience in clinical decision making compared to other clinicians in dermatology practice. Presumably these more experienced consultants would take more appropriate discharge decisions compared to junior clinicians, though our work did not test this assumption.

ETHICS

A strong ethical attitude is a mandatory need in the planning and execution of any research exercise. This will be given prime importance, especially when the nature of the study involves discussion of sensitive issues and dilemmas in clinical practice with interview participants, both clinicians and patients. Pediatric patients will not be included in the study.

Developing a sensitive ethical conscience should also be supportive in the discussion of controversial issues and in overcoming unexpected challenges during the research process. Under current regulations, ethical permission to conduct research is only needed from one chosen Research Ethics Committee (Appendix C) in the UK, despite the diversity of regulations in different Trusts across England and Wales. The introduction of the Integrated Research Application System (IRAS) will ease the process of gaining ethical approval from each hospital's Local Health Board Research and Development department throughout England and Wales. The participants, both consultants and the patients, will be given a copy of the relevant clinician (Appendix L) and patient (Appendix N) information sheets. Written consent forms for both clinicians and patients (Appendix M-O) will be signed in the presence of the researcher prior to data collection. The participants will be provided time to ask questions before signing the consent forms and will be informed that their participation is purely voluntary. Consultants will be told in the letters of invitation, that they are not obliged to take part in the study (Hays and Singh 2012). It will be stressed to patients that there will be no difference to the patient's treatment or appointment schedule based on whether or not the patient takes part in the study. Participants will be told that they are free to withdraw from the study at any stage without being obliged to give a reason. Non maleficence, defined as avoidance of harm to the participants, will be upheld (James and Busher 2007). In the case of our studies, although they will include patients, their nature does not involve any clinical or interventional procedure, which makes the need for medical intervention or cover extremely unlikely. During participant interviews it will be stressed to patients that their participation contributes to important research which is likely to benefit the efficacy of clinical practice. This is termed as "beneficence" (Hays and Singh 2012).

Maintaining confidentiality will be of primary importance during this study as confidentiality is linked to the informed consent process and provides an essential background to sensitive discussions throughout interviews and observations. Every participant will be allocated a specific code number to identify them within the study records and to facilitate data protection and confidentiality during the study. Participants

will be assured that any data will be kept confidential and secure within the researchers' offices and only the key researchers will have access to this data. Extreme care will be taken by the interviewer to completely anonymise interview data and transcripts throughout the research. The interviews will be conducted in private rooms or consultation rooms dedicated to the specific patient or consultant respectively with strict privacy. It will be emphasised that anonymity will be preserved, although excerpts from the data, unidentifiable to the participant, will be extracted for future publications. The process of back and forth individual emailing of study participants during the invitation to participate, clarifying interview excerpts and conduction of the Delphi survey will be carried out with strict confidentiality and privacy. Key to this is never to discuss other participants' opinions with a current subject. Thank you notes, requests for further study clarification or updates will be consistently addressed individually via email, not using a group email collection of email addresses that would reveal the identity of participants to others. This meticulous approach is important to maintain a high degree of trust, confidence and professionalism as a colleague and as a researcher.

PROCEDURE

Study 1

Objective

- To investigate the clinical and nonclinical influences which contribute to a consultant dermatologist's decision whether to discharge or follow-up an outpatient.

Methods

Ethics

We received ethical permission from the South East Wales Research Ethics Committee (Appendix C) and from all 11 Hospital Trusts' Research and Development departments in England (Appendix J and K) and Wales (Appendix D). The researcher and her supervisors had planned and carried out a well thought through strategy to ensure that the steps to gain ethical approval were obtained with minimal difficulty. It was felt that the first critical step was for the senior supervisor, a senior consultant dermatologist, to himself write an invitation letter (Appendix P) to 60 dermatology consultants from 12 selected Trusts personally by post. This was followed by an email from the researcher herself. The purpose of this invitation letter was to inform the consultants about the study and ask whether they would be interested to meet up with the research team to

gain more knowledge on the topic. It was clearly stated that the first meeting with the dermatology consultants would be to introduce the research topic further so that the consultants would then be able to decide whether or not to participate in the study. This method of introduction was a good start to gauge which of the consultants were genuinely interested to be interviewed, and which were not. A prompt reply agreeing to participate indicated deep interest. If there were no replies, the researcher sent a gentle query as to whether the email and letter by post had been received. Concurrently the secretaries to each of the consultants were contacted to ask whether the mail had been received. This initial step had two benefits: first it helped to give consultants a friendly introduction to the subject matter allowing them to decide whether or not they would be interested to support their dermatology colleague (the researcher) in this study. Secondly, this strategy gave them the opportunity to meet the researcher and also possibly her supervisor in person, should they have the intention to understand more about the subject. The consultants who agreed to the initial visit, all consented to participate. There were no consultants who decided not to participate after the initial visit. The researcher was fortunate that the lead clinician from three Trusts dedicated a day for the researcher to come and explain her study to 3-5 consultants individually on the same day so that she need not come back and forth to the Trust. That clearly saved time and cost. Each Research and Development Unit of each Trust was informed of the consultants' interest to participate after obtaining their agreement on their involvement. The researcher and her supervisor, Professor Andrew Finlay, met up with administrators from three different Trusts to seek relevant permissions to conduct interviews with their staff. A detailed account of this methodology had been described in Chapter Three.

Study design

This will be a qualitative study involving face-to-face qualitative interviews. We consider this as the most suitable methodology since interviews will provide clinicians' accounts of factors that influence discharge decisions. Data generated from individual clinician interviews will be analysed and reported separately before integrating into common themes. It is important to select the most suitable method for data collection. Individual interviews are commonly used as in qualitative research (Nunkoosing 2005). An in-depth interview was considered the most appropriate method because interviews are likely to generate in-depth personal accounts. They are also more suited than written accounts for extracting the personal and frank in-depth honest views of the subjects. As Rubin and Rubin (2012) highlighted:

When using in-depth qualitative interviewing researchers talk to those who have knowledge and experience with the problem of interest. Through such interviews

researchers explore in detail the experiences, motives and opinions of others and learn to see the world from perspectives other than their own.

Participants are geographically dispersed (Ritchie et al. 2013) and are busy practitioners working in hospitals. Therefore, they are more likely to agree to a face-to-face interview at their respective offices. Moreover, discharging a patient can be a sensitive topic to discuss, especially when it concerns one's personal discharge practice in relation to rude or demanding patients, or admitting to a wide range of influences that one might not be proud of. The extent of data collection should be written out in detail clearly prior to the start of the study (Marshall and Rossman 2011; Bryman 2012). Berg (2004) stresses that interview questions should be divided into broad categories each consisting of 5-10 questions (Hays and Singh 2012) in a form of a topic guide (see Appendix R: Physician's Interview Guide). Topic guides are essential documents to aid the researcher during the interviews with participants (Marshall and Rossman 2011). A topic guide encourages a degree of consistency and steers the process of data collection (Britten 1995; Hays and Singh 2012) during interviews. A topic guide is also useful to ensure a degree of equivalence in the study approach if more than one researcher is involved (Hays and Singh 2012). In preparation for the interviews, all team members will conduct rigorous meetings to refine and refocus the questions in both the physicians' interview guide (Appendix R) and patients' interview guides (Appendix S). Based on topic guides outlined in previous studies (Burkey et al. 1997b; Huby 2007), a range of topics to be covered will be mapped out. This involves context setting, incorporating preliminary data, questioning and scrutinizing the questions in more depth and creating queries that may lead to future suggestions (Ritchie et al. 2013). The visualising of the interview process is of paramount importance when developing these questions. The researcher will undergo interview courses to aid in the design of the topic guide and conduct a good interview. The team will then pilot the topic guide with other clinicians to test whether it is capable of leading to the answering of the research question. The opening question and the use of words at the beginning of the topic guide was simple and straightforward to put participants at ease. Conducting face to face interviews in complete privacy and anonymity will encourage the unfolding of more complex issues and add confidence to both the researcher and participant. Kvale and Brinkmann (2009) stressed that individual interviews allow the researcher to clarify or further probe into the subject matter and therefore add to the reliability of the study, although this process can be very time consuming and bias is potentially possible. Since none of the consultants were known to the researcher before the study, this removed the possibility of bias due to familiarity.

Study population

Determining the homogeneity or heterogeneity of a sample is important (Miles et al. 2014). A homogenous sample would include participants who share many similarities to each other; whereas the process of having a heterogeneous sample seeks to have maximum dissimilarities of features within a chosen sample (Hay and Singh 2012). In this study a heterogeneous group of consultant dermatologists will be chosen, in order to represent a reasonable mix of both medical and surgical interests. In addition, the consultants are chosen to be employed by a number of different Trusts across England where practice and policy regulations may differ. We decided that these participants would consist only of consultant dermatologists because of their wider experience in clinical decision-taking. It is of paramount importance to select participants with maximum variation to explore key aspects of the research topic (Patton 2002; Hays and Singh 2012). A stratified purposeful sampling method will be used because the aim of this study is to identify the wide range of factors influencing discharge in a particular subgroup, in this case a group of consultant dermatologists. The selection of consultants invited to participate was made by identifying the names of consultants working in the respective hospitals across the selected sites in England, with the assistance of the various dermatology department secretaries.

Sample size

Sample sizes are determined by the breadth and depth of the research goals. The research question aims for a broad outlook and the opportunity to understand the discharge decision from different perspectives, to determine and understand the wide range of influences on discharge. Therefore, a large sample of 35-40 consultants will be invited to participate (Hays and Singh 2012). In contrast, a researcher who aims to explore a problem in more depth rather than taking a broader view of the research question would select a smaller size of, for example, eight subjects (Hays and Singh 2012). We aim to interview 35-40 consultant dermatologists working in outpatient dermatology clinics.

Sample site

Accessibility and feeling comfortable about the research site is important both for research subjects and for the researcher (Hays and Singh 2012). Familiarity is needed, especially if the researcher is going to remain at the site for a long period of time. In this study, the researcher felt more familiar with areas near to Cardiff, where the research team is based. This gave the researcher confidence when travelling alone by train or by bus, staying at the sites for a full day to complete two or three interviews. Furthermore,

the midlands, southwest and southeast of England are the closest areas of England to Cardiff. The number of sample sites for this study was limited to only 11 National Health Service (NHS) hospitals located within these relatively close English regions.

Data collection and analysis

After each session of undertaking interviews at each hospital, the researcher will reflect upon the interview, jot down relevant memos and then transcribe each interview. Transcripts were not returned to participants for comment. Interviews which have been transcribed by the researcher will be read and, on each transcript, notes will be made in the margins, consisting of words or short phrases that sum up what is being said in the text. Then the researcher will collect all the words and phrases from all the interviews onto a clean set of pages, coding the extracts of data that will be collated into subthemes and themes. These will then be worked through and all duplications crossed out, reducing the numbers of themes or categories. The researcher will go a stage further and look for overlapping or similar categories, which will be further refined and reduced in number by grouping them together. Eventually, a list of final categories or themes will be identified and a thematic map will be generated. Interview transcripts, data analysis and emerging themes will be verified by another member of the research team to avoid lone researcher bias.

Thematic analysis is an approach to dealing with data that involves the creation and application of 'codes' to data. Thematic analysis of interview transcripts as well as of field notes taken during interviews will be conducted using the NVivo 10 qualitative data analysis software. NVivo is a computer software package used to analyse qualitative data and aid the organisation and analysis of non-numerical or unstructured data. To validate the analysis end product of the qualitative data analysis software, data will also be analysed manually and will be checked by all three researchers to ensure coherence. The process starts by coding the interesting features of the interview transcripts in a systematic fashion across the data set, collating different codes into potential subthemes and themes. 'Coding' refers to the creation of categories in relation to data; the grouping together of different instances of datum under an umbrella term that can enable them to be regarded as 'of the same type'. This process will be repeated to further identify themes or categories.

Data arising from individual stages (clinician interviews, notes taken during consultation observations, patient interviews) will be analysed separately and reported separately before integrating into common themes. Key findings belonging to individual subthemes will be reported under each main theme or category, using appropriate anonymised verbatim quotes to illustrate those findings.

Study 2

Objectives

- To observe the influences on clinicians when discharging patients.
- To explore patients' perspectives concerning their discharge or follow-up decision and
- To identify what patients think is important for clinicians to consider when taking a discharge decision.

Methods

Ethics

We received ethical permission from the South East Wales Research Ethics Committee (Appendix C) and The Cardiff & Vale NHS Trust, Research and Development department (Appendix D).

Study design

The study will obtain further information about factors that seem to be influencing the clinician's decision on whether or not to discharge patients in the dermatology outpatient clinic. This is followed by face to face interviews both with patients who have been discharged and with those given a follow-up, in order to understand their perspectives on the consultation and on the discharge or follow-up decision.

Observation of consultations

It was the view of Hay and Singh (2012) and Silverman (2011) that observation is a key method of qualitative research, either in a self-contained research project or as a complementary approach within a wider study. In this study observation will be carried out preceding in-depth semi-structured patient interviews. Observational study helps the researcher understand what is happening in a particular situation or context (Silverman 2012). The team will develop a template with which to record the observations based on suggestions made by Hays and Singh (2012) when developing their observation template. Based on the observer continuum (Hays and Singh 2012) the researcher will play the role of an "observer", where there is little or no interaction at all with the participants. The development of this observation template (Appendix T) will be based on the influential factors on discharge decision taking that were identified from clinicians' interviews in Study One. As well as using this template, the researcher will record

information about patients such as sex, age, ethnicity, education, diagnosis and duration of disease, transition between activities, important quotes, verbal and non-verbal communication patterns between participants and reflection of the observation itself. The template will be used to document how many times influential factors were considered in the discharge process during the observation of each consultation. Patton (2002) points out the benefits of doing observational work. It gives the researcher a better position to understand the context of the research, the ability to capture the setting of the study environment directly and finally, issues which may not be mentioned in face to face interviews for various reasons may become apparent during the observation. Glesne (2006) highlighted that observing a familiar situation can be difficult and challenging. In this case the researcher, who is also a clinician, may be biased towards witnessing clinicians' discharge processes. A pilot study with observation of a few consultations will be conducted so that an "unlearn and relearn" process can take place. The researcher will then be able to observe the consultation with greater confidence and expertise when the actual study starts. The pilot study will also be useful as an opportunity to improve the observation checklist template. During the observations the researcher will focus on how a clinician takes a discharge or follow-up decision.

Patient interviews

Immediately after each observed consultation, the researcher will take the patient to a separate room in the dermatology department and will carry out a semi-structured interview. The aim of conducting interviews is to understand the numerous aspects of discharge decision taking from the patients' perspectives. Each patient was given a specific code number for their identification and for data protection and confidentiality. All interviews were audio recorded and later transcribed verbatim. Individual interviews are commonly used as a means of extracting information in qualitative research (Patton 2002). The researcher was aware of the many challenges she might face in the process of interviewing the consultants especially under time constraints. One of these is the "power" struggle between the interviewer and the interviewee (Nunokoosing 2005). To prevent interplay of "power" the researcher made sure she imagined herself in the role of a researcher and not a doctor. This is extremely important to prevent any misunderstanding by both parties. Seeking the participant's consent without any obligation at the beginning of the study had possibly generated trust between both the researcher and the patient.

Study population

Study participants will be patients suffering from a variety of dermatological diseases, attending routine dermatology outpatient clinics.

Inclusion criteria:

- Male and female subjects over the age of 18 years.
- Subjects who can read and understand English.
- All ethnic backgrounds.
- Patients with skin diseases attending dermatology outpatient clinics.

Exclusion criteria:

- Subjects unable to read and understand English.
- Patients with significant learning difficulties.
- Age less than 18 years.

Sample size

64 consultations were observed and 56 adult dermatology patients were interviewed.

Sample site

The study was conducted at the Department of Dermatology, University Hospital Wales in Cardiff.

Data collection and analysis

Observation of consultations

The researcher wrote field notes during the observation of consultations using an observation template. Demographic information of the patients and the physician's characteristics were written down on that template whilst ensuring that data was kept anonymised. The purpose of taking down the field notes was to ensure that data was accurate, structured and available as written information (Hays and Singh 2012). Although the observations of consultations were guided by an observation template, good observational skills require the ability to reflect and rethink what had been taken for granted (Glesne 2006). This portion of the field notes are descriptive. This is especially important for the researcher who might be biased since she is a clinician herself. The researcher sat in one corner of the room to reduce the chances of observer effect. Observer effect is defined as an unintentional effect the observer has on the participants (Hay and Sigh 2012). The field notes were analysed both manually and using the NVivo 10 qualitative data analysis software.

Patient Interviews

After transcribing each interview, the researcher then coded each interview transcript manually and using the NVivo 10 qualitative data analysis software. Transcripts were not returned to participants for comment. NVivo is a computer software package used to analyse qualitative data and aid the organisation and analysis of non-numerical or unstructured data. Coding refers to the coding or grouping together of different types of data under an umbrella term that can enable them to be regarded as of the same type. This process was repeated to further identify themes or categories. Different codes were then collated into potential subthemes and themes. Key findings belonging to individual subthemes are reported under each main theme or category, using appropriate anonymised verbatim quotes to illustrate those findings.

Study 3

Objective

- To identify the essential pieces of discharge information a dermatologist needs to know in order to maximise the likelihood of taking an appropriate discharge decision.

To develop a discharge decision information checklist using the essential pieces of information for clinicians to use when performing patient discharge.

Methods

Ethics

Ethics approval will be sought from the REC (Appendix E) and Research and Development Department of each Trust where the participants work. An example is stated in Appendix G (Appendix G). To conduct the Delphi exercise, ethical approval for this study was sought as a non-substantial amendment: Research Protocol Version 4.1.2 (Appendix E) to the original protocol (Appendix A) from the South East Wales Research Ethics Committee. The Cardiff and Vale Research and Development (R&D) department was also notified of these non-substantial changes (Appendix F). Since the Delphi study involved Trusts other than in Wales, permission was also sought from each Research and Development department of the four hospital Trusts in England to conduct the study at their respective Trusts. Appendix G is an example of an approval from one of the Trusts allowing participation in the Delphi Study (Appendix G). For the study involving evaluation of the discharge checklist, ethical approval was granted as a non-substantial amendment also by the South East Wales Research Ethics Committee

C (Appendix H). Approval was also sought from the Cardiff and Vale R&D department (Appendix I) for the evaluation of the checklist.

Study design

The third study will involve seeking expert opinions from 15 to 22 Consultant Dermatologists across England and Wales. They will be participating in a 3-round Delphi process involving completion of questionnaires in order to reach a consensus on what should be included in a high quality discharge checklist. The checklist would be used by dermatologists to increase the likelihood of the discharge decision being appropriate for individual patients. The Delphi technique is a systematic method used to generate trustworthy consensus of opinion amongst a group of experts that depends on generating controlled responses regarding a range of possible problems such as managerial decisions, policy issues or financial forecasting related issues Linstone and Turoff 1975; while maintaining anonymity The participants are located separately from each other. The Delphi method is particularly used when there is a lack of empirical evidence or when confronted with judgement or decision making difficulties. The term Delphi originated from the Greek Oracle (Scott 2014) that was believed to have predictive super powers. It was originally developed in the 1950s and 1960's by the RAND Corporation for military forecasting in the United States (Linstone and Turoff 1975). The Delphi method recognizes that individual experts are prone to biases and group discussions tend to follow the more dominant group which may result in an unwillingness to drop previously accepted concepts. Dalkey and Helmer developed the method for the collection of judgement for such studies (Dalkey and Helmer 1963). The Delphi method was chosen for our study because the participants are located away from each other and time pressures are a concern. Furthermore, since the consultants have diverse interests and types of clinical experience, a method which preserves anonymity such as the Delphi method is appropriate to encourage honest articulation of personal views. There are many variations of the Delphi method and it is not confined to one particular approach (Ritchie et al. 2013). For example, gathering of views can be communicated via sending questionnaires via emails, telephone or by post, so is well suited to the needs of this study.

Study population

We aim to select around 15 to 22 consultants who had already participated in either Study One or Study Two. During the first and second studies, the researcher will ask the consultants whether they might be interested in participating in the Delphi study. Invitations to consultants inviting them to participate will only be sent to those who showed interest or who agreed to participate in future studies planned in the project.

This is especially important when conducting a Delphi study because the Delphi process demands interest and commitment for two or more rounds of answering questionnaires.

Sample size

17 Dermatology consultants took part in the Delphi exercise.

Sample sites

The study took place in five different Trusts: Cardiff, Gloucester, Oxford, Birmingham and Bristol.

Data collection and analysis

The questionnaires used in the Delphi method are electronically mailed or sent by post depending on the preference of the participant. Care is taken to make the whole process of answering questions easy for the participant to avoid irritation or frustration, by giving clear simple instructions and by initially piloting the questionnaire used. Any points raised by participants were quickly addressed by the researcher by email. Individual convergence of the group raters may be seen after two or more rounds.

Study 4

Objective

- To measure the impact of the use of the discharge background-information checklist on the appropriateness of a clinician's discharge decision making and to identify the educational, organisational and other needs of clinicians in order for them to take appropriate discharge decisions.

Methods

Ethics

Ethical approval was sought from the Research Ethics Committee (Appendix H).

Study design

This study will be designed to measure the impact of the use of the discharge information checklist developed in Study Three on the appropriateness of clinicians' discharge decision taking. This a brief study where clinicians will be invited by email, with the relevant documents attached to the invitation email. The invitation letter also contains information about how to use the checklist: Discharge Checklist Instruction

Sheet (Appendix AA), Delphi Consent Form (Appendix Y), the discharge checklist (Figure 5.2 in Chapter Five) and the simple questionnaire (Appendix CC). This study will require the clinicians to use the discharge checklist during one clinic session only. The researcher will be sitting in each clinic with the clinician to ascertain that the clinician uses the discharge checklist during the consultation and, by the presence of the researcher, remind the clinician to use the checklist. The researcher may assist the clinician and check that the study process is carried out accurately. The researcher will record the type of diseases seen in order to relate them to how many discharges and follow-ups are made. Clinicians are required to briefly answer four questions in relation to the usefulness of the discharge checklist. At the end of the clinic, clinicians will be asked to answer a series of written questions to collect information related to their experience of using the discharge information checklist. Examples of the questions to be included in the end of clinic questionnaire for the dermatologists are “Did you find the checklist useful?” or “Did you feel that the process of thinking through the discharge decision was made easier for you?” The clinicians will answer the questions in the absence of the researcher to reduce potential biases. However, the researcher will then have the opportunity to verify and clarify the answers with the consultants after they have written down their answers. In the same questionnaire the participating dermatologists will also be asked to give further suggestions pertaining to the educational or organizational needs of clinicians in performing a high quality discharge.

Study population

The study will involve all clinicians working in the dermatology department at the University Hospital of Wales and will not be confined to one particular subgroup of doctors. This is important in order to explore the differing types of experiences and responses of each individual clinician concerning their use of the checklist. The study will be limited to only one outpatient clinic in one hospital in Wales for practical logistical reasons. Each participating clinician will use the checklist in only one clinic session, and will give feedback concerning this experience. During the process of developing this study protocol, the team had taken into consideration the time constraints of the clinician in the clinic and the potential impact on the time that patients might need to wait if the clinic appointments were delayed by the study.

Sample size

18 dermatology clinicians took part in using the checklist.

Sample site

The study was conducted in one centre: Department of Dermatology at University Hospital Wales.

Data collection and analysis

Immediately after each clinic session, participants answered the “Traffic-light” design checklist evaluation survey questionnaire and wrote down their comments and suggestions pertaining to the educational or organizational needs of clinicians in performing a high quality discharge. The replies were then analysed manually by the researcher and presented in Chapter Four of this thesis.

CHAPTER 3

Clinical and nonclinical factors influencing outpatient discharge decision-making: clinicians' perspectives

INTRODUCTION

One of the ways to improve the discharge decision process is to explore and fully understand how clinicians make discharge decisions. However, our review confirmed that empirical research concerning influences on patient discharge is lacking. Previous studies involving different disciplines have demonstrated that a multitude of factors influence discharge decisions, beyond diagnosis and severity (Hajjaj et al. 2010b). These include the clinician's personal attitude towards discharge (Hersh 2010), the patient's ability to take decisions (Rydeman and Törnkvist 2006), the availability of healthcare resources (Hajjaj et al. 2010b; Pashley et al. 2010), ethical considerations (Chadwick and Russell 1989) and decision biases (Bornstein and Emler 2008; Harun et al. 2014; Harun et al. 2015). However, the extent to which clinicians are influenced by these factors is unknown. It is, therefore, reasonable to state that a better understanding of the factors influencing the discharge decision making process might provide guidance towards making more appropriate discharge decisions.

Given the multitude of influences, clinicians struggle to make discharge decisions in the best interests of their patients. For example, ten physiotherapists revealed that funding constraints pose difficulties in balancing the efficient use of healthcare resources with unrealistic patient expectations (Pashley et al. 2010). Hajjaj et al. (2010b) reported that 46 dermatologists in the UK experienced diagnostic and therapeutic uncertainties under consultation time constraints, where the clinician's time was split between new referrals and follow-up patients. Extended waiting times for new appointments and a lack of guidance to support safe and appropriate discharge pose a particular challenge to already resource intensive healthcare systems. Clinicians in hospitals in the USA are pressured to discharge their patients early, to reduce hospital costs. This stems from a different healthcare structure in the USA, where approximately 86.6% of patients depended on limited insurance coverage in 2014 (Smith and Medalia 2014), and where an early discharge will reduce the costs of care. These global concerns regarding consistencies of discharge decisions have led to the development of novel strategies such as discharge checklists (Kingdon and Newman 2006; Fiore et al. 2012; BMA Patient Liaison Group 2014). However, most checklists centre around clinical discharge criteria rather than considering the wider nonclinical factors which significantly influence discharge decision taking. Other strategies have focused on initiatives to improve transfer of patients from intensive-care units (Lin et al. 2009) to the general wards or transfer from geriatric hospital care to primary care (Moats 2006). Another method refers to changing primary care practitioners' referral behaviour for specialist care (Roland et al. 2006). National guidelines such as that for basal cell carcinoma (Telfer et al. 2008; Poirier et al. 2012) recommended patient follow-up if they had recurrence or multiple

basal cell carcinomas in the past. The overarching aims of this study were to explore how and why dermatologists discharge their outpatients, to identify the challenges clinicians face in the decision-making process and to recommend strategies to improve discharge decisions. The perspective of clinicians is critically important as the key decision makers concerning patient discharge. We believe that the dermatology setting is a good place to begin with to understand outpatient discharge in medical care and that this research has the potential to expand to other specialist outpatient services.

OBJECTIVE

- To investigate the clinical and nonclinical influences which contribute to a consultant dermatologist's decision whether to discharge or follow-up an outpatient.

METHODS

Study design

The qualitative, face-to-face semi-structured interview was chosen to collect data for this study. The main objective of conducting these interviews was to identify factors influencing discharge decisions in dermatology outpatient settings. Further questions surrounding the topic on outpatient discharge decision taking were also explored. One of the major advantages of choosing interviews as a method to further understand a particular topic is its inherent flexibility (Bell 2010). This simply means that a competent and skillful interviewer is able to probe deeper and follow up ideas from participants that cannot be performed with a survey questionnaire. Such in-depth probing will add to the richness of the collected data if carried out correctly (Bell 2010). In addition, the nonverbal cues in a face-to-face encounter such as voice tone, gestures and facial expressions can assist the interviewer clarify conflicting or vague matters with the participant immediately, and therefore leaving little room for doubt. This can also help enhance better engagement with the study participants, which we considered important to assist potential recruitment for further studies conducted as part of this project, such as the Delphi exercise.

Preparation phase: planning and conducting a pilot interview

Interviews require careful preparation, patience and practice to gain a worthwhile outcome (Cohen 1976). The following elements were used to prepare for a successful in-depth interview. The research question and what needed to be explored were clearly defined. Based on our understanding of outpatient discharge (Chapter One), we created

a set of questions. Then we considered in detail the rationale for the need of these questions to be explored. Following careful scrutiny, questions which were not directly related to the research topic were deleted. The final set of questions was used to inform the “Physicians Interview Guide” to be used by the interviewer (Appendix R). It was planned that interviews were to be semi-structured and initially flexible, using open-ended questions that outlined the topic. The wording of the questions was planned to vary between interviews and to allow digression in order to pursue an idea in more depth. The opening question in each interview was *“Can you tell me what factors influence your discharge decision taking in your practice in the outpatient clinic?”* This question was followed by a series of ten specific questions to ensure that the critical aspects of the outpatient discharge decision-making process were well explored. This included the following questions: *“Thank you for giving your own ideas, I would like to move on to some specific questions:*

1. *Can you tell me the process of discharge decision? (How do you arrive to a decision whether or not to discharge a patient? (DECISION MAKING PROCESS QUESTION)*
2. *What do you think are the challenges/barriers you might face when taking a discharge decision? (CHALLENGE QUESTION)*
3. *In your opinion, how are these factors weighted in clinical decision making OR can you tell me which are the most critical factors influencing your decision making? (RANKING QUESTION)*
4. *In general, how do you perceive the importance of discharge decision making in clinical practice? (IMPORTANCE QUESTION)*
5. *When do you think discharge should be discussed? (TIMING QUESTION)*
6. *Can you give me an example of what you consider an appropriate discharge? (APPROPRIATENESS QUESTION)*
7. *Are there any particular ways or methods that you are currently using to help you decide on discharging a patient? (STRATEGY QUESTION)*
8. *What support do you think clinicians need, to carry out an appropriate discharge? (STRATEGY QUESTION)*
9. *Do you have any thoughts on how perhaps we could better train junior doctors? (EDUCATION QUESTION)*
10. *Do you consider discharge decision a skill of its own? Do you consider decision making as a science?” (NEW THINKING QUESTION)*

At the end of the interview, an open-ended question was asked again: *“Is there anything you would like to add that I may have forgotten to ask?”* Prompts were inserted to probe further into the topic. Some examples of the prompts are: *“Can you tell me more about that?”* or *“Can you expand or give examples?”* or *“Can you remember any specific*

incident relating to such influence on your discharge?” These prompts were also used to remind the interviewee of the salient topic that needed to be covered. *“You mentioned...why did you say that?”* Prompts were also important to use just in case the study participants were not able to provide the vital response spontaneously (Bell 2010). Although the researcher was a clinician with a clinical background in dermatology whereby she had interviewed hundreds of dermatology outpatients, the researcher realised that interviewing colleagues, especially consultants, was rather different and possibly more demanding. The researcher attended a two-day qualitative interview course in Oxford on how to conduct in-depth face-to-face and focus group interviews to improve her interviewing skills. This course greatly helped the researcher to gain confidence and knowledge about conducting qualitative interviews. Pilot interviews were conducted involving a sample of three dermatology clinicians: one consultant and two specialists from the dermatology department in the University Hospital of Wales agreed to participate. The pilot interviews greatly helped to improve the structure of the questions. One pilot session was a video recorded interview carried out with one of the researcher’s supervisors, a consultant dermatologist. Watching a video recorded piloted interview immensely assisted the researcher to understand her own shortcomings in terms of how she projects herself during an interview session. Furthermore, it provided the opportunity for the researcher to familiarize herself with the questions beforehand and helped her to identify any difficulties on the part of the interviewees during a typical interview session. This was especially important because a failed interview can invite negative repercussions and may affect the quality of the study. Issues which were learnt from the pilot interviews were used to inform the final version of the Physician Interview Guide.

Study population

Inclusion criteria for clinicians

- Male and female consultant dermatologists working in dermatology outpatient clinics.
- Consultant dermatologists working in various NHS Trusts in England.
- Consultants from any dermatology subspecialties including medical, surgical and paediatric dermatology.
- Consultants from all ethnic backgrounds.

Exclusion criteria for clinicians

- Clinical dermatologists who are not consultants, such as academic specialists, dermatology registrars and nurse specialists.
- Consultant dermatologists who work solely in private practice.

Sample size

The guiding principle towards determining the sample size was based on two elements. Firstly, according to Mason (2010) the sample size for a qualitative research study is governed by the concept of saturation. The number of participants in qualitative studies must be adequate enough to ensure that most of the data that might be important are disclosed. A large sample, however can result in unnecessary repetition (Mason 2010). Qualitative content analysis (Kvale 2009) was used for the analysis of the interviews. The saturation point has been attained when common themes have been achieved and no new data can contribute to further meaning of the existing topic explored. Secondly, qualitative samples are usually less than 50 (Ritchie et al. 2013). This is supported by Green and Thorogood (2014) who stated that very little new data are uncovered after 20 or more interviews. The researcher referred to a study by Hajjaj et al. (2010b). In this study saturation was achieved at the 28th clinician interview. A recent review by Mason (2010) reported that an analysis of 560 PhD studies conducting qualitative approaches had a mean sample size of 31. This provided a guide for the sample size required for this study.

Recruitment procedure

Through purposive sampling 60 consultant dermatologists were invited from eleven different Trusts across England. Ethical approval to conduct the study was obtained from all R&D Trusts. The Trusts were as follows: Weston-super-Mare, Bath, Bristol, Swindon, Gloucester, Hereford, Taunton, Oxford, Birmingham (2 different Trusts), Worcestershire. These Trusts are situated across the South West of England and the Midlands. The first step was to introduce the subject and to invite the consultants to take part in the study. A letter introducing the researcher, the research topic and its importance was sent to 60 consultants at the start of the study. The letter was written and signed off (Appendix P) by one of the researcher's supervisors (Professor Andrew Finlay, a senior consultant dermatologist). This crucial step was very important to gauge and engage the consultants' interest in participating before obtaining R&D approval. A hard copy of this invitation letter and an email were sent simultaneously. If a consultant replied to the letter and expressed interest in the study, an appointment was made to see them in person to explain further about the study. In centers where there were more

than three consultants who agreed to participate, a day was set for the visit so that the researcher need not travel back and forth many times to explain about the study. One of the supervisors, Professor Andrew Finlay, accompanied the researcher on at least four visits to demonstrate support and interest. During the visits the consultants were provided with a study protocol and a clinician information sheet (Appendix L) that outlined further information relating to the study. These documents, which were sent beforehand, allowed the consultants to fully understand what was required of them. It also gave them the opportunity to query the meanings behind any of the statements relating to the study. The R&D department in each Trust was contacted for approval only if the consultants had verbally agreed (face to face during the first visit) to take part in the study. A lead clinician in each hospital was selected if more than one consultant agreed to take part. The reason for this was to coordinate and facilitate the smooth running of the research. Once the Trust's approval was gained, an invitation letter was sent by post and by email to each of the consultants who had indicated that they might be interested in taking part. The invitation letter (Appendix Q) requested participation of the consultant in the study entitled "The clinical and non-clinical factors influencing discharge decisions in dermatology". This process was adopted in order to minimize the possibility of consultants suddenly withdrawing from an interview before or during a scheduled session. It was understood that consultants are generally very busy and therefore it was stressed that the interview would only be carried out at a time and venue that was convenient for them. They were also informed that they would be required to give informed written consent should they agree to participate.

Consultant interviews

All interviews were carried out by the same interviewer to prevent inter-rater bias. Proper conducting of qualitative interviews is of paramount importance because the interviewer is essentially the "instrument" of the study and therefore needs to be adequately trained in interview techniques to maximise the outcome of interviews. For every interview appointment the researcher ensured that she arrived on time. In addition, before each interview the researcher greeted each consultant and thanked them for agreeing to participate in the study followed by an assurance that the interview would be kept anonymous if used for publication. This was to display transparency whilst gaining trust and confidence. An example of a typical interview is as follows: Researcher: "*Thank you very much for allowing me to interview you today. As you know this information will be kept confidential and only used anonymously. However, I will be audio recording the interview and if we were to publish a paper we will be using excerpts from this interview.*" Consultant: "*Okay.*" Researcher: "*So what are the factors that influence your decision to discharge a dermatology patient from your outpatient clinic?*" Since every

consultant was provided with a clinician information sheet prior to being interviewed (Appendix L), all consultants readily signed the clinician consent form (Appendix M) and filled in the “Clinician Demographic Data Sheet” (Appendix DD).

Challenges faced in the recruitment process

There were occasions where the researcher felt overwhelmed and tired by the number of times she needed to visit the Research and Development offices of the 11 different Trusts to obtain approvals and also to explain to most of the consultants about the study before they decided to participate. This meant the researcher had to meet each consultant face-to-face twice. Although this process could be stressful and time consuming, it led to an excellent interviewer-interviewee rapport before the start of each interview. There was also a huge amount of time taken to transcribe each interview. An hour long interview took at least five and half hours to transcribe. The transcription work was usually done a few days after the interview because the researcher was tired after a long journey and furthermore had to juggle other aspects of the whole PhD project such as obtaining research approvals from other Trusts and preparing for patient interviews.

Sample site

Due to time and logistic constraints, it was decided to focus on NHS Trusts that were located relatively near to Cardiff where the researcher was based, hence there was a focus on the Southwest of England and the Midlands. This had the advantage of restricting the study to one administrative country (England) within the NHS. The sampling and interview period were concurrent and lasted from April 2013 until April 2014. The researcher focused only on consultants rather than including trainee dermatologists because previous research had demonstrated that experience, knowledge and skill (Wethey 2013) inform better decision-making. Furthermore, consultant dermatologists have undergone accredited training and are expected to have wide experience in clinical decision taking.

Data analysis

The interviews were transcribed verbatim, coded and analysed using thematic analysis. The process of coding was initially conducted manually. It started with systematically extracting relevant items across the data set. These items were then collated into potential subthemes and themes by writing each influence in the right-hand margin of each transcript. 10% of the interview transcripts were analyzed separately by two of the researcher’s supervisors. Codes extracted from each transcript were compared to check for consistency and validity of the analysis. Transcripts were further analyzed

using NVivo 10, a qualitative data analysis software program [QSR International Pty Ltd, Melbourne, Vic., Australia], to aid the organization of unstructured data. All duplications or similar items were reduced by removing or merging them under a common category. A final list of themes and subthemes was generated.

RESULTS

Sociodemographic characteristics of the study participants

All consultants were on time and gave their full concentration to the study: five consultants openly expressed that they had enjoyed the interview sessions. There was only one instance when one consultant had to abandon the interview because she was called for a surgical emergency. The interview was rescheduled to another day and she gave almost an hour of her time in the following interview session. Saturation (i.e. no more new themes being generated) was reached at the 29th interview and therefore it was not deemed necessary to interview more than 40 participants. A total of 40 (66.6%) consultant dermatologists from 11 Trusts consented to participate and were interviewed face-to-face using a semi-structured topic guide, which gave the opportunity for personal focus, clarification and broad understanding of the subject matter (Ritchie et al. 2013). Twenty-three (57.5%) were females, 32 (80%) were Caucasian and 39 (97.5%) received dermatological speciality training in the UK. The mean age was 48.8 years (range = 33-67 years). The demographic characteristics of the study participants are displayed in Table 3.1. The mean interview time was 55 minutes (range = 15-80 minutes). The outcomes of the key question and the ten specific questions are described below with each question as a heading. The results for the main question: *“Can you tell me; what factors influence your discharge decision taking in your practice in the outpatient clinic?”* are as follows:

Factors influencing discharge decision taking

A total of 148 influences were identified from the analysis of the 40 interviews. This wide range of factors was divided into the five main themes of disease-based influence, clinician-based influence, patient-based influence, practice-based influence and policy-based influences that were then further subdivided into different categories of influences (Table 3.2). Some influences were found to either encourage or discourage clinicians to take the decision to discharge (Table 3.3). All clinicians reported that their discharge decisions were influenced by both clinical and nonclinical factors though it was agreed that the clinical state of the patient played a more important role in the decision process. Only two of the clinicians insisted that they were only influenced by clinical factors.

Table 3.1 Demographic characteristics of the consultant dermatologists (N=40)

Consultant Dermatologists	Number (N)	Percentage (%)
Male	17	42.5
Female	23	57.5
Age (mean)	48.8 years	
Indigenous British	32	80
Ethnic minority	8	20
Type of NHS Contract		
Full time	32	80
Part time	8	20
Also working in private practice	28	70
Place of training		
England	36	90
Scotland	1	2.5
Wales	2	5
Overseas	1	2.5
Years of clinical experience in dermatology		
30-40 years	7	17.5
20-29 years	12	30
10-19 years	14	35
< 10 years	4	10
Number of clinical sessions per week		
10 or more sessions per week	5	
5-9 sessions per week	31	
< 5 sessions per week	4	
Main special interest in dermatology		
Medical	20	50
Surgical	11	27.5
Paediatric	9	22.5

Table 3.2 Influences on clinicians' outpatient discharge decision-taking

N=number of consultants who mentioned this influence in their interviews

Type of influence	N	Percentage
DISEASE BASED		
1. Diagnosis	40	100
Type	40	100
Will discharge patients with simple basal cell carcinoma after completing surgery	4	10
Severity	21	52.5
Prefer to continue managing patients with severe skin diseases in the clinic	5	12.5
Chronicity	26	65
Disease progression	19	47.5
Will discharge if patient cured	19	47.5
Will discharge if disease stabilizes	16	40
Will not discharge if disease is recurring	15	37.5
Complexity	25	62.5
Certainty of diagnosis	19	47.5
Certainty of prognosis	3	7.5
Comorbidities	13	32.5
2. Disease guidelines	40	100
Not strictly using guidelines	5	12.5
Disease can be managed at GP level	27	67.5

Table 3.2 (continued)

Type of influence	N	Percentage
3. Treatment	40	100
Availability of a good treatment plan	21	52.5
Type of treatment needed	40	100
Treatment requiring continuous monitoring e.g. phototherapy	4	10
Treatment requiring systemic medication	40	100
Availability of treatment in secondary care	28	70
Discharge if no further treatment is available in hospital	15	37.5
Discharge if one has no expertise to treat patient any longer	15	37.5
4. Response to treatment	30	75
Appropriate treatment	7	17.5
Completed treatment	23	57.5
CLINICIAN BASED		
1. Demographics	15	37.5
Gender	1	2.5
Seniority	15	37.5
Personal beliefs	4	10
2. Experience	40	100
Personal	7	17.5
Clinical	40	100

Table 3.2 (continued)

Type of influence	N	Percentage
3. Awareness of healthcare issues	11	27.5
Limited healthcare budget	8	20
Long patient waiting list	11	27.5
Difficulties in taking over a retired colleague's patients' list	3	7.5
Political healthcare issues	3	7.5
4. Emotion	38	95
Feeling confident		
Confidence in one's judgement and decision making	17	42.5
Confidence in one's negotiating ability	14	35
Confidence in patients to cope with their skin disease	15	37.5
Confidence and trust in GP to handle the patients	21	52.5
Confidence in nurses to manage patient in primary care	4	10
Confidence in carer's management capabilities	5	12.5
Feeling morally responsible		
Concerned over vulnerable patients	9	22.5
Empathy towards patients	19	47.5
Feeling pressured		
Pressured by "difficult" or demanding patients	10	25
Threatened by an aggressive patient and discharged the patient	2	5

Table 3.2 (continued)

Type of influence	N	Percentage
Pressured by hospital managers	23	57.5
Pressured by hospital managers who gave precedence to seeing more new patients	10	25
Do not discharge more patients even though they feel pressured	6	15
Pressured by those paying for healthcare (payers)	5	12.5
5. Gut feeling	10	25
6. Perception	40	100
Self		
Coordinator of patient care	4	10
Provider of psychological support	10	25
View one's expertise as a reason for continuing care	9	22.5
One is able to negotiate and communicate well with patient	23	57.5
Patient		
Gauge patient's ability to cope with managing the disease	13	32.5
Less likely to discharge if patient is perceived as a litigious person	3	7.5
Primary care services		
Assessed GP's clinical competency	23	57.5
Assessed GP's willingness to share care from the referral letters	5	12.5

Table 3.2 (continued)

Type of influence	N	Percentage
Discharge if there is good patient-GP relationship	14	35
Discharge if there is good family support	10	25
The nurses' competency in primary care such as wound dressing	6	15
Hospital managers		
Hospital managers want consultants to discharge more patients	13	32.5
Perception that hospital managers advocate discharge for financial gain	6	15
7. Awareness of attitude influencing discharge	18	45
Pragmatic	5	12.5
Aggressive	4	10
"Soft touch"	2	5
Utilitarian	7	17.5
8. Duration and level of patient relationship	21	52.5
9. Academic interest	10	25
PATIENT BASED		
1. Demographics	22	55
Age	22	55
Gender	1	2.5
Culture	11	27.5

Table 3.2 (continued)

Type of influence	N	Percentage
English language proficiency	16	40
Mobility	13	32.5
Distance	17	42.5
Moving to another area	3	7.5
Education		
Education level	10	25
Intelligence, sensible	9	2.5
2. Nature of job	5	12.5
3. Circumstances surrounding the patient's life	16	40
4. Patient's quality of life	13	32.5
Uses DLQI as a guidance to discharge	4	10
5. Presence of a carer	22	55
With carer or family member supporting patient	22	55
Importance of confirming parents' capability to monitor children	5	12.5
Importance of being vigilant for a difficult parent-child relationship	2	5
Carer who will reaccess care	3	7.5
Carer's concerns	9	22.5
6. Cognitive ability	11	27.5
7. Learning difficulties	2	5

Table 3.2 (continued)

Type of influence	N	Percentage
8. Psychological mind-set	16	40
9. Attitude towards disease	40	100
Patient understanding of their disease	19	47.5
Patient's acceptance of their disease	6	15
Patient's ability to cope with managing their own disease	40	100
Patient's ability to apply, take or step up medication accordingly	16	40
Patient's compliance with his medication	9	22.5
Patient's reliability in monitoring disease progression	12	30
Patient's initiative to seek assistance from GP, primary care or hospital if needed	14	35
Patient's engagement with support groups after discharge	3	7.5
10. Patients behaviour towards clinician	28	70
Patient appears anxious	9	22.5
Demanding and "difficult"	10	25
Patient appears aggressive and violent	5	12.5
Patient appears dependent and exhibits helpless behaviour	4	10
11. Patients' wishes	28	70
Will consider patients' wishes to be discharged if disease is manageable	16	40

Table 3.2 (continued)

Type of influence	N	Percentage
Managing patients' expectations	12	30
PRACTICE BASED		
1. Secondary care services	40	100
Practice which is skewed to more chronic or complex diseases	9	22.5
Practice which has well-staffed expertise support such as psychologists, oncologists	11	27.5
A service which has locums assisting dermatologists	6	15
A service which allows easy re-access to secondary care	22	55
A service where GPs work alongside dermatologists	5	12.5
A service with good interpreter services	6	15
A service which allows a 6-12 months easy re-access to secondary care if discharged	19	47.5

Table 3.2 (continued)

Type of influence	N	Percentage
Clinic consultation time constraints	13	32.5
Patient number pressure on clinic capacity	27	67.5
Healthcare budget constraints in own Trust	3	7.5
2. Primary care services	40	100
Knowledge of the GP	13	32.5
GP's knowledge, experience and skills	27	67.5
Type of GP practice which has the medication prescribed by consultant, drug monitoring or nursing assistance	19	47.5
Community nurses for wound care	17	42.5
Support groups	7	17.5
Advocates	1	2.5
Pharmacists	1	2.5
POLICY BASED		
Aggressive clinic discharge policy	3	7.5
Nurse led management of skin disease	5	12.5
Local health policies influenced by political policies	1	2.5

Table 3.3 Influences which encourage or discourage discharge in outpatient clinics

FACTORS	Encouraging earlier discharge	Encouraging delayed discharge
DISEASE	Simple, benign diseases	Complex, chronic, malignant diseases
	Improving, stable or cured	Recurrent and severe
	Topical medication	Systemic medication
	Good treatment response	Poor treatment response
	Completed treatment	Ongoing treatment needing monitoring
	Certainty of diagnosis and prognosis	Unconfirmed or uncertain of diagnosis
	Clear and effective treatment plan	Indecisive treatment plans with ongoing investigations
	Disease manageable at primary care level	Disease needing expertise care in secondary care
	Referred for diagnosis	Referred for treatment and management
CLINICIAN	More experienced, senior consultant	Less experienced, junior colleague
	Good knowledge of GP and primary care support	Lack of knowledge of the GP and primary care support
	Having trust and confidence in GP	Lack of trust and confidence in GP
	Pragmatic and keen attitude for discharge	Empathetic and softer feelings for patients' who demand follow-up
	Consulting new patients	Consulting patients with close clinician-patient relationships
	Confident with own judgement and communication skills	Overly cautious and risk averse towards discharge
	Excellent clinician-patient communication	Poor communication due to language barriers
PATIENT	Middle age with busy job demands/life styles	Extremes of age: very young or very old
	Similar cultural backgrounds	Different cultural backgrounds
	Intelligent and well informed	Blindness, learning difficulties and cognitively disabled

Table 3.3 (continued)

FACTORS	Encouraging earlier discharge	Encouraging delayed discharge
	Reasonable expectations and sensible	Unrealistic expectations and malingerers
	Empowered patient to manage disease appropriately	Vulnerable, dependent patient
	Good understanding and acceptance of disease	Refusal or poor acceptance and understanding of disease
	Good carer or family support and relationships	Poor carer or family support and relationships
	Patients who are well informed and sensible	Patient who has unrealistic beliefs and expectations
	Patient who are nursing home bound with transport difficulties	Patients who are fit to travel for appointments
	Patient's wishes to be discharged	Patient's wishes to be followed up
PRACTICE	No expertise or further treatment available in secondary care	Availability of disease expertise for complex skin diseases
	Frequent multidisciplinary meetings for complicated cases	Lack of team work and discussion on complicated cases
	Consultant availability advocating proactive management discussions during clinic sessions	Shortage of consultants for teaching practice during clinic sessions
	Presence of good specialist nurse-led clinics in secondary care	None or lack of specialist nursing support in secondary care
	Presence of psychologists/counsellors in patient management team	Absence or lack of psychologists/counsellors
	Skilful, willing and reputable GPs	GP with lesser dermatological skills, experience and poor GP-patient relationships
	GP practice which has nursing care such as for wound dressing	Absent nursing support for specific dermatology diseases

Table 3.3 (continued)

FACTORS	Encouraging earlier discharge	Encouraging delayed discharge
	Service with easy patient re-access to secondary care	Service with poor or difficult patient re-access to secondary care
	Having an interpreter in the clinic	No interpreter support
POLICY	A clear and aggressive discharge policy	No clear guidelines on how to discharge patients
	Hospital policies targeting new patients rather than follow-ups	No reasonable targets regarding patient discharge

DISEASE BASED INFLUENCES

Diagnosis

Type of diagnosis

The type of diagnosis influenced all 40 dermatology consultants' discharge decisions. One male consultant used differing discharge criteria for medical and surgical patients. He strongly felt that clarity of treatment plan before discharge is of paramount importance especially with medical oriented diagnoses. In contrast, with surgical patients he would more likely consider the risk of tumour recurrences. *“So for medical, I look to have a diagnosis made for my patient, management strategy in place and to have discussed future possible outcomes for the patient's disease, self-management and family support... and to have thought about how those possible outcomes may influence the need for re-accessing my services in secondary care and how that route may be accessed”.* *“For surgical, we would look for the tumour to be removed, the patient to be educated about the results and the type of tumour and indications of their health. And also usually to assess the cosmetic and functional result of their surgery. If the patient has no risk of further tumours and recurrence of that tumour and all those other things are fulfilled, then I would discharge but if any of those things have not been done I would usually follow-up the patient”.*

Patients with skin cancers having a higher risk of recurrence, especially those patients who have a strong family of skin cancer, were more likely to be followed up. *“The risk of a flare influences discharge, like the recurrence of a skin cancer is potentially more serious than a flare up of acne or psoriasis in terms of their overall health. The recurrence of a skin cancer will not be apparent to the patient compared to an inflammatory skin disease so the skin cancer needs a follow-up”.* All (100%) clinicians

discharge benign skin lesions as long as these patients have completed surgical treatment and they have addressed the patients' concerns. Seven (17.5%) consultants mentioned that they will discharge a patient with a benign lesion immediately after completing surgery if there are no other concerns and the patient will only be informed of the biopsy results through the post.

Severity

Five (12.5%) consultants preferred to continue managing patients with severe diseases, leading to delayed discharges.

Chronicity

26 (65%) clinicians mentioned that patients with chronic inflammatory skin disease who require systemic treatment will be followed up for monitoring. Discharge is only likely if the disease is under control and when the patient can appropriately manage their skin disease. Fifteen (37.5%) consultants reported that they would not discharge patients if they were concerned about disease recurrence.

Disease progression

Patients will be discharged if they were cured, if the disease stabilizes or if the disease continuously recurs. Some patients may be discharged if no further treatment is considered helpful, despite worsening of the disease. *“So if it is a condition that you can't really do that much, for example vitiligo, so I would think well, yes it might progress a bit more but I don't have an effective treatment, why do I need to see this patient. Similarly, with alopecia, maybe something that might be distressing for the patient, but if I don't have an effective treatment there's no point in me seeing them again”.*

Complexity

Twenty-five (62.5%) clinicians considered the disease complexity before discharge. Even though some complex genetic skin problems cannot be treated, one consultant (2.5%) reported that she would see her patients at two critical points of their school development and would never discharge them. Three (7.5%) dermatologists mentioned that patients with skin lymphoma who require the input of specialists other than dermatology would remain under the care of the dermatologist. Four (10%) consultants reported that they see themselves as the main coordinator of patient care in complex multidisciplinary cases. *“With complex patients, we would often share care and we would reduce the number of patients for follow up while making sure that the guidance is*

clear, for example, drug monitoring, examination of lymph nodes or scar checks would be shared with our GPs”.

Certainty of diagnosis

Nineteen (47.5%) mentioned that their level of certainty about diagnosis and prognosis have a substantial influence on discharge and hesitate to discharge patients if they are uncertain about the diagnosis. *“If there is not a definite diagnosis and the patient needs further investigation then they will not be discharged until such a time that (we get) a diagnosis or (come up with a) management plan (that) can be performed by a GP in primary care”*. Another senior consultant reported that he would never discharge a patient without confirmation of diagnosis. *“Our team at the moment we are mandated towards a diagnosis, treatment plan and a discharge at first appointment if at all possible. That is what we are doing with new patients if we can. If there is not a definite diagnosis and the patient needs further investigation, then they will not be discharged until such a time that a diagnosis or management plan can be performed by a GP in primary care.”* One consultant (2.5%) mentioned that even though discharge decisions are woven in uncertainties, one has to project confidence when discharging a patient. Two (5%) consultants highlighted that sometimes new patients are referred for disease confirmation. They would not take on further management if the referral letter or the patient only wanted a confirmation of diagnosis.

Clinical guidelines

Thirty-five (87.5%) clinicians relied on local or national guidelines giving them a sense of security that discharge was appropriate. *“The bulk of what I do is skin cancer related. So we are very fortunate that we have protocols which dictate the follow up regimen for the different sorts of skin cancer”*. Surgical guidelines for skin cancer may suggest appropriate length of follow-up. However, discharge guidance is often omitted from medical guidelines. Five (12.5%) senior clinicians preferred to rely on clinical experience and did not closely follow guidelines. *“Take the case of a melanoma follow-up, the national guidelines say for the first three years, you have to follow up the patient every three months, but in a very busy clinic you have lots of follow-ups, so you will not be able to see the patients in three months. So perhaps you will see them only every four months. I really have my doubts whether it is really necessary to follow up all these melanoma patients every three months. It does impose a lot of work on the system. Just because the National Guidelines say so, you have to follow it! It doesn't allow you the freedom to decide. It should allow you the freedom to decide how frequently and for how long you should follow-up your patients. So I think the fact that we have all kinds of national guidelines, it sort of restricts you and you have to adhere to it. Junior doctors*

just follow-up to the letter. There is no flexibility. They are not experienced enough to depart from the guidelines. But actually if you read the national guidelines, it always says these are only guidelines; it does not mean that we should adhere to it (laughs), but people do adhere to it to the letter because they practice defensive medicine. They do not want to depart from guidelines". The clinicians who had clinical experience before the advent of guidelines were the most sceptical about their relevance.

Disease able to be managed at GP level

Twenty-seven (67.5%) consultants mentioned that the possibility of a disease being treated at primary care level would influence their discharge decision. Some GP surgeries may not have the resources to manage patients despite the requirements being relatively basic. These patients will remain in secondary care until no further treatment can be offered.

Treatment

Availability of a good treatment plan

Twenty-one (52.5%) clinicians mentioned that a well-structured treatment plan prior to discharge is critical. *"If I think there is good guidance, if there is national guidance which I think the GP could follow which is quite clear and accessible to them. And I feel I have given a good letter, if I feel I have given a good treatment plan, a step-wise treatment plan for the GP to follow with instructions to refer back to us if things don't help. So, I will be happy to follow-up a protocol that's in my own mind but with a good plan for discharge at the end. Things like actinic keratosis (AK) where there is NICE guidance, improving outcomes guidance which recommends that pre-cancerous lesions like AKs and Bowen's disease should really be managed in primary care".*

Type of treatment needed

All (100%) study participants reported that they would consider the type of treatment influential to the discharge decision. Patients on topical treatments are discharged more readily than those on systemic treatment or on treatments requiring frequent monitoring in secondary care; however, 10 (25%) clinicians undertake shared care with a GP, if trusted and willing, to reduce the frequency of follow-ups.

Treatment requiring continuous monitoring e.g. phototherapy

Patients are more likely to be kept on a follow-up list if there was a need to monitor treatment progress, such as during phototherapy.

Treatment requiring systemic medication

All 40 consultants (100%) reported that they would consider keeping reviewing patients who are on systemic therapy, such as those on biologics for treatment of psoriasis. Fifteen (37.5%) consultants would discharge patients if there were no further treatment available in hospital or if the treatment required was beyond their expertise.

Response and completeness of treatment

Thirty (75%) clinicians wanted to witness treatment response before discharge. *“Well, for example if somebody came with a skin lesion and that needed removal and we have removed it, and been able to discuss diagnosis with the patient and there are no other issues related to the skin I would discharge them if there was completeness of treatment, or if I was treating the patient with acne, and the acne has responded well to treatment with Roaccutane, I would consider that completeness of treatment”.*

Completed treatment

Twenty-three (57.5 %) consultants preferred to ensure a positive treatment response and possible completion of treatment before discharge. One consultant mentioned that diseases with very unsatisfactory response to treatment such as vitiligo, will be discharged with considerable difficulty.

CLINICIAN BASED INFLUENCES

Demographics

Gender

One female clinician reported that some female patients, especially with genital problems, refused to be discharged because they felt uncomfortable being examined by a male GP. *“They have vulval lichen sclerosis. I have had a few who lack faith in their GP for one reason or another, who want to come to me, or they don’t like seeing a male GP about a genital skin condition”.*

Clinician's seniority

Fifteen (37.5%) clinicians stated that junior clinicians are risk averse when discharging. *"The more junior the more they tend to hang on to patients. And longer letters, longer discharge summaries. We tend to cut to the quick. I think it is... I think again I guess it is confidence. A junior person may think, if I discharge the patient all sorts of terrible things is going to happen, I haven't done things properly, and it is often easier for a more experienced person to be discharging patients as a general rule"*. Another consultant felt that junior clinicians tend to give more frequent follow-ups for academic reasons. *"Junior consultants will be very keen to follow up their patients because they may want to see the surgical outcome every 3 months, 6 months or in a year forgetting that every time they do that, they are taking away an opportunity for someone else to be seen"*.

Clinician's knowledge and experience

All (100%) clinicians mentioned that prior knowledge and experience concerning managing skin diseases is crucial to discharging a patient. Clinicians' confidence in discharging patients improves as they gain more training and experience over the years. One consultant mentioned that her personal experience as a junior clinician in discharging "difficult" patients caused her to be risk averse with patients whom she perceived as being problematic.

Personal experience

Seven (17.5%) consultants admitted that their personal experience influenced their discharge decisions.

Clinical experience

All 40 consultants (100%) stated that prior experience of managing specific diseases is crucial to timely discharge. *"Obviously, one's experience would influence your discharge priorities. You've seen patients in the past, you've dealt with them in the past, you realise those patients can manage quite ably at home. In the past other patients with similar conditions have been managed in this way"*. Clinicians' confidence in discharging improved as they gained experience.

Awareness of healthcare issues

Clinician's sense of awareness of the demands of the healthcare system

Thirty-five (87.5%) clinicians were aware of the number of patients waiting to be seen as new patients or follow-ups. One consultant perceived his managing patients' concerns

remotely as a good method to reduce healthcare costs and felt that junior clinicians are not aware of the finite resources in the country. Five (12.5%) senior consultants reported that they were bogged down with a skewed case mix of longstanding, complex skin patients who may never be discharged. These consultants admitted that it was easier to discharge new patients than chronic patients who had been followed up over the years.

Awareness of healthcare constraints

One clinician highlighted that the limited healthcare budget compels clinicians to adopt an aggressive discharge policy. *“So what you need to address is how you are going to cope with the limited amount of money you have? Because the truth is, that in an affluent population, disease is less prevalent, their expectations and demands are often higher. Educated, well-resourced patient groups will expect more from their services than elsewhere and so you have to ration what is available and that means discharging patients aggressively. So for instance all our basal cell carcinomas with simple excisions are discharged without any follow up”*. Despite awareness that many patients were awaiting appointments, clinicians still found discharging patients difficult. Clinics become filled with a skewed case mix of complex patients needing indefinite review. New patients were much easier to discharge. Three (7.5%) clinicians had difficulty in discharging patients they “inherited” after a colleague retired. Discharging these patients required building up confidence within the new patient-clinician relationship.

Political healthcare issues

Three (7.5%) senior consultants were upset about the organization of the healthcare system and one felt that the management of healthcare in the UK is politically biased. *“If we start in reverse you have to assume what your commissioners want to see and they’re more interested in diminishing overall follow-up rates.”*

Emotions

Many of the clinicians (38%) admitted that directly or indirectly emotion influences their discharge decisions.

Feeling confident

Seventeen (42.5%) consultants perceived that the level of one’s confidence is a major influence on one’s judgement and decision-making. These consultants highlighted that confidence comes with experience and knowledge. They viewed junior clinicians as being less confident. The consultants felt that in the process of making discharge

decisions, clinicians must feel confident about their negotiating ability (14, 35%), about their patients' ability to cope with their skin disease (15, 37.5%), having trust in the GP to handle their patients (21, 52.5%) and having faith that nurses would be able to manage patients in primary care (4,10%). Five (12.5%) highlighted that one must be highly cautious over the carer's level of competence in managing dermatology patients, especially with paediatric patients.

Feeling morally responsible

Nineteen (47.5%) of the dermatologists considered themselves to have an empathic understanding with their patients, said that they engaged readily with them and felt responsible for giving them psychological support. *"Psychosocial factors are huge in dermatology, as always, and that would delay discharge if they needed the reassurance of coming back. Even if the skin condition isn't too bad, seeing the patient a few more times would provide them with a huge amount of reassurance. I think that's worthwhile because they are less likely to bounce back to clinic with an exacerbation of (the) condition."* Nine (22.5%) felt strong concern for vulnerable patients. Five (20%) did not discharge patients whom they felt were vulnerable or needed extra care and one consultant admitted to having - a "soft touch" and felt emotionally blackmailed by certain patients to follow them up. Three male and one female consultant viewed themselves as "aggressive" dischargers and tried to make patients understand the reasons for discharge. Despite this, they attempted to exercise gentleness and accommodate patients who appeared helpless, to avoid unnecessary confrontation. For ethical reasons, one (2.5%) consultant did not initiate treatment and discharged a patient who, surprisingly, refused to reveal the lesion to the consultant during the consultation. The consultant stated that the patient was told that management of a skin problem is just not possible if the lesion couldn't be looked at.

Feeling pressured

Ten clinicians (25%) stated they had felt pressured by demanding, rude or irritating behaviour of patients and that this had made them consider discharging these patients. *"Sometimes I feel uncomfortable with the patient. Well, I admit I will not encourage them to come back. I try to discharge them. I have a really aggressive unpleasant man who comes to see me about hidradenitis suppurativa in my community clinic, he is always rude, he is always late for his appointments, he makes threats about how he would like to be violent to people and I would love to discharge him back to his GP".* "Difficult" or demanding patients are not easy to manage, especially when discharge is a possibility. It appeared that in such circumstances the consultants would tend to negotiate with patients and give them another follow-up. However, two (5%) reported that they would

strongly consider discharge if they were threatened by an aggressive patient. More than half of the consultants (23, 57.5%) said they were unhappy about being pressured by hospital managers to give priority to seeing more new patients. However, despite such pressure, they would be even more careful over taking discharge decisions. Five (12.5%) were unhappy with the attitudes of those paying for healthcare (payers) because they perceived healthcare payers as encouraging early patient discharge. Two (5%) felt threatened by an aggressive patient who had insisted on follow-up but was discharged. One clinician would discharge patients he perceived as “malingerers”, provided there were no clinical issues. *“I guess the personality of the patient as well. If you know that they will be particularly time consuming, really not...I don’t like using the word but really not perhaps worthy of continuing care, then that will play a role as well. They are just irritating patients and time consuming. Just annoying. There are quite a few patients like that. Time wasters, malingerers, things like that. They do get on my nerves. If I don’t think there’s anything seriously wrong with them, then that would play a role, you know a very small minority”*. However, another consultant felt that patients who insist on follow-up may not get discharged, compared to those who are acquiescent: also if the clinician liked the patient, discharge was less likely. Most clinicians were cautious and gave a longer follow-up appointment to patients who insisted on follow-up. Ten clinicians (25%) expressed frustration when hospital managers gave precedence to seeing more new patients rather than following up existing ones.

Pressure from Trust managers

Six (15%) stated that they do not discharge more patients even though they felt pressured by hospital policies. They expressed frustration and internal conflict as they perceived Trusts giving huge precedence to see more new patients rather than following up existing ones. Four (10%) clinicians felt that such policies deliberately ignore clinicians’ viewpoints and the difficulties they face in managing patients. One consultant believed that local health policies are strongly influenced by national political policies.

Medical intuition or “gut feelings”

Ten (25%) clinicians stated they relied on intuition and would not discharge patients if there were treatment adherence or home support difficulties. *“Someone let’s say from a middle class home when the child looks clean and well cared for, compared to a child who is disheveled and dirty, there is some sort of abnormal interaction with the mother, for example I have seen children being handled very roughly by the mother, I would be much more likely to ask them back and copy the letters in to the community paediatric team. You have the feeling that they are anxious and concerned that it (the treatment) couldn’t work, but then what could they do, so in that case if I feel that it is an unresolved*

issue, then I would ask them to come back with their child on a specific date to check their response". In another example of clinical intuition, one clinician mentioned that her "gut feelings" guide her towards understanding whether the patient is litigious or difficult to handle. In such circumstances she would be more likely to discharge such patients. In contrast, another consultant felt that medical intuition would never override her clinical experience.

Perception

Ten (25%) consultants felt that it was important to provide psychological support to dermatology patients if the need arises. Four of these consultants (10%) perceived their roles as the main coordinators of patient care and therefore less likely to discharge their patients. In contrast, two consultants (5%) considered themselves as dogmatic in their approach in discharging patients, and would discharge according to their own judgment of what seems appropriate. In general, it appeared that if consultants feel satisfied with their negotiation and communication skills (e.g. in understanding the likelihood of the patient having good treatment concordance) they are more likely to discharge a patient. Five (12.5%) consultants mentioned that discharge is more likely if they perceived that patients are happy to be discharged. Thirteen (32.5%) consultants said that they gauge patients' ability to monitor themselves prior to considering discharge. Three (7.5%) were less likely to discharge if they perceived that the patient might be litigious. Nine (22.5%) consultants felt that it was important to understand the limits of the expertise and care available, and advocate discharge if there was nothing else that could be offered. Eighteen (45%) reported that GPs' skillfulness and willingness to share care are also important factors, in addition to their confidence in the carer's sympathy with and concern for the patient. In general, if a consultant perceived that the number of follow-ups being seen in the outpatient clinic was high, this would increase the likelihood of discharge. Another consultant felt that if his personal beliefs aligned with that of the commissioners' targets for patient discharge, discharge would be more likely.

One consultant mentioned the importance of gauging the effectiveness of their rapport with their patients and improving their understanding of the patients' real expectations through interactions such as reading the patient's facial expressions. Furthermore, that consultant would weigh the patient's emotional feelings into the equation and come to a negotiation or compromise to cater for that need. Such facial and emotional expressions become apparent during clinical consultations and therefore could influence discharge decisions. More than half the consultants (23, 57.5%) were inclined to trust GPs' and nurses' (6, 15%) competency in taking care of their patients. They preferred not to assume responsibility for skin conditions that GPs can easily manage. Five of these

consultants would also assess a GP's willingness to share care from their referral letters. In general, it appeared that dermatology consultants tend to discharge if they perceive there is good family support and a good patient-GP relationship. Thirteen (32.5%) felt that hospital managers want consultants to discharge more patients and six (15%) perceived that hospital managers encourage discharge for financial reasons rather than necessarily for the best care of patients.

Personal attitude to discharge

Two male and two female clinicians (10%) viewed themselves as keen or "aggressive" dischargers. While trying to help patients understand the reasons for discharge, they attempted to accommodate patients to avoid confrontation. Two (5%) clinicians admitted to being a "soft touch" for some patients and would not discharge them. *"A couple of patients you just cannot discharge, who absolutely beg to keep them on their books, whereas I know that probably other doctors may have discharged them. So I admit that I am a bit of a soft touch when it comes to that situation"*. Another consultant stated *"You know sometimes we get described as being a softy or whatever. I'm not sure where I fall exactly on the spectrum. I think I can be an old softy if I want to be or I can be a lot stricter, depends on which side of the bed I woke up that morning! But on a serious note, yeah I think there are probably personality traits within individual physicians; they all have different personalities and perhaps varying views on how strictly we should stick to follow up guidance, that sort of thing"*. Seven (17.5%) clinicians took a more utilitarian approach, taking into account other patients' waiting time and healthcare costs. *"Yeah, some patients you will know will come back, and in fact in your letter you can say to the general practitioner, you know if things are not working, please send them back. Some patients, one way or another need hand holding more than others but I don't believe that we are in a position to do that. We have to think of other patients with more serious conditions and we need to prioritise them rather than others that perhaps don't need it"*. In addition, three female and two male consultants (12.5%) admitted to their pragmatic approach to discharge decision taking.

Duration and level of patient relationship

Eleven (27.5 %) consultants were more likely to discharge patients confidently, if they knew that their patients had a close relationship with their GPs. Similarly, seven (17.5%) consultants were more likely to discharge patients whom they perceived to have strong family support. Six (15%) clinicians found difficulty in discharging patients whom they liked and had known for a long time. One lamented: *"It is easier to do it because you do not have that emotional bond.... the problem with that you tend to lose sight of the*

clinical need, you know....so those patients that you become friendly with are those patients whom you followed up long term, to be honest, it's not good use of resources."

Clinician's academic interest

Seven (17.5%) clinicians mentioned their interest in following up patients for personal academic interest and three (7.5%) for student teaching.

Clinician's duration and level of patient-clinician relationship

Twenty-one (52.5%) clinicians were more likely to agree to patients' wishes to stay in secondary care if they had an "understanding" relationship with them. *"Some patients are more difficult to discharge because I have a friendly rapport with someone I have seen for years and years and years. It is sometimes a tricky situation. I don't have emotional attachment with patients, but some do with me. I ignore it. I make clinical decisions not emotional ones. You know you have to draw the line somewhere."*

PATIENT BASED INFLUENCES

Demographics

Attitudes towards discharge differ for very young and for very old patients. One consultant felt that in a paediatric environment the age and the patient's preparedness for discharge are important factors to consider. In contrast, 4 (10%) consultants reported that they would consider discharging frail elderly patients to avoid unnecessary repeated visits due to restricted mobility. One consultant also mentioned that she would confidently discharge an elderly patient if she perceived him as capable of self-management. *"It depends on the patient because you may have a very elderly person who is very organised but you may also get a young person who is very disorganised and fairly forgetful and fairly unable to cope with everything so I don't think age is a big issue, it's the ability to cope with the issue."*

Although 22 (55%) of the study participants would consider age when discharging a patient, a levelheaded approach would override age as a factor when making discharge judgements. One consultant expressed that she would like to ascertain whether her patients have an organized sensible approach to their disease. One consultant mentioned that he perceived male patients as more relaxed than female patients, leading to easier discharges. Eleven (27.5%) consultants highlighted that they were influenced by a patient's cultural background. Two (5%) consultants mentioned that communication is easier with patients of similar ethnicity and cultural background and this facilitates an easier discharge. *"Culture is so important because of the different*

types of skin colour. Cultural backgrounds are big. So over here we would have a huge population from Asia, Pakistan and from Bangladesh and there are some patients who have so certain ideas about a condition. For example, they may not be able to accept hyperpigmentation at all because this is active and not cured and not normal.” Sixteen (40%) clinicians found it difficult to discharge patients with a poor command of English, especially in the absence of an interpreter, whereas three (7.5%) consultants did not find language difficulties a barrier to discharge.

Patients with low income living far from the clinic or who had moved to another area were more likely to be discharged. Three (7.5 %) consultants would consider discharge if a patient had relocated at a distance from the clinic, especially with those with mobility issues and income constraints. Communication is easier with patients of similar cultural background to the doctor and this facilitates discharge. Five (12.5%) clinicians reported that they would more readily discharge patients with high job demands. *“And even younger patients taking time off to come to an appointment, the appointment maybe 5-10 minutes but potentially, there are clinics where you need to be here for the whole afternoon or morning. So somebody, has a two o'clock appointment they can't guarantee that they will back at their desk at three o'clock, we don't think about it that much, because we are used to clinics being so busy, but when you are on the other side, and you go to an appointment then you realise it might not finish in time...you realise how much an outpatient appointment can affect you in terms of your life style, so if that's happening every 6 weeks or so it may be a factor affecting somebody with a busy job. So I think that would be an influence on the patient's desire for follow up as well. So in those cases we might discharge people more frequently”.* Ten (25%) consultants considered the patients' educational level in their discharge decision taking. One (2.5%) consultant felt that discharge was easier with patients who were less educated, because they were more amenable to the consultant's views when compared to those who were better educated. Nine (22.5%) consultants mentioned that they more readily discharged patients who were more intelligent and sensible. Sixteen (40%) consultants would not discharge patients who appear to have depression caused by their disease. One consultant had given frequent follow-ups to a patient with the chronic disease hidradenitis suppurativa but was later affected by his dependence on coming to the clinic.

Patient's quality of life (QoL)

Some clinicians felt strongly about the importance of considering the patient's quality of life (13, 32.5%) and psychological state (16, 40%) before discharging them (Quotation 24). Four (10%) used standard questionnaires to measure quality of life to inform

discharge decisions. *“So we use the DLQI; that is fairly standard practice now in dermatology due to experience in using it to ascertain a patient’s mental state. This has made using the DLQI more common”.*

Presence of a carer

Twenty-two (55%) mentioned that the presence of a carer facilitates discharge. Eight (20%) mentioned that they would be less confident to discharge an elderly patient with poor cognitive ability in the absence of a reliable carer. Three (7.5%) stated that clinicians must determine that carers would be able to re-access care if need be. Five (12.5%) stressed that it is particularly important to confirm parents’ capability to monitor children. Two (5%) consultants stated that they would be alerted by a perceived difficult parent-child relationship which may indicate unresolved issues in child care and therefore this would be an influence against discharge. *“If I have anxieties about parenting issues at home, if I feel that the child is at risk because of poor hygiene or looks ill-treated in anyway and not necessarily having had any contact with social services, but you might be the key person to pick up on perhaps abuse at home so if the child isn’t looking well cared for, I would more likely bring him back.”* Nine (22.5%) consultants reported that they would consider the carer’s time and their concerns about accompanying the patient to the hospital.

Psychological mindset

Sixteen consultants felt that dermatology patients, unlike patients with other conditions, were very much affected by their skin disease psychologically. *“So yes, definitely so quality of life, even if you take the run of the mill condition, like eczema, psoriasis and that, you know, anybody who does clinics will realise that one patient with two patches of psoriasis might not cope with it as well as somebody who is completely erythrodermic. It’s all down to what’s in your head. And those patients are very difficult to discharge; you know when you got patients with a few patches of psoriasis who wants to be on methotrexate, I just give it to them. It’s just about their quality of life. You know, their psychological wellbeing, whether they’re working, so you have to judge all of that, the impact of all of that, that has happened in their life, the impact of what their disease has on their life and if they can’t engage in a normal adult life then, I will see them; provided I can do something. If there is genuinely nothing to be done with some of the conditions, maybe a referral elsewhere is the way to go. But I think with a lot of skin conditions, many other specialists follow up, appreciating the psychological impact and the effects on quality of life”.*

Patient's lack of trust in their GPs

“So for patients like that where there are some communication problems with their GP, then discharge is delayed because (they are) unable to obtain treatment and seek help independently”. One female consultant stated that she would follow up a patient if she perceived that the patient lacked faith in or did not want to be seen by a male GPs for a genital skin condition. “I have had a few who lack faith in their GP, for one reason or another, who want to come to me, or they don't like seeing a male GP about a genital skin condition. Where I feel that their lichen sclerosis is stable, and they could probably be discharged back, so I feel a little bit emotionally blackmailed for I've got to see them again.”

Patient's attitude towards disease

All 40 consultants mentioned that the patient's attitude towards their disease plays a key role in determining discharge.

Patients' understanding of and ability to treat their disease

Nineteen (47.5%) consultants stated that one of the most crucial things to consider upon discharge is whether the patient has a good understanding and could appropriately manage his own disease after discharge. Thirty-three (82.5%) mentioned that patients' ease of access back to secondary care is equally critical. Concerning discharge of children, four (10%) consultants felt that it was important to ensure that parents were competent to monitor their children's skin disease and would access help if the need arose. All 40 consultants said that ensuring that a patient is capable to manage their condition before discharge is essential. *“And really it's largely about when the patient can understand their disease, when they can talk about their disease, when they can explain to somebody else about their disease and when they understand they can make management decisions, so when they know when to take which medication and what to do, then I think they are ready to look after themselves”.*

Twenty-two (55%) mentioned that patients' ease of access back to secondary care is critical. Concerning discharge of children, five (12.5%) clinicians felt it important to ensure that parents were competent to monitor their children's skin disease and to access help if needed. Nine consultants mentioned that their assessment of a patient's likely compliance with treatment will affect their discharge decision. Two (5%) of these consultants would discharge patients if they were not adhering to the consultant's advice or not compliant with treatment.

Patient's behaviour towards clinician

Twenty-eight consultants (70%) were influenced by the type of emotional response their patients displayed during the consultations. Twenty-four (60%) stated that they had been challenged by "difficult" behaviour of patients at the time of discharge. Two consultants mentioned that they would be more likely to discharge such patients. Three (7.5%) consultants stated that they would discharge noncompliant patients. One view was that such patients should be discharged to a specialist nurse or given an open appointment. Four (10%) consultants mentioned that some of their patients with skin cancers had insisted on follow-up despite having completed treatment. In such cases consultants tend to give a long follow-up appointment to give the patients reassurance. Three (15%) consultants had had negative experiences with aggressive patients who insisted on follow up. Sixteen (40%) clinicians felt that in these circumstances another follow-up is necessary to avoid undesirable consequences and prefer to err on the side of caution. One consultant's view was that patients who are insistent may not get discharged as opposed to those who are acquiescent and if the clinician liked the patient, discharge is unlikely. Two (10%) consultants felt threatened by patients and sought further assistance from the hospital management.

One patient who consistently triggered negative feelings of intimidation and frustration amongst healthcare providers was discharged and transferred to another hospital. Some patients have unrealistic expectations which influence the discharge decision. One consultant stated: *"When the patient has unrealistic beliefs and expects a chronic condition to remit completely and permanently, which may never happen, so perhaps these are unrealistic expectations which we need to work on. And some of them have unrealistic expectations of the NHS, for example, and they may want to have open access to a clinic at any time which makes it very difficult given the workload. So all of those are possible but I think I am fairly optimistic and if you address those concerns with the patient directly and listen to what they say and work through them there often are solutions. For example, if expectations are fairly unrealistic we may be reluctant to discharge, it's a case of education and maybe need more support for their conditions"*.

Patient's wishes

Twenty-eight (70%) consultants said that they would try to address patients' wishes prior to discharge. Sixteen (40%) of these consultants would also consider patients' wishes to be discharged if the disease was manageable without further advice. Ten (25%) emphasized the prime importance of managing patients' expectations prior to discharge. *"Sometimes neither of these things happen, you are fully aware that the patient has one agenda, you have no agenda, and the patient comes on with various expectations,*

which you might not be able to fulfil and the classic thing perhaps is parents who have a child with eczema who come out determinedly; 'you're meant to be sorting out the child's allergies'." Two (5%) consultants mentioned patients' feelings of aversion towards hospitals and their expectation of being discharged as soon as possible.

PRACTICE-BASED INFLUENCES

Secondary care services

All 40 (100%) consultants highlighted that a secondary care dermatology service that is well staffed and equipped with different modalities of treatment can facilitate faster discharge since most treatment can be carried out in the same setting.

Practice which has expertise and well-staffed support

Eleven (27.5%) consultants would consider discharge if they perceived that there was parallel care by clinicians from other specialties. The more common specialties that are linked and could render support to dermatology patients are rheumatology, oncology and psychology. Consultants were more likely to discharge if the hospital was well staffed with specialists in these fields.

A service which allows easy re-access to secondary care

Twenty-two (55%) consultants would be more likely to discharge patients if they knew that the patient would have good re-access arrangements to secondary care. All Trusts had an open appointment system for 6 to 12 months allowing patients to re-attend. Eight (20%) consultants gave patients their secretary's telephone number and two (5%) gave their direct email address to patients who were on specific medications and who needed treatment monitoring.

Clinic consultation time constraints

Thirteen (32.5%) consultants mentioned that the time allocated for each consultation was an indirect influence on discharge decisions. A lack of time for discussion with patients would be an influence against discharge. Patients would be given another follow-up appointment to address any pending concerns. Twenty-five (62.5%) consultants highlighted the importance of composing detailed discharge letters to the GP. These consultants believed that discharge letters enhance patients' compliance, promote a sense of reassurance and improve clinic efficiency. Although patients may be "squeezed" in between previously made appointments to accommodate patients' clinical needs, the running of the clinic may not be efficient as both patients and outpatient staff would have to spend more time beyond the normal clinic hours to cater for these extra

visits for that day. Clinicians who presently have a case mix of more chronic patients who might demand longer consultation times may find it extremely challenging to have to also see unexpected urgent cases. Surgical dermatologists however, find squeezing in extra patients more workable with tumours, by applying an aggressive discharge policy based on existing local or national tumour guidelines. In addition, one consultant encourages post-surgical assessment of tumours through uploading photos via email.

Healthcare budget constraints in own Trust

Three (7.5%) consultants mentioned that they would not hesitate to discharge patients with diseases such as hyperhidrosis for which treatment was not funded by the hospital management. Such patients would be advised to see a dermatologist privately. One of the consultants highlighted that the junior clinicians were following up patients unnecessarily which prevented other patients from receiving the care they deserved.

Primary care services

Knowledge of the General Practitioner

The consultants had varying attitudes concerning the influence of their perceptions about GPs. Thirty (75%) consultants reported that the GP's knowledge and experience was extremely important when considering the patient's management after discharge. The consultants favoured GPs who had a special interest in dermatology, who had worked alongside them or who were known to them.

Five (12.5%) consultants assessed GPs' clinical competence and willingness to share care from the referral letter and from a patient's attitudes towards their GP. One (2.5%) consultant took the opportunity to understand the local GPs better through the dermatology training sessions held by consultants. Seven consultants were happy to share care with GPs, allowing the primary care team to look after the patients, as it helped to reduce the number of follow ups, reduce healthcare costs and freed up appointment slots for other patients. *"We probably wouldn't, I probably wouldn't discharge a patient totally but I would reduce the amount of follow-up, perhaps share care with the GP."* Ten (25%) consultants felt that discharge was likely, if community nurses were available to assist in wound care.

Support groups

Four (10%) consultants found it easier to discharge patients if there was a suitable local patient support group for specific skin diseases. These consultants were mainly involved

in running highly specialized services for patients with chronic skin diseases such as epidermolysis bullosa.

POLICY-BASED INFLUENCES

Policies in clinical practice

Different service models were used for patient management. In one hospital, it was mandatory for every eczema patient to see a consultant at least once and to be seen by the specialist nurse for skin education. Early education on management of skin disease was perceived by 16 (40%) consultants as an effective way to facilitate early discharge. Two clinics adopted a strict discharge policy within their clinical practice.

How consultants arrive at a decision whether or not to discharge a patient

All consultants were asked how they took discharge decisions in their daily practice. The consultants gave a variety of answers which the researcher incorporated in her concepts of the discharge decision making process. If the methods used by the consultants were similar in nature, these methods were incorporated under headings that form the basis of the discharge decision thought process algorithm. For example, two senior consultants highlighted that discharge should be the goal or default position. The other consultants stated that discharge should be the null hypothesis; both of which meant the same thing.

As one consultant stated: *“Well, as a general principle discharge is the goal. You don’t keep people under secondary care indefinitely. The default position should be discharge unless there is a reason not to discharge. If you are not discharging, you need to know why! Is it because they have an uncontrolled condition, is it because they are on systemic medication, is it because they are unhappy with the control of their disease? It is always that you must always have a justification for not discharging rather than the other way round”*. One consultant also stated that the discharge decision-making process evolves during the course of the consultation and he looks for patient satisfaction, patient understanding and whether the rash is better or controlled. The relative weightage of these factors are discussed in the later part of this chapter.

The challenges faced by consultants when taking a discharge decision

Challenges inherent within the clinical practice of dermatology

Dermatology practice has hidden challenges. For example, the large proportion of “quick to treat patients” is intertwined with a moderate number of patients with chronic

diseases: this can be difficult to juggle in a day. Consultation times vary depending on the type of disease and the multitude of different clinical issues that may arise. If a patient does not attend a clinic appointment, they may default a second time and if so they may keep on asking for more follow-up appointments.

Clinician related challenge

Uncertainties in diagnosis and treatment plans

One consultant mentioned that consultations with “difficult” patients can be challenging. One female consultant stressed “*As long as they are difficult patients, personality wise, discharging is just difficult!*” Occasionally patients are upset and difficult to manage due to the diagnosis being unconfirmed or the unsatisfactory improvement in their skin condition. “*It is normally difficult to discharge for two reasons: either the skin is not improving or you are not sure about the diagnosis, you get frustrated. So difficult patients are difficult for a reason, but then having said that you can do everything but you don’t win. They are probably difficult to discharge because they do not want to be discharged.*” In these situations, clinicians ought to be extra cautious in how they handle such patients because the psychological impact of skin patients can be bewildering. The consultant added that skin patients can be psychologically brittle and emotionally upset about their discharge. “*Patients can be often upset and difficult to manage. Diagnosis is often unclear. Upset patients need a sense of security with seeing doctors. If (patients are) discharged too early, they may become psychologically damaged. Discuss the current issue and provide support. Giving patients the time to explain their issue in detail, will provide the patient with more of an understanding and they will generally feel happier. The psychological wellbeing is an important factor to consider when discharging patients.*” The lack of certainty in a consultant’s diagnosis can sometimes delay discharge. When faced with such circumstances or with complex cases multidisciplinary discussions were encouraged. Five consultants stressed that junior clinicians should seek a senior colleague’s opinion if they are in doubt. One lady consultant was a strong advocate of a protocol led type of care. She recommended the use of local and national clinical guidelines when faced with uncertainty.

Clinicians’ clinical knowledge: diagnostic uncertainty

Nineteen consultants had the view that the inability to provide a confirmed diagnosis to the patient was a challenge. One consultant stated that, especially with less experienced clinicians, there may be a level of uncertainty when handling patients with certain unusual diseases. One consultant admitted to being challenged by his own uncertainty

in ascertaining a correct diagnosis. He advised that in such cases it is best to be more cautious and keep a close eye on the patient through further follow-ups or ask the opinion of colleagues. *“I guess sometimes if there’s diagnostic uncertainty where you have managed something and you are not entirely sure what diagnosis you are dealing with, there may be a tendency to keep an eye on the patient ... I guess I have a fear of missing something or an obvious diagnosis that I should have made. It may be that this does not become clear until later on, maybe (the condition is) going through some prodromal non-specific rash. Those are the sorts of patients I would be reluctant to discharge back to the GP. If there is clearly a diagnostic challenge, and we haven’t quite got to the bottom of it all then it’s best to keep a close follow up on those patients.”*

Clinicians’ self confidence

Twelve consultants highlighted that confidence is necessary to make a decision and that lack of confidence is indeed a challenge to discharging patients. Clinicians may, for example, lack confidence in the patient’s or family’s ability to detect new skin tumours. Clinicians may also doubt their own management strategy or the GP’s capability to handle dermatology patients. Such fears, which are common amongst junior clinicians, need to be addressed. The teaching, assessment and enhancement of clinical discharge skills are critically necessary.

Clinician’s perception of the GP’s capability to manage

Clinicians should try to obtain information concerning the level of the GP’s skills or ability to follow a suggested management plan. *“So I don’t think it is that easy to discharge back to primary care because 9 out of 10 times that plan isn’t put to practice”. “Sometimes you are able to detect that, through the referral letter or how the patient talks or relates to his GP about prescriptions or sharing care when that’s been questioned.”*

Patient related challenge

Patients’ trust in GPs

Consultants stated that they thought that patients worry about the standard of the follow up care that they might receive from their GPs. Consultants said that patients sometimes feel that their GP did not quite understand their disease, so they worry that they might not get expert care again if they are referred back to their GP. *“There may be barriers to discharge in terms of patients not trusting their GPs to handle their condition”.*

Transcultural consultation, poor command of English and the lack of interpreters

Eleven (27.5%) consultants said they felt challenged by transcultural consultations and felt this most if they worked in tertiary centres in bigger cities. *“Most of the time I think here, where we work, it’s multicultural and it becomes an issue.”* Problems in the consultation may arise if the cultural origin of the doctor differs from that of the patient, possible leading to unconscious biases. However, one clinician wanted to believe that he wouldn’t be affected in this way. Another consultant highlighted that one might behave differently towards patients from a different race or culture. One clinician admitted that if there was a language barrier with a patient there was less tendency to probe further into the personal aspects of care in relationship to the disease, and this might influence the discharge decision. The consultant felt that clinicians might be discharging patients sooner than expected if there were language difficulties. *“Discharge may be a bit sooner because the clinician is not speaking the same language as the patient. It is a detached process. It is bit like Teledermatology...a three-way interaction, but not as complete as a proper consultation.”* Other clinicians felt that when patients have difficulties in comprehending the English language, patients must be followed up even more closely because of the strong possibility of missing out an important symptom or sign. One female consultant stressed the need to have an interpreter to ease the consultation process. *“You need an interpreter...the patient should be seen with an interpreter.”*

Handling difficult patients

One female consultant felt challenged when handling difficult patients. She was thankful that communication courses had helped her reflect on how she conducts her discharge practice. She concluded that it was particularly important to genuinely listen to patients’ concerns, and try to envisage and address the patients’ problems while allowing another follow-up. *“When I went to the “Communication School” course, which we all have to do if we look after patients with skin cancer, I thought it was a very good course because we have some actors out there, so they might give you a scenario like you got to tell this patient that they have cancer and the actor may start being very angry, and your first impression is to start getting very cross with them, but I think what they are trying to teach you is that there is a reason behind this. (We should) try and stop to think about what is it like for the patient; they may be getting angry because they are scared, and so if someone is getting very cross that they are getting discharged, it’s just about asking yourself why they are getting angry about it... it’s about trying to address that or just listen them out, and so that’s what I think... if things start to escalate it is best to just allow them to think about it and then see them again, and address what will develop. It is all about education isn’t it and teaching us skills about how to manage a difficult consultation.”* Eleven other consultants felt that clinicians should not take a

confrontational attitude towards patients, especially if the problem is expressed for the first time. Discharge is unlikely if patients insist on follow up or are reluctant to be discharged, especially if they appear worried or anxious. One female consultant was adamant that such patients should be given a follow up appointment. Three consultants advocated transfer to another consultant or hospital if the problem is difficult to resolve.

Patients' insistence on being cured

Five consultants stated they still feel helpless when faced with patients who have improved but who are not cured. They feel challenged by patients' poor understanding of the limitations of treatment of those skin conditions where patients are never really cured but their condition is stabilised. According to the consultants, patients want a cure more than anything else. This conflict of understanding became very clear from this study (Chapter Four). One male consultant had stated "*I guess the challenges are: have you managed that patient and got them better? If you have got them better, it is normally a lot easier to discharge. But in reality in dermatology there are a good number of patients we haven't got them better. However, we don't have an awful lot more that we can offer for that patient. And, sometimes it can be more difficult to discharge those patients...and patients do vary as to what their expectation is. Some patients come to the clinic and they are not happy to be discharged until you have got them better. By 'better' means, to get them cured, though in reality that it is not always possible...so that's a challenge.*" One clinician stressed that clinicians should clearly explain about the nature of the disease and be truthful about its disease progression and whether or not a cure is possible. Ultimately, patients need to understand that because of such reasons, continuous follow up will not benefit the patient. "*I don't think there's any benefit of you coming back to the hospital*".

Difficulties in empowering skin patients

Three consultants had experienced that educating skin patients to take responsibility for their skin problem can be difficult.

Patients with unrealistic expectations

"Some patients, such as those with atypical moles, have the expectation that they will be followed up. Usually for them (we try to) educate them".

Patients who want to be discharged

There were instances where patients want to be discharged but the nursing staff felt that the patient should come back to perform a dressing of a leg lesion.

Patient's reluctance to self-monitor

Patients do not necessarily understand how to monitor their treatment despite health staff trying to educate them and alerting them to the importance of monitoring. One consultant stressed that there are some patients who worry that they are not able to treat themselves at home.

Patients' poor relationship with their GP

One consultant found it rather difficult to discharge patients if she was wary of the patient's GP's willingness to re-refer the patient back to secondary care. This consultant always tried to understand how good a patient's relationship was with their GP. *"One of my patients had some mental health issues and because of that she found it very difficult to communicate with her GP or to get her GP to understand what she wanted, and that made it harder for her to access secondary care because she has to go through her GP. It was (only by having the help of) a patient advocate that she managed to access secondary care via her GP as well as getting repeat prescriptions. So for patients like that, where there are some communication problems with their GP, then discharge is delayed because they are unable to obtain treatment and seek help independently."*

Family members' concerns over patients' issues

Two consultants had sometimes felt wary that family members actually intended to stop their relative's treatment. They were concerned whether the family members were really acting in the patient's best interests.

Long term doctor-patient relationship

One consultant also stated that he would not discharge patients whom he found personally interesting, but stated that it this was a very rare situation: *"You know it is something about them"*. Another consultant said: *"Patients who repeatedly come back over years, some even 20 years, are hard to discharge"*. One consultant stated he would discharge most patients if they did not attend for an appointment. However, it is more likely that he would discharge long-term patients rather than patients who were recently registered. He mentioned that it is difficult to make a judgement with new patients. The decision whether or not to discharge non-attenders depends on your prior knowledge of the patients and their problem. *"It is difficult to make judgements if it is a new patient, but if it is a patient whom you know already, the threshold for discharge is probably lower. It also depends on the seriousness of the patients' conditions as well"*.

General Practitioner related challenge

General Practitioners' willingness to share care

One consultant mentioned that some GPs are not willing to see patients for follow-up and so the consultants end up seeing the patient, this is termed a 'default follow-up'. He added that some GPs are not keen on doing Teledermatology because they have to pay twice as much for the referral and pay for the treatment through their practices and see the patient more frequently. The consultant termed this as a schizophrenia-like phenomenon. *"Some GPs are politically driven by who's going to pay for such services like Teledermatology, blood monitoring, blood pressure checks"*. One senior consultant stressed that in his experience some GPs are not willing to see patients due to various reasons. He attributed it to their lack of knowledge or interest on Teledermatology for instance. Patients will eventually be seen by the same consultant as a default follow-up. *"Some GPs are not keen on doing Teledermatology even though it was introduced in here in this hospital. Some GPs are politically driven. They would question, who would pay for such services."*

Another consultant felt specialists are in no position to change the way GPs practiced. *"We largely depend on them for clinical assistance. GPs have variable policies and attitudes towards discharge. I do not have control on the ways the GPs handle discharge. Though we have to rely on their judgement."* Six consultants however strongly felt that more GPs should be trained to be well versed with dermatological cases. Additionally, GPs should work alongside dermatologists, as already practiced in some clinical settings.

Poor rapport between hospital staff and general practitioners

One consultant mentioned that a poor interpersonal communication between the specialist and the GP may potentially pose difficulties in optimum patient management. One aim of the discharge process is to prepare the patient so that they feel comfortable for their care to return back to the community.

GPs incapable of handling dermatology patients

Ten consultants stated that they are reluctant to discharge patients to GPs whom they perceive as incapable of taking care of their patients. One gave as an example the appropriate renewing of prescriptions and titrating the medication to meet the patient's changing needs.

GP's perceived reluctance to re-refer patients

One consultant felt that some GPs are rather reluctant to refer patients back to the dermatology clinic, and that could be quite a challenge to her practice. Interviewer: *“So because it is rather difficult for them (to be re-referred back to you) so you would hesitate to discharge them, in what instances then?”* Consultant: *“Well that (depends upon) purely how long the waiting time is at that time. So I think that would depend (on which) GP surgery...is sometimes reluctant to refer patients”*. Another consultant however felt otherwise: *“I think sometimes we underestimate the GP. Sometimes they could probably take more on board than we give them credit for.”* Another consultant stated that it was difficult to deal with GPs who tend to refer back easily.

Administrative issues

Clinic time constraints

Four consultants said that clinic consultation times can be too short when dealing with worrisome patients. This resulted in seeing patients very briefly and discharging them right away or keeping them for another follow up in a month or two, because a longer consultation is needed to address the patients' concerns.

Disorganised running of the clinic

One consultant mentioned that a disorganised hospital or clinic system can affect discharge practice. He said that clinicians could often be called to attend to another patient during a clinic. Hospital managers would be visiting and hence interrupting clinics during clinic hours and clinicians who do private practice might be rushing through the current NHS clinic to be in time for their private patients. Occasionally clinicians will be receiving telephone calls during a clinic which tends to disrupt the consultation process.

Inappropriate booking system for re-appointments

One consultant appeared furious when he spoke about the “booking for reappointment” system at the hospital where he worked. He mentioned that in that hospital, patients can only be booked with an appointment if they were to be seen within 6 weeks. If the appointment was for more than 6 weeks, then the patient will be put on a “pending list” by the system. Some will get the appointment stipulated by the consultant, some get their appointments much later, and some may never get an appointment at all. He lamented that with such a system there is a possibility that patients who were supposed to be on follow up may never get seen at all. *“This system was started by a senior executive in the Trust, but was never discussed with the clinicians. I remember the meeting when he came along... It was brought in without discussion.”*

Long waiting time for the patient

One lady consultant was unhappy about the need to give long follow-up appointments and preferred to discharge the patient than to give a follow-up appointment in the distant future. *“Well unfortunately sometimes it is difficult for patients to get back into the system if they are discharged (with an “open” reappointment). I would give them a (complete) discharge and have them re-referred rather than give them an open appointment. They can actually come back earlier with a re-referral”.*

Commissioners’ involvement in the discharge process

Three consultants were aware that service commissioners were dictating policies to the Trusts, affecting their personal clinical practice. They felt unhappy about this because the commissioners are able, for example, to identify a clinic with an “abnormal new to follow-up ratio”. One consultant highlighted that as a result of the current contractual arrangements the hospital does not get paid for a follow-up. Additionally, consultants expressed their view that it is cumbersome to externally scrutinise which patients needed to be followed up and which can be discharged. In the case of patients who have the potential to develop new malignant skin lesions, it all depended on the skill of each clinician in identifying correctly those patients with the ability to look for new lesions. One senior male consultant stated *“Commissioners set the scene, mold the environment within which you work: you are expected to work to a certain broad standard. For example: follow up in skin malignancy. Some patients get new malignancies during the follow up 5 year period, and this may increase the (number of) follow up (appointments).”* Another consultant felt that the commissioning groups preferred early discharge. It appeared that this was stressful for him because he felt that he needed to scrutinise carefully every patient as to whether they are really capable to self-manage, just to meet the demands for early discharge. *“They prefer the clinician to discharge the patients and have them re-referred. The implication for this is really how much does the clinician in the end trust the patient to pick up the new skin lesions? The clinician has to choose carefully which patients are suitable for discharge (as they need to be able to detect) new lesions. The hospital is not being paid by the commissioners if you see follow up patients and loses (income) if you do not see a new patient”.* Lastly, one middle aged male consultant was upset with the attitude of the Trust managers. *“I feel the commissioner dictates to the Trust: ‘Discharge after two visits’. The Trust says (to us) you are seeing the patients at our expense...we are not going to pay (your department) for the follow ups because you only saw 300 new patients. You should see more new patients!”*

Aggressive discharge policy

Five consultants felt that it was a challenge to their practice if there was a hospital policy emphasizing discharge. They felt that they might be inclined to embrace this discharge policy when they were busy or when there was a shortage of clinic follow-up appointment slots. One consultant who also advises the Trust stated that clinicians should adopt an aggressive discharge policy within their practice. For example, basal cell carcinomas are discharged immediately after surgery without any follow-up.

The most critical factors influencing outpatient discharge decisions

During the course of analysing the interviews, consultants varied in their perception of which factors were most critical to consider before discharge. However in general most considered that the most critical factor is to be certain of the diagnosis. *“Well you need to be clear on the diagnosis of the condition. If you are unclear about that then you cannot discharge the patient”*. However another consultant was adamant that one must always consider the patient’s safety above all, i.e. the psychological mind set of the patient. Interestingly this consultant found it impossible to rank factors before discharge because some patients may have simple conditions but are mentally unstable. Researcher: *“OK can you rank the most critical factors that affect your discharge decisions?”* Consultant: *“How to rank them? I treat them very equally.”* Researcher: *“Which do you think is most important?”* Consultant *“I find it impossible to rank it because somebody could have a pretty standard condition but may have mental health issues.”* Researcher: *“OK”*. Consultant: *“But it doesn’t mean that you can’t discharge them. From a clinician point of view, it has to be patient safety factors like disease severity, ability to cope, seek help”*. She stressed that only if the patient is deemed psychologically stable, one can then consider disease severity in the decision-making process. *“I think patient safety must be at the top and below that would be administrative factors, policy factors but I couldn’t rank because it is different depending on the patient. Patients with no psychological problems then disease severity is at the top but other people need other stuff sorting out stuff other than skin problems. As a doctor I feel responsible to help a patient who has not only skin problems”*.

Another consultant stressed that it is important for the GP to be informed of the possible differential diagnosis if one is unsure of the diagnosis. Five consultants stated that patients need to be clinically better before considering discharge. Researcher: *“What are steps that you take in order to make a decision to discharge, can you just explain to me this?”* Consultant: *“Well I think some of it, is what I have said already. So if a patient is clinically better you know then you’re clearly going to discharge them”*. One of them added that two other critical factors to consider included the GP’s ability to monitor the patient, especially when there is no more treatment available in secondary care. *“If they*

are on treatment that can be maintained and monitored by their GP, again you might discharge. If you have explored all the possible treatment locally and are unable to offer any benefit to the patient and the patient is happy to continue what they're doing, not potentially curing it, then again you might discharge the patient. Clearly if there are patients that you think there have problems and there are other options you can explore, then they won't be discharged. I think those are the main things."

One consultant viewed the critical factors that he would consider as three legs of a stool: *"Patient's safety, patient's happy and patient's better"*. According to him patient safety meant that there is a diagnosis and an appropriate plan in place. *"Junior doctors must have access to the consultants in order for the criterion to be justified"*. Another critical factor which was commonly mentioned by the consultants was the patient's ability to self-manage. *"You need to be clear that they understand how to manage their condition."* Another consultant felt that patient empowerment is the next important thing to consider prior to discharging a patient. *"If I am satisfied that the patient is empowered, then I am happy to discharge them, then I know that they will do the right things"*. Other factors are as follows: the patients' ability to seek help if needed to reaccess the secondary care, consultant's confidence in the pathway of the re-referral, whether the patient is happy to be discharged, administrative and policy factors. In the midst of the conversation three consultants were asked whether a checklist of some sort containing these critical factors would be of use to train junior doctors. All consultants agreed with the idea. One of them actually paused and spoke to herself: *"Have I got a diagnosis, have I got a management plan, is the patient satisfied, although this may be difficult to meet in terms of discharge planning, that's the kind of checklist I need to go down as a junior doctor"*.

Consultants' perception of the importance of discharge decision making

Four senior consultants highlighted the importance of understanding discharge decision taking because this decision relates closely to the problems of having limited health resources. Researcher: *"...so in general how do you perceive the importance of discharge decision taking?"* Consultant: *"I think it is very important because... it comes back to the resources, your capacity of the clinic, it's finite and it has to be used in the best way possible so we have to make sure that the follow-up slots have been used by patients that really need it."* One stressed that untrained clinicians with lack of clinical experience may take poor discharge decisions which can have an impact on the already limited healthcare budget. He explained that it was also important to realise that confidence was a good decision making virtue to have, however one must also be mindful of overconfidence. *"I think you get better at that with experience obviously."*

Registrars are not as good at discharging patients as consultants.” Another consultant felt that outpatient discharge is difficult to compare to inpatient discharge, hence the importance to consider it separately; “With inpatient discharge, you get admitted, decision made, and then you are discharged in say six days. Whereas with outpatient discharge, we are talking about people who are already home, they come to visit you, and you are giving them treatment. Well I think discharge from a follow-up is difficult”.

The best time to discuss discharge decisions

Consultants vary in their views as to when discussion about discharge should be introduced. Eight consultants mentioned that discharge decisions should be discussed towards the end of the consultation, unless there was an intention to discharge the patient at the first visit, which is likely with non-complicated surgical lesions such as simple basal cell carcinomas. One consultant suggested that with melanoma patients, discharge should be flagged up early as part of the overall management plan at the start of treatment. *“Well it may be quite early on in the management pathway, in terms of melanoma patients, we then see them in a follow-up session to discuss the results with them. We may explain to them what future follow up may be in place. For example, we will be planning to see you on a regular basis for 5 years, initially every three months (for the) next 3 years and then (every) six months for the last two years. So almost informing the patient in advance and at that point let them know. I think it is nice way of letting the patient know about discharge during a period of follow-up”.* He added: *“Whereas with inflammatory conditions it is often a lot more difficult to introduce the concept of discharge. It would normally crop up when you have got the condition a lot better or in remission and ideally off strong treatments, systemics and strong creams and the condition is under control. I think at that stage you can mention to them to discharge them to the GP”.* Another consultant also had similar views when dealing with inflammatory conditions and suggested that patients should be given a subtle nudge that they will be discharged. *“Usually I try to foresee such a thing happening if it’s a chronic disease which is progressively getting better... I put it in people’s mind that they are not going to be coming forever and ever. So they might get wind of it one or two visits before they are actually discharged. You may say: ‘Look you are doing very well now, it is quite likely that you are not going to need to keep coming here and we will discuss that further next time’. And if they come next time and needing less of some toxic drug that we gave them, then I would say ‘Look, between now and the next time I want you to stay off this altogether, and see how you are and if you are alright you won’t need to come back anymore. And when they come back at that point, having had that sort of warning, it’s not usually a problem”.* Four consultants felt that patients with longstanding, chronic diseases and those with a close doctor-patient relationship should be informed of

discharge earlier. One consultant suggested that once there is certainty of diagnosis, the treatment and discharge plan should be made clear to the patient: *“It depends on the condition at the point of diagnosis. We can give the patient an idea whether this is a condition for them to keep attending or a condition that can be managed in the community and may not need on-going management. At the point of diagnosis, make it clear that for instance if they have psoriasis, they have to keep on attending clinics therefore lots of appointments. Give them an idea. Usually one appointment before their discharge you can introduce the idea.”* Another consultant was adamant that discharge should be discussed at the first consultation. He stressed that with new patients he discharged almost half of them during his first consultation.

Examples of what is an appropriate and an inappropriate discharge

Appropriateness of discharge

Two consultants stated that patients with benign lesions which do not need treatment or patients whose treatment was completed by surgical removal, such for a simple basal carcinoma, should be discharged. Another strongly felt that certainty of diagnosis is key. *“For example if someone has a benign lesion that does not need to be removed, you’d make the diagnosis and then discharge them”*. The consultant added that he felt it was appropriate to discharge patients who were able to manage themselves at home and if they perceived that the patient will be taken care of by their GP. *“People who are able to look after their skin if they have a chronic disease and we feel confident of the treatment they will receive from a GP, then that would be an appropriate discharge. I think those are the main things.”*

Inappropriateness of discharge

One consultant attributed inappropriateness of discharge to letting the patient go when the treatment is not complete. *“An inappropriate discharge would be discharging when the condition is unstable or when a completely excised melanoma gets discharged for instance.”* Or if the patient is still unwell: *“Well we talked about patients who want to be discharged but clinically are not well enough to be discharged, patients who haven’t been properly followed up or if we are uncertain about the diagnosis”*. Patient understanding is paramount and patients should not be discharged if they are still confused and not clear about their disease: *“Also if the patient does not understand about the condition. (I) think the main inappropriate example of discharge is when a patient wants to be discharged but the condition they have is not suitable for them to be discharged.”*

Table 3.4 summarizes the appropriateness of discharge decision taking. Table 3.5 summarizes the inappropriate influences on discharge decision taking.

Table 3.4 Clinicians' perspectives on what can potentially contribute to the appropriateness of a decision to discharge

Factors
One is confident of the diagnosis and treatment plan
One is confident that the patient knows what the clinician is talking about
One is confident that the problem can be managed in primary care
No longer having any investigatory or therapeutic input required
Patient fully understands and recognizes that there is no need for further intervention
Ascertaining that the patient is happy and comfortable with the decision to be discharged
Making sure that there is a point of contact if the patient needs it

Table 3.5 Clinicians' perspectives on what can potentially contribute to the inappropriateness of a decision to discharge

Factors
Uncertainty of diagnosis
Non-acceptance of the final diagnosis
Discharge without "curing" the patient
Differing perceptions on medical need and "cosmetic" demand
Lack of concern for job demands
Projecting a "rushed" demeanour
Advised to seek private care because of budget constraints

Strategies currently used by consultants to help decide on discharging a patient

All consultants stated that they had been using some methods for quite some time and found them very helpful. Two consultants said that their patients had given positive feedback on the use of their methods. One consultant felt that he does not conform to any specific discharge strategy because every patient is unique: *“Everybody is different, every patient’s different, and every consultation is different. I don’t have a specific strategy. I use guidelines”*. Two consultants did not agree with the concept of formal training concerning discharge decision taking but thought that the learning of taking discharge decisions is best done by gaining more clinical experience. One middle age male consultant said firmly *“To be honest I am not going to come up with any new ideas on how to train doctors, but I guess communication skills are vital, I would say that is the main thing”*.

Have discharge at the back of your mind

Four consultants stated that it is important to consider discharge as an option during every consultation. *“I think the key is you should be thinking about discharge and preparing the ground during the first consultation, because there’s also the converse of it that there are some people you won’t be able to discharge, because you want to make them completely better and they are going to need ongoing treatment and you need to prepare them for that at the first consultation too, don’t you? ‘This isn’t the type of thing which I can just solve the problem you know; you may need ongoing treatment for years’. One way or another it is helpful for people to know what the plan is. So for example if you have a patient with isotretinoin you need to say ‘we need to see you two or three times then we need to discharge you’”*. One male consultant with 30 years of experience highlighted that at the end of each consultation, each clinician should ask this default question: “Should the patient be on my follow-up?” Another consultant stressed that a null hypothesis such as “Discharge if possible” should be consistently ringing at the back of every clinician’s mind. *“I think the aim with a large clinic like dermatology is to discharge whenever possible...so, the null hypothesis is we must try to discharge if at all possible, (especially the) many self-limiting conditions and benign diseases that simply require diagnosis. Many of those can be seen and discharged having (made the) diagnosis and having reassured the patient”*. One senior female consultant with 25 years of experience stressed *“Discharge should be the goal for every patient unless there is a reason not to One must find the justification not to discharge.”*

Have at the back of your mind that the patient belongs with the GP

“Consider that the patient is the GP’s patient and he’s referred to me for an opinion, I give the opinion and I then send them back to the GP. There are things that the GP cannot manage and we do that. There are some patients that need to be managed in the hospital: methotrexate, cyclosporine, melanoma and we do that. But there are many patients that have an opinion, treatment and the treatment works and be sent back”.

Ensure that the GP can prescribe your recommendation

“Well if you are a young person, and you are mobile, you could easily apply for example medication or creams yourself but if you are elderly you need someone to help you, you need family or someone else perhaps a district nurse. If you are regularly having to be supplied with creams to maintain treatment such as psoriasis you need to make sure your GP does keep you supplied, with what we have recommended and doesn’t change to cheaper things than what we have decided.”

Have a clear treatment plan

One consultant stressed that having a clear plan is the most important thing to ensure that both the patient and GP are happy with the discharge. It is important that patients are aware of when to see their GP again. The treatment plan may be more easily discussed with patients with skin cancers than with patients with inflammatory skin conditions. *“Well it may be quite early on in the management pathway, in terms of melanoma patients, we then see them in a follow-up session to discuss the results with them. As part of the results sharing we may explain what future follows up may be in place. For example, ‘We will be planning to see you on a regular basis for five years, initially every three months for the first three years and then six monthly for the last two years’. So almost informing the patient in advance and at that point let them know. I think it is nice way of letting the patient know about discharge during a period of follow-up. Whereas with inflammatory conditions it is often a lot more difficult to introduce the concept of discharge. It would normally crop up when you have got the condition a lot better or in remission and ideally off strong treatments, systemic and strong creams, and the condition is under control. I think at that stage you can mention to them (the plan to) discharge them to the GP”.*

Understand patients’ characteristics and surroundings

Twenty-two (55%) consultants stated that clinicians must try to understand the patient and their circumstances as much as they could. For example, some patients might find it difficult to explain their problem because of language barriers. In this situation the dermatologist must be alert to the issue and try if possible to arrange for an interpreter. If there are no issues pertaining to patient management and the GP is able and willing to

share care, one consultant will more likely discharge patients back to their GP if both of them could communicate well in their native language. *“So I think if (another doctor could) communicate better than I could, say for example we have Pakistani or Bangladeshi patients who are better suited and more able to speak to doctors of their home nation, whereas obviously I don’t speak those languages. So, if I am aware that clear communication is better in primary care between doctor or healthcare professional and patient, then I feel confident and comfortable as long as I can give some treatment plan to that health care professional and that can be conveyed to the patient, then I may well discharge them and leave them on an open appointment.”* Similarly, 19 consultants stated that clinicians must be aware of the patient’s ability to come regularly for follow-up that is whether the patient has problems with travelling due to their condition or to distance. Twenty-two consultants highlighted that clinicians should consider whether or not a carer was needed. Three consultants mentioned that one should be considerate of the patient’s work commitments. Ten consultants felt that clinicians should try to ascertain the level of patient-GP relationships before discharging the patient. *“I sometimes ask if they get on with their GPs because if they feel unable to approach their GP then this might be a bit trickier.”*

Understand patients’ personality and habits

A clear understanding of the patient helps a great deal in gauging correctly a patient’s ability to manage and monitor his disease. This may be evidenced by their general attitude to the advice given on disease management and how they present themselves. For example, one consultant would not discharge her patient who was an alcoholic and who had poor family support. She mentioned that one has to be certain that the patient can cope and is ready to be discharged. If not, find out the reasons behind their anxiety or concern. *“Assess the patient’s condition and see whether they are ready to be discharged. If people are resistant to be discharged, work out why they do not want to be discharged.”*

Accurate assessment of the patient’s psychological mind-set

Two consultants strongly recommended clinicians to try to get an accurate perception of the patient’s psychological state of mind. *“I guess the assessment of the psychological state of the patient is critical. The single patient who (is) maybe all on their own with significant skin disease affecting their quality of life may be more likely to be followed up in the clinic as opposed to if the patient is in a well-supported situation and particularly having good, supporting family at home and not psychologically dependent on the moral support (of coming to the clinic)”*. One consultant had had a negative experience with a skin patient whom she had discharged earlier. The patient arrived at the emergency unit

and the clinician felt that she had previously underestimated the patient's psychological distress. The consultant in retrospect considered her decision to discharge as inappropriate and therefore highlighted the need to be mindful of a patient's psychological state before discharging a patient from the clinic. *"Recently I saw a patient as an emergency. She has psoriasis and she was discharged immediately after the end of her course of phototherapy but had a lot of reservations about it all coming back. She has a history of anxiety and obsessive compulsive behaviour; I don't know whether she was bi-polar? But she has multiple mental health issues and so she ended up having to come in as an emergency because she was so anxious about having some of the psoriasis coming back. When I saw her it wasn't that bad, it was mild. I think she was disappointed it hadn't gone and (that) resulted in her being very distressed at the situation, whereas a patient without these mental problems wouldn't be".*

Assess patients' quality of life to inform the discharge decision

Although 13 consultants felt the need to address patients' QoL prior to discharge, none had used a formal measure to gauge whether a patient needed follow-up. However, four had used the Dermatology Life Quality Index (DLQI) to indirectly assess patient discharge readiness. One senior consultant stressed that the condition must be stable and that the patient is able to properly function at home. *"There is a need to have a discussion about a patient's' quality of life before discharge but we don't formally do DLQI in the clinics. But I am thinking of doing DLQIs for my vulval patients and I hope that would be a good thing. We do them for our psoriatic patients who come for phototherapy. I don't formally assess it but it is always an element, you have to ask the patient how they are functioning. And I would only discharge if I felt they are comfortable, in other words a) their condition is stable or better, b) that they understood what was going on and c) they know what they should do themselves."*

Addressing patients' concerns

Fourteen (35%) consultants stressed that it is important to know whether patients had the initiative to seek assistance from their GP in primary care or from the hospital for recurrences should the need arise.

Effective communication

Twenty-eight consultants stressed the need to master good communication skills, by electronic or digital means or face-to-face. Face-to-face communications can be verbal or non-verbal.

Verbal communication

Two dermatologists frequently use Teledermatology to diagnose and give advice about patients. One communicated biopsy results to his surgical patients using the department's email to save the patient's time and reduce unnecessary anxiety by getting the results to the patient more quickly. Another two consultants rely on patient advocates to help them communicate better with their patients. Patient advocates work with an advocacy service which is independent of social services and the NHS. Patient advocates are not friends or family members. According to the consultant the advocate's role is to argue for the patient when it is necessary whilst ascertaining that the correct measures are carried out by the health services. Four consultants stated that the right choice of words to convey discharge and the timing of introducing the discharge topic is extremely crucial. One consultant stated that doctors and nurses should not use the word 'discharge' because it sounds like one is getting rid of patients. She added that clinic nurses should not use the word discharge until the patient has gone out the door. *"I do not use the word discharge. I will say 'I don't need to see you again and I ask their opinion and the usually agree. Sometimes they disagree and if their reasons are good enough then I will adhere to them and keep them on an open appointment but if there are reasons aren't very good then I would just say 'I think you would be better off not coming to see me. You should be fine and I'll write to you and your GP'".* Words must be comforting and reflect empathy, concern and reassurance. One consultant added that one method to effectively give reassurance is to clearly explain to the patient the reasons for their discharge, to avoid them feeling confused and neglected. *"I think it is all about explanation.*

"We must make sure that the patient knows that they are not being abandoned." One very senior consultant with more than 30 years of experience prides herself with the method that she has practiced all these years. *"I would always say: 'We don't need to see each other again' or 'I probably don't need to see you again'. So it is quite useful to do that. And the feedback is generally very good. I think I would have to do a study asking patients whether they found it useful."*

Nonverbal communication

Another dermatologist strongly advocated projecting a confident demeanour: *"I think that comes down to confidence...again confidence would be my number one thing"*. He felt that when one projects confidence in explaining the diagnosis of a presumably benign (pre-biopsy) tumour, patients were more likely to be equally confident with the diagnosis, accept discharge and be willing to receive biopsy results through the post. He concluded that this approach saves expensive consultation time and patients' travelling costs. Seven consultants stated that it is important to listen keenly to the

patients: as one lady consultant mentioned *“It is important to listen to what the patient is saying”*. From the other perspective, patients stressed that a rushed demeanour denotes lack of genuine concern. Two consultants stated that during the negotiating process, patients should be listened to carefully and asked about their opinion. It should be a two-way discussion rather than one-sided. *“Well, we have a discussion in the appointment slot and I also send a letter to the patient as well as the general practitioner to outline the consultation. I usually give them a management plan and give the GP some advice on how to manage the condition”*.

Polite negotiation

One lady consultant mentioned that she would not discharge patients immediately if she felt that something was bothering them. She would bring them back for follow up whilst continuously addressing their concerns. *“Sometimes the patients ask me to follow them up because they lack faith in their GP, an example is elderly female patients who don’t have a good rapport with their GP. They have vulval lichen sclerosis. I have had a few who lack faith in their GP, for one reason or another who wants to come to me, or they don’t like seeing a male GP about a genital skin condition. Where I feel that their lichen sclerosis is stable, and they could probably be discharged back, so I feel a little bit emotionally blackmailed for I’ve come to see them again.”* Researcher: *“So how do you handle this emotional ‘blackmail’?”* Consultant: *“So I say to them very politely that I feel that they would normally be followed up by their GP but I understand their concerns and that I would see them again, but I try to see them less frequently, say 9 months to a year as opposed to 6 monthly for example.”*

Effective time management

One male senior consultant of 30 years’ experience, who frequently teaches and does clinics more than five times a week considered that good individual (clinician) and clinic organization is mandatory for an efficient flow of patients in the dermatology service. He stressed that time management is extremely important, whereby clinicians must ensure that no interruptions should occur during outpatient clinic hours. If clinicians are on call, less patients should be booked. Meetings with pharmaceutical representatives or hospital managers should be conducted outside clinic hours.

All consultants were aware of the difficulty for patients to re-access secondary care. Two consultants would discharge their patients if the follow-up appointments available were more than six months. In their experience sometimes a new referral would have a shorter appointment date than a follow-up appointment, and this strategy really helps patients with complex problems.

Provide information for patients

15 (37.5%) consultants are strong advocates of using patient information leaflets. Their availability encourages these consultants to discharge patients more readily, on the assumption that additional information empowers patients to care for their skin disease.

Use of email to communicate with patients post-surgery

Four (10%) consultants discharged patients with an option to later communicate electronically. The patients' treatment progress is monitored by assessing tumours post-surgery by uploading photos via email. Three (7.5%) clinicians felt that this was an ideal alternative to further follow up appointments. One consultant, who believed in an aggressive discharge policy, took the initiative to improve communication with his patients by allowing his surgical patients to contact him directly and upload postoperative pictures via email. He also felt that using this method would be certain to reduce healthcare costs. He also felt that junior clinicians may not be as sensitive as their senior clinicians in their awareness that health care resources are finite, and that therefore there was a need to educate them. *"The patient can email me if they have any worries or concerns. I want to see them myself ideally and quite quickly. Just in connection to all of that, many or all of our melanoma patients hopefully meet our skin oncology clinical nurse specialist, so they do always have her contact details."*

Give the patient an open access appointment

Most consultants suggested that the patient should be given an open access appointment if uncertain about the diagnosis or treatment plan.

Dictate the discharge letters in front of the patient

One senior and one junior consultant practising in different hospital settings strongly believed that dictating discharge letters in front of patients helps the clinician to verify the patient's expectations immediately and the patients are aware of the appropriate actions to be taken. When asked whether this should be routine part of discharge practice the junior consultant immediately said that this was indeed a good idea. They appeared proud to share their "innovation" of discharge practice, something which they regarded as critically important for the patient rather than for the doctor. *"I dictate my clinic letters in front of the patients, and I normally do that in a sort of bullet point fashion. I dictate this in front of the patients so they know these are the actions to be taken, and that would include contingencies like, you know, if this doesn't work please feel free to re-refer the patient or if this doesn't work I have asked them to see you with a view to reassessment or re-referral as appropriate. We have clinical problem at the top,*

treatment plan, if this doesn't work next option. All will be said in front of the patient and that's a big advantage dictating in front of the patient because they are proof reading what you are saying, number one. Number two, in my experience when I am dictating a letter I often think of things that I should have asked the patient which I haven't and if they have gone you can't ask them right? And thirdly, occasionally patients when they see correspondence, they sort of object to things which are incorrect. They don't seem important to the doctor but important to the patient. I think dictating the letter in front of the patient is a very good idea because it promotes optimal communication and it is also efficient". The bullet points consist of clinical issues and the overall treatment plan.

Two weeks "grace" before discharging patients who do not attend (DNA) clinic appointments

One consultant who advises the Trust on discharge policies advocates waiting two weeks before discharging patients who failed to attend a follow-up appointment. Patients would only be automatically discharged if there was no response after two weeks.

Reassure patient and allow direct patient contact with the consultant's secretary

One consultant suggested that all patients should be provided a direct contact to consultants' secretaries. *"All our patients are able to telephone our secretaries in-between appointments."* Another consultant stressed that discharge comes with providing direct contacts especially with anxious patients. *"In some circumstances I try to reassure the patient and tell them that they can come back if they are worried about their condition. So there is always a point of contact for the patient and there are systems in place. If your clinical decision is to discharge a patient, then you do have to try and facilitate that".*

Have a baseline photograph

One consultant suggested that having a baseline photograph available at follow-up might help managing patients with dysplastic naevi. At least the clinician would be able to compare current findings to the previous signs and make a clear judgement over whether there had been change.

Provide an open appointment system

Nine consultants suggested that outpatient services should have open appointments for use by patients whom they felt had lesions which could potentially recur.

Encourage patients to contact the hospital specialist nurse if they have a problem

Five consultants will discharge their patients to nurse led clinics if they felt the patient can be seen by a nurse specialist rather than a consultant. In such instances patients are more stable and only needed further education of how to manage themselves before complete discharge. *"...so when patients are discharged from our clinics, they are still within the system, and nurses often handle conditions that require systemic treatments. The discharge decision for those types of conditions would not need to be made by me but can be made by the nurses"*. Consultants will often make a judgement as to whether the patient is fit to be followed by a nurse specialist. *"Normally I would make an assessment as I discharge a patient as to which patients I will (refer to the specialist nurse). I may encourage them to contact the nurse if there is a problem"*.

The educational or organizational support clinicians need to carry out to ascertain an appropriate discharge

Provide more nurse-led dermatology clinics

One consultant mentioned that at the hospital which he is working, the managers are looking at the prospect of having nurse-led follow up within the department to monitor the treatment of patients, such as those on isotretinoin. Additionally, the consultants in that Trust tend to often refer children with eczema directly to specialist nurses in the dermatology department. In that hospital there are no junior dermatology clinicians or GPwSIs: it is fully consultant-led. This consultant suggested that specialist nurses could see a patient once and offer a hotline or emergency number to get in touch with if further help was needed. Three other consultants were of the view that having nurse led clinics is an asset to the department. Patients can easily contact the nurses should they have problems of recurrence or when they are in doubt.

Provide a system where the patient can easily contact secondary care

One consultant said that the service should be organised such that patients are reassured that they can call somebody back if they had a problem. *"Sometimes we give our secretary numbers to call or for example my nurse gives her phone number to the family of the patients with eczema"*.

Provide a system where the hospital specialist nurse liaises with the GP

Provide an in-house psychodermatologist or counsellor

All consultants felt that the presence of a psychodermatologist would help greatly in reducing the burden of handling dermatology patients who had not accepted or were unable to cope with their skin condition. Ten consultants by default took the role of a

psychologist when faced with anxious, non-coping patients. Other situations included paediatric patients who are not prepared for transfer to the adult setting. Only three (7.5%) consultants had the opportunity of referring their patients to a psychodermatologist or professional counsellor if the need arose. A female senior consultant working in a smaller outpatient setting highlighted that the scarcity of specialised healthcare professionals dealing with psychological support for the dermatology patient deserves urgent attention. *“There are patients who do need secondary care attention. They might basically not have anybody else to support them. For example patients with mental health problems who are not coping with life in general. We are almost doing a kind of service to them. It would be ideal if someone else in the community could take that role.”*

Provide more day-care services

One consultant stated that day care nurses can spend longer time educating patients. And better patient understanding can help facilitate discharge. *“If someone has trouble understanding (how to apply) topical treatment we would refer to day-care where nurses would spend a longer period educating patients.”*

Educate general practitioners

Ten consultants suggested that the current practice of having GPs trained alongside specialists in the hospitals should be continued. They should be taught to recognise when to refer patients appropriately and also if they work alongside consultants in secondary care, such as happens with GPwSIs (General Practitioners with Special Interests), they should be able to recognise what is an appropriate discharge. More GPs should be trained in the future by working alongside consultants in the outpatient clinics. One consultant stated that in the hospital she worked in GPs were trained to improve their clinical knowledge: *“We bring patients with common conditions so that we discuss them with the GPs, encourage them to phone or use Teledermatology, whether it might be useful to have a photograph taken and we have a brief history. I can envisage that that might be a good way to educate the GP. Give them feedback on their discharge practice! You have to make time to do that, and perhaps talking to them at the time of their regular assessments and appraisal.”*

Specialist nurses in the community

Nineteen (47.5%) consultants highlighted that the ability to get assistance from community nurses is a support to patients after discharge, and more are required. One consultant was convinced that specialist nurses are an important asset to the clinician

and the patient. He suggested that there should be more specialist nurses with expertise in dermatological conditions in the community rather than just in the hospital. He also suggested that there should be more training of nurses who can prescribe medicine, however monitoring of medication in complex diseases must be done by the consultant. *“Dermatology (care) is enhanced by having a specialist nurse. I am a great believer in specialist nurses. Nurses in the community should have access to the hospital dermatology department i.e. do community clinics but are still in touch with the hospital department. This is a bit like the diabetic specialist nurse who has a link with the hospital department but spends most time in the community”.*

Support Groups

Two paediatric dermatology consultants suggested that the ability to access patient support groups helped tremendously in patients’ transition of care from the paediatric setting to the adult setting. They suggested that more support groups should be encouraged in the healthcare system to increase the quality of patient care.

Define follow up arrangements

Surgically based consultants mentioned the importance of defining follow up arrangements with patients at the beginning of their treatment. “At a very early stage we make it very clear what the (arrangements) are going to be. Patients with melanoma or squamous cell carcinoma are told at the time of diagnosis this is what’s going to happen at your follow up; so their expectations are managed”.

Suggestions on how junior doctors can be trained to discharge appropriately

Thirty-six consultants readily provided answers on how to better train junior clinicians to discharge appropriately.

Make discharge decision taking part of the training programme

One consultant felt that this was an extremely interesting question because he admitted that as a trainee he did not have any guidance to discharge patients at all. *“It is something that really wasn’t taught about”.* He suggested that discharge decision taking should be a valid topic as part of a training programme of some sort. *“Consultants can say, today we are going to talk about when to discharge patients”.* He personally felt that the discharge training should be given once clinicians see patients in clinic, but not to medical students. One senior consultant strongly felt that discharge should be taught in a stratified manner. Another consultant stated that junior doctors must be made aware of

the multiple factors influencing discharge. Another stated that the most important thing to do is to try to help the trainee think and that does involve specific training of juniors. *“What am I offering this patient? How am I going to contribute by following them up? We should help them or train them, if you like, to think about discharge. If I am sitting in on a trainee I would generally say what are your plans for follow-up? What are going to do, why? To justify why they are doing something, if there is something else they want to look at, that’s fair enough, but I would always want them to say what their plan is for the patient. We should ask ourselves: if I am following up this patient, why am I following up this patient? Is it just to make me happy, or is it to have a specific aim? Or is it the case that such patients have always been followed up?”* These consultants felt that there may not need to be formal training about discharge but maybe they should be peer reviewed to check that they are aware of the protocols and interpreting them appropriately. However, two consultants felt that it is the experience rather than the training of clinicians that best leads clinicians to know how to make appropriate discharge decisions: *“I don’t think it is an issue with training or teaching the doctors. At the end of the day it is the clinical experience that is required rather than the discharge training”*. Two other consultants felt that registrars would lose the opportunity to learn from observation if they discharged more rigorously.

They stressed that juniors keeping patients for longer follow-up in the outpatient clinic is part of the clinical learning process. The trainees will then be able to see the natural progress of skin conditions, so therefore they felt that although it may seem “appropriate” to discharge when a patient is already on appropriate treatment, patients should not be discharged early in a training situation. One of the consultants stressed that registrar trainees should continue to review their patients. *“I would prefer registrars to have more follow-ups than us”*. The other consultant stated that although mandating discharge may increase health service efficiency, doctors will lose the opportunity to observe clinical evolution of a skin disease: *“...clinicians might miss the excitement of witnessing a rash disappearing...”*

Have discharge as a goal at every outpatient consultation

Four senior consultants flagged that every doctor must have in their mind that discharge is their goal. One consultant felt due to clinic time constraints, clinicians often think of discharge at a subconscious level. He suggested that clinicians should be trained to think of discharge at a cerebral (conscious) level.

Each junior trainee must have their own list of patients

One consultant stressed that juniors should not be protected from the consequences of following patients up. “If the junior is working in an environment and the patient is given a follow-up in three months and it doesn’t kick back on to your (junior doctor’s) list, my job (as consultant) will become impossible. So I think junior doctors, like when I was a trainee, should have their own list, which is very good because that’s what you have to cope with when you are a consultant. The consultant added that with the current system as trainees move around rather quickly this system of having one’s own list may not be as widely adopted as it might.

Ascertain the best type of follow-up for the patient

“Sometimes you get patients who come routinely to the clinic...I think we should always look at what the best mode of follow-up is for the patient. Is it better to see a nurse once, and have a hot line to that nurse if they have a problem, they can ring the clinic if they get stuck but they do not necessarily need to come for a formal appointment... it is getting away from the too much of the formal booked appointment thing”.

Have a clear treatment plan

Two consultants said that the most important part of discharge training is to teach how to lay out a treatment plan and communicate it effectively. *“Junior doctors are only around for a short time, so training how to plan and communicate management plans effectively is key”.* Another stated: *“I guess this reflects on us as the supervising clinician so good communication between junior and seniors about which patients needs to be followed-up”*

Learning through modelling on a senior consultant

Three senior consultants stressed that junior clinicians need to learn by apprenticeship during their training years. One stated that *“It is by example rather than some written guideline.”* He felt that the only time junior clinicians use guidelines is for skin cancer follow-ups. Another consultant stated: *“You have to teach them how to discharge patients: as I have said before, whether they are safe to be discharged, are they stabilized, and is the GP able to monitor them, I think you’ve got to make a decision to discharge patients!”* They need to go through their consultation notes side by side with the consultants and explain in detail why they made the decision whether or not to discharge the patient.

One of them stated: *“The more junior the doctors, they should ask a senior. That is why I don’t let my senior house officers (SHO) or houseman to carry on in their rooms because they never discharge! That why I ask them to come to talk to me in-between*

patients. So I will be questioning them their reasons for follow-up.” One consultant will go through every patient’s notes after the clinic ends with the junior clinician, another will discuss only those cases which were discharged. This involves talking to the juniors and explaining and asking them perhaps to check whether they are sure that patients need to come back again.

Every patient which is discharged must be seen by a consultant

Two consultants go through every patient with the junior clinicians who work with them in their clinic. One senior consultant used to ask the junior clinicians working with her to collect the patient records where patients were discharged and asked them to talk them through with her. *“Discharge should be part of their training shouldn’t it? They must learn to be confident to discharge patients. And when I did have juniors here I used to ask them to take the (patient records) for the ones they discharged. Talk me through the ones she has discharged. I used to look at their record and the letters they were doing, a sample just to make sure they weren’t asking patients to come back when they don’t need to. I also encouraged them to be open and come along and ask. I checked the letters written to GPs, explaining how to give them a definite treatment plan, and suggesting what to do in this situation. I run an educational session”.*

Have a guideline to discharge patients

Another consultant suggested that there should be disease specific guidelines to guide juniors on whether a patient should be discharged or followed up. *“It is difficult for there to be national guidelines for all conditions in terms of when to discharge because of all the factors we have alluded to. I guess if we were perhaps more fully supported with specific guidelines for specific conditions, in terms of exact follow up guidance, we would feel supported by that. That would make it easier to discharge some patients.”* Another consultant from a different Trust had actually practiced this suggestion. She had developed her own method of how to discharge patients with lichen sclerosis *“I talk to my registrars about planning discharge for patients with lichen sclerosis; I have (my own) written guidelines to talk through this with juniors. I normally tell them what to say to the patient”.*

Use common sense

One consultant strongly felt that guidelines are only for skin cancer follow-ups. He felt that juniors should use some common-sense at times, say for example when faced with patients who gets skin cancers every few months; therefore, there is no need for discharge. Other use of common sense includes looking around the patient’s

background, such as: *“Is there a problem in getting to the clinic?”*, so not giving a follow-up may be a better option.

Have a sense of self-awareness

Three consultants highlighted that it is really important to understand one’s personal attitude towards discharging patients during the decision making process. A senior lady consultant stated that it is important to recognise one’s inherent attitudinal response to patients’ demands at the point of discharge. Understanding this helps her view the circumstances leading to the decision in a better perspective. For example, she realised that she had a dogmatic attitude towards discharging patients and would still discharge patients even if they tried to insist on follow-up.

However, depending on the circumstances or the patients’ needs, she might still give an open appointment. *“I am fairly dogmatic. I am more dogmatic than other people (laughs). If I really thought clinically that the patient did not really need to be coming back for a clinic appointment, I would make a real effort to discharge them. I would try to explain to them clearly why they didn’t need to come.”*

Have self-confidence but avoid overconfidence

One consultant suggested that juniors should be trained to have self-confidence because it can affect the decision whether the patient will be discharged or not. Also juniors need to be taught to be curious. One of the questions which was asked was on the topic on how to handle the problem of overconfidence, since this characteristic had been a topic of discussion in the literature review and had been flagged up during one previous interview. Researcher: *“Okay, moving on, I would like to know as a physician, how do you think junior doctors should be best trained to deal with overconfidence in discharge decision making?”* Consultant: *“I think discharge is a very attitudinal skill which is not easy to acquire, but from a practical point of view it’s about not being isolated, I mean seeing your own patient is very important and then maybe someone else sees that patient and looks at the notes you have written and then discusses it. So we swap over patients... the problem with overconfidence is that if you make a confident diagnosis of a fungal infection for example...and then the patient comes back and the same patient is seen by the same doctor, the chances are that one will stick with the same diagnosis. And so the mistake gets repeated. Whereas if your colleague sees the patient too, they will think ‘What is the diagnosis here?’ So I think sharing and getting multiple opinions is the best way of avoiding overconfidence ... in a practical sense”.* Another consultant also highlighted similar views: *“Team discussions help to present a more realistic outlook on a decision to discharge a patient to balance out*

overconfidence.” Researcher: *“I like those insights...how do you view overconfidence?”* Consultant: *“I have been in my career with people who were certain of things ... certain of diagnosis and treatments ... I think overconfidence is the unwilling inability to understand the uncertainty of diagnosis”.*

Communicate and collaborate well as a team

Three consultants stressed that the senior and junior doctors must communicate well with each other and work as a team. *“Good communication between juniors and seniors about which patients need to be followed-up is important”.* Two other consultants mentioned that it is the communication skills of the clinicians that needed sharpening. *“To be honest I am not going to come up with any new ideas of how to train GP doctors, but I think communication skills with patients are vital.”* Not only can interpersonal collaboration help with training juniors, but it enhances consultant knowledge as well. *“Every patient has consultant review and consultants make the decisions. We see every single patient with a junior. That way I think I do discuss decisions with junior doctors and ask them what they think. It also helps me. Some of these doctors are very sharp and insightful and very helpful.”*

Understand the doctor-patient relationship

One consultant felt that it would be good in discussing doctor-patient relationships to explore the reasons why patients are discharged or followed-up.

Treat the discharge as a contract with the patient

She added that clinicians must treat a discharge decision as a contract with the patient: *“The contract is the whole process of agreeing with the patients the whole management plan, the decision to discharge back to the GP. You must feel that the patient is comfortable with the decision”.*

Consultants’ perception whether discharge decision is a skill of its own

Twenty-two (55%) agreed that discharge decision taking is part of the range of skills needed in patient consultations. Two of these consultants highlighted that it was more of a skill related to one’s experience. One of them added that it was a skill only to a certain point. *“Yes up to a point, it is very much related to a person’s experience. Umm yes I think there is a degree in that. As a junior you learn by watching the good points of more senior doctors and try to utilise those skills and knowledge into your own practices”.* One was confident that she is able to discharge appropriately because she had undergone a communication skills course, so she felt that she is able to understand her patients well.

DISCUSSION

This study has demonstrated that a multitude of factors influence outpatient discharge decisions consciously or subconsciously and that appropriate discharging of patients can be challenging and complex to perform. Although all clinicians reported that disease based factors such as diagnosis and type of treatment are key drivers towards discharge, this study demonstrated that some nonclinical factors carry equal weightage. Some of the more frequently mentioned nonclinical influences include the clinician's ability to make sound judgements, the clinician's attitude towards discharge and the clinician's dual role as a dermatologist and as a counsellor in the decision making process. For example, a few consultants admitted that their "soft" personalities or attitude towards discharge allowed patients to override the decision to discharge, which can be compounded by a long duration of doctor-patient relationship. In this study, we found that it is crucial for clinicians to have certainty of the knowledge that informs their judgement in decision taking.

One previous study revealed that clinicians subconsciously perceive patients' discharge readiness based on their intuition or "gut feeling" (Woolley and Kostopoulou 2013). In this study, clinicians' viewed their gut feelings as mainly arising from years of clinical training and marginally from personal beliefs and experiences. Kahneman and Klein (2009) reported that clinicians' gut feelings may arise from "skilled intuition" acquired from years of clinical experience. In our study some clinicians subconsciously perceived a patient's discharge readiness based on their "gut feeling" concerning the patient's family dynamics and support.

Patients' personalities influence discharge decision taking. One consultant mentioned that her personal experience as a junior clinician in discharging "difficult" patients caused her to be risk averse with patients whom she perceived as being problematic. An earlier study showed that a manipulative or extremely dependent patient attitude might stem from an undiagnosed mood or personality disorder (Haas et al. 2005). It is also possible that patients might seemingly appear more difficult to clinicians who are overwhelmed by diagnostic uncertainties or overworked in a busy outpatient clinic. Notwithstanding these difficulties, it is apparent that the art of perception is of paramount importance to clinicians (Leaf 2012). An incorrect perception of the GP's unwillingness to share patient care may cause unwarranted patient visits to the consultant and further cost to the healthcare system. Similarly, unless the clinician has accurate knowledge of the reasons behind a clinic non-attendance, it would be inappropriate to discharge a patient perceived to be noncompliant. An elderly patient may have had carer or transportation issues which may have caused the missed appointment. Accurate

knowledge supports better and effective decision making which informs better perception management. However, this study shows that most clinicians felt confident of their individual approach towards making discharge decisions and were entirely oblivious to the possible biases that may foster wrong perceptions.

Clinicians may unwittingly make biased discharged decisions (Bornstein and Emler 2008) while confidently believing that their decision was appropriate and unprejudiced. For example, even though clinicians admit to their differing attitudes towards discharge, they have limited awareness into the impact of their personality on their thinking process. A slipshod GP referral letter may create an impression of GP incompetency (which may not be the case) to the experienced consultant leading to a patient non-discharge. A perceived poor patient-GP relationship will create hesitations in discharging patients. The importance of understanding that a health practitioner's self-knowledge and interpersonal awareness is critical to providing effective healthcare (Rungapadiachy 2007) such as patient discharge is therefore evident. In future, training of medical students and trainee doctors could help minimise biases when discharging patients.

Most clinicians recognise that gaining mastery in verbal and nonverbal communication with patients is an invaluable skill to possess in the discharge process. For example, patient discharge can be trying when the consultant's and patient's culture or language background differs. Language differences can also invite cultural bias and lead to inappropriate discharge. Such instances necessitate a perception of empathic cultural distinctiveness to facilitate an unbiased process of discharge. Some clinicians felt that a reassuring demeanour and the right choice of words during consultation can allay fears of patients feeling abandoned. Some of the clinicians' stressors centred on pressures to conform to a strict new to follow up patient target ratio (Bamji 2011) whilst addressing patients who necessitate immediate care. Medical dermatologists, whose patients have longstanding and recurrent skin problems, find it almost impossible to discharge their patients at an early stage. Moreover, patients with complex, inflammatory dermatoses will never get discharged.

Not all influences on clinicians are necessarily appropriate. Clinicians admitted that discharge decision making is a skill of its own. Discharge decision taking was referred to as an attitudinal skill and requires active learning on the part of the clinician. Behavioural strategies should be considered to ensure decisions are taken in the most appropriate manner. The appropriateness of discharge will only succeed if these influences are addressed and if there were a strategy to "circumvent" influences perceived as leading to inappropriate discharge.

CONCLUSION

This study's findings have identified how dermatologists take discharge decisions and the challenges they face in the decision process. Results from this study provide useful information to help clinicians in general improve the quality and consistency of the decision-taking process. Although clinicians may genuinely try to provide the highest quality of care, in reality decisions may often be subconsciously biased. There is a need to help clinicians identify what information is critical to carry out an appropriate discharge while meeting patients' expectations. Additional research on patients' perspectives is needed in order to inform quality and consistency of the decision-making process.

CHAPTER FOUR

Observation of discharge consultations followed by dermatology patients' interviews

INTRODUCTION

Few studies have explored in depth what outpatients thought about their discharge (Hajjaj et al. 2010c; Sampson et al. 2004; Burkey et al. 1997b). Burkey et al. (1997b) found that only 16 (36%) of 45 patients in their study felt happy about their discharge, however 10 (22%) patients felt unhappy and said that they were “angry” or “disgusted” about their discharge. In the same study, patients highlighted that clinicians needed to explain to patients the reasons behind their decision to discharge them. Patients needed the reassurance that clinicians understood their problem and that their management plan was clearly communicated to their GP. Patients’ concerns and views on their discharge from the inpatient setting (Hesselink et al. 2012) or on their removal from the GPs’ clinic list (Sampson et al. 2004) had also been studied. Inpatients and their carers (Hesselink et al. 2012) have expressed discontent and upset in relation to the decision to discharge them from hospital. Family members and carers are just as exhausted and confused over enduring the discharge decision process (Hesselink et al. 2012) as are the inpatients themselves. “Demanding and difficult” patients who were removed from primary care clinic lists were distraught over their unexpected dismissal (Sampson et al. 2004).

Overall, patients are mainly distressed over the manner (Hesselink et al. 2012; Burkey et al. 1997b) in which they are discharged rather than over the fact of being discharged. For example, patients and care providers (Burkey et al. 1997b; Hesselink et al. 2012) alike felt rushed and side-lined in the decision-making process and viewed some clinicians as being authoritative. These patients and carers also emphasised that clinicians were apt to use medical-technical jargon that resulted in an ineffective and poor quality exchange of discharge information between the clinician and the patient. Carers were concerned over the lack of emotional support rendered to the patients. Both patients and carers were equally unhappy that there were insufficient resources for patients and a lack of detailed instructions for self-management. Outpatients were uncertain whether their general practitioners knew about their discharge and felt that there was poor communication between the specialist units and the GP. Undoubtedly, the manner of conveying the possibility of discharge and the correct understanding of patients’ needs and expectations deserve careful consideration when discharge is being considered. Good communication between clinicians in secondary care, patients and primary care health professionals is critical to ensuring quality care after discharge. These issues have not been well understood or researched in the specialty of dermatology. This chapter presents the results addressing three main objectives:

OBJECTIVE

First objective:

To observe the influences on clinicians when discharging patients.

Second objective:

To explore patients' perspectives concerning their discharge or follow-up decision.

Third objective:

To identify what patients think is important for clinicians to consider when taking a discharge decision.

METHODS

Study design

Familiarising the consultants with the topic of outpatient discharge

The step by step process taken to conduct the study involving firstly observation of consultations and secondly, interviewing the same patients immediately following their consultations will be described here together. A study protocol patient information sheet (Appendix N) and patient interview guide (Appendix S) were e-mailed to all consultants in the department, seeking their permission to observe consultations and have their patients interviewed. The researcher increased further the familiarisation of the consultants with the research project by talking to them at their office or clinic, whenever convenient. Some consultants in the Cardiff department were already aware of the PhD topic even before the researcher undertook this part of the research programme. One of the consultants was the Dermatology Directorate R&D Lead responsible for granting extension of the study R&D approval. Another consultant had discussed with the researcher the recently published literature review of the topic. There were also discussions with another consultant concerning the possibility of conducting a discharge audit within the outpatient clinic if time permitted. Another consultant had the topic at heart from the time he was interviewed by one of the previous PhD students in 2010 on the topic of "clinical and nonclinical influences on clinical decision-taking". Another Cardiff consultant, who was previously working in Oxford, had been introduced by the researcher to the subject earlier when she was in Oxford. Overall it was relatively easy to explain the research topic to all the consultants, especially as the researcher was also attached to the same dermatology department, as the dermatology academic unit and

NHS service share the same building and facilities. A clinician information sheet (Appendix L), which was provided to clinicians by email, gave clarity to the subject matter. All the consultants felt that the topic of outpatient discharge was relevant and needed further exploration.

Gaining clinician consent to participate

This study involved seeking the consent of both clinicians and the patients, to enable discharge consultations to be observed and also allowing subsequent patient interviews. Patient consent forms (Appendix O) were designed to enable this process. Consultants who agreed to have their consultations observed designated specific clinics for this task and for their patients being interviewed following the consultation.

Patient recruitment and consent to participate

The researcher waited outside the consultation room during on-going clinic sessions at those clinics designated for the study. When a patient was called in to the consultation room by the nurse or the consultant in charge, the consultants first informed the patient briefly that a discharge decision study was being conducted in the department as part of research within the university hospital setting. Further details were then provided by the researcher if the patient consented to participate. Verbal consent was sought by each consultant from the patient if the patient indicated that they wished to participate in the study, provided that the patient fulfilled the inclusion criteria. The researcher was then called in and was briefly introduced to the patient and any accompanying person and at the same time the patient's acceptance to be observed was reconfirmed. The researcher sat in one corner of the consultation room as a non-participant and did not interrupt the consultation, but, using an observation checklist, made notes on factors that had seemed to influence each of the consultant's discharge or follow-up decisions. Following the consultation, the consultant would then ask the patient again whether they would be happy to be interviewed by the researcher. In the case of elderly patients, who were usually accompanied by a family member or a carer, it was usually a concerted decision to participate rather than the sole decision of the elderly patient. The researcher had also asked the consultants to actively select patients which were highly likely to be discharged to ascertain that the number of patient discharges are almost equal to those followed-up.

Observation of discharge consultations

The observations of patients' discharge during the consultations with consultants were used as part of a mixed methods research strategy to complement the subsequent patient interviews. This study approach has the potential to confirm or contrast findings

which was conducted in study one as to whether consultants practiced what they said during the interviews. The researcher's status as a nonparticipant observer was made clear to consultants and participants. Extracting what influences the consultants' discharge decision taking process can be difficult because the observer can only make assumptions concerning these influences. In order to make note-taking of observations of consultations more structured, a "Consultation Observation Checklist" was used (see Appendix T) to record observations of how clinicians took discharge decisions. During the observation of consultations the researcher made multiple notes recording under what conditions where patients being discharged or followed such as the type of clinic setting the patients were seen.

The following steps illustrate how the observation process took place:

1. The researcher observed the type of factors influencing the consultants' discharge decision taking and recorded each influence using the "Consultation Observation Checklist".
2. The checklist data was analysed by counting the number of checklist influences recorded during each consultation and also by counting the number of consultations in which each influence occurred. These data were converted to percentages to make the comparison clearer.
3. After each observation, the researcher looked through each influential factor and related it to the discharge or follow-up decision.
4. The checklist helped us to identify patterns of what clinicians considered most before discharging patients and to understand how different patients were handled. For instance by observing the clinicians' demeanour made it possible to compare how clinicians reacted to different patients during the discharge decision making process. The consultant's demeanour, the patient's verbal and nonverbal responses such as facial expressions were correlated with the list of influential factors. These observations were also interlinked with patient's circumstances, clinical practice or service.
5. For example, one consultant asked an elderly patient whether she could apply the cream at home and be discharged, but the patient insisted on a follow-up because of the lack of assistance since she was living on her own. Each consultation was analysed using this method.
6. Outcomes which were similar were categorised under the same heading (influential factor). One of the limitations of this data analysis was that categorical

data handling may result in a conceptual grid and there may be new categories or influences missed. However, this limitation was addressed by the pilot observation study.

It was hoped that the results from the observational study would provide some insight into whether dermatology consultants in general practised in their clinics what they felt or said they did.

Interview process

The patients who consented to be interviewed were taken to a separate private room at the end of their clinical consultation and given further verbal details about the study. It was ensured that the interview room had a neutral and quiet ambience. The patients were reassured of the anonymity of the interviews and that the interviews would not affect their subsequent care. An information sheet (Appendix N) was provided to the patient and read through together with the patient (if they wished) and with the family member, if present. Attention was paid to give patients and their accompanying person sufficient time for carefully reading the information sheet. Any further doubts, queries and signs of patient apprehension were addressed immediately. It was noted that with some patients the time factor was a crucial element because they had other plans, but also were keen to contribute to the study. Some other patients were very comfortable to be interviewed for longer. The researcher was careful not to rush or impose on patients' willingness to participate and patients who agreed verbally to participate after going through the information sheet were asked to provide written consent using the consent form (Appendix O). In case patients needed more time to think it over, they were told that if wished they could take home the "Patient Information Sheet" and two patients who were in a rush took away the information sheet to consider fixing an interview at a later date, but they never did. Basic demographic information about each patient including sex, age, ethnicity, education, diagnosis and duration of disease before each interview were recorded. Each patient was given a specific study identification number for data protection and confidentiality.

Saturation

Ten more patients were interviewed beyond reaching saturation to order to ascertain "saturation point". No repeat interviews were carried out and the participants did not provide feedback on the findings. All interviews were audio recorded and later transcribed verbatim by the researcher. Interviews were recorded with two digital audio recorder devices to ensure a backup system.

Post interview

Field notes were made during the interviews and reflective notes made afterwards. The researcher was aware that reflective notes must be made immediately after an interview in order to record better insights while issues were fresh in her mind. The researcher carefully attempted to remain objective and impartial when reflecting upon these transcripts.

Sample population

Inclusion and exclusion criteria

The inclusion and exclusion criteria for patients to qualify for this study were as follows:

Inclusion criteria:

- Male and female patients of eighteen years old and above
- Being able to read and understand English.
- Patients from all ethnic backgrounds.
- Adult patients with skin diseases attending the dermatology outpatient department.

Exclusion criteria:

- Being unable to read and understand English.
- Patients with significant learning difficulties.
- Patients aged less than eighteen years.

Sample size

The study participants were selected using both convenience and purposive sampling. A “Convenience” sample is the common type of non-probability sampling method which is made up of people who are easy to reach. Only those patients who attended the outpatient dermatology clinic sessions were selected. “Purposive” sampling, also known as ‘selective’ or ‘subjective’ sampling, is a type of non-probability sampling technique. In this case the study is about understanding how adult dermatology outpatients were discharged from the clinic. Therefore, based on the judgement of the researcher, the participants were selected because they were dermatology patients and they were attending outpatient clinics with the likelihood of getting discharged. The researcher had not known any of the participants before the study commenced. The participants were told that the researcher was a dermatology clinician who is currently doing full time research. We considered the sample size of interviewees, being informed by the previous study by Hajjaj (2010) where saturation of information from interviewees at a

face-to-face interview was achieved at the 46th interview, and an additional 15 patients were recruited to avoid bias and increase the robustness of the data. Study participants for the observation were consultants working in dermatology as well as patients suffering from a variety of dermatological diseases. Interviews were conducted with patients only.

Sample site

The observation of consultations in this study only took place in clinics at the dermatology outpatient department at the University Hospital of Wales (UHW), Cardiff. Observation at more than one centre in different parts of the UK would have been ideal as the research findings would have been strengthened by reflecting a wider diversity of clinical practice. The initial plan was indeed to conduct observations in different Trusts across England and Wales but since this was a doctorate study and the researcher was bounded by study time, costs and logistical constraints, it was finally decided to focus this part of the work on only one centre in Wales.

Data analysis

A thematic analysis underpinned the study: themes were derived from the data and not identified in advance. The interviews were manually transcribed, coded and analysed. Duplications of different items and themes were removed and similar categories grouped and reduced into broader sub-themes. Research supervisors who were not involved in the interviewing independently validated 10% of the transcripts against recordings and resolved differences through discussion. Analysis focused on the patients' perception of discharge appropriateness, patients' discharge expectations, what they thought clinicians should consider before discharging them and patients' suggestions to improve the discharge processes. The transcripts were further analysed using NVivo 10, qualitative data analysis software to aid data organisation.

RESULTS

Participants (Consultants)

A total of 64 observations of dermatology consultations and 56 face-to-face patient interviews were conducted and analysed in a dermatology outpatient clinic. Table 4.1 describes the characteristics of the dermatology consultants who took part in the study. All but one consultant agreed to participate.

Table 4.1 Demographic characteristics of the consultant dermatologists (N=7)

Consultant Dermatologists	Number (N)
Male	5
Female	2
Mean age (range)	50.8 years (38-56)
Indigenous British	4
Ethnic minority	3
Type of NHS Contract	
Full time	7
Part time	0
Also working in private practice	3
Years of clinical experience in dermatology	
30-40 years	2
20-29 years	3
10-19 years	1
< 10 years	1
Main special interest in dermatology	
Medical	4
Surgical	2
Paediatric	1

Participants (Patients)

Sixty-four patients had initially agreed to be observed and interviewed. However, eight of these 64 patients changed their minds because four were in a hurry, three had personal obligations and the son of one elderly patient (on behalf of his father) later refused to allow his father to be interviewed because he felt his father was incapable of speaking English fluently enough and he felt that this may have caused him unnecessary anxiety. Fifty-six patients with medical, surgical, subacute and chronic skin conditions were interviewed. Twenty-six (46%) were male and 30 (54%) female (Table 4.2). The patients' mean age was 53.9 years, (median=51, range 18 - 80) (Table 4.2). NAH undertook all observations and interviews. At 17 interviews a family member of the patient was present. Data saturation was achieved after 41 interviews: 15 more confirmed saturation. Mean interview time was 20 minutes (range 5-40 minutes). The following table describes the characteristics of the 56 patients who were interviewed. Table 4.3 presents the type of skin disease seen in the outpatient dermatology clinic.

Table 4.2 Demographics of the patients interviewed (n=56)

Study Participants	Number	Percentage (%)
Male	26	46
Female	30	54
Mean age (range)	53.9 years (18-80)	
Indigenous British	50	89
Ethnic minority	6	11
Education level		
Primary	1	2
Secondary	31	55
Tertiary	24	43
Diagnosis		
Medical	29	52
Surgical	24	43
Unconfirmed diagnosis	3	5
Type of job		
Employed	19	34
Self-employed	4	7
Retired	28	50
University student	3	5
Unemployed on benefits	2	4

Table 4.3 Skin diseases of the patients interviewed (n=56)

Type of skin disease	Discharged	Not discharged
Non-melanoma skin cancer	3	4
Melanoma	0	1
Eczema	1	4
Psoriasis	0	3
Itchy rash	1	0
Acne vulgaris	2	1
Post inflammatory hyperpigmentation	1	1
Actinic keratosis	3	1
Allergic contact dermatitis to latex	1	0
Benign mole	2	0
Ingrowing hair	1	0
Melasma	1	1
Skin cancer and renal transplant	0	1
Urticaria	2	0
Dermatofibroma	1	1
Leg ulcer	0	1
Onychomycosis	1	0
Nodular prurigo	0	1
Lichen planus	1	0
Seborrhoeic dermatitis	1	0
Polymorphic light eruption	3	1
Photosensitive dermatitis, photoaggravated rosacea and UVA sensitivity	1	2
Insect bites	1	1
Rosacea	2	0
Uncertain diagnosis	2	1
Total	31	25

RESULTS FOR FIRST OBJECTIVE

To observe the influences on clinicians when discharging patients.

Pilot study: Observation of discharge consultations

Eight patients were recruited for the pilot study. "Discharged due to a wrong referral" was identified in the pilot study and was added to the observation template. The consultations observed were labelled as "discharge consultations". The eight observations of clinical consultations were conducted to help with the development of a structured observation recording template. As a result, a checklist of influences was written (Appendix T) based on this pilot study and on the results of the previous interviews with clinicians (Chapter Three).

Actual study: Observation of 56 discharge consultations

A total of 25 factors which influenced discharge decisions were identified during observations of the consultations. Patients often nodded and smiled, indicating that they concurred with their consultant's decision for discharge or follow-up. In general, all patients appeared to agree with the clinician's decision to discharge, although initially three (5%) patients negotiated their discharge. These patients indirectly pleaded with their clinicians to allow them to have another follow-up. None of them were rude or overly demanding. One of them, who had melasma, frequently asked questions regarding his condition and appeared unconvinced by the diagnosis and by the recommendation to seek private treatment. He further probed the consultant to allow treatment under the NHS rather than being referred to a private hospital. The consultant did attempt to address his expectations by explaining the reasons why care for this condition was not available under the NHS and reassured him that private specialists can provide excellent service, and that he would be in safe hands. However, during the interview the patient expressed discontent. Another patient was a university student who had seborrhoeic dermatitis. He seemed dissatisfied with the clinician's explanation of his disease progression and the treatment used for the condition. He felt that there were better treatments available and that a cure was possible. The third patient repeatedly argued in a polite manner with the consultant, stating that he was not satisfied with the diagnosis. It was observed that the consultant courteously insisted on his diagnosis and discharged the patient. However, the same consultant appeared rushed, recommending private treatment. Later, during the interview, this patient said that he felt that the consultant was not interested in treating him, especially with something as "simple" as warts, and felt that he wanted him out of the room as soon as possible. *"It seemed to me that he couldn't get me out of the room quick enough". I am disappointed, I have been*

pushed aside basically, although there is nothing life threatening, there's no cancer or anything like that, I don't know if he could be bothered enough".

All consultants managed to "convince" patients to be discharged. There were no untoward incidences where consultants had to deal with very "demanding or difficult" patients. The consultants had differing ways of handling their discharge consultations depending on what had influenced their decision. Each of them projected unique methods of communicating with patients with different needs or concerns. The consultants were seen to consider the severity of the patient's skin condition, took longer consultation time with those who had special concerns about their skin, or with very elderly patients who were hard of hearing or had poor cognition and with those who had difficulty in responding due to poor English. The consultants appeared more comfortable in discussing discharge with those patients whom they had become to know quite well. All consultants maintained good eye contact. Each clinician had their own ways of letting the patient know about their plan to discharge the patient. One would say "I am afraid I would not be able to see you anymore". Another said "Are you ready to leave?" Before discharging a patient, one consultant always concluded by asking "Is there anything else I can help you with right now?"

Twenty-six (46%) consultations were interrupted by phone calls or by junior clinicians who wanted clinical advice about other patients. Consultants kept within the standard consultation time which was 10 minutes when the problem was simple. However, six consultants spent longer with patients when they were referred for a diagnosis (after many years of uncertainty). The consultant took time to explain the diagnosis, treatment possibilities and that cure was unlikely. When interviewed one patient said she was less anxious, relieved to have a confirmed diagnosis and was happy to be discharged. *"I have been going to the doctor since I was 15 and now I am 23. It has taken a long time to get to this stage, so I am very happy. It could have been a lot better if it was addressed a lot earlier. I understand that there is no cure. I understand how to deal with it. I am happy to be discharged because he explained to me clearly, and he has helped me understand my condition."*

All consultants explained the diagnosis or possible diagnoses to patients: in two instances they were uncertain of the diagnosis, but the patient was discharged after reassurance. The patients were seen to accept their discharge readily after a good surgical outcome. One elderly patient appeared relieved when she was not discharged: she stated that despite normal clinical findings, she was followed up because the consultant had cared for her for years and understood her well. If treatment was complex and needed primary care blood monitoring, consultants tended to check on the

patient's motivation to self-monitor. The type of diagnosis influenced the likelihood of a patient being discharged. The clinicians were more likely to discharge patients who had simple basal carcinomas with uneventful surgical procedures than to discharge those who had surgical complications. The patients appeared happy to be discharged when they had some form of reassurance. One patient was happy with the cosmetic outcome of the surgical procedure and accepted her discharge easily, even though she would have preferred to be seen by the same clinician who had performed the surgery. During her interview, it was evident that she trusted her specialist and had confidence that it was indeed timely for her to be followed up by her general practitioner. Table 4.4 describes the number of consultations, out of the total 56, in which each "Consultation Observation Checklist" influence was observed and Table 4.5 describes the relationship of observed influential factors to likelihood of discharge or followup.

Table 4.4 Number of consultations in which each "Consultation Observation Checklist" influence was observed (56 consultations observed)

	N=Number of consultations in which the influences were observed	Percentage (%)
DISEASED BASED INFLUENCE		
Type of diagnosis	56	100
Certainty of the diagnosis	39	70
Disease progression	26	46
Comorbidities	15	27
Type of treatment	41	73
Response of treatment	38	68
Completion of treatment	20	36
Treatment side effects	12	21
Disease monitoring	28	50
Usage of dermatology treatment guidelines	5	9

Table 4.4 (continued)

	N=Number of consultations in which the influences were observed	Percentage (%)
PATIENT BASED INFLUENCE		
Age	3	5
Gender	0	0
Culture	0	0
Communication (language barrier)	2	4
Mobility	0	0
Distance	5	9
Circumstances surrounding patient's life	0	0
Carer or family member to assist at home	19	34
Cognitive ability	0	0
Learning difficulties	0	0
Psychological concerns	2	4
Patient's quality of life	4	7
Understanding of the disease	0	0
Patient's acceptance of disease (attitude)	28	50
Patient's ability to self-manage treatment	36	64
Patient's compliance with medication (attitude)	0	0

Table 4.4 (continued)

	N=Number of consultations in which the influences were observed	Percentage (%)
Patients' initiative to engage with support groups (attitude)	0	0
Patient's concerns about job	3	5
Patient's expresses wish to be discharged	2	4
PRACTICE BASED INFLUENCE		
Academic interest	5	9
Reassure patient easy reaccess to secondary care	27	48
Joint colleague discussion	7	13
Nurse assisted in explaining treatment	3	5
Ascertain patient-GP relationship	2	4
Ascertain GP's skills in handling dermatology cases	2	4
Ascertain GP's willingness to share care	0	0
Ascertain availability of treatment in secondary care	16	29
Discharge due to wrong referral	0	0

Table 4.5 Relationship of observed influential factors to likelihood of discharge or followup

*GP= General Practitioner

Observed influential factors (N=25)	Patient is likely to be discharged if the influence aspect (column 1) is as follows:	Patient is likely to be followed up if the influence aspect (column 1) is as follows:
Type of diagnosis	Disease is self-limiting or simple	Disease is severe or complex
Certainty of the diagnosis	Diagnosis is confirmed	Biopsy is needed to confirm diagnosis
Patient's acceptance of the diagnosis	Understands and able to accept diagnosis	Doubtful about diagnosis accuracy
Type of referral	Wrong referral	Appropriate referral
Joint colleague discussion to confirm diagnosis	Clinician is confident of diagnosis	Clinician is unsure of diagnosis, needing joint colleague discussion to confirm diagnosis
Comorbidities	Patient with no other problems	Patient with multiple diagnoses
Guidelines	Treatment which does not involve guidelines	Treatment which involves guidelines (such as for melanoma)
Disease progression	Stable or asymptomatic	Recurrent
Disease monitoring	Treatment plan which can be monitored by GP	Treatment plan which needs hospital monitoring
Type of treatment	Topical treatment with minimal side effects	Ongoing systemic medication or biologics
Completion of treatment or "cured"	Tumour fully resected	Multiple tumours and recurrent tumours
Treatment response	Good treatment response	Poor treatment response
Treatment availability	Not available or treatment not possible in the NHS	Many treatment options available in the NHS
Patient age	Younger patients	Older and frail patients
Patient attitude	Patients who appears confident	Patients who have a long term relationship with consultant
Carer	Presence of carer or family	Living alone
Communication	Ability to communicate well	Language barrier
Job	Busy	Retired

Table 4.5 (continued)

Observed influential factors (N=25)	Patient is likely to be discharged if the influence aspect (column 1) is as follows:	Patient is likely to be followed up if the influence aspect (column 1) is as follows:
Psychosocial concerns	None	Present, and lack of resources to handle concerns
Skin disease burden	Coping well	Not coping well.
Self-manage	Understood well and agreed to self-monitor disease	Difficulties in coping or lack of support to monitor disease
GP relationship	Good relationship with GP	Doubtful of GP's expertise
GP's skills	Skillful GP or GP with dermatosurgical facilities	Perceived inadequate GP dermatology skills
Wishes or concerns	Patient accepts advice after addressing wishes or concern	Unrealistic expectations or too many concerns making it impossible to handle in one clinic setting

RESULTS FOR SECOND OBJECTIVE

To explore patients' perspectives concerning their discharge or follow-up decision.

Pilot study: Patient interviews

The second pilot study was to become familiarised with conducting patient interviews and to improve the patient interview guide (Appendix S). The patient topic guide was gradually improved through five versions, based on the outcome of the pilot and on-going supervisory discussions. The initial format of the first question was phrased as: "Do you understand why you are being discharged or not being discharged?" Then after two pilot interviews it was realised that the patients found it confusing. Therefore, it was decided to make the patient feel at ease by directing the patient to each topic step by step. An opening statement was added: "I understand that you have been discharged/not discharged" (depending on the outcome of the consultation). The first question was "Did you expect to be discharged (or not to be discharged) when you came to clinic this morning?" The next (second) question was reworded to: "So tell me, how you feel about being discharged or not being discharged?" The following (third) question was more specific by asking "Do you think it was appropriate for you to be discharged or not to be discharged?" The interview guide (Appendix S) suggested a question such as "Is there anything more you would like to add that I may have missed?" at the end of the interview. This question was added to encourage further ideas initiated

by the patient. During the actual interviews the researcher did not rely too heavily upon the topic guide, but used to it to keep the interviews in focus. Prompts such as “tell me more” or “why do you say so” were also inserted in between the questions on the interview guide to remind the researcher of the critical importance of these further probing questions in enriching the interview data. The specific results from these pilot studies were not included in the analysis described in the Results section of this chapter as the purpose of the pilot studies was to improve the format and conduct of the main study, but not to actually gather data for the purpose of analysis and extrapolation. In addition, the pilot studies provided the opportunity to rehearse and experience the differences between interviewing patients and interviewing consultants. It was felt that the interviews with dermatology consultants were fast paced and required quick thinking responses to keep the consultants engaged. Whereas, in contrast, when interviewing patients, it was felt that they were very keen to tell their story and most did not seem pressed for time.

Actual study: Patient interviews

The data analysis focused on seeking to understand why patients felt the way they did about discharge. Several factors contributed to the patients' experience concerning their discharge. Out of the 56 patients (100%) who took part in the interview, 31 (55%) were discharged of whom 19 (61%) had expected discharge and 12 (39%) had not (Table 4.5). Ten of the twelve patients who had not expected discharge were also unhappy with their discharge for a multitude of other reasons. Table 4.4 depicts patients' perspectives on what can potentially contribute to the inappropriateness of a decision to discharge. Only two patients were happy with their discharge although the decision to discharge was unexpected. Retired patients were less likely to engage in the discharge discussion. They accepted a more paternalistic approach and were less likely to try to negotiate follow-up. When interviewed, only two of the retired patients (7% of 28 retired patients) preferred to have a discussion over whether or not to be discharged. Patients in employment and young adults stated strongly that they should be involved in the discharge decision and two stated that they would have informed their consultant if they had not agreed with the decision *“Overall I was handled appropriately. I was asked “Are you happy to be discharged?”, as long as that was asked I am happy to be discharged. If I still had active blisters and if he asked “Are you happy to be discharged?” I would have said “No”. But since it has subsided a little bit I was OK with the discharge.”* Patients who had chronic or complex problems were keen to be involved in the decision-making and preferred to be notified in advance about the possibility of discharge. The patients with surgical disorders were less demanding, saying they were impressed with the department's services. However, two patients stressed that they should not have

been discharged without the dermatology surgeon (preferably) inspecting the surgical wound. Despite suggesting ideas for change, patients were mostly happy with the service rendered by the department. One patient highlighted that the services in the dermatology department had improved greatly. He also mentioned that in the past doctors simply told patients how busy they were. The patient had the impression that in the past there were many patients not receiving proper treatments. *“Previously the consultant mentioned that: ‘I have hundreds of patients waiting, I have to rush you up’. Now there is really a big improvement!”*

The researcher never insisted on interviewing a patient or objected to patients’ wishes or requests. There were no conflicts with the patients or their carers throughout the process of recruitment. There were three instances where patients wanted to have the opinion of the researcher concerning their skin problem. These patients were dissatisfied with the consultants’ decision to discharge them and sought to gain confirmation of their views from the researcher. The researcher however was very careful not to take sides or take the role of a clinician. The researcher explained to the patients that she was “wearing a researcher’s hat” and had to remain impartial and non-committal over the issues raised. The interviews conducted were sometimes emotionally draining. The researcher had to “take a breather”, relax and “call it a day” at times when faced with these situations. Fortunately, there were not many such interviews. Three patients were overly emotional. One was in tears as she spoke. The patient who cried was actually emotionally distraught over her problem and had not expected to be discharged. This patient hugged the researcher after the interview because she was upset that there were no further treatments to be offered for her problem. Another described in detail his account of attempted suicide because of the long waiting list for specialist care. The third patient was a young lady who appeared to have been very hopeful of ascertaining a diagnosis after 13 years of lengthy medical discussions. She was recently referred to the hospital for a second opinion and was very thankful that the consultant who saw her did not discharge or give up on her. Instead she was thankful that the consultant had reassured the patient and referred her to a multidisciplinary meeting to discuss her case. Most of the patients’ actual feelings of resentment or relief were only made explicit after the recordings had stopped. In the researcher’s opinion it may be the case that these patients were unwilling to have their true feelings recorded and had attempted to remain composed throughout the recording of the interviews. The results of this study suggested that the majority of dermatology patients who participated who were retired preferred a paternalistic approach to discharge decision making, but in another study 70% of outpatients wanted to be involved in making treatment decisions (Coulter, 2005).

Table 4.6 Patients' perspectives on what can potentially contribute to the inappropriateness of a decision to discharge

Factors contributing to the inappropriateness of a decision to discharge
Uncertainty of diagnosis
Non-acceptance of the final diagnosis
Discharge without "curing" the patient
Differing perceptions on medical need and "cosmetic" demand
Lack of concern for job demands
Projecting a "rushed" demeanour
Advised to seek private care because of budget constraints

Table 4.7 Patients expectations over their discharge or follow-up

	Number of patients discharged	Number of patients followed up
Total patients	31 (55%)	25 (45%)
Expected outcome	19/31 (61%)	22/25 (88%)
Unexpected outcome	12/31 (39%)	3/25 (12%)
Unexpected discharge but feel happy	2/12 (17%)	3/25 (12%)
Unexpected discharge and feel unhappy	10/12 (83%)	0/25 (0%)

Patients who expected discharge and were happy with the discharge decision (n=19)

Certainty over diagnosis (n=19)

All 19 patients who were happy to be discharged said that one of the reasons they were happy with the decision was that there was certainty in the diagnosis. A 45-year old gentleman who was diagnosed as having onychomycosis perceived his consultant as an expert and agreed with the consultant's diagnosis. One patient who was told that he had a benign mole was happy to be discharged. *"Yes I expected to be discharged because I did not expect the mole to be a major issue. No itching or bleeding"*. A 55-year old man

with lichen planus was initially worried about his skin problem but felt relieved on hearing the consultant's diagnosis and accepted it without a doubt. *"I was really worried to be honest. I have been thinking about the problem. They have given a lot of options. I was thinking to see private because of the waiting point, but the geographical tongue persisted on and off. After seeing the doctor, I feel much better. I know what it is. No biopsy needs to be done"*.

Clear treatment plan (n=16)

Sixteen of the patients stated that the consultant had provided a clear treatment plan and had said that no further follow-up was necessary. One patient had felt confident with the consultant's decision and was convinced that the consultant has done all he could. *"I feel that he has gone as far as he could. He is the consultant and the expert"*. Another patient with solar keratosis was told that he had completed treatment and the patient perceived that he had recovered completely. There were no treatment side effects and he was happy with the diagnosis.

"Yes, I expected to be discharged because I have been cured I suppose. There was a small spot that needed treatment."

Felt involved in the decision making (n=11)

Eleven patients were happy to be discharged as they felt involved in the discharge consultation. *"They told me that there isn't more that they can do for me, so I did not expect to be seen again. They involved me in their conversation. I thought that was useful, to be in the room when they were discussing. The way he was answering my questions and the way the doctors were talking. I thought that it was very important... in the manner he was talking about my condition.... what other things can be done medically for it."*

Patients who expected follow-up and were happy with the follow-up decision (n=22)

Twenty-five patients were given a follow-up appointment and all except three patients had expected the follow-up. The 22 patients who had expected follow-up were very satisfied and happy with the decision made by their clinicians. The reasons for their satisfaction were as follows:

Wishes were addressed

An 80-year old lady with a superficial basal cell carcinoma expressed to the consultant her wish to come every six months for follow-up and was very happy that her request

was granted. She mentioned that it gave her peace of mind, to be told that “you are alright” and to know that there was a clear follow-up plan. Furthermore, despite her good relationship with her GP, she felt that her dermatological problem needed monitoring by a dermatologist rather than by a GP. *“The specialist is an expert and for skin cancer it is better for the dermatologists to monitor rather than a generalist”*. One patient felt content when she perceived that he was being respected and cared for by the whole team. *“I am happy that I am being looked after by the receptionist, nurses and the specialist.”*

Needing confirmation of final diagnosis

A 60-year old lady who has been classified under the “Interesting Patient Category” for teaching purposes agreed with the clinician’s decision to keep her on for follow-up because the diagnosis still needed confirmation.

Presence of complexities and comorbidities

Patients with comorbidities or who have undergone complicated procedures or been allergic to therapy are more likely to have prolonged follow-up. Although one elderly patient admitted to the competency of her GP she still felt that coordinated and collaborative care from a team was necessary to deliver quality care, and therefore, for her, discharge was not an option.

“I have undergone everything! Hip surgery with open wounds and partial vulvectomy. They cannot discharge me.... I am allergic to penicillin, dermatology has suggested medication to me. My GP then tries me on it. If it is no good he contacts dermatology and they will try something else. The relationship and interaction with my GP is good. Dermatology are in regular contact with my GP which is fantastic. I have had a severe reaction with a bandage, several biopsies on the chest and I am sick of the scars. The dermatology team is 101% first class: you are a person not a number. Here everybody recognises me, they are lovely people”.

One patient with a rare disease was happy that she was given a follow-up, especially as clinicians at her previous hospital has told her that it was not likely that treatment would be available. However, she was not happy with the overall consultation.

“I think it is appropriate for me not to be discharged today. However, I am hoping that maybe there is something new to try. Lessen the sight of it, it is not very comfortable to have. So I’d hoped there may be some suggestions that maybe we can try this or that. But I really don’t have much hope for it. I was told in (country) 15 years ago there’s nothing that could be done about it.” She left the clinic feeling miserable, because she felt that her problem was seen as of little importance because it was not deemed

'severe' by the consultant, based on her being given a 12- month appointment instead of her usual six-month appointment. *"I always thought that I would always be coming back and monitored but I don't think that is a priority because it is a skin condition. It is monitored, it is not seen as a priority as something that needs to be fixed or helped or looked at. My appointment's every 12 months, if it was more serious it wouldn't be every 12 months. I don't think it is on top of everybody's list."* Although patients, especially those with complex, undiagnosed and chronic skin diseases, are happy to be given follow-up appointments, three patients lamented that their follow-up appointments were too delayed. Due to the visibility of their skin diseases, these patients expressed that they were keen to get to the root of their problem. They urgently wanted certainty of diagnosis and to be on the correct treatment to improve their quality of life. *"When I go anywhere and speak about my condition, nobody knows what it is. So I know that it is an ongoing process, they have to find out more. This is so irritating when you don't have the solution for it. It is sort of annoying because it impacts me every day. It impacts on what I wear, how I feel, going on a holiday the way I dress. I don't like to show my skin off. I don't like people asking what that is. It just makes me feel uncomfortable."*

Patients who expected discharge but were happy with the decision for follow-up (n=3)

Three patients who had expected to be discharged were given a follow-up: one felt that there were limitations to the consultant's expertise, one had thought that no lesions were recurring, and the other patient felt nothing more could be done.

Limitations to the consultant's expertise

A female doctor with melasma had expected discharge because she knew that there was no cure to her problem. She also had a utilitarian understanding of the difficulties of the NHS system and thought that many other patients would need her appointment slot more than she did.

"I always expected to be discharged because this problem has been going on for months. Even though I find it disfiguring, but you see other people have worse problems".

Perceive no more recurring lesions

A 79-year old retired man was expecting to be discharged and thought that he had no more malignant moles, but after thorough physical examination by one consultant he was found to have a new suspicious lesion that prevented his discharge. *"I expected to be discharged, they found something new."*

Felt nothing more could be done

One patient accepted that nothing more could be done and accepted her discharge.

Patients who did not expect discharge and were unhappy with the decision for discharge (n=10)

Ten (33%) of the 31 patients who were discharged felt unhappy and dissatisfied when no follow-up appointment was offered. The reasons for their unhappiness were mainly because their expectations were not addressed appropriately, as stated below:

Uncertainty of diagnosis (n=2)

Patients insisted that clinicians should confirm their diagnosis before discharging them. One patient was unhappy because she felt the clinician was uncertain of the diagnosis. She was asymptomatic because the lesions had resolved while waiting for her appointment. She mentioned at the interview that she would have preferred an open appointment for easy access should the symptoms recur rather than a fixed follow-up. However, she did not say this to the clinician.

Non-acceptance of the final diagnosis (n=2)

Two patients stressed that patients' acceptance of their diagnosis is important before discharge. One patient was unhappy because he did not agree with the clinician's diagnosis and wanted to have further investigations and monitoring. He was discharged because the clinician was confident of the diagnosis and explained there was no other treatment. The patient felt that the clinician was only interested in his perception of the diagnosis and was unwilling to probe further. *"This doctor here has got blinkers on, in other words I suppose he only sees what he wants to see. Even though the test did not come back what he thought it was, he's still got the same opinion."*

Discharge without "curing" the patient (n=4)

One patient felt that patients with conditions that were not cured should never be discharged, because of possible future advances. One student with seborrhoeic dermatitis insisted that his problem must be "cured" despite knowing this condition may recur. Patient: *"No, I did not expect (to be discharged). I should only be discharged when the issue is solved"*. Interviewer: *"Why is that so?"* Patient: *"The medication is ongoing. Unless I stop this medication I don't think the issue will be resolved."* Another patient was upset because the patch on his forehead was gradually worsening over six months and he perceived that the clinician was not really concerned over this. *"I have six months melasma, and getting worse over three months despite staying out of the*

sun and nothing is done to cure it. I came here with the hope that they were going to tell me that there is a cream, something they prescribed for me, that they will help me but it doesn't seem really to be the case. I can understand that this is a skin cancer clinic and people are coming here every day, and they see a lot worse cases than what I have got, but from my personal perspective I am stressed and I have been waiting three months to come here. I am left kind of disappointed to be honest".

Differing perceptions on medical need and "cosmetic" demand (n=2)

Patients expressed dissatisfaction concerning discharge if their expectations did not match that of the consultant; and felt worse if reassurance was not forthcoming. A patient with melasma was upset because he thought the clinician perceived his problem as purely cosmetic. A young female with acne highlighted that clinicians should provide further suggestions for dealing with disease or treatment complications, such as scarring. A 40-year old female manager who lived far away from the clinic did not expect to be discharged, especially since she had come quite a distance to seek subspecialty care from a tertiary centre. *"No, I did not expect to be discharged. I was expecting an answer which I got, but further treatment that will help me. I didn't really realise I was discharged. I just assume the letter is going to my GP. I do not know what I was expecting to be honest. I was a bit confused".*

Lack of concern about job demands (n=1)

One patient stated it was a hassle for her to be discharged and then re-referred for surgical intervention if she later wanted this. She expected the clinician to understand her job demands and felt she should have been given more time to make a decision during the consultation.

Language barrier (n=1)

One patient said she was unable to express her disagreement due to her poor English and had felt uninvolved in the decision-making.

Felt uninvolved in the decision making process (n=4)

Patients' emotions can be affected depending on the manner in which clinicians communicate discharge. A manager who had suffered from photodermatitis for many years felt that her discharge was appropriate but unexpected. She highlighted that clinicians must be sensitive and aware of the words they choose to convey discharge, especially when patients had come with an expectation that they would be cured. Because of this she felt uninvolved in making the decision to discontinue follow-up.

“Communication must be clear when you come to an appointment. You are told that we are “finished” with you, so you are discharged. That can be really upsetting to some people emotionally, if they are discharged. It can make them feel abandoned. The clinician has to be a lot clearer what the process is going to be and what’s going to happen.” Although she had hoped to have her disease cured, she admitted that continuing follow-up appointments would be wasting both her time and the clinician’s time. *“There is not much point in me coming back, wasting my time, wasting their time, when they are not going to do any more treatment”.* *“Well, patients’ time is very important, not just the doctor’s time!”* One patient did not feel that the clinician was genuinely interested in his problem. *“I think the clinician understood my case but he just couldn’t be bothered. I feel it is a waste of time. I am no better off talking to the consultant than I was six months ago. I still got the same rash, still no treatment. No conclusions. I have wasted time and effort. You could have given me some cream now and say try this or do this. Take the tablets or try some other test, whatever. The problem is getting worse year on year. The rash is spreading. The problem has not been treated”.*

Projecting a “rushed” demeanour (n=3)

Three patients felt upset because their clinicians appeared rushed. The patients perceived that the clinician wanted to “wrap up” the consultation and discharge them to save time. These patients were still uncertain of their diagnosis or had psychological problems. One patient said he did not express his dissatisfaction because of how the clinician spoke.

“Because the way the doctor kind of explained it, I sort of agreed with the doctor even though I was upset It seemed to me that the doctor just couldn’t get me out of the room quick enough.”

Prolonged appointment (n=2)

One male patient who lived alone and diagnosed with urticaria was horrified that his disease was not given the attention it deserved from the consultant. He felt the consultant was not empathetic about his skin problem and did not consider his difficulty of seeking expert advice should his condition recur. *“I believe urticaria is underestimated...what it is like. The severity was so bad. If I had it again I will go to my GP very quickly but I think it will be quite a while before I can get in.”*

Advised to seek private care because of budget constraints (n=5)

Five patients were unhappy that their clinicians had suggested they seek referral to a private dermatologist: actually the clinicians were informing patients about treatment only being available in the private sector. Two patients did not understand the limitations of the NHS service and felt the doctor was “following the rules” rather than prioritizing the patient’s best interests. *“The doctor should have been able to prescribe the most efficient treatment for me; surely from the NHS, not to give me a private website! I pay tax all my life, I haven’t come to a private dermatologist have I? I think the clinician is influenced by her perception of cost. From my point of view, she was concerned about money within the NHS.”* One of the patients was sceptical of private care, especially when a hospital consultant working in a teaching hospital was not able to provide satisfactory treatment or answers to his problem. He felt that clinicians should be morally bound to give him the best possible care in an NHS setting. *“There is no alternative to offer other than going private! My perception is ‘We can’t do nothing for you, go private if you want anything done’. If I wanted the warts burnt off I would have to go private. What is the point of going private when the professor or consultant has no answers to it! Is the private person whom I am going to pay have the answer when the professor hasn’t?”*

Patients who did not expect discharge but were happy with the decision to be discharged (n=3)

Significant skin improvement with treatment

One patient was a 21-year old university student who had suffered from acne for three years. It was his third follow-up and he was discharged. The patient was not aware that he might be discharged, but he was happy with being discharged because he was satisfied and confident with the progress of his treatment and the fact that his lesions were clearing. *“No, I did not expect to be discharged. I thought the treatment was going to be longer, I did not realise how quick the treatment was, but I can see the difference in my skin. I am happy to be discharged. This acne has always been a problem in school and now I am discharged, it seems to me that it is the end of the treatment and the spots on my skin should be cleared soon. I guess I feel more confident of myself”.*

Patient concerns were addressed

The patient felt the consultant really addressed his concerns and involved him in the decision making process. *“Yes, the consultant asked me questions and he has addressed my concerns”.*

Easy clinic re-access upon discharge

Another patient felt happy although she was discharged because she was given the reassurance of easy clinic re-access should she need it in the future. *“It is comforting to know, that I can come back if I have problems; all I need to do is simply make an appointment with the secretary.”*

Factors which patients would want physicians to ascertain before accepting discharge

Five patients felt that they would have accepted discharge if two important elements were clarified; that they understood their condition and accepted the diagnosis. A busy business lady was extremely upset when her GP told her that she might have Addison’s disease and was relieved when the consultant explained and reassured her that in fact she had post-inflammatory hyperpigmentation and it was safe for her to be discharged. She said that she was convinced and accepted the diagnosis despite her earlier worry and apprehension. All patients felt that they would have accepted discharge if they had understood how to apply or take their medication. Five patients said that they would have accepted discharge if they were able and knew how to self-manage. Twenty-seven patients felt that they would have accepted discharge if their wishes had been addressed. Three patients felt that their type of job affected the decision to discharge. Although ten patients felt that dermatologists should consider how their quality of life was impaired by their skin condition before discharge, one medical doctor with melasma did not think that her consultant was sensitive to this. She indicated that clinicians can sometimes be insensitive to patients’ concerns. *“I don’t think a patient’s skin quality of life would affect his decision at all, he thinks, he believes that we’ve gone as far as we can go medically; as far as what he can offer me. If I had told him that I am devastated and I hate this and that, he would say “Well then you need to pursue other avenues”, as he sort of did, suggesting that I should look at facial peels, something which the NHS can’t offer. So I don’t think he is considering how I feel about my skin disease. He is very pragmatic, very objective. Not inhumane in anyway, but doctors can be”.* Four patients felt that the expense of travelling back and forth to the clinic was an influence on their discharge. Two patients said that they needed to have a carer organised before they were discharged. Twenty-three patients felt that if the disease was stable then it was appropriate to be discharged.

RESULTS FOR THIRD OBJECTIVE

To identify what patients think is important for clinicians to consider when taking a discharge decision

Using a thematic analysis as described below the patients expressed some important points that should be considered. Patients suggested that the following items were important to consider before discharging them.

Factors which patients felt the clinician must consider before discharging them

Patients suggested that clinicians must consider the following to improve the discharge process and decision taking for their patients.

Well informed, certain diagnosis and treatment plan

Patients expected clinicians to be certain of their diagnosis (n=39) and provide a clear treatment plan (n=38). All stressed that providing clear information about their disease, patient information leaflets and website addresses is essential before discharge, empowering self-management and enhancing patients' confidence. Most patients with chronic diseases felt "safer" if they were followed up, in case treatment needed changing. Fifty-one patients expected their management to be complete before discharge, including full investigation, exploring treatments and their responses to treatment, along with a final thorough examination.

Effective patient communication

Patients highlighted that good communication between clinician and patient is vital to taking a high quality discharge decision especially with the elderly (Ekdahl et al. 2010). One 70-year old female retiree, defined the key elements of good communication as follows: firstly, the clinician must have a clear treatment plan, secondly the clinician must explain to the patient how to spot a recurrence and thirdly must provide reassurance that the clinician is willing to see them again should the problem recur.

"On discharge, you need guidance in case there is a recurrence. Wise to say 'do this' and 'do that'. Give a clear treatment plan, or give some reassurance... say "Look, if you see the slightest thing come to see us". Communication is key."

Patients preferred phrases such as: "I don't need to see you again" or "You can now be taken care of by your GP" to the blunter "You are discharged". Fifteen patients said that clinicians should use simple terms when providing information. However, during the observations, no clinicians used medical jargon. One (doctor) patient highlighted that clinicians should be reminded not to use medical jargon with a patient, to prevent patients becoming confused. Eight patients said that, when discharging, it is important that the physician has a confident demeanour to reassure the patient. Three patients mentioned that if a patient does not speak English, an interpreter must be used.

A confident and reassuring demeanour

During observation, apparently all except two discharged patients understood the diagnosis. One patient noticed the clinician was unimpressed by his spots until told they were itchy, illustrating patients' sensitivity to doctors' mannerisms and body language. Two patients felt it important that clinicians ask whether patients are happy to be discharged. However, one patient thought this a redundant question because he did not think anything would have been done if he replied he was unhappy. Patients are sensitive to how clinicians project themselves to the patient. The clinician must reassure the patient that the GP and his team now have the capacity and want to take over their care. *"Try to be more involved with the person. Because when you are sending them home, you don't know what you are sending them home to, because you don't know what they are like as a person, so it would be nice for them to be reassured. And when sending them to the GP, make sure that the GP can also address their concerns so that they won't be got rid of completely."* Patients felt that the clinician must make certain of the diagnosis and ensure that the patient is convinced that they are certain of the diagnosis.

"The diagnosis I believe is wrong. He could have asked us to come back after the holidays to see the rash for himself to reconfirm the diagnosis". The same patient was also unconvinced that he was on the appropriate treatment. *"Steroidal cream is alright, I have tried it before, I have tried it again, but I am skeptical"*.

To provide a comforting closure

One patient even suggested the methods which a clinician could adopt to make a comforting closure. *"The doctor must have a conversation with the patient. The patient should be able to tell you all their concerns before they are discharging. The clinician should tell the patients to give a call, leave a message at the department if they had any concerns. There must be a little bit more contact rather than nothing at all, and patients are left on their own."*

Prepare the patient for discharge

Two patients stated that discharge was more acceptable when notice of possible discharge has been given during a previous consultation. *"Preparation is the only most important thing. If they are coming for the appointment you can already say beforehand: 'Look, your treatment is coming to a finish now, you are coming to the end of your treatment, we want you to come next time and the time after, but then we might be thinking about discharging you because by that time you should be okay'. Say something nice and gentle, but prepare_them for it. Not just 'You are discharged!'"*

(Laughing!) So, preparation is everything really; kindness, caring, that's why human emotions have got to come into it!" However, a (nurse) patient thought otherwise because knowing about impending discharge can cause unnecessary worry at times. The patients with chronic conditions felt that warning of discharge would allow their mental preparation.

Ascertain patients' ability to cope and self-manage

Patients are reluctant to be discharged if they feel unable to detect subtle changes heralding worsening. Three psoriasis patients insisted that their disease chronicity meant they should never be discharged, even if well controlled, for fear of coping by themselves or of missing new treatments. They felt more reassured being followed up by a dermatologist, even annually, than by their GP. GPs need to have appropriate knowledge and to know when to re-refer.

Good collaboration with primary care or with other specialties

Patients were happy if they perceived good communication existed between dermatologists and GPs or other specialty consultants involved in their care. Those with comorbidities were most appreciative of the reassurance that after discharge they would still be in good hands. Five patients mentioned the importance of coordination between GP and specialist.

Patients' suggestions about how to improve the overall discharge process in the outpatient setting

Efficient clinic organization and clinical practice

Seven patients stated that they were more likely to accept discharge if assured of quick re-access to specialist care if necessary. Twenty patients felt the long waiting time for first appointments or re-referrals was daunting. One patient with severe chronic urticaria said he almost committed suicide because of intolerable pain and itch and the long delays in dermatology referral.

All patients who have had surgery must be given a follow-up

One 70-year old female retiree suggested that the system must consider all cases, even patients who had had minor surgery, for follow-up. She was insistent that biopsy results must be given personally to patients before discharging them. *"If you have a problem, minor as it can be, there should be a follow up for (the doctor) to judge whether it is right or wrong. You might take decisions in haste. The lesion might get infected, so it is better I think that you get clearance. The clinician should be satisfied that the lesion is not*

causing any problem. Wait for (the) biopsy (result), that is understand the extent of the problem before discharging”.

Patients must see the same clinician who did the surgical procedure

Two surgical patients were keen to see the clinician who operated on them before discharge, to give them reassurance of the surgery's success and a sense of completeness. One elderly lady who underwent surgery for basal cell carcinoma felt that it was extremely important for patients to see the consultant surgeon who did the procedure before discharge. She suggested that the clinic system should at least arrange for the last follow-up surgical appointment to be with the surgeon who did the surgery.

A system which provides notice of discharge

Patients felt the timing of informing patients of likely discharge is extremely important, especially when patients with chronic diseases have been on long term follow-up. These patients had not expected to be discharged. The patients recommended to be given prior notice of discharge, instead of asking them to leave secondary care on the same day of their appointment. One patient expressed that another follow-up before the discharge date would allow patients an opportunity to voice their concerns, especially relating to their response to medication. *“Yes, timing is important. Flagging the possibility of discharge is important. So you got an understanding there and if you got any more concerns, you can bring them to the front I suppose, about being discharged. At least if I am given a cream for three months, and if I am not getting better, at least I am coming back to see her again and hopefully I can try another course, but now it's none of that. I would like to come back in three months' time for her to see whether I have improved and to see how I am feeling as a person! It would be nice to have that little bit more support. When I come back, I can express my concerns more to the doctor. Just a bit more support really rather than being out there on my own.”* Twenty patients did not think that prior notice was necessary.

“No need warning, it's got to be viewed on the day. It has to be seen by both patient and doctor”. One patient did not want to be discharged and preferred an appointment every six months to get more information regarding their skin condition and to detect possible changes. *“I just want it to be monitored more closely, there might be changes earlier than expected. I see this as some form of reassurance and peace of mind.”* Ten patients were ambivalent about whether a warning for discharge was necessary. They thought that both approaches might be acceptable.

Table 4.8 Factors that need improvement to ascertain appropriate discharge decision taking (from the patients' perspectives)

CLINICIAN FACTORS
Clinicians must be certain of their diagnosis
Clinicians must ensure an appropriate treatment
Clinicians must cure or have completed treatment
Clinicians must provide a reasonable alternative treatment if treatment is not available
Clinicians must provide adequate disease information
Clinicians must provide a clear treatment plan
Clinicians must ensure that all resources in the NHS have been exhausted before recommending private care
Clinicians must ascertain that the patient is able to cope with their skin condition and self-manage
Clinicians must address expectations accurately
<p>Clinicians must address concerns genuinely such as</p> <ul style="list-style-type: none"> Considering busy job demands Considering travelling difficulties Considering the lack of a carer Addressing psychosocial concerns Considering patients' life style <p>Clinicians must be confident</p> <p>Clinicians must be reassuring</p> <p>Clinicians must have courtesy and be respectful of the patient</p>
Clinicians must communicate effectively with the patient's General Practitioner
Clinicians must avoid medical jargon
Clinicians must copy the discharge letter to the patient
Clinicians must use comforting and suitable words to convey discharge

Table 4.8 (continued)

CLINICIAN FACTORS
Clinicians must use comforting and suitable words to convey discharge
Clinicians must allow involve the patient in the discussion
Clinicians must take time to explain and not rush the “final” consultation
Clinicians must ensure patients happy to be discharged
PATIENT FACTORS
Patient with comorbidities or with multiple problems affecting the skin condition should be given a number to contact
Patients with personal or psychosocial problems need these to be addressed or listened to and not discharged
PRACTICE FACTORS
Patients must be able to reaccess secondary care easily if in need
Patients with uncertainty of diagnosis, complex and chronic diseases must be given a shorter appointment time
Patients who have had surgery must be given a follow-up
Patients must see the same clinician who did the surgical procedure
Patients should be given notice of discharge
The discharge process must include a checklist which demonstrates what the clinician should consider when deciding whether or not to discharge the patient

DISCUSSION

There are four critical aspects from this study which need further deliberation and improvement. Addressing these questions should help improve the likelihood of reaching the most appropriate discharge decisions. Firstly, how accurate is the clinician’s perception of patients’ discharge expectations? Secondly, how effectively does the clinician communicate discharge? Thirdly, why were patients not willing to express their dissatisfaction concerning their “unwarranted” discharge to their dermatologists? Finally, to what extent can the dermatologist or health care system accommodate the suggestions of dermatology patients surrounding discharge?

How accurate is the clinician's perception of patients' discharge expectations?

The discordance between patients' views and clinicians' views seemed to be of great significance as well as the clinicians "inability" to see how upset their patients were about the decision made. This study has revealed that although most outpatients appeared pleased with the clinicians' discharge decisions, there appeared to be major discordance between what clinicians thought was an appropriate discharge and patients' actual views, similar to other misunderstandings between patients and clinicians. Although clinicians endeavoured to address patients' needs, expressed concern and confidently arranged discharge, they mainly focused on medical concerns and were unaware of the discontent of some patients over the discharge itself. Moreover, no patients expressed their objection to their doctor. Clinicians may be unwittingly biased because of overconfidence (Croskerry and Norman 2008), or because of previous individual experiences. Skilled expertise is central to accurate clinical judgement (Kahneman and Klein 2009), however a standardised tool might in some instances be helpful to prevent bias. For example, the impact of pruritus on life quality is often underestimated (Finlay 2011) and patients can be inappropriately discharged. The use of a quality-of-life questionnaire may reveal how patients are coping with their problem and inform the discharge decision.

Inpatients are sensitive to subtle nuances of clinicians appearing courteous but in reality not truly curious about patients' expectations and needs. This study identified that outpatients also perceive these nuances, despite short consultations. Clinicians focus rather on the basics of clinical medicine, such as diagnosing and monitoring treatment response, than on addressing patients' concerns. As problematic as in the inpatient setting, where staff may be pressed for time, outpatient clinics are also usually very busy and clinicians have little time to make decisions over discharge. Longer consultation times for patients' final visits would allow more detailed dialogue addressing patients' concerns and possibly reduce the likelihood of biased judgements. Patients expect continuation of outpatient care until the diagnosis is certain, but this may not always be possible. Clinicians should provide relevant information and supply information to increase patients' confidence in the discharge process. Jointly discussing a patient's treatment plan and encouraging further questions, even if a patient seems to accept discharge, could uncover unmet needs.

How effectively does the clinician communicate discharge?

This study has revealed that although the clinicians attempted their best to carry out an effective discharge and explain the discharge decision to the patient, it was obvious from

the interviews that some patients were not happy with how they were discharged. It was not clear whether the clinician understood or preferred to turn a blind eye to the fact that some patients were unhappy with the discharge. Perhaps due to time constraints they decided to ignore this fact. Furthermore, as a consultant they might be biased into feeling that they knew about the patients' condition better than the patient themselves. This is an important issue to address because a dissatisfied patient can lead to their disempowerment in self-management and may lead to unwarranted, frequent appointments. This flags the importance of having a clinical awareness of the impact of one's demeanour or spoken words to patients during consultations.

Effective clinician-patient communication is a core attribute of high quality decision-making. Clinicians must communicate effectively using techniques such as "being present", maintaining good eye contact, projecting empathy and confidence and giving reassurance. Respect and courtesy are also key attributes. Medical jargon should be avoided and an atmosphere created to encourage patients to ask questions. Healthcare professionals should engage patients with chronic conditions as part of the healthcare team and in the discharge decision process. Clinicians should be mindful of their demeanour with patients. Clinicians are often unaware that patients do ponder about the clinician's views concerning their skin condition. Clinicians also seemed unaware that the manner by which they communicate has a bearing on how each patient interprets each discharge consultation. For example, if patients have a positive feeling that their clinicians were sincerely concerned over their skin condition, the patients may be more likely to accept discharge. As illustrated from the interviews, patients who received empathic gestures or who were spoken to with simple, non-technical words were happier when told they could be discharged. This demonstrates that clinicians must be skilful in delivering the right words and displaying the right demeanour whilst correctly and adequately addressing patients' expectations. Most dermatology patients left the discharge decision entirely to clinicians. Patient involvement should take place even if the patient disagrees with the final decision. Clinicians should gauge what matters most to a patient before making a decision. Clinicians may miss subtle hints of patients' needs if they discount patients' personal accounts, dominate a subservient patient or ignore patient involvement in the decision process. Conflicting views on the final decision should alert clinicians to try to understand the reasons for disagreement and accept them as potentially valuable in enhancing their clinical judgement.

Why were patients not willing to express their dissatisfaction concerning their "unwarranted" discharge to their dermatologists?

It was not clear from the study why patients did not express their dissatisfaction concerning their “unwarranted” discharge to their dermatologists. Unsurprisingly, some patients do not fully understand the dynamics of healthcare within the NHS. They are not certain what can or cannot be treated in an outpatient setting. They may have perceived, as demonstrated in this study, that removal of simple “cosmetic” lesions should be done under the NHS. Their insistence about this was probably due to them having inadequate information about healthcare policies concerning patients’ rights to different types of treatment. Outpatient discharge can have a bewildering effect on patients, especially when it is suggested that they seek private care. Clinicians are expected in their training to learn the art of perceiving patients’ expectations correctly and to provide the necessary information and explain to them how the system works. Some patients’ perception of the “support” that they would like to have differs widely from that of clinicians. They wanted reassurance and a clear closure of their problem before they were discharged. They regarded consulting the same clinician, obtaining biopsy results, having a complete “cure” and having notice for discharge as key aspects of a thorough, supportive discharge closure. Conversely, clinicians seemed to regard this matter as trivial, because by default they have no choice but to pragmatically discharge patients, in order to allow space for other patients. Furthermore, as highlighted in Chapter Three, some Trusts advocate aggressive discharge policies that they encourage clinicians to follow. It is not surprising that these differences take place.

To what extent can the dermatologist or health care system accommodate the suggestions of dermatology patients surrounding discharge?

Patients want their concerns fully addressed before discharge, but in reality this may be impossible. Some patients felt “short-changed” at not receiving the “best” treatment for conditions with a strong cosmetic element. Aggressive discharge policies or tumour management guidelines may be challenged by patients expressing uneasiness at not being given a follow-up after surgery. Patient dissatisfaction might be reduced if clinicians ensured that patients understood the reasons behind hospital policies. Easy access to policy documents or the creation of summaries of hospital policies might enable this, if written in simple language. Dermatology patients are especially vulnerable to public comments about their appearance, because the skin is integral to body image and self-respect. Although treatment was often not ideal, many patients interviewed preferred to be indefinitely under the care of the hospital dermatology service. Difficulties may arise because of a mis-match between clinicians thinking they have “reassured” a patient and the patient’s actual perception.

Long re-referral waiting times add worry on the part of patients who may already be having difficulty coping indicate that clinicians should be mindful of this and make provision for open return appointments or direct access if needed. If patients are discharged with severe or chronic inflammatory skin disease that needs continued monitoring, a well-coordinated management plan between the specialist and the GP must be organised and clearly explained to the patient. Prior notification of discharge may help alleviate anxiety and give reassurance. Patients need reassurance that they will receive quality care after discharge from the outpatient's department. Although some patients might favour indefinite secondary care, they should be informed of the framework of care provided by GPs and the patient's suitability for follow-up in primary care: clinicians should identify patients who need primary care input or emotional support after discharge and make appropriate arrangements. The table below lists the factors suggested by the patients to ascertain appropriate discharge decision taking.

The degree to which patients accept discharge varies widely: each patient's level of concern arises from their individual belief system or expectations. Patient engagement in the discharge process could contribute to the appropriateness of discharge decisions. Up to now, an understanding of the patients' voice in the discharge decision has largely been ignored. However, health care providers are increasingly motivated to ensure that clinical decisions are efficient and appropriate, to enhance care quality and effective use of limited resources. When taking the decision to discharge, the use of empathetic body language by clinicians may help alleviate patients' anxiety.

But too much sympathy may invite unnecessary follow-up and discourage some patients to learn to self-manage. The clinical challenges require an appropriate mixture of coaxing and empathy along with the assessment of treatment response and consideration of the diagnosis. We need to train clinicians to think and decide about discharge systematically: clinicians should consider the patient's overall health, the clarity of the treatment plan, the patient's ability to apply treatment and to cope with treatment side effects. The wide range of issues identified by patients as important provides evidence to support targeted clinical training. As illustrated in the literature review of this thesis (Chapter One), clinicians need to juggle wisely the many clinical and nonclinical factors which could influence their discharge decisions: this demonstrates that clinicians need to fulfill the many agendas of various stakeholders. There is no doubt that putting the patients' best interests at heart is the ultimate aim. However, at a time of increasing outpatient appointments, insufficient funds for health care, limited human resources and time constraints, clinicians are forced to be realistic. A more utilitarian approach, "programmed" to minimise errors, needs to be seriously considered. Patients should be made aware of the challenges faced by clinicians when

they decide on whether to discharge or follow-up their patients. In a world-wide-web era, where knowledge discerns no boundaries, and where patients have the potential to fully understand their medical problems and the various treatment options, it is only reasonable that patients should be made aware of the difficulties faced in balancing healthcare agendas. It may be in the interests of hospital managers to roll out a healthcare information programme to educate patients about discharge. The design of such a programme should incorporate patients' views and suggestions. This would be a first step to show patients that the healthcare system is sensitive to their needs. It is hoped that patients' better understanding of the discharge process could help empower them to take more responsibility in managing their condition. This might reduce non-attendance at outpatient clinics and unnecessary appointments, and encourage better patient understanding of how to self-manage. Models to enhance patients' empowerment need to be developed (Funnell 2004).

CONCLUSION

This study highlights the importance of considering patients' perspectives in ensuring the appropriateness of outpatient discharge. Clinicians should try to include patients in discharge decisions and understand and address their wishes, especially with dermatology patients whose confidence relates to their body image. There is a need for a systematic approach to develop a science of discharge. We need first to ascertain which information is critical for the clinician to consider prior to discharge and second, to understand how clinicians can gain an accurate perception of patients' expectations and avoid bias. Conflicting views relating to discharge will continue between some clinicians and patients unless clinicians more fully understand patients' expectations and are able to handle their concerns. Perhaps after beginning to hear the patient's voice surrounding discharge, clinicians should be encouraged to develop the skills needed to take consistently high quality and appropriate discharge decisions.

CHAPTER FIVE

The Delphi exercise, the development of an outpatient discharge checklist and the clinical evaluation of the checklist

INTRODUCTION

Many specialties besides dermatology have recognised the importance of having a guideline or having criteria for discharging a patient (Kingdon and Newman 2006; Krohn 2008; Fiore et al. 2012) However, most have focused on producing discharge checklists on the overall discharge process that is from admission to discharging a patient from the ward, the outpatient or daycare setting. Examples include the development of a discharge planning checklist for geriatric patients (Grimmer et al. 2006), discharge criteria for surgical patients (Krohn 2008; Kingdon and Newman 2006; Fiore et al. 2012) and for post-anaesthetic care (Philips et al. 2014). Health policy discharge guidelines were designed to improve the transition process from hospital to home in the UK and in Australia (Roland et al. 2006; Department for Health and Ageing, Government of South Australia 2014). One study concentrated on developing a generic outpatient discharge checklist which could assist clinicians think through the discharge decision making process in a more systematic manner (Burkey et al. 1997a), however there are no published discharge checklists for use in dermatology. Much research on clinical decision-making has focused on how clinicians make diagnostic decisions (Elstein and Schwarz 2002) and treatment decisions rather than addressing discharge decisions. The lack of a clear and systematic approach towards safe discharge decision taking (Sullivan 1993; Finlay et al. 2000; Salek et al. 2012) has inspired the researcher and her supervisors to develop a high quality, auditable and transparent discharge checklist. Since healthcare providers often use consensus-generating methods to garner insights from clinical experts (Jones and Hunter 1995), the Delphi technique was chosen to help develop the discharge checklist. Only consultant dermatologists who had been involved in the earlier two studies (see Chapter 3 and Chapter 4) were considered to participate in the Delphi study. The details of the selection process will be discussed below.

OBJECTIVE

The study objectives were to:

1. Identify the minimum pieces of information that dermatologists consider important, in order to make a quality discharge decision.
2. Develop the checklist from the information received from the Delphi exercise
3. Evaluate the usefulness of the discharge checklist in the outpatient setting.

METHODS

Study design

The Delphi exercise

The Delphi technique (Figure 5.1) was chosen for its suitability to elicit consensus amongst experts when constrained for time and when participants are located in dispersed geographical locations (Hsu and Sandford 2007; Murphy et al. 1998). The Delphi technique involves an iterative, structured and controlled feedback between the researcher and the participants (raters) whilst maintaining confidentiality (Pill 1971; Jones and Hunter 1995). The Delphi exercise is designed to arrive at a level of agreement concerning a specific concept, through convergence of opinion (Hsu and Sandford 2007). The Delphi technique has previously been used as a tool to generate consensus in healthcare decisions such as for eliciting diagnosis (Graham et al. 2003), for crisis management during operations (Ziewacz et al. 2011) and for discharge readiness (Phillips et al. 2014). The consultants took part in a 3-round Delphi process that involved completion of a 72-item questionnaire to ascertain the minimum pieces of information needed for a dermatologist to carry out an appropriate outpatient discharge. The 72-item questionnaire was formulated based on an extensive literature review of outpatient discharge decision-taking, as described in Chapter One, on semi-structured face-to-face interviews involving 40 consultant dermatologists (Chapter Three) and on interviews with 56 dermatology outpatients (for more information see Chapter Four). In brief, during the interviews with 40 consultants the planned Delphi exercise was explained and the consultants were asked if they were interested in taking part in the Delphi study. This approach was adopted to ensure completion of all three rounds of the Delphi exercise, in the absence of a specific guideline for sample selection (Hsu and Sandford 2007). By their previous participation, consultants had been primed on the subject of outpatient discharge, thereby making it more likely that there would be high participant compliance and commitment throughout the Delphi process (Dalkey and Helmer 1963). Invitation letters (Appendix U) clearly explaining the Delphi study and a copy of our published literature review on outpatient discharge (Harun et al. 2014) were sent by email to the 21 consultant dermatologists from seven different Trusts in Birmingham, Bristol, Oxford, Gloucester, Cardiff, Wye Valley and Taunton and Somerset who had earlier expressed considerable interest in participating. This was followed by a hard copy of the same letter being posted to them. Seventeen of the consultants from five different NHS Trusts, namely from Birmingham, Bristol, Oxford, Gloucester and Cardiff, eventually agreed to participate. The reasons for the non-participation of the four other consultants were unclear. The consultant dermatologists who confirmed

participation were asked to sign a consent form before commencement of the study. It required them to initial, print their name, sign and date the document that was a confirmation of their willingness to take part in the study. Each clinician was given a specific code number for their identification within the study, for data protection reasons and to allow confidentiality in the handling of data. The anonymity of each participant was critical to prevent the possibility of dominance (Rognstad et al. 2009) of the views of the more influential or senior consultants within each Trust. The consultants were physically working at their separate desks in their respective hospitals. Eleven had the liberty of having their own rooms, four others had to share a common room and two others shared a room. None of these consultants knew who else was participating in the study. Email communication were addressed individually and information exchange was discreet. The participants were told that they had a choice of returning their questionnaires by email or by hard copy.

Round One

A hard copy (Appendix V) and an email of the 72-item Delphi questionnaire were sent to each of the 17 consultants who participated. An example of a shortened version of the questionnaire is depicted (Figure 5.2). Instructions on how to answer the questionnaire were clearly stated at the beginning of the questionnaire (Appendix V).

Development of the 72-item questionnaire

The development of the questionnaire was based on preliminary work described in Chapters One, Three and Four. The development of a good and well-designed questionnaire was demanding and it should not be taken for granted that the process would be simple (Oppenheim 2000). As stressed by Bell (2010), it involved careful choice of suitable questions, good question writing, appropriate design, piloting, and distribution and return of the questionnaires. The development of the Delphi questionnaire is outlined below:

Step One: The researcher gathered and listed all factors influencing discharge decision taking which were extracted from the results described in Chapters One, Three and Four.

Step Two: The researcher subdivided these factors into disease-based factors, clinician-based factors, patient-based factors, practice-based factors and policy-based factors.

Figure 5.1 Delphi study flow chart

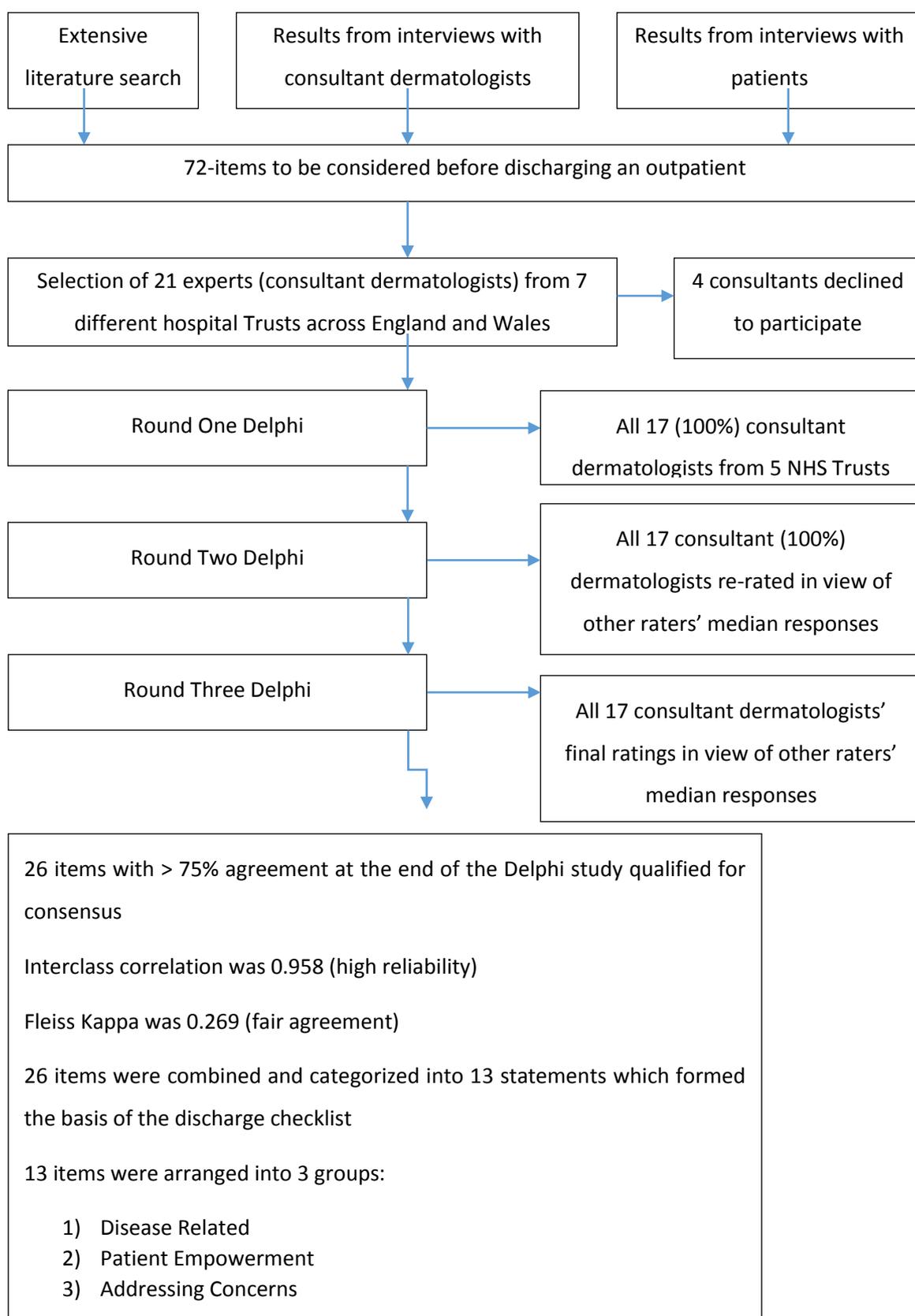


Figure 5.2 A shortened version of the Delphi questionnaire

Version 1 Date 23-7-2014 [Round One]

What are the minimum pieces of information you need in order to carry out a high quality discharge decision?

The following statements are information you need to carry out a high quality discharge decision. Please rate each of the statements in terms of its importance.

1	When considering discharge, how important is it to consider the type of diagnosis?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
2	When considering discharge, how important is it to consider the local discharge policy?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
3	When considering discharge, how important is it to make sure that patients can easily reaccess secondary care (dermatology clinic) if their skin problem worsens?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

Not all clinician factors were relevant. For example, questions pertaining to one’s personality as an influence on discharge was not considered a relevant question to include in the questionnaire because to the researcher the awareness of “self” in the decision making process can be taught rather than including it in a checklist.

Step Three: The researcher re-wrote all these factors into possible questions and categorised them into different headings: disease based factors, clinician based factors, patient based factors, practice based factors and policy based factors. This categorization was only performed to ensure that all relevant factors were considered in the questionnaire. However it was agreed during discussions that the questionnaire should be mixed-up to avoid “categorical” bias and to ensure that all questions were given equal attention. Examples of questions in the initial drafting process are depicted in the table below.

Table 5.1 Examples of questions in the initial process of drafting the questions

Items of discharge information
Disease based factors
a. A high level of certainty in skin diagnosis
b. Possible differentials diagnosis must be at hand
c. The type of diagnosis must be considered before discharge
d. The clinician must be clear on the type of treatment plan he or she feels suitable for the patient
e. The clinician must then agree on the post discharge plan of treatment with the patient and have discussed management outcomes
f. The treatment must have been effective during the outpatient follow up period of care
Patient based factors
g. The patient’s skin condition is stable and does not recur
h. The patient must know how to self-manage
h. The patient is cured from his or her disease

Step Four: At this stage the researcher sought critical input from her supervisors concerning how the questions should be worded. Care was taken to carefully word the question in order to avoid ambiguity, imprecision, assumptions, irrelevant knowledge, and double questions (Bell 2010). Since the researcher is not an English native speaker, the English grammar and question style were also checked by her supervisors. All these refinements of words and sentences were critically important to ensure that the questions came across as clear to the reader (Delphi participant) in order for them to answer the questions correctly. A very important thing was to avoid the participant feeling frustrated or offended (Delbecq et al. 1975). Furthermore, an “easy-to-answer” questionnaire would encourage participant engagement, resilience and consistency especially when faced with a 72 item questionnaire to be answered a total of three times.

Step Five: After the researcher and her supervisors rigorously went through each and every question to improve clarity, the researcher then pre-tested the 72 item questionnaire with three clinicians and one pharmacist to ensure greater comprehension. Adjustments to the design, text and content were adjusted accordingly, as long as it served the purpose of the Delphi study. The first round of most Delphi processes starts off with a broad question to gather data for the development of the Delphi questionnaire (Graham et al. 2003; Phillips et al. 2014). However this was not necessary in this PhD project since the elements of the questionnaire had already been gathered through the clinicians’ and patients’ interviews (Chapters Three and Four). The questionnaire required participants to rate the relative importance of each item of information needed to make an appropriate discharge decision, using a Likert scale. The Likert scales ranked in order of importance from the lowest to the highest: one indicating unimportant, two indicating of little importance, three indicating moderately important, four indicating important and five very important (Bryman 2012). The consultants were asked to give their comments or suggestions in a space provided next to each item, if they wished, to support their responses. The role of the researcher was to co-ordinate and respond to any uncertainty raised by the participants.

Round Two

In this round the consultants were given their previous ratings and the median group summary ratings. The anonymised text suggestions from Round One were not distributed. The dermatologists were then asked to rate the items again, now that they had seen the group’s median ratings. They were given the opportunity to change their Round One ratings and to make further comments. The group responses in Round Two would be sent again to the group in Round Three.

Round Three

All the participants were provided with their ratings from Round Two and the median group ratings from this Round. As for Round Two, the additional comments were not distributed. The consultants were given a final opportunity to revise their item ratings. The consensus information checklist was created based on the results of Round Three.

Methods of ascertaining consensus

Consensus was determined by subjective criteria using three methods: Firstly it was decided that three iterations (rounds) were sufficient to establish consensus due to time and budget constraints (Fan and Cheng 2006; Heiko 2012). Secondly, this study used an ordinal scale such as used in the Likert scale survey. Therefore a “certain level of agreement” to reach consensus was adopted as a definition. Based on previous research, consensus was determined when there was at least 75% agreement in the top two descriptors of the Likert scale: as stated earlier 5 indicating very important and 4 indicating important (Fiore et al. 2012; Phillips et al. 2014). One study suggested that consensus should be determined when there was more than 80% agreement on a 5-Point Likert scale in the top two descriptors such as desirable and highly desirable (Putnam et al. 1995). Thirdly, the median and interquartile range was used to depict consensus. The median was chosen because it is the preferred measure of central tendency (Hasson et al. 2000) and strongly favoured (Hill and Fowles 1975) for ordinal scales, as in the Likert scale (Gisev et al. 2013). Moreover the median and interquartile range (which is the measure of dispersion for the median), are generally more robust than the use of the mean and standard deviation (Murphy et al. 1998). Means are suitable for interval or ratio data and furthermore the means can be affected inappropriately by outliers. The inter-rater reliability (IRR) and the inter-rater agreement (IRA) are two distinctive methods used to determine the relationship between the scores provided by multiple raters (Brender et al. 2006; Gisev et al. 2013). The IRR relates to “the extent of variability or error inherent in a measurement” whereas the IRA relates to “the degree to which score or ratings are identical” (Gisev et al. 2013). The intraclass correlation (ICC) was chosen to measure the IRR since the study involved ordinal or natural ordering data (Gisev et al. 2013; Landis and Koch 1977) and the ICC is suitable for use where there are multiple raters (Gisev et al. 2013). IBM SPSS Statistics software (Version 20) was used for the ICC analysis. The data were analysed using the two way random effects model. The Fleiss Kappa (Shrout and Fleiss 1979) was used to calculate the IRA because of the fixed number of multiple raters in this study.

Study population

There were two reasons behind the methods we chose to identify the panel of experts. Firstly, the consultants who had already participated in the earlier part of the study (Chapter Three) were purposively sampled. Their earlier experiences of undergoing the face-to-face interviews and of being observed on how they took decisions to discharge patients were thought likely to have a considerable influence on their level of commitment to the Delphi study. To achieve dependable results, the Delphi study requires high interest, strong commitment and consistency amongst the panellists, given the intensity of the task they have to undertake. Secondly, we wanted to select if possible a good mix of consultant dermatologists with medical and surgical interests. The reason for this was that the final development of a generic discharge checklist would need to reflect the thought processes of both medical and surgical practices. Although discharge from the clinic was also carried out by other healthcare professionals in dermatology, such as dermatology registrars and specialist nurses, none of these other professionals were included in the Delphi study, as we considered the group of consultants to have the broadest experience and background knowledge. Similarly, patients and carers were not included in the study, although they contributed substantially (through semi-structured interviews) to the data that were considered in the development of the 72-item Delphi questionnaire.

Sample size

Seventeen consultant dermatologists from five different NHS Trusts agreed to participate.

Sample site

Five different NHS Trusts, namely from Birmingham, Bristol, Oxford, Gloucester and Cardiff.

Data analysis

Consensus was achieved in the third round using the established convention of “level of agreement” as a subjective criterion, when at least 75% of raters rated an item as very important or important. Using the SPSS Software (Version 20), there was strong inter-rater reliability (ICC= 0.958). The Fleiss Kappa was calculated with the help of a statistician Dr Tim Stone using the “r” statistics: 0.122 (Round 1), 0.250 (Round 2) and 0.269 (Round 3). There was fair inter-rater agreement (Fleiss Kappa =0.269). Twenty-six items (Table 5.7) qualified for inclusion. These statements had a percentage of

agreement of at least 75% or more indicating consensus. Levels of agreement ranged from 76.4% to 100%. Thirteen items had a level of agreement of 100% with an interquartile range (IQR) of 4-5. The items were also sorted by variance. If items had low variance, this indicated that raters had high agreement on the importance of the item.

RESULTS

The description of the results will be divided into three main parts: Part I - The Delphi exercise; Part II - Development of the discharge checklist; and Part III - The clinical evaluation of the checklist.

Part I - The Delphi exercise

Demographic characteristics of the study participants

All seventeen raters (100%) answered the Delphi questionnaire in all three rounds. During the Delphi process delays in receiving responses required reminders to raters. Twelve (71%) of raters were male, average age 48.7 years (range 36-65) with dermatology experience of 9-23 years. Fifteen of the consultants who took part in the 3-Round Delphi exercise were practising in major centres in university teaching hospitals (Cardiff, Birmingham, Bristol and Oxford) and two consultants were practising in a major district general hospital (Gloucester). All consultants were involved in teaching students and specialist trainees. The consultants differed in their main specialties: the main specialty interest of five consultants was medical, for six was surgical and for six was paediatric dermatology. The results of all three rounds in terms of its degree of importance only are illustrated below in Tables 5.2, 5.3, 5.4, 5.5 and 5.6.

Table 5.2 Items considered “very important” before discharge* for the three rounds of Delphi

	Very important	Round 1	Round 2	Round 3
1	To consider the type of diagnosis	✓	✓	✓
2	To ascertain that the patient is on the appropriate treatment	✓	✓	✓
3	To consider the severity of the disease	✓	✓	✓
4	To discuss the outcomes of both disease and management with the patient	✓	✓	✓
5	To ascertain the availability of good primary care support e.g. GP, community nurse, social support groups, patient’s advocate	✓	✓	✓
6	To ascertain that the patient understands how to self-manage and monitor the skin problem	✓	✓	✓
7	To have a clear and effective plan of treatment	✓	✓	✓
8	To ask oneself: “Will this patient benefit from further follow-up by myself?”	✓	✓	✓
9	To address patient’s concerns	✓	✓	✓
10	To ascertain that the patient knows about treatment and side effects	Rated as important	Rated as important	✓

* Based on the group’s median score

Table 5.3 Items considered “important” before discharge for the three rounds of Delphi

	Important	Round 1	Round 2	Round 3
1	To ascertain patient’s easy reaccess to secondary care if skin problem worsens	✓	✓	✓
2	To be certain of the patient’s skin diagnosis	✓	✓	✓
3	To ensure that patient is happy and satisfied with the discharge	✓	✓	✓
4	To resolve patient’s concerns other than the skin problem	✓	✓	Became moderately important
5	To ensure that the patient understands the skin diagnosis	✓	✓	✓
6	To consider the patient’s psychological state of mind	✓	✓	✓
7	To consider the availability of all treatment options in secondary care	✓	✓	✓

Table 5.3 (continued)

	Important	Round 1	Round 2	Round 3
8	To be certain that the skin problem can be managed at the level of primary care	✓	✓	✓
9	To measure the patient's response to treatment	✓	✓	✓
10	To consider one's own limitations of clinical expertise	✓	✓	✓
11	To know that treatment has worked effectively	✓	✓	Became moderately important
12	To consider the complexity of the skin disease	✓	✓	✓
13	To measure the skin disease impact on the patient's quality of life	✓	✓	✓
14	To consider the chronicity of the skin disease	✓	✓	✓
15	To consider the nature of the patient's job e.g. a busy job schedule	✓	✓	✓

Table 5.3 (continued)

	Important	Round 1	Round 2	Round 3
16	To consider the presence of a carer for vulnerable patients	✓	✓	✓
17	To consider patient's understanding of treatment and management information at discharge	✓	✓	✓
18	To discuss problematic cases with other colleagues	✓	✓	✓
19	To gauge GP's willingness to share care	✓	✓	✓
20	To consider patient's wishes not to be followed up	✓	✓	✓
21	To ensure that GPs have the staff and essential equipment to handle skin problems	✓	✓	✓

Table 5.3 (continued)

	Important	Round 1	Round 2	Round 3
22	To consider the carer's concerns	✓	✓	✓
23	To consider the patient's understanding of English	✓	✓	✓
24	To ensure that the patient understands the treatment and its side effects	✓	✓	Became very important
25	To consider patient's compliance with treatment	✓	✓	✓
26	To consider the type and demands of the treatment plan currently used by the patient	✓	✓	✓
27	To ascertain that the patient understand the diagnosis	✓	✓	✓
28	To consider the patient-carer or the patient-parent relationship	✓	✓	✓

Table 5.3 (continued)

	Important	Round 1	Round 2	Round 3
29	To ascertain the patient's likely initiative to seek help from GP if skin problem occurs	✓	✓	✓
30	To consider the patient's behaviour towards oneself such as one who is aggressive or dependent	✓	✓	✓
31	To consider patient's wishes to be followed up by the GP instead of by secondary care	✓	✓	✓

Table 5.4 Items considered “moderately important” before discharging a patient for the three rounds of Delphi

	Moderately Important	Round 1	Round 2	Round 3
1	To consider the local or national guidelines	✓	✓	✓
2	To consider the local discharge policy	✓	✓	✓
3	To have a differential diagnosis	✓	✓	✓
4	To ensure the availability of patient’s residential care if the patient needs this	✓	✓	✓
5	To consider the patient’s educational level	✓	✓	✓
6	To consider other patients’ outpatient waiting time	✓	✓	✓

Table 5.4 (continued)

	Moderately Important	Round 1	Round 2	Round 3
7	To consider whether the patient is attending other outpatient clinics from other specialties	✓	✓	✓
8	To consider whether the patient has other comorbidities	✓	✓	✓
9	To ensure that the patient has completed the course of treatment	✓	✓	✓
10	To ensure that the disease is stable with a low possibility of recurrence	✓	✓	✓
11	To ascertain the patient's financial capability to support ongoing visits to the hospital	✓	✓	✓

Table 5.4 (continued)

	Moderately Important	Round 1	Round 2	Round 3
12	To consider the patient's cultural background	✓	✓	✓
13	To consider the distance between patient's home and the clinic	✓	✓	✓
14	To consider the patient's wishes to be seen in secondary care despite being fit for discharge	✓	✓	✓
15	To ensure that patient is happy to communicate via phone or email after discharge	✓	✓	✓
16	To consider other healthcare professionals' workload in secondary care	✓	✓	✓
17	To consider healthcare financial resources	✓	✓	✓
18	To ascertain presence of management support from other care provider such as oncologists, psychologists	✓	✓	✓

Table 5.4 (continued)

	Moderately Important	Round 1	Round 2	Round 3
19	To know whether GP is competent in monitoring and handling a patient's skin problem	✓	✓	✓
20	To know the quality of patient-GP relationship	✓	✓	✓
21	To ascertain the degree to which one knows the patient	✓	✓	✓
22	To consider the patient's mobility	✓	✓	✓
23	To consider the availability of nurse led clinics in secondary care	✓	✓	✓
24	To consider one's own gut feeling	✓	✓	✓
25	To consider the carer or family's acceptance of the patient's discharge	✓	✓	✓

Table 5.4 (continued)

	Moderately Important	Round 1	Round 2	Round 3
26	To resolve patient's concerns other than the skin problem	✓	Was important	✓
27	To know that treatment has worked effectively	✓	Was important	✓

Table 5.5 items considered as of "little importance" before discharging a patient for the three rounds of Delphi

	Little importance	Round 1	Round 2	Round 3
1	To consider students' academic interest	✓	✓	✓
2	To consider own academic interest	✓	✓	✓
3	To consider the Trust's policies e.g. to achieve a new to follow up ratio target	✓	✓	✓

Table 5.5 (continued)

	Little importance	Round 1	Round 2	Round 3
4	To cure the patient of the skin problem	✓	✓	✓
5	To consider the patient's age	✓	✓	✓

Table 5.6 items considered as "unimportant" before discharging a patient for the three rounds of Delphi

	Unimportant	Round 1	Round 2	Round 3
1	To consider the patient's gender	✓	✓	✓
2	To consider the patient's ethnicity	✓	✓	✓

Table 5.7 The 26 items with >75% agreement at the end of Round Three (percentages are in descending order: 100% to 76.5%)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
1	To ascertain that the patient is on the appropriate treatment	Very important	100%	4-5	0.11
2	To consider the type of diagnosis	Very important	100%	4-5	0.15
3	To consider the severity of the diagnosis	Very important	100%	4-5	0.19

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
4	To ascertain that the patient understands how to self-manage and monitor the skin problem	Very important	100%	4-5	0.19
5	To discuss the outcomes of both disease and management with the patient	Very important	100%	4-5	0.22
6	To address patient's concerns	Very important	100%	4-5	0.22
7	To have a clear and effective plan of treatment	Very important	100%	4-5	0.22

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
8	To ascertain the availability of good primary care support e.g. GP, community nurse, social support groups, patient's advocate	Very important	100%	4-5	0.24
9	To ascertain that the patient knows about treatment and side effects	Very important	100%	4-5	0.26
10	To follow patient's wishes not to be followed up	Important	100%	4-5	0.15

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
11	To consider the type and demands of the treatment plan currently used by the patient	Important	100%	4-5	0.24
12	To ascertain whether patient's skin disease can be managed at the level of primary care	Important	100%	4-5	0.24
13	To consider patient's understanding of discharge information management information at discharge	Important	100%	4-5	0.26
14	To ask one's self: "Will this patient benefit from further follow-up by myself?"	Very important	94.1%	3-5	0.34

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
15	To consider patient's wishes to be followed up by the GP instead of by secondary care	Important	94.1%	3-5	0.24
16	To consider the patient's psychological state of mind	Important	88.2%	4-5	0.18
17	To consider the complexity of the skin disease	Important	88.2%	3-5	0.25
18	To consider the presence of a carer for vulnerable patients	Important	88.2%	3-5	0.47

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
19	To ensure that the patient understands the skin diagnosis	Important	88.2%	3-5	0.25
20	To consider patient's compliance with treatment	Important	88.2%	2-5	0.61
21	To ensure that patient is happy and satisfied with the discharge	Important	82.4%	3-5	0.31
22	To consider one's own limitations of clinical expertise	Important	82.4%	3-5	0.31

Table 5.7 (continued)

	Items	Median	Percentage of level of agreement	Interquartile range of Likert scale	Degree of variance
23	To be certain of the patient's skin diagnosis	Important	76.5%	3-5	0.36
24	To ascertain patient's easy reaccess to secondary care if skin problem worsens	Important	76.5%	3-5	0.5
25	To discuss problematic cases with other colleagues	Important	76.5%	3-5	0.69
26	To consider the patient-carer or the patient-parent relationship	Important	76.5%	2-5	0.61

Part II - Development of the discharge checklist

We considered the salient points when designing an effective checklist as described by Gawande (2011), including giving thought to the number of items, font used and overall presentation. As highlighted in recent studies (Sullivan 1993; Burkey et al. 1997a; Burkey et al. 1997b; Finlay et al. 2000; Hajjaj et al. 2010b; Hajjaj et al. 2010c), a multitude of factors influence discharge decision taking. However there is a minimum set of pieces of information that must be available to a clinician before discharging a patient. Weiser et al. (2010) stated that a quality checklist necessitates proper content and format, ability to indicate timing (in this case there are three signal points: disease-related (initial phase), patient empowerment (transition phase) and addressing concerns (final phase before the patient walks out of the door), formal testing and evaluation and ability to be modified to suit local practice. The researcher and the supervisors have opted for a simple checklist rather than an algorithm for practical use because, as accepted in the aviation industry, a simple check is more efficient and effective rather than going through an algorithmic road map (Weiser et al. 2010). As described in “The Checklist Manifesto” (Gawande 2011), Daniel Boorman, an aerospace engineering expert, stated that a number of key features must be considered when designing a checklist. First it is important to decide clearly what the checklist is supposed to be used for. Second it has to be decided whether it is to be a READ-DO or a DO-CONFIRM checklist. A READ-DO checklist is used to help people carry out the task as they check the items off the checklist; in other words it serves just like a recipe. The READ-DO checklist is most applicable to aircraft engineers and information systems specialists where there must be a “fool-proof” system that ensures that anyone can work on a machine in critical situations if the expert is not present. Such checklists are often referred to as “standard operating procedures” (SOPs). Conversely with the DO-CONFIRM checklist, users carry out their tasks using their memory and experience, and at some point they pause to go over the checklist to confirm that all the items on the checklist have been considered and carried out. The “Traffic-light design” dermatology outpatient discharge information checklist was designed with the aim of following the DO-CONFIRM checklist concept (Gawande 2011) although at times it can be argued that it could also serve as a READ-DO checklist. During the use of the checklist, dermatology clinicians were observed to use the checklist both ways depending on individual preference, which is not surprising since judgements by clinicians differ according to the divergent perceptions of the clinician (as demonstrated in Chapter Three) when consulting a patient in real time. The purpose of the discharge checklist is to be used to subtly remind the clinicians that a patient may not be appropriately discharged without considering these “Critical Key Questions”.

An example would be:

The question: "Will this patient benefit from my follow up?" will trigger a thought process along the lines of: "Do I have the expertise to assist this patient any further?", "Is there any reason for me to keep the patient coming back any longer?"

This "Critical Key Question" alerts clinicians to ask themselves honestly whether there is a real need for the patient to stay on in secondary care. Such signposting may help reduce inappropriate influences such as holding back patients who are familiar to the clinicians or keeping patients under the care of the clinic when other expertise may be of more help to the patient. This checklist cannot possibly highlight every important aspect of information that may be relevant, however by reading the instructions for use of the checklist document, clinicians would have a broader understanding of the items linked to each critical items listed on the checklist. The Discharge Checklist Instruction Sheet (Appendix AA) was designed to explain what each of the questions in the checklist meant.

For example, one of the questions was: "*Has the patient any concerns?*" This was followed by a sentence beneath this question: "*You have attempted to find out any concerns pertaining to the disease or issues surrounding the patient such as their psychological concerns or wishes not to be followed up*".

The sentence beneath the question is written to give the clinician a clearer idea of the meaning of the questions within the checklist. In this case, a clinician who have read the checklist would have understood that he or she needed to ask not only about disease related concerns, but also psychological concerns or personal wishes.

Another example would be: "*Can the patient re-access care easily if the problem recurs?*" This was followed by a sentence beneath this question: "*Given the disease problem, ask yourself whether the patient need easy reaccess to secondary care when the skin condition worsens? Have you given some form of contact point? (such as giving the clinic phone number or your secretary's contact number)*".

The sentence beneath the question is written to give the clinician a clearer idea of the meaning of the questions within the checklist. The clinician has to make a judgement whether easy access to the GP or the clinic is needed for the patient. And if this is the case, has the clinician given the patient a point of contact.

In short, the Discharge Checklist Instruction Sheet is a document explaining how to use the "Traffic-light" design dermatology outpatient discharge information checklist.

How were the items grouped into the 13 statements of the checklist?

The 26 items were grouped into three categories: disease related, patient empowerment and patient concerns. Items with related meanings were combined as illustrated in Table 5.8. Table 5.8 describes which items were combined to create each statement in the final checklist. There were 13 statements in the checklist, these were: certainty of diagnosis, disease severity, appropriateness of treatment, patient manageable in primary care, patient's benefit from follow-up, patient's understanding of diagnosis, disease outcome and treatment side effects, the availability of a clear plan, patient's ability to self-manage, patient's easy re-access to secondary care, patient's concerns and whether the patient and clinician are happy with the decision to discharge.

Based on the Delphi results, the final product was a 13-item checklist (Figure 5.3) that consists of the minimum pieces of necessary information deemed necessary to perform an appropriate and high quality discharge. The final checklist encompasses the domains of clinical expertise as suggested for any patient-physician shared decision-making process (Coulter and Collins 2011; Hoffmann et al. 2014): these include diagnosis, disease aetiology, prognosis, treatment options and outcome probabilities. In addition, the checklist addresses two main aspects of a patient's expertise. First, the patients' ability to self-manage: patients' values, attitudes to risk and the surrounding circumstances. Second, the patient's concerns: the critical importance of asking the patient "Do you have any concerns". The twelfth question of the discharge checklist is asking oneself: "Is the patient happy to be discharged?" This statement will trigger the question: "Am I happy to discharge the patient?" which is the thirteenth question of the discharge checklist. The researcher felt that this question is particularly important as a statement closure to the discharge checklist and therefore included in the discharge checklist, in line with a DO-CONFIRM checklist concept. The one-page checklist is easy to read with clear and unambiguous words, using a Sans Serif typeface. Although having five to nine items is the unwritten rule for checklists of such a nature, it was felt that in this context, further reduction of item number would affect the essence of a quality discharge checklist.

Creation of the "Traffic-light" design discharge information checklist

There has been a lot of thought involved in the development of the "Traffic-light design" dermatology outpatient discharge information checklist. The concept of having a "Stop-Look-Go" Traffic-light icon arose after looking at the World Health Organization (WHO) (WHO 2009) which divided the critical items into three phases or pauses (Wieser et al. 2010) according to the workflow arrangement. Also considering that the discharge checklist is to be applied in real life clinical situations, it needed to be pleasing to the

eye, easy to use, not time consuming and precise. The researcher was aware that unless clinicians were happy to use the checklist in their practice, all the research and hard work that went into this PhD project relating to the development of the outpatient discharge checklist would have resulted in little benefit.

Another aspect to which we gave much attention was to stress the concept of making decisions with the patient and not for the patient. Most decision aids or tools are designed to help patients choose the type of treatment most suitable for them. The discharge checklist is to help clinicians make the decision whether or not to discharge the patient: the call to make the discharge decision lies mainly in the hands of the physician clinician. The patients' voice should not be neglected. Based on Chapter 4 patients wanted to be heard, to be understood and to be involved in the process of making decisions. Therefore the term "patient empowerment" was selected as a heading for one of the sections in the discharge information checklist because empowering simply means instilling another with confidence and more control of a situation. Indirectly, the heading "patient empowerment" and the position of the section subconsciously remind the clinicians that he or she is responsible to make the patient feel empowered: to take control of his condition, to self-manage and to empower the patient in the discharge decision and in the process of accepting the discharge. The Yes and No tick boxes are purposely positioned so that all boxes on the left hand side that are marked indicate the possibility of readiness and appropriateness for patient discharge. The researcher was grateful for the comments and suggestions made by the participating clinicians. However it was not possible to incorporate all of these suggestions because the checklist was based on the Delphi results: furthermore we did not necessarily agree with all of the suggestions, and the checklist has not yet been tested on a wider scale to justify changes. It would be useful to conduct a wider project across England and Wales to have a broader input concerning the checklist use.

Table 5.8 Grouping of the 26 items which qualified for the Delphi consensus into 13 items for the final checklist

	Statement	Items which were combined under one statement	Level of importance and percentage of agreement	IQR	Variance
1	AM I CERTAIN OF THE DIAGNOSIS?	To consider the type of diagnosis	Very important (100%)	4-5	0.15
		To be certain of the patient's skin diagnosis	Important (76.5%)	3-5	0.36
		To discuss problematic cases with other colleagues	Important (76.5%)	3-5	0.69
2	IS THE CONDITION SEVERE?	To consider the severity of the diagnosis	Very important (100%)	4-5	0.19
		To consider the complexity of the skin disease	Important (88.2%)	3-5	0.25

Table 5.8 (continued)

	Statement	Items which were combined under one statement	Level of importance and percentage of agreement	IQR	Variance
3	IS THE PATIENT ON THE APPROPRIATE TREATMENT?	To ascertain that the patient is on the appropriate treatment	Very important (100%)	4-5	0.11
		To consider the type and demands of the treatment plan currently used by the patient	Important (100%)	4-5	0.24
4	CAN THE PATIENT BE MANAGED IN PRIMARY CARE?	To ascertain the availability of good primary care support e.g. GP, community nurse, social support groups, patient's advocate	Very important (100%)	4-5	0.24
		To ascertain whether patient's skin disease can be managed at the level of primary care	Important (100%)	4-5	0.24
		To consider the patient-carer or the patient-parent relationship	Important (76.5%)	2-5	0.61

Table 5.8 (continued)

	Statement	Items which were combined under one statement	Level of importance and percentage of agreement	IQR	Variance
5	WILL THIS PATIENT BENEFIT FROM MY FOLLOW UP?	To ask one's self: "Will this patient benefit from further follow-up by myself?"	Important (94.1%)	3-5	0.34
		To consider one's own limitations of clinical expertise	Important (82.4%)	3-5	0.31
6	HAS THE PATIENT UNDERSTOOD THE DIAGNOSIS AND DISEASE OUTCOME?	To discuss the outcomes of both disease and management with the patient	Very important (100%)	4-5	0.22
		To consider patient's understanding of discharge information management information at discharge	Important (100%)	4-5	0.26
		To ensure that the patient understands the skin diagnosis	Important (88.2%)	3-5	0.25

Table 5.8 (continued)

	Statement	Items which were combined under one statement	Level of importance and percentage of agreement	IQR	Variance
7	HAVE I EXPLAINED TO THE PATIENT A CLEAR PLAN OF TREATMENT?	To have a clear and effective plan of treatment	Very important (100%)	4-5	0.22
8	HAVE I EXPLAINED THE TREATMENT SIDE EFFECTS?	To ascertain that the patient knows about treatment and side effects	Very important (100%)	4-5	0.26
9	HAS THE PATIENT UNDERSTOOD HOW TO SELF-MANAGE?	To ascertain that the patient understands how to self-manage and monitor the skin problem	Very important (100%)	4-5	0.19
		To consider the presence of a carer for vulnerable patients	Important (88.2%)	3-5	0.47
		To consider patient's compliance with treatment	Important (88.2%)	2-5	0.61

Table 5.8 (continued)

	Statement	Items which were combined under one statement	Level of importance and percentage of agreement	IQR	Variance
10	HAS THE PATIENT ANY CONCERNS?	To address patient's concerns	Very Important (100%)	4-5	0.22
		To follow patient's wishes not to be followed up	Important (100%)	4-5	0.15
		To consider patient's wishes to be followed up by the GP instead of by secondary care	Important (94.1%)	3-5	0.24
		To consider the patient's psychological state of mind	Important (88.2%)	3-5	0.18
11	CAN THE PATIENT RE-ACCESS SECONDARY CARE EASILY IF THE PROBLEM RECURS?	To ascertain patient's easy reaccess to secondary care if skin problem worsens	Important (76.5%)	3-5	0.5
12	IS THE PATIENT HAPPY TO BE DISCHARGED?	To ensure that patient is happy and satisfied with the discharge	Important (82.4%)	3-5	0.31
13	AM I HAPPY TO DISCHARGE THE PATIENT?				

Figure 5.3 The “Traffic-light” outpatient discharge information checklist

OUTPATIENT DISCHARGE INFORMATION CHECKLIST

For quality discharge, aim for LEFT hand tick boxes

DISEASE RELATED

Am I certain of the diagnosis?
 Yes No

Is the condition severe?
 No Yes

Is the patient on the appropriate treatment?
 Yes No

Can the patient be managed in primary care?
 Yes No

Will the patient benefit from my follow up?
 No Yes

EMPOWERING THE PATIENT

Has the patient understood the diagnosis and treatment outcome?
 Yes No

Have I explained to the patient a clear plan of treatment?
 Yes No

Have I explained the treatment side effects?
 Yes No

Has the patient understood how to self-manage?
 Yes No

ADDRESSING CONCERNS

Has the patient any concerns?
 Yes No

Can the patient re-access secondary care easily if the problem recurs?
 Yes No

Is the patient happy to be discharged?
 Yes No

Am I happy to discharge the patient?
 Yes No

Part III – Clinical evaluation of the discharge checklist: content validation, applicability and practicality of the checklist

Pilot study for the evaluation of the Traffic-light design discharge information checklist

Six clinicians completed the initial pilot study. They consisted of one consultant, one registrar, and four academic specialists. Four thought the checklist relevant and useful and one stated it helped one's thought processes. None thought that having only thirteen items was inadequate and four said they would like to use the checklist. All thought there was no need to add more items. One felt the checklist was aimed at "medical" rather than "surgical" consultations. Five clinicians liked the checklist design and felt it was clear, easy to use and took little time to complete. After reviewing the checklist, the clinicians commented on the content, wording and design of the checklist. Further refinement was made to improve the checklist.

Actual study for the evaluation of the Traffic-light design discharge information checklist

Eighteen dermatologists took part in evaluating the discharge checklist (Table 5.9). Four consultants, four academic specialists, four specialist registrars, two general practitioners with special interest in dermatology, three specialist nurses and one senior house officer took part in the study. Initially invitation letters were sent out via email inviting dermatology clinicians who worked in a tertiary hospital to participate in the study (Appendix Z). The researcher explained to the participants how to undertake this evaluation twice by email correspondence and also in person immediately prior to commencing the study using a discharge checklist instruction sheet (Appendix AA). Participants who agreed to participate signed a consent form (Appendix BB) before the start of the study. The researcher remained as a non-participant observer during each outpatient clinic at which there were some discharge consultations. At the end of each clinic session, the participants were required to answer a 4-item questionnaire on their experience of using the checklist and were asked to give their suggestions as to how the discharge decision process could be improved.

Table 5.9 Demographic characteristics of the 18 clinical dermatologists who took part in evaluating the checklist

Dermatology clinicians	Number (N)	Percentage (%)
Male	4	22%
Female	14	78%
Age range	35, 26 - 62 years	
Indigenous British	15	83%
Ethnic minority	3	17%
Consultants	4	22%
Academic Specialist	4	22%
Specialist Registrars	4	22%
General Practitioners with special interest	2	11%
Clinical Nurse Specialist	3	17%
SHO	1	6%

The checklist was evaluated using a discharge checklist evaluation form that consisted of a four specific item questionnaire and an open ended question (Appendix CC). The 4 item questionnaire is depicted in the Methods section. The results are as follows:

Table 5.10 Evaluation of the discharge checklist by 18 clinicians

Questions	Yes	No
Did you find the checklist useful?	12 (67%)	6 (33%)
Did you think the process of thinking through the discharge decision was made much easier for you using the checklist?	3 (17%)	15 (83%)
Did you feel the information in the checklist used to guide your decision was inadequate?	0 (0%)	18 (100%)
Would you like to use the checklist in the future consultations?	11 (61%)	7 (39%)

Twelve (67%) of the 17 clinicians reported the checklist as useful for discharge practice but five (28%) highlighted that they may be constrained for time. Six of them (33%) found it useful as a prompt to guide their discharge decisions or if uncertain whether to discharge or not. One highlighted that it helped in dealing with discharging “difficult patients”. Five stressed that their decision to discharge was routine to their practices and therefore availability of the checklist would not make a difference to how they discharged patients. Another clinician admitted that the checklist was not useful when faced with situational dilemmas such as considering hospital budget constraints and patients’ insistence to continue follow-up, adding that there was a possibility of succumbing to the patients’ wishes, despite the availability of the checklist. The item stating “easy re-access of care for the patient” was wishful thinking to one clinician because of the way the clinical service is organized within the NHS. Only three (17%) clinicians felt that it guided their thinking process; two had clinical experience for more than 20 years, and one was a junior trainee clinician. The rest of the clinicians expressed confidence in their decision taking and claimed that they subconsciously thought of the items in the checklist before taking their decisions. None of the clinicians felt that the number and topics of the items in the checklist were inadequate, however three consultants and one academic specialist (4, 22%) suggested slight modification for better clarity and routine use. One consultant felt that the checklist could be further shortened by merging items into seven to nine common statements. Another consultant suggested modifying the checklist to suit cancer patients by adding the phrase “serious disease” beside “severity of disease”. She told the researcher after the clinic session that an early melanoma may not be “severe” at the time of diagnosis but there is still a

risk of it becoming life threatening, she stressed that in that context one might use the word serious rather than severe.

One consultant suggested how a change in terminology could be made as follows: She stated: *“In the case of basal cell carcinoma whilst the condition may not be life threatening, the treatment itself might cause disfigurement which is considered severe, and to the patient the diagnosis might be considered severe”*. She added: *“ In the case of an early melanoma, you cannot call the condition severe at that point but in a year or two down the line these lesions have the risk of it becoming life threatening, so in that context you would want to use the word serious rather than severe”*. The other two clinicians, of the four who recommended making changes to the wording, suggested that the option “Not Applied (N/A)” should be added beside the “Yes” and “No” boxes so that one would be able to choose the “N/A” option for unrelated issues such as treatment side effects in simple surgical cases. In general, despite these suggestions for modification, clinicians liked the simple, crisp appearance of the checklist.

Other ideas suggested by the participants included the use of the checklist for discharge audit purposes, as a guide to hospital managers on understanding how clinicians take discharge decisions or as a basis for discharge education for junior clinicians. Two clinicians stressed the importance of obtaining direct feedback from patients so that clinicians are aware of their discharge performance. Some felt that the checklist would be useful as a “safety net” when discharging patients (by providing a record of the information on which the discharge decision was based), in structuring consultations and in setting patients’ expectations. Ten (56%) clinicians suggested using the checklist to train junior clinicians and one suggested an educational trial with senior house officers and registrars. The checklist was regarded as a potential audit tool, as a useful means of monitoring clinicians in their discharge decision-making processes and as a helpful tool for hospital managers to analyse how clinicians make discharge decisions. Two consultants suggested that the checklist be placed as a laminated sheet on the consultation desk, perhaps stuck to the side of the computer screen as a prompt, or a printed copy placed with the notes of every new referral. One nurse highlighted that the checklist reminded her about the need for checking whether the patient had been properly educated about treatment before discharge.

DISCUSSION

The Delphi technique is commonly used in generating consensus in the healthcare setting. However there is no established rule to determine when consensus in a Delphi exercise is reached and definitions vary widely (Diamond et al. 2014). Three main factors determine the success of a Delphi exercise (Murphy et al. 1998), the location of

participants, the number of feedback rounds and the type of feedback responses provided by the participants. Murphy et al. (1998) highlighted that participants located within the same vicinity may influence the outcome of the consensus adversely, because they may confer. In this study, since there were some consultants who shared a common workplace in this study, it is unknown whether there were on-going discussions between the participants. However, it was clearly stipulated in the instructions section of the questionnaire that the Delphi exercise requires confidentiality. Given the integrity of the participants, it is highly unlikely that they engaged in any discussions relating to the Delphi exercise. Of course, it would have been preferable if the study had sampled only one consultant from each Trust. However, this would have been time consuming and costly and may have posed more difficulties in attaining a high response rate. Rowe and Wright (1999) has stressed that participants in a Delphi exercise will only be influenced by normative factors, rather than informative factors, if only provided with means or medians in the feedback. Normative influence is defined as influence which conforms to a group which were converging because of peer influence rather than information exchange. It is argued that this was not the case in this study. Considering that the participants were experts in their own subspecialties of dermatology, comments from others were not required to assist them in making a judgement. Furthermore there would be an element of implicit bias if participants' comments were distributed in the subsequent rounds. In fact, there was worsening of convergence when feedbacks were provided throughout the rounds. Delbecq et al. (1975) highlighted that response feedback is applicable more with exercises that involve generation of ideas. It was therefore agreed that because the study participants were homogenous in their expertise and the exercise was non-idea generating, it was better to allow minimal feedback, such as just providing the group median response to help with group judgement. In addition, it would be better to shuffle questions at every round to reduce the possibility of decision fatigue towards the end of answering the questionnaire. In our study the order of the questions in the questionnaire were the same in every round: it may have been better to have shuffled them.

Making decisions through consensus generating techniques such as the Delphi exercise involves individuals and group interactions. Effective human communication is critical to achieve dependable results. One crucial factor is the personal characteristics of the facilitator, such as integrity, trustworthiness and their likeability (Murphy et al. 1998). If the facilitator is perceived as being similar to the participating group, the response from participants is more effective. Previous research (Murphy et al. 1998) has demonstrated that responders tend to form highly consistent responses even on the basis of little information. The facilitator (the researcher) remained vigilant in handling participants' responses and feedback throughout the Delphi process; this was because NAH was

highly aware of the busy work schedule of consultants and that their participation was purely voluntary. The facilitator attempted as much as possible to make the whole process of completing the three rounds of the 72 item Delphi questionnaire an effortless experience for the participants. Since time pressure is known to influence decision-making gentle coaxing was important to prevent misunderstandings. The participants were encouraged to answer the questions at their own convenience, however a subtle reminder of the deadline was highlighted in the emails. The researcher was aware of the high number of questions that needed to be answered and preferred to wait for a maximum of three weeks before reminders were posted. There were delayed responses from four of the consultants. This required the researcher to arrange a personal visit to each to collect the questionnaires. Although the Delphi exercise took longer than expected, from August 2014 until March 2015, this study managed to achieve 100% response rate. Only seven (42%) of the seventeen participants sent the results by email. The rest preferred to sign a hard copy and post it to the researcher. This occurrence of postal responses being preferred over emails reflected experience reported in an earlier study (Evans 1997). However it is surprising that this was still the case today, where email is ubiquitous and the main way to communicate, compared to 1997 when email was only beginning to be used routinely. Although using email correspondence may be the favoured method to carry out a Delphi study, future studies should consider also using “old-fashioned” hard copy postal communication as a means of getting responses from participants to maximise response rate.

Although consideration of levels of percentage agreement has been acknowledged and accepted as a method for reaching consensus, it has been critiqued as a method that does not correct for errors occurring by chance; which means the level of agreement can be over-rated. An element of chance can for example be introduced when a participant wavers in their judgement whether to choose between “moderately important” or “important” response options on the Likert scale. Therefore, when selecting the criteria for use in the discharge checklist, we included both the percentage of agreement and the interquartile range (IQR) of each statement, which is widely accepted as a rigorous method for defining consensus (Heiko 2012). A statement which was considered “very important” with a level of agreement of 100% and an IQR of less range of 4-5 was considered more critical than an item with a “very important” level of agreement of 100% and an IQR of 2-5. However, this ranking did not contribute to the development of the final checklist. All 26 items which qualified for having generated consensus were collated and combined under three main headings: disease specific; patient empowerment; and patient concerns.

This Delphi exercise has established an appropriate standard for the discharge checklist as demonstrated by its high level of acceptability and applicability. However, most clinicians felt that it did not help in their thought process. A rigorously developed checklist should have the capacity not only to avoid errors but also be a resource tool to improve some clinicians' thinking process. In addition, it should be able to serve as a guide to help clinicians balance the influences on discharge in a more systematic manner. By referring to a checklist, clinicians might feel more empathetic to a patient, by being encouraged to be more curious to know whether the patient could cope and manage his ailment at home. This is especially important for patients with skin disease, who are often psychologically affected by their condition. Addressing concerns includes addressing patients' psychological and physical concerns. The checklist is not just a tool for ticking boxes but to give more clarity to the decision maker in their thought process. No matter how experienced or knowledgeable a clinician is, we are all subject to human error and therefore one role of the checklist is to try to minimise these errors. In addition, patients who witness the use of a checklist may feel that the clinician is giving serious consideration to providing high quality judgement. They may be happier knowing that their clinician has gone through a "checklist". It was apparent to the researcher that although checklists had been widely used in the engineering and aviation domain, very little of its use is highlighted in the medicine, and much less amongst clinicians. The most obvious checklist for a physician is perhaps that of a list, comprising patients' differential diagnosis. "Differential diagnosis is a two word summary of how doctors think" (Koven 2012 p.1).

As Koven (2012 p.1) stated:

It's been taught for centuries and it becomes second nature to anyone who's practiced clinical medicine. Here's how it works: First, you consider the patient: their gender, age, occupation, habits, hobbies, medical and family history, social situation, etc. Next, you consider the patient's symptoms: their quality, how long they've been present, what makes them better or worse, etc. Finally you take into account the general environment—the season, high incidence of certain diseases in the population, etc. Now you're ready to generate a list of possible explanations for this particular patient's symptoms—that's called the differential diagnosis.

Likewise, the newly developed "Traffic-light design" outpatient discharge information checklist that was designed to help clinicians think, incorporated the critical key items in a step wise fashion both in a broader sense and also in a series of small steps towards the discharge decision.

CONCLUSION

Appropriate criteria for a dermatology outpatient information discharge have been identified using the Delphi method. A novel “Traffic-light” designed information checklist for use before discharging outpatients is described, covering five disease related issues, four patient empowerment issues and four patient concerns. The use of the “Traffic-light” design outpatient discharge information checklist may eliminate hidden biases and minimise preventable errors (Gawande 2011). It is important for dermatology clinicians to understand the importance of making appropriate outpatient discharge decisions. It is therefore hoped that dermatology clinicians will embrace the use of this discharge checklist in order to improve the quality and transparency of outpatient discharge. Demonstrated by its high acceptability, it is likely that the “Traffic-light” design discharge checklist will be helpful in ascertaining higher quality outpatient discharge decisions through the use of a systematised approach.

CHAPTER SIX

General Discussion

DISCUSSION

Discharge decision taking is complex. Although this subject has been investigated previously, most studies emphasized issues surrounding inpatient discharge; focusing on the overall discharge planning rather than exploring how appropriate discharge decisions should be carried out. This is the first study which has thoroughly explored clinical management issues surrounding outpatient discharge and suggested measures to improve the decision process at an individual, educational and organizational level. The study primarily explored how dermatology clinicians (consultants) take outpatient discharge decisions, based on their own clinical experiences. In summary, the important outcomes which emerged from this study are first, the identification of 148 clinical and nonclinical influences on discharge decision taking. Beyond diagnosis and disease severity, there is a wide array of non-clinical factors. The onus is on the clinician to ensure that these non-clinical influences take appropriate precedence in the discharge decision-making process. These nonclinical influences include the clinician's experience, personality, medical intuition and perception. Patient-related factors include patient's behaviour, patient's understanding on how to self-manage, quality of life and wishes or expectations. Practice-related factors include the support from primary, secondary care services and policies in clinical practice. The first study aim was achieved. Prospective studies were undertaken (Chapter Three) to develop strategies and propose training methods to improve the quality of discharge decision taking. A recommended technique on how to make appropriate and better discharge decisions has been developed. This technique encompasses strategies that help clinicians perceive, negotiate and communicate better with patients to prevent judgment errors which could compromise patient safety or quality of life. Appropriateness of discharge involves four essential points: first, the critical importance of clinicians' accurate perception of patient needs and expectations, second, effective clinician-patient communication, third the awareness of bias when taking decisions and finally the importance of adopting a structured approach when making decisions.

The literature review showed a clear lack of information concerning influences on outpatient discharge decision taking. The majority of the articles were found to be focused on three aspects: firstly, articles were focused on inpatient discharge rather than outpatient discharge, secondly, the topics of discussions were mainly on ascertaining appropriate discharge planning, ascertaining that the overall discharge process from hospital admission to home is safe and timely, and thirdly on determining discharge destinations. This means finding out what factors should be considered to

determine whether the patient should be discharged, whether patients are fit to be sent to their homes or to nursing homes. Only three articles explored specifically how clinicians should take outpatient discharge decisions; outpatient general medicine (Burkey et al. 1997a), outpatient general surgery (Kingdon and Newman 2006) and outpatient physiotherapy (Pashley et al. 2010). Burkey et al. (1997a) and Kingdon and Newman (2006) suggested the use of a simple discharge criterion (Chapter One). Burkey et al. (1997a) conducted a prospective qualitative study observing consultations and interviewing physicians (specialists and GPs) whereas Kingdon and Newman (2006) used a Delphi exercise interviewing outpatient surgical nurses on what they would consider before discharging an outpatient surgical patient. Pashley et al. (2010) suggested three strategies to facilitate the outpatient discharge decision making process: first, patient self-management, in that the patient must have the capacity to effectively monitor their condition, second, effective management of patients' goals and expectations and third, accurate quantification of patient's progress using measuring tools such as visual analogue scales.

To date there are no studies which explored or used rigorous qualitative research or the Delphi exercise to determine criteria or a checklist for *outpatient* discharge in the general medical setting or in dermatology. The process of determining discharge readiness was mainly suited for the inpatient setting and the criteria were discipline specific. Using the Delphi method, two discipline specific discharge criteria to determine discharge readiness were developed for colorectal surgery patients (Fiore et al. 2012) and post anaesthetic patients (Phillips et al. 2014). The checklist to ascertain post colorectal surgical patients' readiness for discharge included: patient's ability to tolerate orally, lower gastrointestinal functional capacity, adequate pain control, patient's ability to mobilize and self-manage and disease without complications (Fiore et al. 2012). The post anaesthesia discharge scoring system for adults was developed using the Delphi method (Phillips et al. 2014).

There were other checklists developed to assist patients in the discharge process. It is worth mentioning these checklists to highlight the importance of having a structured approach in the discharge decision-making process and the overall discharge process. A Post-anaesthesia Discharge Scoring System (PADSS) (Chung et al. 1995) had also been developed for patients' home readiness. The items were all clinically related, based on five clinical items: (1) vital signs, (2) ambulation and mental status, (3) pain, nausea or vomiting, (4) surgical bleeding and (5) fluid intake or output. Halasyamani et al. (2006) on the other hand reported that committee members from The Society of Hospital Medicine's Hospital Quality and Patient Safety committee reviewed the literature to develop a checklist for geriatric inpatients for optimal discharge. This

checklist involved ensuring safe medication at discharge, patient education, and having clear follow-up plans. The authors in this study had recommended disease-specific and discharge destination-specific checklists for further improvement of the discharge process. Grimmer et al. (2006) described a patient focused discharge planning checklist referred to as PREPARED which is used as an adjunct to the discharge plan. It aimed at seeking patients' preparedness for inpatient discharge from the hospital. PREPARED stands for Prescriptions, Ready to enter community, Education, Placement, Assurance of safety, Realistic expectations, Empowerment, Directed to appropriate services. This checklist was developed to help patients and not clinicians. Another recent study recommended using a checklist during ward rounds as a prompt for discharging general medical inpatients (Soong et al. 2013). The checklist included seven main sections: indication for hospitalization, primary care, safety of medication, follow-up plans, referral for nursing homes, communication with outpatient care providers and patient education. The most recently developed discharge checklist was developed by interviewing patients, doctors and carers (BMA Patient Liaison Group 2014). This checklist was specifically designed for patients to use. The checklist was designed to ascertain that patients had all their queries answered before leaving the hospital and was recommended for use by the majority of hospital inpatients. The questions were used as triggers for patients so that pertinent issues were settled before going home. The ten questions checklist is as follows:

A checklist for patients

1. Do I know how I will be getting home?
2. Have I provided the correct contact details, including forwarding address for any post?
3. Have I collected my hospital discharge letter for my GP, or is it sent directly to my GP?
4. Do I have all the medication I need?
5. Do I understand what my medication is for, how to take it, and any associated side effects?
6. Do I know how to manage my condition, if I have ongoing care needs?
7. Do I need a follow-up appointment?
8. Do I have all my belongings, including any cash or valuables?

9. Do I have contact names and numbers for organisations and services, if I require further support?
10. Do I have any information leaflets about my condition, if needed?

Adapted from the (BMA Patient Liaison Group 2014).

The checklist was designed as a guide for inpatients to ensure that everything has been considered before leaving the hospital. Two of the questions from the inpatient checklist above (**“A checklist for patients”**) were similar to three questions in the “Traffic-light” design dermatology outpatient discharge information checklist; these items were 5a) *Do I understand what my medication is for, how to take it, 5b) and any associated side effects? 6) Do I know how to manage my condition, if I have on-going care needs?* Although this was the case, the researcher felt that the “Traffic-light” design dermatology outpatient discharge information checklist serves as a strong complementary tool to the **“checklist for patients”**. Patients can be rest assured that clinicians who use the “Traffic-light” design dermatology outpatient discharge information checklist would plausibly have heightened awareness in ascertaining patients’ understanding of the use of the medication and its side effects and would also be reminded to ascertain patients’ capacity to self-manage.

There has been an attempt to demonstrate the usefulness of the discharge information checklist through study 4, as described in Chapter Five. However the checklist could have been further strengthened by following a service improvement cycle method, using “Plan, Do, Study, Act” iterative cycles. In each cycle, the research team would be able to make the necessary changes, study the effect of these changes and further act upon them. This would have been a good methodology to use to improve the checklist: it would be possible for further research in this area to follow this methodology in order to create a more robust checklist that would be practical to use in a busy clinical setting.

In summary, the results of the literature review confirmed two important issues: Firstly, both clinical and nonclinical factors influence patient discharge. However, most of the factors considered in the discharge criteria or checklists (Kingdon and Newman 2006; Fiore et al. 2012; Phillips et al. 2014) were mainly clinical in nature. Only one study incorporated nonclinical factors for clinicians to use but the checklist was targeted for inpatients (Soong et al. (2013). Secondly, there is a lack of a structured guidance for clinicians on how to make discharge decisions; in particular outpatient discharge. Most studies concentrated on developing discharge checklists for the inpatient setting and to increase efficiency of the overall discharge planning. Articles which described the discharge decision making processes were discipline specific; examples included those

for geriatric patients (Jewel 1993; Moats 2006), orthopaedic physiotherapy (Jette et al. 2003; Pashley et al. 2010) and for transfer of patients from the ICU to the general ward (Lin et al. 2009). Furthermore none of these studies was designed to help clinicians think through their judgement and decision-making. It was considered that the most appropriate method to extract in-depth data concerning the process of making discharge decisions was to observe consultants perform discharge in a natural setting; in this case in an outpatient clinic setting. Dermatology consultants were selected as the only participants for the interviews on the assumption that they were the most experienced, skilled and knowledgeable clinicians. Although the addition of other clinicians such as academic specialists, dermatology trainees and nurse specialists may have yielded additional or different influences from that of consultants, the focus of this study was to determine the most critical factors that may influence an appropriate discharge. Only factors influencing consultants' decisions would have been suitable for further analysis in the designing of the discharge checklist. According to Klein (2009) a good understanding of what takes place in real life situations (in this case in the dermatology outpatient clinic) can provide valuable insights about methods to improve decision performance although the cohorts of consultants observed were different from those interviewed. The ideal would have been to observe the discharge practice, and patient insights, of the same consultants who were interviewed in the earlier part of the study. However, due to the researcher's time constraints, travelling costs and the intricacies of obtaining additional ethical approval at twelve different Trusts, this was not possible.

The 13-item "discharge information checklist" was developed using a consensus generating method, in a three round Delphi exercise. This covered clinicians' clinical judgment, patients' ability to self-manage and their concerns. The final checklist item "Am I happy to discharge the patient?" follows DO-CONFIRM guidance (Gawande 2011). The "Traffic-light" design dermatology outpatient discharge information checklist owes its basic design to the WHO Surgical Safety Checklist (National Health Service 2009). The checklist was designed as a content related checklist, to fit on one page and words were chosen to be exact and easy to read, using a Sans Serif type (Leadership E-Bulletin 2011). Although, five to nine items are the ideal for checklists, it was felt that further reduction would affect the checklist quality and clinical usefulness. When developing the checklist all aspects of designing an "easy to use" checklist were carefully considered, bearing in mind the idiom "less is more". Gawande's "Checklist Manifesto" (Gawande 2011) was used as a guide to help with the basic understanding of the wider concepts relating to checklists. In addition, to use the real world of outpatient clinic setting as a test bed, the ideas surrounding the discharge checklist were shared with colleagues at work in the Dermatology Department and with other clinic staff, including nurses, on what they felt makes an "excellent" checklist. Questions which

arose from these discussions were: Should the questions in the checklist be numbered? What should be done to make it look more attractive? Do we read a checklist from top to bottom or left to right?

There is a complex range of influences on clinical decision taking in dermatology outpatients, that include clinical disease-related influences and non-clinical influences relating to patient, physician and to practice. The goal of a quality discharge decision is to integrate the appropriate influences on the decision-making and minimize inappropriate non-clinical influences, preferably in a structured manner. This apparently simple but in reality very complex decision taking occurs in an ethical framework which requires the art of integrating evidence based medicine and non-clinical influences (Hajjaj et al. 2010a) including the patients' preferences. Clinical judgement is the cognitive arm of the decision-making process (Bazerman 2002) and fostering this is central to high quality and appropriate discharge. Judgement is a process of integrating external information (Dhami and Harries 2001; Harte and Koele 2001) or internal information i.e. from memory (Maule 2001) and decision analysis involving different options and using causal reasoning i.e. consideration of the situation (Smith et al. 2001) to make a single evaluation.(Maule 2001; Betsch 2008). Therefore, it may be reasonable to assume that the clinician's ability to judge will influence the accuracy of his or her decision taking, hence the importance of good judgement (Dowding and Thompson 2004). Good judgement is rational and clear with maximum certainty despite any conflicting or unavailable information. Our literature review has revealed that besides clinical experience, clinicians use at least two elements of judgement (Standing 2008) when making discharge decisions. These elements include intuitive judgement (Kingdon and Newman 2006; Standing 2008) and patient aided judgement (Standing 2008). Firstly, clinicians must appreciate that one may be influenced by a multitude of clinical and nonclinical factors, consciously or subconsciously at any given time within a consultation. For example, as opposed to making diagnostic decisions, where the decision process relies greatly on patients' clinical symptoms, signs and laboratory investigations, discharge decisions in contrast necessitate not only clarity of diagnosis and management plan but also the determining of patients' actual approval or contentment concerning the discharge decision.

Although previous studies in the outpatient setting have demonstrated numerous non-clinical influences on discharge decisions, there is a lack of information on the sequential categorising of decision steps leading to outpatient discharge decision taking. In the inpatient setting Wells et al. (1997) identified factors influencing the discharge decision making process and the consequences which arose from it. The authors demonstrated that the key influences in the discharge decision-making process are non-

clinical, such as patient's age or living arrangements and hospital budget constraints rather than solely clinical factors. Practice factors took precedence over patients' and families' interests in the discharge process resulting in premature discharge, giving rise to ethical and humanitarian issues. Patients and families expressed dissatisfaction with regards to patient autonomy and involvement in the discharge decision making process. This study also demonstrated that discharge plans needed reconsideration when discharge decisions were made early in the process: this may be attributed to fluctuations in patients' clinical progress during hospitalization. Wells et al. (1997) added that discharge decisions were sporadically discussed without adequate understanding or knowledge of the patient's disease experience. Clinicians' perceptions of the patients' low probability of recovery also influenced the discharge decision making process in geriatric settings (Armitage 1981; Chadwick and Russell 1989; Wells et al. 1997; Jette et al. 2003).

One of the findings of this research is that emotional states do influence discharge decision taking. Without proper insight, one tends to believe that choices are made rationally in the decision making process, overruling one's emotions (Kringelbach and Phillips 2014). The emotional circuitry for decision-making begins from the orbitofrontal cortex and serves to evaluate any forthcoming stimulus (Damasio 1994; Kringelbach and Phillips 2014). During the interviews, consultants stated how difficult it was for them to discharge patients with whom they have had long-term relationships or whom they had followed-up for a long time. Additionally, patients with unacceptable or undesirable behaviour, were more likely to be discharged. Ironically, clinicians may be subconsciously unaware of this unintentional bias. Our study findings simply confirm that clinicians' emotions do influence clinical decisions. This has already been highlighted by Gropman (2007) in his book *How Doctors Think*. He stated that emotions can strongly influence one's thinking patterns or thought processes. Likewise, in her lucid and insightful book *What Doctors Feel*, Ofri (2013) reported that doctors were able to competently handle simple medical problems even if they were feeling angry, tired or nervous. However, this may not be the case with complicated medical conditions. She described how doctors are oblivious as to how their emotions greatly influence decision-making in clinical practice, sometimes even superseding the practice of evidence-based medicine or clinical experience (Ofri 2013).

As Ofri (2013, p. 3) stated:

The emotional layers of medicine, however, are far more nuanced and pervasive than we may like to believe. In fact, they can often be the dominant players in medical decision-making, handily overshadowing evidence-based medicine,

clinical algorithms, quality control measures, even medical experience. And this can occur without anyone's conscious awareness.

A person who is overwhelmed by negative emotions has a tendency to perceive things from a constrictive viewpoint, and negate the bigger picture (Ofri 2013). As a result of this one will be more prone to an anchoring bias, fixing one's thought onto particular evidence, avoiding conflicting data. In the case of discharge decision-making, one might be prone to judge that a GP is incapable of sharing care, based on a poorly written referral letter or agreeing with a patient who has a poor opinion of their GP. Anchoring biases are also commonly seen amongst other professionals such as managers, accountants and engineers, and strategies were recommended to counter such bias (Hammond et al. 1999).

Does emotion influence human perception at the start of processing the stimulus? The process of perceiving involves a series of unconscious processes which include attention (Kringelbach and Phillips 2014). It has been shown that words are processed emotionally even before one perceives these words (Phelps et al. 2006). In that experiment, Phelps and colleagues found that fearful emotion stimulated people to see merging stripes better with lesser need for contrast. These authors concluded that emotional processing supersedes perception. This piece of information supports the use of "kinder" and "gentler" words to gain positive perception of a statement. For example, pleasant use of words should be used to inform discharge, such as "*Are you ready to go?*"

Clinicians oversimplify decision-making by using heuristic principles or mental shortcuts when faced with uncertainties (Tversky and Kahneman 1975; Hall 2002) over decisions such as discharge. Judgement under uncertainty may be the explanation for the variation observed in our studies in discharge practice between dermatologists in Wales; besides considering patients' clinical outcome, some clinicians might have the tendency to discount non-clinical factors such as a patient's inconvenience, short-term risks or overall healthcare costs while others do not. Despite the human brain's phenomenal capacity to absorb, analyse and judge, explicit or implicit biases are unavoidable. Based on the study results of this project the researcher has concluded that clinicians may be trapped into three types of biases during the decision making process: the overconfidence trap (Croskerry and Norman 2008; Grooman 2007), the anchoring trap (availability bias) and a judgement trap (confirmation bias). It is likely that similar mistakes in the decision-making process are repeated in various other professions (Hammond et al. 1999). Decisions made under stress and with uncertainties, as in a

busy outpatient dermatology clinic, require an awareness of such biases, hence the need for evidence-based decision analysis tools.

Framing a problem is a powerful step in the discharge decision-making process. Framing and reframing from another person's point of view helps give greater clarity to the key goals of discharging a patient. One can never consider all of the information (discharge influences) that there is when discharging a patient, so therefore clinicians need to learn to prioritise the goals. "Frames" are mental structures that are created to simplify the working complexities of the mind (Tversky and Kahneman 1986). An appropriate framework will assist in making appropriate decisions. The framework is important to ponder upon so that the decision made will not be trapped in a "framing blindness" (Russo and Schoemaker 1989). The framing exercise can clarify which goals are most relevant to the clinician and patient.

From the literature review (Chapter One), only one study highlighted the clinicians' use of medical intuition informing their discharge decisions (Kingdon and Newman 2006). Intuition is founded on a twofold process of a non-conscious, automatic approach and a conscious, analytic approach (Betsch 2008) ranging from deciding on what first comes to mind to experienced-based intuition (Aldrich and Mostow 2011; Woolley and Kostopoulou 2013). Clinicians use their medical intuition or "gut feelings" to make decisions (Kingdon and Newman 2006) but the introduction of evidence based medicine has encouraged a more scientific approach (Hajjaj et al 2010b).

The right clinical decision is not always the right ethical decision (Devettere 2010). Likewise, the right discharge decision is not always ethically correct. Discharging patients who are noncompliant to medication might increase the clinician's consultation time available for other patients. There are various schools of thought regarding models of healthcare, including the utilitarian approach which incorporates the philosophy that with a limited resource one should do the greatest good for the greatest number. This approach may influence clinical decision-making with regard to an individual patient (Hersh 2010). In a system such as the NHS in the UK, this context may provide further influences, emphasising the importance of the local framework of care provision and efficient use of resources.

Clinicians face many difficulties when making discharge decisions while attempting to balance patients' needs and appropriate use of healthcare resources. For example patients had to be discharged because third party payers or insurance companies in Canada had restricted further payment for follow-up treatment (Pashley et al. 2010), occasionally overriding both the clinician's and the patient's preferred decision.

The conflict between patient and consultant perceptions that was identified from this study may be the result of poor doctor-patient communication or of poor dissemination of information on treatment policies or discharge policies to the public. Patients need to be informed gently of the current hospital discharge policies. Patients need to understand and be aware of the limited healthcare resources and that not every treatment is available under the NHS. This could be performed through giving attention to patient education. In the field of pharmacy, patients are encouraged to adhere to medication. There is on-going research on how to ensure judicious use of medicine; monitoring of taking of prescribed drugs using “smart” apparatus may be a step forward to ascertain that medicines are taken as they are supposed to (Dayer et al. 2013).

The Mental Capacity Act 2005 in England and Wales protects the welfare and interests of patients who are not fully able to protect themselves, in particular only patients with sound mental capacity are allowed to give consent, but it must be assumed that persons have capacity unless it is proven otherwise. In the consultant interviews (Chapter Three) dermatology consultants stated that they are alerted by the subtle nuances of the behaviour of paediatric patients and their mothers. If a mother or parent does not seem capable of taking care of the child after discharge, the child will not be discharged. The drivers of discharge decisions are manifold. Clinic time constraints (Hughes et al. 2003; Poirier et al. 2012), consultations with “demanding” patients (Farber et al. 2008; Hajjaj et al. 2010a) and pressure to conform to discharge policies (Sullivan 1993; Hersh 2010) may encourage an untrained and inexperienced clinician to risk discharging a patient. Clinicians are expected to be able to balance between benefits and risks in the decision making process (Hunink et al. 2014).

The information from our interviews with patients who were dissatisfied about their discharge was similar to the findings of a study reported by Burkey et al. (1997b). They demonstrated how outpatients were easily affected by how doctors respond to patients’ concerns and whether they felt confident about their discharge. It seems clear from our study that patients who were discharged wanted to go home feeling reassured that their issues were satisfactorily sorted out. One study found that the expertise and thoroughness with which the consultation is provided is most important (Coast et al. 2006). Medical jargon was an issue addressed in two studies (Burkey et al. 1997b; Hesselink et al. 2012): the professional role of the doctor seems to override the gendered characteristics of speech style. One of the ways in which this happens is because of the doctors’ ability to project confidence. It is crucial for doctors to use simple words rather than use medical jargon during consultations. In addition, reassurance is an integral part of the communication involved in the discharge process and can be transmitted to the patient in two ways: the choice of words and the way that doctors

project themselves to their patients (Skelton and Hobbs 1999) communicating discharge. Skelton and Hobbs (1999) analysed the discussion that goes on in a typical doctor patient consultation and found that doctors were mindful not to use medical jargon. However, doctors used “authoritative” language which may demonstrate social power (Gray 2009). Doctors may be viewed as not very egalitarian in their approach (Gray 2009) and can hinder the advocacy of shared decision taking.

The majority of consultants in our study stated that they tried to resolve discharge conflicts with demanding or “difficult” patients through skilful negotiation with the patient. They highlighted that getting to the root of patients’ dissatisfaction was critical and that an unhappy patient should not be discharged. However, this attitude does not necessarily translate to giving in to every patient who does not wish to be discharged. What is important is to provide clarity for the patient on the diagnosis, treatment plan and the reasons for the discharge.

The majority of the consultants interviewed strongly agreed that discharge decision taking is a skill on its own. Interestingly, clinicians who participated in this study also pointed out that the skills needed to make appropriate discharge decisions are not just confined to doctor-patient communication. Instead emphasis should also be placed on enhancing the intra-professional and inter-professional collaborations that are necessary to ensure safe and appropriate discharge.

The degree to which patients accept being discharged from outpatients varies widely: each patient’s level of concern arises from their individual belief system or expectations. Patient engagement in the discharge process could contribute to the appropriateness of discharge decisions. Up to now, the patients’ voice in the discharge decision has largely been ignored, at least in the literature. However, there is increasing motivation within the healthcare services to ensure that clinical decisions are taken appropriately to enhance care. When taking the decision to discharge, clinicians using empathetic body language may help alleviate patients’ anxiety. But offering or implying too much sympathy may invite unnecessary follow-up and discourage some patients to learn to self-manage.

LIMITATIONS

This project was carried out with the aims of understanding aspects of outpatient discharge decision taking in the dermatology setting. In order to accomplish this, the first step was to perform the literature review in a systematic and rigorous manner. Careful assessment of the value and contribution of each article is critically important. Wallace and Wray (2011) have proposed four categories of literature review, namely

theoretical, research, practice and policy. These were incorporated into the literature review of this study. Although, it was conducted rigorously, the literature search was not a systematic review, but was “original” in that primary data was reviewed using a detailed search methodology (Aveyard 2010). As a result, some articles may have been overlooked during the search.

To ascertain that evidence was of high quality, the hierarchy of evidence of the literature review was identified. Since the project sought to explore in the real world what influenced clinicians’ discharge decision making, top of the evidence was research which employed direct observation and qualitative interviews. The review concentrated mainly on the views of clinicians, but did not specifically search for views of patients, carers or primary care providers. The exclusion of non-English articles may have resulted in some information being missed. Furthermore, more factors influencing discharge decisions may have been gathered if the search had included other disciplines such as obstetrics, gynaecology, mental health practice, neonatology and paediatrics, orthopaedics and emergency medicine. However, if any paper was identified directly addressed the research questions, such as two papers from the emergency setting (Calder et al. 2015; Wu et al. 2012) these articles were included because these two articles specifically discussed factors influencing discharge decisions.

Qualitative research obviously involves human beings as the research instrument, not machines which can be constantly calibrated; therefore there is always a risk of bias (Silverman 2011). Moreover the researcher, who is a practising dermatology clinician, already had some preconceived ideas of what influences discharge decision taking, and this might have influenced the outcome of the study. During the interviews the researcher may have just focused on probing further questions related to the factors influencing discharge decisions in a dermatology setting which she had become aware of earlier while searching the literature. If there had been a second researcher (interviewer), with a wider non-dermatology background, this person would have been able to strengthen or challenge the interview findings of the first researcher. However, the use of a single interviewer and confining the study to one region i.e. South Wales, South–West England and the Midlands provided consistency.

It would have been ideal if all the transcripts, rather than the 10% that were checked, had been checked by co-researchers with English as their first language. This exercise could have reduced the possibility of missing out the nuances of the English language or misinterpreting what was said during the interview. This possibility of error was however minimised by the researcher. During the interviews the researcher often asked the

interviewee to explain what they meant if she did not fully understand the context of what they are saying. Interviews were conducted at the convenience of the consultants. Interviews carried out in the evenings may have influenced the mood of the researcher or consultant due to fatigue or pressure to rush home. Despite this, all of the interviews, except one, that were carried out in the evenings were relaxed and conducted in a positive manner.

Unfortunately, we have little information about the 33% of consultants who did not agree to be interviewed. It is possible therefore that there may be some selection bias in the responses obtained, but the level of saturation reached in the interview numbers provides reassurance that all the important influences were identified. The consultants who participated were salaried and working in the publically funded National Health Service, where there is no personal financial incentive to follow-up or to discharge patients. The results of the study in Chapter Three may not be fully applicable to healthcare delivery in which there is financial incentive to follow-up.

The study in Chapter Three exclusively explored the perspectives of fully trained dermatology consultants, not other dermatology clinicians such as trainee registrars or nurse specialists. Interviews with the less experienced (junior) clinicians may have revealed a variety of other influential factors and additional insights to the decision making process.

The majority of the consultants were White British and were trained in the UK. It is possible that their background training may have influenced their judgement concerning clinical decision making such as discharge decisions. Selecting participants from a more diverse ethnicity and training background may have revealed a different emphasis on the influences.

In-depth face-to-face interviews were carried out in this study, but limited to dermatology, whereas a previous study by Sullivan (1993) involved three different specialties, and used clinical vignettes and analysis of clinicians' written responses. In another study Pashley et al. (2010) carried out semi-structured interviews and organised focus groups but the number of participants was much smaller (10) than our study (40).

Although previous studies have shown some influences similar to those revealed by our study such as disease severity (Hajjaj et al. 2010b), clinician seniority (Sullivan et al. 1992) and clinic policy (Sullivan et al. 1993), a much wider range of influences on discharge decisions have been identified in the current study. Furthermore, our findings add to previous knowledge that clinicians' emotions and attitudes can influence discharge decisions (Hersh 2010) and may cause bias.

The study in Chapter Four was based on only one centre and may not be a true reflection of discharged patients in general. The findings from the observation of consultations may have been affected by the clinic organisation or local discharge policies. It is possible that clinicians in a less busy clinic with more auxiliary support may interact with patients differently. During the observation studies, consultants were asked by the researcher to try where possible to select patients who would be potentially discharged. The reason for this was to try to select an equal number of patients who were discharged and who were followed up. This requirement may have introduced bias in how the participants (patients) were chosen. The context may have subconsciously influenced the consultant to discharge a patient to help with the number of participants for the study rather than for the appropriate reasons. An alternative methodology would have been to observe more consultations until more discharges had been carried out naturally. Due to time and logistic constraints this was not possible. The researcher had to assume that since she was observing consultants' decision making this bias would have been much reduced. Interviews of patients were conducted immediately after the observation of consultations. Some patients who were interviewed may have been in a rush and may not have provided a full account of what they truly felt of their discharge or followup. Some may not have revealed their true feelings for fear of being reported as being ungrateful to the consultant or service provided by the department. The researcher however had reassured the patients at the start of each interview that this was not the case.

There is no established rule to determine when consensus is reached. The number of experts representing an adequate sample in a Delphi study is unknown. Clinicians drawn from a greater number of Trusts may have yielded different results. The study participants were by this time known to the researcher and this may have introduced bias. Validation of the proposed checklist for use in different healthcare systems might be required. The information exchange in a Delphi study is strictly controlled compared to the more creative potential of face-to face interaction. Response delay in the Delphi study may have been caused by "decision fatigue" secondary to boredom or time constraints, potentially affecting accuracy of the results.

The researcher acknowledges that there should be a joint decision concerning discharge, taken between the patient and the doctor or other healthcare professional. In this study we aimed to understand the patient's viewpoints, by interviewing 56 patients following consultations (Chapter Four). The information from those patient interviews was incorporated in the "long list" of 72 items that were considered as part of the Delphi exercise. This study thereby did incorporate a patient perspective within the final checklist. However we acknowledge that the series of studies were primarily focused on

the opinions of consultant dermatologists. The reason for that strategy was that the researcher wished to have clarity in the origin and interpretability of the conclusions of the study. When planning this study, the researcher felt that to include the opinions of junior doctors, mixed in with the opinions of consultants, may have reduced the likelihood of experienced physicians accepting and taking seriously the final checklist items. However, on consideration the researcher acknowledges that an alternative approach of involving all of those involved in the discharge process, i.e. that is patients', patients' carers, junior doctors and nurse specialists and other healthcare professionals, as well as consultant dermatologists, may have been a better approach. If the researcher had used that methodology, she would have had a greater assurance that the perspectives of all parties had been appropriately considered. The researcher would recommend that future research should involve this wider grouping.

STUDY IMPLICATIONS

The findings from this study have provided new insights into how to make appropriate outpatient discharge decisions and provide the tools to improve the decision process. The literature review confirms that although high quality decision-making processes are the foundations of appropriate discharge decisions, to date there has been no structured approaches to guide clinicians ensure safe and timely patient discharges from outpatients. In addition, the research gaps identified by the literature review point to areas for future research work in patient discharge. The five main themes, consisting of 148 clinical and nonclinical influences, and detailed results of the challenges faced when making discharge decisions were identified through qualitative interviews and observation of consultations. A number of influences extracted from the consultant interviews concur with findings from previous studies of dermatology discharge taking (Sullivan et al. 1992; Finlay et al. 2000; Salek et al. 2012). Knowledge of these clinical and nonclinical influences and discharge challenges should be of value to junior clinicians to help inform their thought processes when making discharge decisions. The strategies recommended by the consultants can help clinicians improve their discharge decision-making processes. Additionally, this information could potentially aid clinic administrators, hospital managers and policy makers understand the challenges clinicians face in their daily discharge practice and make proper adjustments in their hospital policies.

Clinicians now have the potential, for the first time, to present evidence that outpatient discharge decisions use a systematic approach, thereby reducing the likelihood of unwarranted and unfair litigation. Patients on the one hand will hopefully be satisfied that their discharge decision is evidence or at least information based and not due entirely to

the whims and fancies of the clinicians. Patients' concerns are therefore seen to be addressed and documented with a clear action plan and hospital managers can now see the reality of the complexities and challenges faced by clinicians as they take decisions. Hospital managers can now adjust their policies relating to outpatient discharge according to some evidence base. Payers such as insurance companies can also benefit from the use of a discharge decision information checklist. Audits of the outpatient discharge process may assist in the management of public and private healthcare systems.

Up to now, the patients' voice in the discharge decision has largely been ignored. The concealed negative feelings of dermatology patients who were apparently appropriately discharged came forth during individual patient interviews. This important piece of information which was previously unrecognised sets a new scene for future handling of dermatology outpatient discharge. The vulnerability of patients with skin diseases can often be underestimated by busy clinicians. In future dermatologists should become aware of this and measures must be taken to improve the accuracy of their perception of dermatology patients' needs and expectations. One of the ways to objectively assess patients' psychological mind-set and quality of life is by using a quality of life tool, such as the DLQI. A subjective rough assessment of the patient's quality of life may be misleading. One study demonstrated that the DLQI could influence treatment decisions (Salek et al. 2007). Likewise the use of the DLQI or specific measures of psychological well-being can assist dermatology clinicians make discharge decisions by indicating whether a patient is psychologically fit for discharge.

As recommended by some dermatology consultants, clinicians are advised to demonstrate empathetic body language to help alleviate patients' anxiety. But too much sympathy may invite unnecessary follow-up and discourage some patients to learn to self-manage. The clinical challenges require an appropriate mixture of coaxing and empathy along with the assessment of treatment response and consideration of the diagnosis. Therefore there is a need to train clinicians to think and decide about discharge systematically with a stroke of empathy and reassurance: clinicians should consider the patient's overall health, the clarity of the treatment plan, the patient's ability to apply treatment and to cope with treatment side effects. The wide range of issues identified by patients as important provides evidence to support targeted clinical training. The discharge checklist could also be uploaded on patient electronic records as an application for clinicians to use during their discharge practice. The use of such an app, if developed, could be useful for clinicians to track the discharge decision made for the patient. For example, if a clinician did not discharge the patient at the first visit, the discharge app could indicate which of the 13 items was not fulfilled, thereby leading to a

follow-up. This could be particularly useful to remind the clinician the reasons for follow-up, when the patient is seen during the next appointment: of course such information would appropriately be recorded in the patient's notes or electronic record. Such information may contribute to a structured discharge history of the patient and hence possibly improve patient care based on evidence. For example, if hospital managers were to make an enquiry as to why a specific patient was being continually followed up on a particular consultant's list (despite having certainty of diagnosis and appropriate treatment), there would be a validated structured document or system to provide the reasons for follow-up. The discharge checklist could be used as evidence that a patient was not discharged because of, for example, two reasons: 1) The patients could not be treated by their GP 2) The patient was still benefitting from the consultants' expertise which was needed for the patients' condition.

This project has demonstrated that if a Delphi exercise is properly conducted there is a strong likelihood of obtaining excellent and enthusiastic "expert" responses. The results attained will then be effective, reliable and robust. There is potential to gain consensus on future topics surrounding disease specific discharge checklists from the use of the Delphi technique. Two new communication skills must be taught to clinicians when making discharge decisions (or any clinical decision): first, to be mindful of falling into decision traps (biases) (Hammond 2013) during the decision process and second, to recognise uncertainties and master the art of risk perception. Although clinicians are generally taught to embrace self-confidence, genuinely listening to the patient's story can go the extra mile in dealing with patients' feelings and avoiding miscommunication. This PhD project has opened up new insights into the importance of clinical decision-making, and the consequences which may arise following poorly made decisions, at an individual and organizational level. It is essential for clinicians and those who make decisions about groups of patients and the population to learn this new but neglected scientific skill, arising from the previous "art" of medicine. This is the first project to demonstrate the use of a robustly created, evidenced based checklist to inform appropriate outpatient discharge decisions. The proposed use of the checklist is as a guide for clinicians to think through and make judgements about the decision process. Previously, dermatology clinicians used local or national guidelines to inform their decisions: these guidelines were simply treatment guidelines and not a formal method to guide decision making by ensuring appropriate information was available. Other discharge checklists are designed to guide the discharge planning *after* the decision to discharge a patient is made, primarily in the inpatient context.

FUTURE WORK

The speed and scale of change in health-related technology in today's world has created volumes of unstructured and structured clinical data which influence the way healthcare is being practised. Anonymised clinical data, which were once exclusively available only to doctors, are now readily accessible, for example by pharmaceutical companies. Patients and the public no longer play a passive role; they are now more knowledge-driven, well-informed and technologically savvy. The proliferation of social media networks and the introduction of telemedicine (in particular Tele dermatology) has encouraged patients to share health and treatment information with their care providers. Clinicians may struggle to ascertain appropriateness of discharge decisions amidst a more patient-centric model of care; coerced by the advent of the Salzburg Statement on shared decision-making (Salzburg Global Seminar 2011). It is therefore critically important to include patients' viewpoints throughout the decision making process. The involvement of patients in making discharge decisions along with their doctors often takes place, but not always. A number of discharge checklists have been designed to encourage this in clinical practice (references), including our Traffic-light discharge information checklist (Chapter Five). Ideally, the discharge decision should be shared between patient or specialist and with an eye to the role of primary care and specialist nursing in providing ongoing care. To help 'shared' discharge decision taking, while waiting for their turn to see their doctor, patients could complete a 'patient-completed' discharge checklist, so that patients enter the consultation room already considering the issues surrounding possible discharge. The completion of such a checklist before the consultation might help the consultant focus on issues relevant to the patient's concerns and hence improve the efficiency and relevance of the consultation. The development of such a "patient-completed discharge checklist" could be the subject of future research in this area.

"The final checklist, although comprehensive and robust, comprises of thirteen critical items: this length may limit its practical usefulness and therefore the checklist maybe regarded as a "theoretical" concept for routine use, though it may be practical and useful in a training or educational role. In the initial testing of the use of the checklist, all 18 clinicians completed the checklist. However, outside the "study" framework, in routine consultations with an average 10 minutes per consultation, time limitations might serve as a possible deterrent to using the checklist in practice. There is a possibility that clinicians, even when using the checklist, will not in practice go through all the components of the checklist before discharging their patients. Clinicians might however go through a shorter checklist that was limited to say 3-4 items. Future research might include more than three rounds of Delphi to trim the number of items of the checklist

down to the barest essentials, separating out the very important to the less important and giving the checklist a much more practical worth. Alternatively, it might be helpful if patients used a patient-orientated discharge checklist while waiting for their turn in the waiting room. The “patient-completed discharge checklist” could consist of critical items of the “Traffic-light” design discharge information checklist, from the “Patient empowerment” and “Addressing concerns” sections. If the patient were to complete such a checklist before entering the consultation room, this would greatly help the consultant understand and focus on the issues most relevant to the patient and make good use of the limited consultation time. Such a development would need to be the subject of future research and validation.”

Hospital policies under the NHS are geared towards aggressive outpatient discharge with targeted new to follow-up ratios to free up slots for new patients. Under such time and organizational pressure, errors in discharging patients are inevitable. Furthermore there has been an increasing motivation in healthcare services to ensure that clinical decisions are efficient and appropriate, to enhance care. The “Traffic-light” design dermatology outpatient discharge information checklist was designed to assist the clinician who is struggling to determine the right mode of action; whether to discharge or follow-up the patient. In view of this the “Traffic-light” design dermatology outpatient discharge information checklist is recommended for use as a guide to remind clinicians to consider the 13 critical items when they make discharge decisions. We propose a study to determine the precise mechanism and durability of any such effect in specific settings. For example clinicians can be asked whether they preferred the checklist to be incorporated in the patient’s folder, or in an app, or laminated on the clinic wall, or incorporated in the computer system. The Traffic-light checklist as it stands offers a menu from which individual dermatology departments might select those items that appear most important to different individual or groups of patients. Local additions to the checklist might for example include offering a specialist nurse email or telephone service. The “Traffic-light” design discharge information checklist can also be targeted for use in selected rather than for all dermatology patients. Such selected patients could include patients with longstanding chronic disease, patients who have been seen for many years but are now stable and could be discharged or patients with issues such as uncertainty of diagnosis or poor treatment response or those with poor psychosocial support.

There is a need to determine discharge appropriateness. This can be investigated by carrying out two separate studies:

- a. To determine whether or not the “Traffic-light” design dermatology outpatient discharge information checklist will improve patients’ experiences of their discharge. We propose a randomised controlled, multicentre, prospective study which compares patients’ experiences of their discharge and whether or not the checklist is being used over a period of time.
- b. To evaluate whether the use of the “Traffic-light” design dermatology outpatient discharge information checklist can improve clinic efficiency and cost-effectiveness.

It is hoped that the results from this study will help healthcare stakeholders focus on one aspect of clinical decision making that is critically important but was previously neglected. The output from this project has also contributed to a better understanding of what is meant by shared decision making in the context of discharge. Decision aids are usually designed to assist patients with their treatment decisions; this project has instead contributed to creating a decision aid to assist clinicians with their management decision: outpatient discharge. In the real world of hospital practice, clinicians are often influenced by hospital managers and commissioners who put them under pressure to provide adequate slots for new patients rather than for follow-ups. Clinicians also take it upon themselves to be ethically responsible to provide the best care for their patients (Platt 1963) i.e. to confirm the correct diagnosis, to ascertain the correct treatment, to lend support and address concerns where appropriate. Unfortunately due to the restrictions on healthcare budgets which underlines specific treatment availability within the NHS, coupled with limited consultation time, such altruistic intentions may be a little ambitious for the inexperienced clinician. These existing challenges makes it all the more important that clinicians carry out the process of discharge decision taking in a well-thought-out and regulated way, in order that such decisions are taken to meet the best interests of individual patients and to meet the demands of the wider healthcare service. In view of this, this study has identified the critical information needed to take an appropriate discharge decision.

Similar to “Big Data”, the results from this PhD project such as the development of the “Traffic-light” design dermatology outpatient discharge information checklist has set the foundation to structure data within the thought processes of clinicians. And, like the “Internet of Things”, the project has signposted the profound importance of accurate and effective physician-patient “interconnectedness”. A different trend for taking discharge decisions has just begun. If dermatologists better understood how discharge decisions

are carried out, more appropriate outpatient discharge decisions might be achieved, in the best interests of patients and dermatology services.

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PUBLICATIONS AND PRESENTATIONS

ARTICLES

Review article

Harun NA, Salek S, Piguet V, Finlay AY. 2014. **The dermatology outpatient discharge decision: understanding a critical but neglected process.** *British Journal of Dermatology* 170 (5), pp. 1029-1038.

Original article

Harun NA, Finlay AY, Salek MS, Piguet V. Harun 2015. **Appropriate and inappropriate influences on outpatient discharge decision making in dermatology: a prospective qualitative study.** *British Journal of Dermatology* 173 (3), pp. 720-730.

Original article

Harun NA, Finlay AY, Salek MS, Piguet V. 2016. **The development and clinical evaluation of a “Traffic-light design” dermatology outpatient discharge information checklist.** *British Journal of Dermatology* 175(3), pp. 572-582

Original article (submitted)

Harun NA, Finlay AY, Piguet V, Salek S. **Understanding clinician influences and patient perspectives on outpatient discharge decisions: a qualitative study** (revised and resubmitted to BMJ Open)

ABSTRACT AND POSTER PRESENTATIONS

Abstract and poster presentation

46th Annual Meeting of the European Society for Dermatological Research (ESDR) 2016 in Munich, Germany (7th -10th September 2016).

Harun NA, Finlay AY, Salek MS, Piguet V. 2016. **Development and clinical evaluation of a “Traffic-light” design dermatology outpatient discharge checklist.**

Abstract and poster presentation

94th Annual Meeting of the British Association of Dermatology (BAD) in Glasgow (July 2014).

Harun NA, Salek S, Piguet V, Finlay AY. **What are the real influences on dermatology outpatient discharge decisions?** *British Journal of Dermatology* 2014; 171(Suppl. 1): 28.

Abstract and poster presentation

95th Annual Meeting of the British Association of Dermatology (BAD) 2015, 5-8th July 2015 in Manchester, UK.

Harun NA, Finlay AY, Piguet V, MS Salek. **Outpatient discharge decision taking: patients' perspectives challenge current practice.** *British Journal Dermatology* 2015; 173 (Suppl. S1): 21–76.

POSTER PRESENTATION

Poster presentation

British Society for Investigative Dermatology Annual Meeting (BSID) as a THESIS Presentation in Southampton 27th -29th April 2015. **Challenges in dermatology outpatient discharge decision-taking.** Harun NA, Finlay AY, Salek S, Piguet V.

Poster presentation

Association of Physicians of Great Britain and Ireland (Plymouth, 7-8 April 2016). **Outpatient Discharge Appropriateness: What Can Be Learnt From Patients' Perspectives of Clinicians' Decisions?** Harun NA, Piguet V, Salek MS, Finlay AY.

Poster Presentation

Cardiff Institute of Infection and Immunity Annual Meeting, Cardiff University, School of Medicine, 20th November 2014. **What are the real influences on dermatology outpatient discharge decisions?** Harun NA, Salek S, Finlay AY, Piguet V.

Poster presentation

Postgraduate Research Day at the School of Pharmacy and Pharmaceutical Sciences, 29th April 2015. **Using the Delphi method to establish consensus for development of an outpatient quality discharge checklist.**

ELECTRONIC POSTER PRESENTATION

Electronic poster presentation

46th Annual Meeting of the European Society for Dermatological Research (ESDR) 2016 in Munich, Germany (September 2016). **Development and clinical evaluation of a "Traffic-light" design dermatology outpatient discharge checklist.** Harun NA, Finlay AY, Salek MS, Piguet V.

Electronic poster presentation

22nd congress of the European Academy of Dermatology and Venereology in Istanbul, (October 2013). **The dermatology outpatient discharge decision: understanding a critical but neglected process.** Harun NA, Salek S, Piguet V, Finlay AY.

Electronic poster presentation

23rd Congress of the European Academy of Dermatology and Venereology in Amsterdam (October 2014). **Patients' perspectives on their discharge from the outpatient dermatology clinic: a qualitative study.** Harun NA, Salek S, Piguet V, Finlay AY.

Electronic poster presentation

Poster presentation at the 23rd World Congress of Dermatology, 8th -13th June 2015 in Vancouver, Canada. **Between medical evidence and clinical illusions: what are the hidden influences in outpatient discharge?** Harun NA, Finlay AY, Piguet V, Salek S.

ORAL PRESENTATION

Oral presentation at the "Speaking of Science" Conference, Cardiff University, 8th May 2014. **Factors influencing discharge decisions in the dermatology outpatient clinic.**

Oral presentation at the Postgraduate Research Day Conference, Cardiff University, 7th December 2014. **Please ask me whether I am happy to be discharged! Patients' perspectives on their discharge from the dermatology outpatient clinic.**

APPENDICES

Appendix A: Ethical approval of the original protocol from South East Wales Research Ethics Committee C: REC reference number: 11/WSE03/4, Protocol number: SPON 926-11



Gwasanaeth
Moeseg
Ymchwil | **RES** | Research
Ethics
Service

South East Wales RECs Committee – Panel C

6th Floor Churchill House
17 Churchill Way
CARDIFF
CF10 2TW
Telephone : 02920 376823
E-mail : carl.phillips@wales.nhs.uk

Website : www.nres.nhs.uk

Dr Mohammad K. A. Basra
Research Fellow and Clinical Lecturer
Department of Dermatology
Cardiff University
Heath Park, Cardiff
CF14 4XN

24 February 2011

Dear Dr Basra

Study Title: The clinical and non-clinical factors influencing discharge decisions in dermatology
REC reference number: 11/WSE03/4
Protocol number: SPON 926-11

Thank you for your letter of the 4 February 2011, responding to the Committee's request for further information on the above research, and for submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation [as revised], subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

- Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.
- For NHS research sites only, management permission for research (“R&D approval”) should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.
- Where the only involvement of the NHS organisation is as a Participant Identification Centre (PIC), management permission for research is not required but the R&D office should be notified of the study and agree to the organisation’s involvement. Guidance on procedures for PICs is available in IRAS. Further advice should be sought from the R&D office where necessary.
- Sponsors are not required to notify the Committee of approvals from host organisations.
- It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Protocol	3	31 January 2011
Response to Request for Further Information	M Basra	04 February 2011
Investigator CV	Dr Basra	13 January 2011
Peer Review		02 January 2011
Clinician Invitation Letter	2	01 February 2011
Evidence of insurance or indemnity	Zurich Municipal/Cardiff University	27 July 2010
REC application	3.1	13 January 2011
Participant Information Sheet: Clinician		31 January 2011
Participant Information Sheet: Patient	3	31 January 2011
Participant Consent Form: Patient	2	31 January 2011
Participant Consent Form: Clinician	2	31 January 2011
Covering Letter		14 January 2011
Letter from Sponsor	Cardiff University	10 January 2011
CV	Seetal Siyani	13 January 2011
CV	Professor Salek	18 December 2007
CV	Professor Finlay	01 March 2009
Declaration for student projects by academic supervisor	S Salek	03 February 2011

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

11/WSE03/4 Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely



Mrs J Jenkins
Chair, Panel C
South East Wales Research Ethics Committees

Enclosures: "After ethical review – guidance for researchers" SL- AR2

Copy to: R&D office for Cardiff University

R&D office for Cardiff & Vale University Health Board

basramk@cardiff.ac.uk

Appendix B: Independent study review from Dr William Fear

14 JAN

<p>clinical epidemiology interdisciplinary research group</p> <hr/> <p><i>'on the basis of scientific evidence...' Archie Cochrane</i></p>	<p>Peer Review</p>
---	--------------------

<p><i>The purpose of the review is to help improve the proposal; to provide critique as if from an external reviewer on a grant awarding panel – not necessarily a 'specialist' view.</i></p>	
<p>Study Title: The clinical and non-clinical factors influencing discharge decisions in dermatology</p>	
<p>Peer Reviewer Name: Dr William fear</p>	
<p>Position: Research Fellow</p>	<p>Department: CARBS</p>
<p>Email: fearwj@cf.ac.uk</p>	
<p>Date review completed: 2 Jan 2011</p>	
<p>Significance of topic: <i>e.g. originality, relevance, research gap, importance of topic.</i></p>	
<p>Good selection of topic with clear need identified. Relevant to specialist area considered but also has wider application and relevance. Clear benefit of study articulated and likely to be of interest to peers both academic and practitioner. Also benefit to patient and quality of care.</p>	
<p>Proposed Team: <i>e.g. expertise, would the study benefit additional input?</i></p>	
<p>Experienced and suitably qualified team but recommend contacting Professor Glyn Elwyn at the Heath Hospital Campus (Cardiff University) as he has specialist experience in shared decision making and the team would benefit from his input</p>	
<p>Literature review: <i>e.g. concise summary of existing research?</i></p>	
<p>Good summary of existing research highlighting key points and need for this particular work. Recognises how and why it is of interest. Concisely notes the relevant issues in the literature and where this study will contribute.</p>	
<p>Methodology</p>	
<p><i>Clear aims and objectives?</i></p> <p>Aims and objectives are clear</p>	
<p><i>Appropriate study design / methodology / theoretical perspective?</i></p> <p>Interesting design and perspective for a study of this nature. The use of qualitative data collection methods is in keeping with the growth of interest in this methodology. The theoretical perspective sounds like grounded theory or similar and it may be worthwhile articulating this more clearly</p>	
<p><i>Appropriate sample? e.g. size, clear rationale, justification etc.</i></p> <p>Sample is justified in terms of size, rationale and so on. However, some consideration could be given to likely numbers that will take part, or a target number from the sample (e.g. aim for 70% participation by clinicians and X number of patients).</p>	
<p><i>Data collection and analysis e.g. procedural rigour, appropriate analysis etc.</i></p> <p>Procedure, analysis and so on are fine. May be worth considering structured observations of consultations though. E.g. it may be worth using an observation template to see how many times particular behaviours are observed, especially given this is an attempt to identify specific factors. These factors could be</p>	

determined from the interviews leading to the development of a template – even if it is only 'sketched out'. This would save time and provide structure to the observations

Costs – justified and appropriate?

No costs given

Other comments

An interesting study with the potential for relevant and usable findings.

Appendix C: Ethical approval from South East Wales Research Ethics Committee C: Substantial Amendment indicating change of Chief Investigator to Dr Nur Ainita Harun

11/04/5039.



South East Wales Research Ethics
Committee, Panel C
Sixth Floor, Churchill House
17 Churchill Way
Cardiff CF10 2TW
Telephone : 029 2037 6823

E-mail : carl.phillips@wales.nhs.uk
Website : www.nres.nhs.uk

South East Wales Research Ethics Committee Panel C

Direct Line: 02920 376823/376822

03 September 2012

Dr Mohammad K. A. Basra
Research Fellow and Clinical Lecturer
Cardiff University
Department of Dermatology
Cardiff University School of medicine
Heath Park, Cardiff
CF14 4XN

Dear Dr Basra

Study title: The clinical and non-clinical factors influencing
discharge decisions in dermatology
REC reference: 11/WSE03/4
Protocol number: SPON 926-11
Amendment number: 1
Amendment date: 25 July 2012

The above amendment was reviewed at the meeting of the Panel C Executive Sub-Committee held on 24 August 2012.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved at the meeting were:

Document	Version	Date
Certificate of GCP Training		17 August 2012
Participant Information Sheet: Clinician Information Sheet	4	25 July 2012
Participant Information Sheet: Patient Informaiton Sheet	4	25 July 2012
Investigator CV	N A B Harun	25 July 2012
Protocol	4	25 July 2012

Notice of Substantial Amendment (non-CTIMPs)	1	25 July 2012
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Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

11/WSE03/4:	Please quote this number on all correspondence
-------------	--

Yours sincerely


Mrs J Jenkins
Chair

E-mail: jagit.sidhu@bsc.wales.nhs.uk

Enclosures: *List of names and professions of members who took part in the review*

Copied:- R&D office for Cardiff University (resgov@cardiff.ac.uk)

R&D office for Cardiff & Vale University Health Board
(cav_research.development@wales.nhs.uk)

South East Wales Research Ethics Committee Panel C

Attendance at Sub-Committee of the REC meeting on 24 August 2012

<i>Name</i>	<i>Profession</i>	<i>Capacity</i>
Dr P N Deslandes	Pharmacist	Expert
Mrs J Jenkins	Chair and Lay Member	Lay

Appendix D: Approval from Cardiff and Vale Research and Development:
Notification of Substantial Amendment indicating change of
Chief Investigator to Dr Nur Ainita Harun



GIG
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NHS
WALES

Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board

Ysbyty Athrofaol Cymru
University Hospital of Wales

Heath Park,
Cardiff, CF14 4XW
Phone 029 2074 7747
Fax 029 2074 3838
Minicom 029 2074 3632

Parc Y Mynydd Bychan,
Caerdydd, CF14 4XW
Ffôn 029 2074 7747
Ffacs 029 2074 3838
Minicom 029 2074 3632

Eich cyf/Your ref
Ein cyf/Our ref
Welsh Health Telephone Network 1872
Direct line/Llinell uniongyrchol

Tel: 029 20746986
Fax: 029 20745311
CAV_Research.Development@wales.nhs.uk

From: Professor JI Bisson
R&D Director
R&D Office, 2nd Floor TB2
University Hospital of Wales
Cardiff
CF14 4XW

15 November 2012

Professor Vincent Piguet
Dept of Dermatology
Glamorgan House
Cardiff
CF14 4XN

Dear Professor Piguet

Cardiff and Vale UHB ref, and study title: 11/CMC/5039 : The Clinical And Non-Clinical Factors Influencing Discharge Decisions In Dermatology

REC Reference: 11/WSE03/4
Amendment Number: Amendment 1
Amendment Date: 25 July 2012

The above substantial amendment has been received by the Cardiff and Vale Research Review Service (CaRRS).

The documents reviewed were:-

Document	Version	Date
Favourable Opinion Letter from South East Wales REC		03/09/12
Notice of Substantial Amendment Form	1.0	03/09/12
Protocol	4.0	25/07/12
Participant Information Sheet: Clinician	4.0	25/07/12
Participant Information Sheet: Patient	4.0	25/07/12
New Investigator CV	N/A B Hatun	25/07/12
GCP Certificate		17/08/12

I can confirm that the above documentation has been favourably reviewed and that Cardiff and Vale UHB has no objection to the implementation of the amendment. Please ensure that the appropriate Research Ethics Committee has a copy of this letter.

May I take this opportunity to wish you success with the project and remind you that as Principal Investigator you are required to:

- Inform the R&D Office if any external or additional funding is awarded for this project in the future.
- Inform the NISCHR PCU / R&D Office of any further amendments relating to the protocol, including personnel changes and amendments to the actual or anticipated start / end dates.
- Complete any documentation sent to you by the R&D Office or University Research & Commercial Division regarding this project.
- Adhere to the protocol as approved by the Research Ethics Committee.
- Ensure the research complies with the Data Protection Act 1998.

Yours sincerely,



Professor Jonathan I Bisson
Chair of the Cardiff and Vale Research Review Service (CaRRS)

CC R&D Lead **Dr Richard Motley**
Chris Shaw, Research and Commercial Division, Cardiff University
Dr Nur Ainita Binti Harun ✕
Dr Mohammad Basra

Appendix E: Ethical approval from South East Wales Research Ethics Committee C: Non-substantial Amendment of the Research Protocol 4.1.

NISCHR

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RES

Research
Ethics
Service

South East Wales Research Ethics
Committee C
6th Floor Churchill House
17 Churchill Way
Cardiff
CF10 2TW

Telephone : 02920 376823
E-mail : carl.phillips@wales.nhs.uk
Website : www.nres.nhs.uk

14 May 2013

Dr Nur Ainita Harunn
PhD Student
Department of Dermatology
Cardiff University
Heath Park, Cardiff
CF14 4XN

Dear Dr Harunn

Study title: The clinical and non-clinical factors influencing discharge decisions in dermatology
REC reference: 11/WSE03/4
Protocol number: SPON 926-11
Amendment number: Protocol 4.1
Amendment date: 25 July 2012
IRAS project ID: 70711

Thank you for your letter of 25 July 2012, notifying the Committee of the above amendment.

The Committee has noted that the sponsor does not consider this to be a "substantial amendment" as defined in the Standard Operating Procedures for Research Ethics Committees.

The amendment does not therefore require an ethical opinion from the Committee and may be implemented immediately, provided that it does not affect the approval for the research given by the R&D office for the relevant NHS care organisation.

Documents received

The documents received were as follows:

Document	Version	Date
Clinician Invitation Letter	2.1	01 February 2011
Participant Consent Form: Patient Consent Form	2.1	31 January 2011
Participant Consent Form: Clinician Consent Form	2.1	31 January 2011
Protocol	4.1	25 July 2012
Notification of a Minor Amendment	Protocol 4.1	25 July 2012
Covering Letter	A Harun	13 May 2013

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

11/WSE03/4: Please quote this number on all correspondence

Yours sincerely



Mr Carl Phillips
Executive Officer
South East Wales Research Ethics Committee C

Copied:- R&D office for Cardiff University (resgov@cardiff.ac.uk)

Dr A Harun, HarunN@cardiff.ac.uk

Appendix F: Approval from Cardiff and Vale Research and Development
(R&D) department: Notification of Amendment of the Research
Protocol 4.1.



GIG
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NHS
WALES

Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board

Ysbyty Athrofaol Cymru
University Hospital of Wales

Heath Park,
Cardiff, CF14 4XW
Phone 029 2074 7747
Fax 029 2074 3838
Minicom 029 2074 3632

Parc Y Mynydd Bychan,
Caerdydd, CF14 4XW
Ffôn 029 2074 7747
Ffacs 029 2074 3838
Minicom 029 2074 3632

Eich cyf/Your ref
Ein cyf/Our ref
Welsh Health Telephone Network 1872
Direct line/Llinell uniongyrchol

Tel: 029 20746986
Fax: 029 20745311
CAV_Research.Development@wales.nhs.uk

From: Professor C Fegan
Acting R&D Director
R&D Office, 2nd Floor TB2
University Hospital of Wales
Cardiff
CF14 4XW

02 August 2013

Professor Vincent Piguet
Dept of Dermatology
Glamorgan House
Cardiff
CF14 4XN

Dear Professor Piguet

Cardiff and Vale UHB ref, and study title: 11/CMC/5039 : The Clinical And Non-Clinical Factors Influencing Discharge Decisions In Dermatology

REC Reference: 11/WSE03/4
Amendment Number: Amendment 1
Amendment Date: 25 July 2012

Thank you for notifying the R&D Office that you wish to extend this study.

I can confirm that the request has been favourably reviewed by the Dermatology Directorate R&D Lead and that Cardiff and Vale UHB has no objection to extending R&D permission for this study until 30 April 2015.

Please ensure you contact the R&D Office to request permission for any further extension that may be needed.

Please ensure that the appropriate Research Ethics Committee has a copy of this letter.

May I take this opportunity to wish you success with the project and remind you that as Principal Investigator you are required to:

Page 1 of 2

Version 2.0 8/7/13

- Inform the R&D Office if any external or additional funding is awarded for this project in the future.
- Inform the R&D Office of any further amendments relating to the protocol, including personnel changes and amendments to the actual or anticipated start / end dates.
- Complete any documentation sent to you by the R&D Office regarding this project.
- Adhere to the protocol as approved by the Research Ethics Committee.
- Ensure the research complies with the Data Protection Act 1998.

Yours sincerely,



PI

Professor Christopher Fegan
Acting Chair of the Cardiff and Vale Research Review Service (CaRRS)

CC R&D Lead, Dr John Ingram
CC Dr Nur Ainita Harun

Appendix G: Approval from Sandwell and West Birmingham Hospital NHS Trusts to conduct the Delphi Study (*An example of one of the Trusts in England which agreed to take part*)

RESEARCH AND DEVELOPMENT

K Raza, PhD, FRCP
J Bell, BSc, MSc, PhD
S Baxter, BSc (Hons)
B Baines BA (Hons)
Z Khalil BArch

R&D Director
Head of R&D
RM&G Manager
Research Governance Co-ordinator
Research Governance Co-ordinator

(0121) 507 4811
(0121) 507 4092
(0121) 507 4091
(0121) 507 4092
Fax(0121) 507 4945

Sheldon Block
D46 Second Floor
City Hospital
Dudley Road
Birmingham
B18 7QH

JB/bb/R&D Ref: 13DERM08

11 August 2014

Dr Ainita Harun
PhD Student
Department of Dermatology and Wound Healing
School of Medicine, Cardiff University
3rd Floor Glamorgan House
Heath Park
Cardiff
CF14 4XN

Dear Dr Harun

Study Title:	The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients
REC Ref:	11/WSE03/4
Minor Amendment:	Dated 27 March 2014

Thank you for notifying R&D of the above study amendment.

Documents approved by Research & Development Department

Document	Version	Date
Protocol	4.1.2	15 February 2014
Notice of a Minor Amendment		27 March 2014
REC amendment favourable opinion Letter		28 March 2014

We are pleased to inform you that the amendment is approved and confirm that the study record has been updated accordingly.

Yours sincerely



Dr Jocelyn Bell, BSc, MSc, PhD
Head of Research & Development

Copy: Professor Andrew Finlay, Research Affiliate of the Department of Dermatology, Cardiff University
FinlayAY@cardiff.ac.uk

Appendix H: Ethical approval from South East Wales Research Ethics
Committee C: Non-substantial Amendment for the Evaluation of
Checklist Study

NISCHR

Gwasanaeth
Moeseg
Ymchwil

RES

Research
Ethics
Service

South East Wales Research Ethics
Committee B
6th Floor Churchill House
17 Churchill Way
Cardiff
CF10 2TW

Telephone : 02920 376823
E-mail : carl.phillips@wales.nhs.uk
Website : www.nres.nhs.uk

28 March 2014

Dr Nur Ainita Harunn
PhD Student
Cardiff University
Department of Dermatology
Heath Park, Cardiff
CF14 4XN

Dear Dr Harunn

Study title: The clinical and non-clinical factors influencing discharge decisions in dermatology
REC reference: 11/WSE03/4
Protocol number: SPON 926-11
Amendment number: Minor Amendment
Amendment date: 27 March 2014
IRAS project ID: 70711

Thank you for your letter of the 27 March 2014, notifying the Committee of the above amendment.

The Committee does not consider this to be a "substantial amendment" as defined in the Standard Operating Procedures for Research Ethics Committees. The amendment does not therefore require an ethical opinion from the Committee and may be implemented immediately, provided that it does not affect the approval for the research given by the R&D office for the relevant NHS care organisation.

Documents received

The documents received were as follows:

Document	Version	Date
Protocol	4.1.2	15 February 2014
Notification of a Minor Amendment	Minor Amendment	27 March 2014

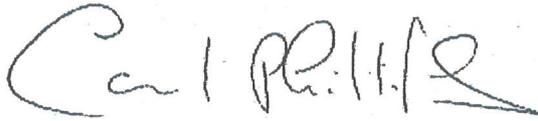
Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

11/WSE03/4:

Please quote this number on all correspondence

Yours sincerely

A handwritten signature in black ink, appearing to read 'Carl Phillips'.

Mr Carl Phillips
Executive Officer
South East Wales Research Ethics Committee B

Copied:- R&D office for Cardiff University (resgov@cardiff.ac.uk)

Dr A Harun, HarunN@cardiff.ac.uk

Appendix I: Approval from Cardiff and Vale R&D department:
Notification of Non-substantial Amendment for the Evaluation of
Checklist Study



GIG
CYMRU
NHS
WALES

Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board

Ysbyty Athrofaol Cymru
University Hospital of Wales

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Cardiff, CF14 4XW
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Minicom 029 2074 3632

Parc Y Mynydd Bychan,
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Ffacs 029 20743838
Minicom 029 2074 3632

Tel: 029 20746986
Fax: 029 20745311
CAV_Research.Development@wales.nhs.uk

From: Professor C Fegan
R&D Director
R&D Office, 2nd Floor TB2
University Hospital of Wales
Cardiff
CF14 4XW

31 July 2014

Dr Nur Anita Harun
Dept of Dermatology
Glamorgan House
Cardiff
CF14 4XN

Dear Dr Harun

Cardiff and Vale UHB ref, and study title: 11/CMC/5039 : The Clinical And Non-Clinical Factors Influencing Discharge Decisions In Dermatology

REC Reference: 11/WSE03/4
Amendment Number: Minor Amendment
Amendment Date: 27 March 2014

Thank you for notifying the Cardiff and Vale Research Review Service (CaRRS) of this non-substantial amendment.

The documents reviewed were:-

Document	Version	Date
Acknowledgement of Minor Amendment dated 27 March 2014		28/03/2014
Protocol	4.1.2	15/02/2014
Invitation Letter	-	-
Delphi Consent Form	1	23/07/14
Delphi Questionnaire	1	23/07/14

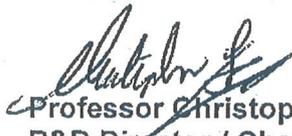
I can confirm that the above documentation has been favourably reviewed and that Cardiff and Vale UHB has no objection to the implementation of the amendment.

Please ensure that the appropriate Research Ethics Committee has a copy of this letter.

May I take this opportunity to wish you success with the project and remind you that as Principal Investigator you are required to:

- Inform the R&D Office if any external or additional funding is awarded for this project in the future.
- Inform the R&D Office of any further amendments relating to the protocol, including personnel changes and amendments to the actual or anticipated start / end dates.
- Complete any documentation sent to you by the R&D Office or University Research Innovation and Enterprise Services regarding this project.
- Adhere to the protocol as approved by the Research Ethics Committee.
- Ensure the research complies with the Data Protection Act 1998.

Yours sincerely,



Professor Christopher Fegan
R&D Director / Chair of the Cardiff and Vale Research Review Service (CaRRS)

CC R&D Lead Dr John Ingram
Chris Shaw, RIES, Cardiff University

Appendix J: Letter of NHS Permission for research at University Hospitals(UH) Bristol NHS Foundation Trusts (UH Bristol) by the R&D department, date 15 April 2013 (*An example of one of the Trusts in England which agreed to take part*)

Dr Nur Ainita Harun
Centre of Socioeconomic Research
Cardiff University
Cardiff
UK

Research and Innovation
University Hospitals Bristol NHS Foundation Trust
Education & Research Centre Level 3
Upper Maudlin Street
Bristol BS2 8AE

Tel: 0117 342 0233
Fax: 0117 342 0239

email: research@uhbristol.nhs.uk

website: <http://www.uhbristol.nhs.uk/research-innovation>

15/04/2013

NHS Permission for Research has been granted for the study detailed below at University Hospitals Bristol NHS Foundation Trust (UH Bristol). Permission is subject to any conditions and is effective from 15/04/2013 until 30/07/2013.

Dear Dr Harun,

RE: The clinical and non-clinical factors influencing discharge decisions in dermatology (stage 1), ME/2013/4319

NHS permission for the above research has been granted on the basis of the application submitted and a favourable opinion from an authorised REC.

Permission is granted on the understanding that the study is conducted in accordance with the Research Governance Framework, Good Clinical Practice, and NHS Trust policies and procedures available at <http://www.uhbristol.nhs.uk/research-innovation/are-you-a-researcher/information-for-researchers/post-approval/>

It is also a condition of NHS Permission at this site that local recruitment data is uploaded to the EDGE system and the study record is kept up-to-date. Please contact the Research Management Office if you are unsure how to do this.

The following conditions must be met prior to recruitment commencing:

- A site file is set-up and delegation log established

UH Bristol is required to monitor research to ensure compliance with the Research Governance Framework and other legal and regulatory requirements. For further details about monitoring arrangements please contact the Research Management Office. The Research Management Office will monitor recruitment on an on-going basis and can provide support and advice if you are experiencing problems in meeting your targets within the agreed time frame.

The Research Management Office should be notified of any urgent safety measure taken in order to protect research participants against any immediate hazard to their health or safety. This should be

within the same time frame as notification to the REC and any other regulatory bodies and should include the reasons why the measures were taken and any plan for further action.

NHS indemnity is provided for the period of permission given above. Requests for changes to the period of permission (eg an extension of the study) must be made to the Research Management Office before permission ceases with an explanation as to why the change is being sought.

All amendments (including changes to the local research team) need to be submitted in accordance with regulatory and national requirements which can be found on IRAS. The Research Management Office also needs to be notified if there are any changes to the study status.

We wish you every success with this study.

Yours sincerely



Diana Benton
Acting Head of Research and Innovation/Deputy Director of Research

Copy to:

Dr David DeBerker

Matthew Harris

Appendix K: Letter of access to conduct research through UH Bristol UH Bristol (R&D) department date 19 April 2013. *(An example of one of the Trusts in England which agreed to take part)*

PRIVATE AND CONFIDENTIAL

**Dr Nur Ainita Harun
Centre for Socioeconomic Research
School of Pharmacy and Pharmaceutical Sciences
Redwood Building
King Edward VII Avenue
Cardiff
CF10 3NB**

**Resourcing
The Courtyard
Old Building, BRI
Lower Maudlin Street
Bristol
BS2 8HW**

**Tel: 0117 342 5000 – opt 1
neil.ingram@uhbristol.nhs.uk**

28 June 2016

Dear Ainita,

Letter of access for UH Bristol R&D Number ME/2013/4319

This letter confirms your right of access to conduct research through UH Bristol or the purpose and on the terms and conditions set out below. This right of access commences on 15 April 2013 and ends on 30 July 2013 unless terminated earlier in accordance with the clauses below.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this NHS organisation UH Bristol. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

The information supplied about your role in research at has been reviewed and you do not require an honorary research contract with this NHS organisation. We are satisfied that such pre-engagement checks as we consider necessary have been carried out.

You are considered to be a legal visitor to UH Bristol premises. You are not entitled to any form of payment or access to other benefits provided by this NHS organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through UH Bristol you will remain accountable to your employer Cardiff University but you are required to follow the reasonable instructions of Dr David de Berker in this NHS organisation or those given on his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS organisation in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with UH Bristol policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with UH Bristol in discharging its duties under the Health and Safety at Work etc Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on UH Bristol premises. You must

observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of any other contract holder and you must act appropriately, responsibly and professionally at all times.

You are required to ensure that all information regarding patients or staff remains secure and *strictly confidential* at all times. You must ensure that you understand and comply with the requirements of the NHS Confidentiality Code of Practice (<http://www.dh.gov.uk/assetRoot/04/06/92/54/04069254.pdf>) and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS organisation accepts no responsibility for damage to or loss of personal property.

We may terminate your right to attend at any time either by giving seven days' written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS organisation or if you are convicted of any criminal offence. Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

UH Bristol will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

If your current role or involvement in research changes, or any of the information provided in your Research Passport changes, you must inform your employer through their normal procedures. You must also inform your nominated manager in this NHS organisation.

Yours sincerely

Neil Ingram
Recruitment Coordinator

Appendix L: Clinician Information Sheet Version 4, 25th July
2012

Clinician Information Sheet

Version 4- Dated 25/07/2012

Study title:

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

This study intends to find out various factors affecting clinical decisions to discharge patients from the dermatology outpatients department.

Invitation

You are being invited to take part in a research study. Before you decided on participation it is important for you to understand why the research is being conducted, and what participation involves. Please take the time to read the following information carefully. You may talk to others about the study if you wish to do so.

Part 1 outlines the purpose of this study and what will happen should you decided to participate in the study

Part 2 gives you more information about the conduct of the study

Feel free to ask us for any further information or to clarify anything that unclear at any stage of the study.

We would like to take this opportunity to thank you for reading this document and hope it provides you with enough information to allow you to be able to make a decision on whether or not you wish to participate.

If any of this information is required in Welsh this can be arranged on request.

Part 1

What is the purpose of this study?

As you will already be aware clinicians make decisions to discharge patients on a day to day basis, with these decisions being based on a variety of different factors. The aim of this study is to explore in depth the various factors that influence the decision to discharge patients from the dermatology outpatients department.

It should be noted that this study is not assessing your ability to discharge patients, or the level of care you provide, but intends to explore the discharge decision making process and identify factors that influence discharge decisions.

Why have I been invited?

You are a clinician with clinical experience in discharging patients with various skin conditions. This makes you an eligible candidate to participate in this study. A total number of 35-40 clinicians will be included in this study.

Do I have to take part?

Taking part in this research is entirely voluntary and it is up to you to decide whether or not you wish to participate. If you do decide to participate you will be given a copy of this information sheet to keep and will be asked to sign a consent form. It is important to note that you have the ability to withdraw from the study at anytime without specifying a reason for withdrawal.

What will happen to me if I decide to take part in the study?

Participating in the study involves being subjected to a face to face interview that will be audio recorded. The interview will take between 20 to 30 minutes of your time where the investigator will ask you questions. The questions will relate to your age, clinical post, years of experience and will also include a brief discussion on various themes regarding the discharge decision in dermatology. This interview will be based on your own clinical experience of dermatology.

What will I have to do?

Your role is very simple and will only involve you answering the investigators questions.

What are the possible risks/ disadvantages associated with participating?

The study solely consists of an interview between yourself and the investigator and therefore there are no risks associated with participating.

What are the possible benefits/ advantages associated with participating?

We cannot promise the study will help you personally however the information collected from the study will aid in identification of factors contributing to the decision to discharge dermatology patients. This could lead to better understanding of the process of discharging patients and influences on this process. This would be expected to help us in formulating some sort of guidelines/protocol with the potential to improve appropriateness of the

discharge decisions. This might ultimately translate in better care of dermatology patients in the future.

This research could also be the beginning of further studies looking at discharge decisions in other medical specialities outside of dermatology.

Will information I provide be confidential?

Any information related to you will be handled in complete confidence as we follow ethical and legal practice, details of which are outlined in Part 2.

This completes part 1

If the information you have read in part 1 interests you and you are considering participating in the research please read the additional information in part 2 before making any decisions.

What will happen if I decide to withdraw part way through the study?

Any data which identifies you will be destroyed should you decide to withdraw from the study.

What if there is a problem?

If you have any concerns about any aspect of the study, at any stage you should contact the chief investigator (Dr Nur Ainita Harun Tel:02920870108) who will make every effort to address the problem.

If your query remains unresolved and you wish to make a formal complaint it can be made through the NHS Complaints Procedures (Patient Liaison Manager/Complaints Office Cardiff & Vale University Local Health Board 02920746296).

Confidentiality

The investigator will audio record the interview and may also write notes during the interview. However every participant will be assigned a unique number to anonymise the data originating from the interviews. All study data will be kept in a secure locked place within the dermatology department of the UHW hospital and only key researchers will have access to the data. All those involved in the research will have a duty on confidentiality to you as a research participant. Any data from the study will not reveal any information that can lead to your identification. Data will be retained for 2 years before it is disposed of securely.

What will happen to the results of the research?

The results of the study will be published in a scientific journal but you will not be identified in any publication. You will be provided with a copy of the publication should you be interested in reading it.

Who is organising and funding this study?

The Department of Dermatology and the Wound Healing of Cardiff University School of Medicine and the Centre for Socioeconomic Research of Cardiff University are conducting this study and it is being funded by the Quality Of Life of the Department of Dermatology and Wound Healing.

Who has reviewed the study?

The protocol of this study has been independently peer reviewed. Cardiff University is the official sponsor of the study. All research in the NHS is looked at by an independent body called a Research Ethics Committee for participant's safety, rights, wellbeing and dignity. This study has been reviewed and obtained a favourable opinion by South East Wales Local Research Ethics Committee as well the Research and Development Department of Cardiff and Vale University Health Board Trust.

Contact details:

Should you have any further questions please do not hesitate to contact one of the investigators:

- | | |
|-----------------------------|------------------|
| 1. Mrs Nur Ainita Harun | Tel: 02920870108 |
| 2. Professor Sam Salek | Tel: 02920870108 |
| 3. Professor Andrew Finlay | Tel: 02920552740 |
| 4. Professor Vincent Piguet | Tel: 02920744721 |

Thank you for taking the time to read this information sheet and for your help in this study.

Appendix M: Clinician Consent Form Version 2.1, 31st January
2011

Appendix M

Clinician consent form

Version 2.1- Dated 31/01/2011

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

Please put your initials in each box

I confirm that I have read and understood the clinician information sheet (Version 4-dated 25/7/2012) for the above study.	<input type="checkbox"/>
I confirm that I was given the opportunity to consider the information provided and ask any questions I may have had.	<input type="checkbox"/>
I understand that my participation in the study is voluntary and I have the right to withdraw at any point without justification.	<input type="checkbox"/>
I agree to take part in the above study	<input type="checkbox"/>

Participant Name: _____

Date: _____

Signature: _____

Researcher Name: _____

Date: _____

Signature: _____

Appendix N: Patient Information Sheet Version 4, 25th July
2012

Appendix N

Patient Information Sheet

Version 4- Dated 25/07/2012

Study title:

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

This study plans to find out various factors affecting medical decisions to discharge outpatients from dermatology.

Invitation

You are being invited to take part in a research study. Before you decide on participation it is important for you to understand why the research is being carried out, and what participating involves. Please take a few minutes to read the following information carefully. You may talk to others about the study if you wish to.

Part 1 of this document outlines the purpose of this study and explains what will happen, should you decide to participate.

Part 2 provides further information about the conduct of the study

Feel free to ask us for any further information or to clarify anything that unclear at any stage of the study.

We would like to take this opportunity to thank you for reading this document and hope it provides you with enough information to allow you to be able to make a decision on whether or not you wish to participate.

If any of this information is required in Welsh this can be arranged on request.

Part 1

What is the purpose of this study?

Clinicians make decisions to discharge patients on a day to day basis and these decisions are based on many different factors. The aim of this study is to explore the various factors that influence the decision to discharge dermatology outpatients.

Why have I been invited?

You are a patient with a skin condition and are being treated at the Department of Dermatology of University Hospital of Wales. This makes you an eligible candidate to participate in this study.

Do I have to take part?

Taking part is entirely voluntary and it is up to you to decide whether or not you wish to participate. If you do decide to participate you will be given a copy of this

information sheet to keep and will be asked to sign a consent form after reading this document. It is important to note that you can withdraw from the study at anytime and do not need to give a reason for withdrawal. Please be reassured that deciding to withdraw will not affect the standard to care you receive.

What will happen to me if I decide to take part in the study?

If you take part in the study your consultation will be observed by the researcher. Following the consultation you may be asked to take part in a face-to-face interview with the researcher. The interview will last 15 to 20 minutes and will be audio recorded to allow the researcher to refer back to the interview at a later stage. The interviewer will ask you questions relate to your age, diagnosis, duration of skin condition and will also include a brief discussion on your views about the clinician's decision to discharge you from the dermatology outpatients department.

What will I have to do?

Your role will simply be to have your consultation observed by the investigator, which may lead to you being asked to answer some questions during a 15 to 20 minute face to face interview.

How long will have to decide whether or not to participate in the study?

You will have up to 24 hours to decide whether you want to participate in this study or not. If you do decide to take part but don't want the interview to be straight after your consultation we can arrange for you to come back at another time for the interview. If this happens you will entitled to receive reimbursement for your travel costs by the research team. Many participants find it is more convenient to have the interview after their routine clinic appointment but this is totally up to you.

What are the possible risks/ disadvantages associated with participating?

The study does not include anything like medical examinations, exposure to radiation or medication taking therefore there are no risks associated with participating. The study only consists of observation of the consultation and an interview between yourself and the investigator.

What are the possible benefits/ advantages associated with participating?

We cannot promise the study will help you personally however, the information collected from the study will aid in finding factors contributing to the decision to discharge dermatology patients. This could lead to improving the understanding of the patient discharge process and influence this process. This research is expected to help us to create some guidelines aiding to improve the appropriateness of discharge decisions. This might ultimately result in better care of dermatology patients in the future.

This research also has the potential to be the beginning of further studies looking at discharge decisions in other medical specialities, outside of dermatology.

Will information I provide be confidential?

Any information related to you will be handled in complete confidence as we follow ethical and legal practice, details of which are outlined in Part 2.

This completes part 1

If the information you have read in part 1 interests you and you are considering participating in the research please read the additional information in part 2 before making any decisions.

What will happen if I decide to withdraw part way through the study?

Any data which identifies you will be destroyed should you decide to withdraw from the study, however, data collected that is non-identifiable, such as information found during the observation of the consultation, will not be excluded and will be used in the research.

What if there is a problem?

If you have any concerns about any aspect of the study, at any stage, you should contact the chief investigator (Dr Nur Ainita Harun Tel: 02920870108) who will make every effort to address the problem.

If your query remains unresolved and you wish to make a formal complaint it can be made through the NHS Complaints Procedures (Patient Liaison Manager/Complaints Office Cardiff & Vale University Local Health Board 02920746296).

Confidentiality

Although the investigator will audio record the interview and may also write some notes during the interview every participant will be assigned a unique number. This number will then be used to replace any identifiable data, such as your name, to make sure the data from the interview is anonymous. All study data will be kept in a secure locked place within the dermatology department of the University Hospital of Wales. Only key researchers will have access to this data. All those involved in the research will have a duty on confidentiality to you as a research participant. Any data from the study will not reveal any information that can lead to your identification and will be stored for 2 years, before it is disposed of securely.

What will happen to the results of the research?

The results of the study will be published in a scientific journal, without any identifiable information about the study participants. You will be provided with a copy of the publication should you be interested in reading it.

Who is organising and funding this study?

The Department of Dermatology and Wound Healing of Cardiff University School of Medicine and the Centre for Socioeconomic Research of Cardiff University are conducting this study and the project is funded by the Quality of Life Fund of the Department of Dermatology and Wound Healing.

Who has reviewed the study?

The protocol of this study has been independently peer reviewed. Cardiff University is the official sponsor of the study. All research in the NHS is looked at by an independent body called a Research Ethics Committee for participant's safety, rights, wellbeing and dignity. This study has been reviewed and obtained a favourable opinion by South East Wales Local Research Ethics Committee.

Contact details:

Should you have any further questions please do not hesitate to contact one of the investigators:

- | | |
|----------------------------|------------------|
| 1. Dr Nur Ainita Harun | Tel: 02920870108 |
| 2. Professor Sam Salek | Tel: 02920870108 |
| 3. Professor Andrew Finlay | Tel: 02920552740 |

Thank you for taking the time to read this information sheet and for your contribution to this study.

Appendix O: Patient Consent Form Version 2.1, 31st January
2011

Appendix O

Patient consent form

Version 2.1- Dated 31/01/2011

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

Please put your initials in each box

I confirm that I have read and understood the patient information sheet (Version 4.1 -dated 25/07/2012) for the above study.	<input type="checkbox"/>
I confirm that I was given the opportunity to consider the information provided and ask any questions I may have had.	<input type="checkbox"/>
I understand that my participation in the study is voluntary and I have the right to withdraw at any point without justification.	<input type="checkbox"/>
I agree to take part in the above study	<input type="checkbox"/>

Participant Name: _____

Date: _____

Signature: _____

Researcher Name: _____

Date: _____

Signature: _____

Appendix P: First Clinician Invitation Letter introducing the researcher and the research project

APPENDIX P

Letter of approach (England Consultant Dermatologists)

Date

Clinician's name and address

Dear Dr (Clinician's name)

We would be most grateful for your help and advice concerning a project that we are involved in, examining influences on discharge decision taking in dermatology outpatients. As you know, the discharge decision has critical importance in the efficiency of a dermatology service, but this has not been examined in the literature up to now.

We think this study has potential implications for the management of dermatology services throughout the UK and beyond. A number of dermatologists have already helped us in this area of research and I hope that you may wish to contribute as well to this study.

Professor Salek at the School of Pharmacy in Cardiff and I are supervising a postgraduate student, Dr Nur Ainita Harun, who is undertaking a PhD thesis on this topic. As part of her work, we would like her to have the opportunity to speak with a number of Consultant Dermatologists to learn their views on the influences on discharge decision taking.

I wonder whether you could kindly consider (without any obligation) to meet with Dr Harun for 15-20 minutes, so that she could explain to you more about this study. Once you have the opportunity to meet her you could then consider whether you wished to contribute to the study. Dr Harun would then contact your secretary to try to find out a suitable time to visit you. Of course if you prefer not to learn more about this study, that is no problem at all.

Many thanks,

With best wishes,

Yours sincerely,

Andrew

Professor Andrew Y Finlay
Research Associate
Department of Dermatology and Wound Healing
Cardiff University School of Medicine, Cardiff, UK

Appendix Q: Clinician invitation letter Version 2.1, 1st February
2011

Appendix Q

Clinician invitation letter (England)

(Version 2.1 Dated 01/02/2011)

Date

(Clinician Address)

Dear (Clinician Name)

Re: Research study - The clinical and non-clinical factors influencing discharge decisions in dermatology

We would like to invite you to take part in a research study. The study aims to identify factors influencing the discharge decisions in dermatology outpatients. The study will be conducted through interviewing clinicians working in dermatology across England and Wales. I will be conducting the interview at a time and venue that is convenient for you. The research team also includes the following members:

Professor Andrew Finlay

Professor Sam Salek

Professor Vincent Piquet

Please take the time to read the enclosed study protocol and information sheet that outlines further information relating to the study. If you are willing to take part in this study you will be asked to sign a consent form before the interview is conducted.

Please do not hesitate to contact us if you have any further questions or would like more information.

Many thanks,

Yours sincerely,

Dr Nur Ainita Harun
PhD Student

Department of Dermatology and Wound Healing
School of Medicine, Cardiff University
3rd Floor Glamorgan House
Heath Park, Cardiff, CF14 4XN &
School of Pharmacy and Pharmaceutical Sciences, Cardiff University
Redwood Building King Edward VII Avenue CF10 3NB

Appendix R: Physician Interview Guide: used in Chapter Three

Appendix R

Physician Interview Guide

1. Opening question

What are the factors which influences your discharge decision taking in your practice in the outpatient clinic?

Subheadings

- **Physician factors**

Personal characteristics (**How would** your personal beliefs influence your decision to discharge?)

Physician time constrains

Physician professional interactions

- **Patient factors**

Clinical- severity of diagnosis/ requirement for treatment in a secondary setting/age

Patient behaviour (difficult /aggressive/dependant on specialists)

Patient's wishes/ preferences

Presence of a carer

Socioeconomic status

- **Practice factors**

Type of practice

Size of practice

Community service support

GP with special interest support (GP with dermatology training and clinic support)

- **Policy factors**

Influence by Trust e.g. new to follow-up ratio

NHS policies

Thank you for giving your own ideas, I would like to move on to some specific questions.

- Can you tell me how do you arrive to a decision whether or not to discharge a patient? (PROCESS QUESTION)
- What do you think are the challenges/barriers you might face when taking a discharge decision? (CHALLENGE QUESTION)
- In your opinion, how are these factors weighted in clinical decision making OR can you tell me which are the most critical factors influencing your decision (RANKING QUESTION)
- In general, how do you perceive the importance of discharge decision making in clinical practice (IMPORTANCE QUESTION)
- When do you think discharge should be discussed? (TIMING QUESTION)
- Can you give me an example of what you consider an appropriate discharge? (APPROPRIATENESS QUESTION)
- Are there any particular ways or methods that you are currently using to help you decide on discharging a patient? (STRATEGY QUESTION)
- Any thoughts of ways to improve the discharge decision process to ensure appropriate discharge? What support do you think clinicians need to carry out an appropriate discharge (STRATEGY QUESTION)
- What do you think is helpful in educating junior doctors or medical students on the discharge decision process? Do you have any thoughts on how perhaps we could better train junior doctors? (EDUCATION QUESTION)
- Do you consider discharge decision a skill of its own? Do you consider decision making as a science? (NEW THINKING QUESTION)

2. Probing Questions(Prompt Box)

Can you tell me more about that?

Can you expand or give examples?

Can you remember any specific incident relating to your influence on your discharge?

You mentioned.....why do you say that?

3. Ending

Do you have anything more that you would like to add on what factors influence your discharge decisions?

Appendix S: Patient Interview Guide: used in Chapter Four

Appendix S

Patient Interview Topic Guide

Introduction

The research student will introduce herself and thank the patient and the carer for considering on being part of the study. She will give a copy of the patient information sheet to the participant to read and she will also go through any queries pertaining to their participation in the study. If the patient agrees to be interviewed, then the patient will have to sign a consent form. If she is unable to sign due to weakness of hands i.e. due to a stroke/accident, her carer will sign on her behalf. Both the patient and the carer will be informed that the interview will be audio recorded and some statements may be published. However the interviewee will remain anonymous. The patient will be allowed to stop the interview at any time they wish.

Opening statement

I understand that you have been discharged. Did you expect to be [discharged / not to be discharged] when you came to clinic this morning? Yes/No

EXPERIENCE of discharge

So tell me, how you feel about being [discharged/not being discharge?]

Probe more

1. "Tell me what do you mean by that?"
2. Why do you feel this way?
3. "Tell me a little more about this."
4. "What was that like for you?"

APPROPRIATENESS of discharge

Do you think it was the appropriate for you to be [discharged/_not to be discharged?]
Yes/No

Probe more

1. "Why is that so?"
2. "Can you tell me more about this?"
3. What are your concerns regarding the decision to discharge you?
4. Did the doctor address your wishes or worries appropriately?

SHARED DECISION MAKING in discharge

Did you feel that were involved in the process of making that decision to [discharging you or not discharging you?]Whom do you think should be involved in the process of discharging you?

FACTORS INFLUENCING PATIENT'S EXPERIENCE regarding the discharge/not being discharged

Clinician-related factors

1. Are you confident that the clinician understood your case?
2. Did the doctor provide you with all the information necessary for you to self-manage prior to discharge?
3. Was the information clearly explained?
4. Would it be helpful if you had some warning about discharge in advance?
5. Probe more

- | |
|--|
| <ol style="list-style-type: none">1. "Why is that so?"2. "Can you tell me more about this?" |
|--|

Patient-related factors

1. How much influence would your understanding of your disease influence the decision to discharge or not discharge you?
2. How much influence would your understanding of your medication influence the decision to discharge or not discharge you?
3. How would your level of ability to self-manage influence the discharge decision?
4. How much influence would your wishes affect the decision to discharge (or not discharge) you?
5. How much influence would your type of job affect the decision to discharge or not discharge you?
6. How much influence would your place of residence affect the decision to discharge (or not discharge) you?
7. How much influence does your skin QoL or QoL in general influence affect the decision to discharge not discharge) you?
8. How much influence would the need to travel back and forth to the dermatology clinic influence the decision to discharge or (not discharge you)?
9. (If patient has a carer) How much influence would the presence of a carer affect the decision to discharge or not discharge you?

Probe more

1. "Tell me more on these factors?"
2. "Can you give me an example or any experience relating to this?"

Practice related factors

1. In general, can you give me any ideas what can be done to improve the discharge process for patients?
2. In your opinion what do you think is important for the dermatologist to consider or discuss with you before discharging you, in this case?
3. Any suggestions about how the clinic administrative system should operate to improve the discharge process?

TIMING of discharge

Did you have any prior notice about the possibility of when you will be discharged before this?

Yes/No

So when do you think is best for the doctor to discuss about discharge?

End

Thank you very much for your time. Is there anything else you would like to add that I may have missed?

Appendix T: Consultation Observation Checklist: used in
Chapter Three

Appendix T

Consultation Observation Checklist

Factors Influencing Discharge Decisions in Outpatient Dermatology

Observation of Dermatology Consultations

Observer: Non participant

Date	
Patient Demographics	
Age	
First visit or follow up	
Discharged or follow up	
Length of consultation	
Diagnosis	
Medical	
Surgical	
Sex	
Ethnicity	
Education level	
Employment Status	
Factors which influence clinicians' discharge decisions	N= Number of consultations in which the influences were observed
DISEASED BASED INFLUENCE	
Type of diagnosis	
Certainty of the diagnosis	
Severity of the disease	
Disease progression	
Comorbidities	
Type of treatment	
Response of treatment	
Completion of treatment	
Treatment side effects	
Disease monitoring	
Usage of dermatology treatment guidelines	
PATIENT BASED INFLUENCE	
Age	
Gender	
Culture	
Language barrier	
Mobility	
Distance	
Circumstances surrounding patient's life	
Carer	
Cognitive ability	
Learning difficulties	
Psychological concerns	
Patient's quality of life (how was it assessed?)	
Understanding of the disease	

Patient's acceptance of disease	
Patient's ability self-manage treatment	
Patient's compliance to medication	
Patients' initiative to engage with support with groups	
Patient's concerns	
Patient's wishes	
PRACTICE BASED INFLUENCE	
Academic interest	
Reassure patient easy reaccess to secondary care	
Joint colleague discussion	
Nurse assisted in explaining treatment	
Ascertain patient-GP relationship	
Ascertain GP's skills in handling dermatology cases	
Ascertain GP's willingness to share care	
Ascertaining availability of treatment in secondary care	
Discharge due to wrong referral	

Reflection box

How was the consultant's demeanour?

Did the clinician show information leaflets?

Was there medical jargon when explaining to the patient?

Did the clinician notify the patient of a possible discharge in the next visit?

Further comments:

Note:

Definition of some terms used

"Understanding and acceptance of diagnosis by the patient".

This was assumed by the observer noting that patients nodded and smiled and told the consultants that they understood and accepted the diagnosis when asked by some of the consultants.

"Acceptance of disease by the patient". This was assumed by the observer if the patient nodded in agreement and agreed with the diagnosis told by the consultant.

"Understanding of disease by the patient". This was assumed by the observer if the patients nodded, smiled and said "yes" when asked whether they understood what the diagnosis was and how to take or apply medication.

Appendix U: Delphi Invitation Letter to Dermatology
Consultants

Appendix U

Date

Dr "X"

Consultant Dermatologist

[Address]

Cardiff CF14 4XN.

Dear Dr X,

Thank you for your recent help with the study about discharge decisions in dermatology. I am now writing to invite you to contribute to the next part of this work. We are going to use the Delphi Method to try to reach expert consensus in order to create a high quality discharge information checklist. This will not involve anymore interviews or meetings and should not be very time consuming. The Delphi method consists of three rounds involving repeated individual questioning of experts online. We will also provide you with our recent review article as background information.

Round One

You will be asked to rate the relative importance of items of information needed to take an appropriate discharge decision.

Round Two

You will be asked to rate again the items, which will include any additional items suggested by the participants in Round One. This time you will have your previous rating and the group summary ratings. You will be given the opportunity to change your ratings based on the group's rating.

Round Three

You will be given the results of Round Two and given the final opportunity to revise your judgements to attain final consensus. The three rounds will be used to generate a checklist on the minimum discharge information needed to make a quality discharge decision.

All individual responses are kept confidential and will only be known to the research team members. We would be most grateful if you could kindly consider (without any obligation) to be part of the Delphi study. Of course if you prefer not to be involved, that is no problem at all. We look forward to hearing from you.

Thank you very much for considering this.

Yours sincerely,

Dr Nur Ainita Harun

PhD Student

Department of Dermatology and Wound Healing

School of Medicine, Cardiff University

3rd Floor Glamorgan House

Heath Park, Cardiff, CF14 4XN and

School of Pharmacy and Pharmaceutical Sciences

Redwood Building, King Edward VII Avenue, Cardiff University

CF10 3NB

Tel No: +44(0)2920744721

Mobile: 07807537039

Email: HarunN@cardiff.ac.uk

Appendix V: Delphi Questionnaire Round One: Version 1, 23rd
July 2014

Round One Delphi

Version 1 Date 23-7-2014

Factors influencing discharge decision making in the outpatient dermatology clinic

Thank you for agreeing to participate in this Delphi survey.

The purpose of this survey is to identify the minimum pieces of information you consider important, in order to make a high quality discharge decision. This survey relates to your experience in discharging outpatients. At the end of the study we would expect to reach expert consensus in order to create a high quality discharge information checklist.

This questionnaire is the first of three rounds in the Delphi survey process and will take 15-20 minutes to complete. We would be grateful if you could kindly answer all questions by placing a cross in the appropriate box. All questions should be answered independently of each other. Please do not discuss your answers with others. An optional space is provided if you wish to make any comments. Enclosed is our recent review article as background information.

All responses will remain confidential and will only be known to the members of the research team. Results from this questionnaire will be collated and summarized to formulate the second questionnaire. You will have the opportunity to revise your answers in the subsequent two questionnaires of the survey.

Your participation in the study is voluntary and you have the right to withdraw at any point without justification. If you have any questions or concerns regarding this survey, please contact Dr Nur Ainita Harun (Principal Investigator) at Harunn@cardiff.ac.uk

Thank you for participating in this project.

Consultant Dermatologist Demographic Data

1. Age (years) (Please highlight where appropriate) (25-35) (36-45) (46-55) (56-70)
2. Gender _____
3. How many years of experience do you have in dermatology? _____

4. How many clinical sessions per week? _____
5. Special interest in dermatology: _____
6. Do you work in private practice? _____

Participant code

Participant initials

What are the minimum pieces of information you need in order to carry out a high quality discharge decision?

The following statements are information you need to carry out a high quality discharge decision.

Please rate each of the statements in terms of its importance.

1	<p>When considering discharge, how important is it to consider the type of diagnosis?</p>					<p>Comments (if any)</p>
	Unimportant	Of little importance	Moderately important	Important	Very important	
2	<p>When considering discharge, how important is it to consider the local discharge policy?</p>					<p>Comments (if any)</p>
	Unimportant	Of little importance	Moderately important	Important	Very important	
3	<p>When considering discharge, how important is it to make sure that patients can easily reaccess secondary care (dermatology clinic) if their skin problem worsens?</p>					<p>Comments (if any)</p>
	Unimportant	Of little importance	Moderately important	Important	Very important	
4	<p>When considering discharge, how important is it to be certain of the diagnosis?</p>					<p>Comments (if any)</p>
	Unimportant	Of little importance	Moderately important	Important	Very important	

5	When considering discharge, how important is it to ensure that a patient is happy and satisfied to be discharged?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	
6	When considering discharge, how important is it to resolve a patient's concerns other than the skin problem?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	
7	When considering discharge, how important is it for a patient to understand the skin diagnosis?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	
8	When considering discharge, how important is it to have a differential diagnosis?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	

9	When considering discharge, how important is it to consider students' academic interest?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
10	When considering discharge, how important is it to ascertain that the patient is on the appropriate treatment?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
11	When considering discharge, how important is it to ensure the availability for patient's residential care if the patient needs one?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
12	When considering discharge, how important is it to consider the patient's educational level?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

13	When considering discharge, how important is it to consider other patients' outpatient waiting time?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
14	When considering discharge, how important is it to follow the local or national guidelines?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
15	When considering discharge, how important is it to consider the Trust's policies, e.g. to achieve a new to follow up ratio target?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
16	When considering discharge, how important is it to consider whether the patient is attending other outpatient clinics from other specialities?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

17 When considering discharge how important is it to consider the patient's psychological state of mind?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
18 When considering discharge, how important is it to consider the patient's gender?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
19 When considering discharge, how important is it to consider whether the patient has comorbidities i.e. patient has other diseases other than skin disease.					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

20	When considering discharge how important is it to consider your own academic interests?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
21	When considering discharge, how important is it to consider the severity of the disease?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
22	When considering discharge, how important is it to consider the availability of all treatment options in secondary care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
23	When considering discharge, how important is it to cure the patient of the skin problem before discharge?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

24	When considering discharge, how important is it to discuss the outcomes of both disease and management with the patient?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
25	When considering discharge, how important is it to be certain that the skin problem can be managed at the level of primary care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
26	When considering discharge, how important is it to measure a patient's response to treatment?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
27	When considering discharge, how important is it to consider your own limitations of clinical expertise?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

28	When considering discharge, how important is it for the patient to complete the course of treatment?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
29	When considering discharge, how important is it to know that treatment has worked effectively?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
30	When considering discharge, how important is it to consider the complexity of the disease?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
31	When considering discharge, how important is it to ensure that the disease is stable with a low possibility of recurrence?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

32 When considering discharge, how important is it to consider the patient's age?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
33 When considering discharge, how important is it to measure the skin disease impact on the patient's quality of life?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
34 When considering discharge, how important is it to consider the patient's financial capability to support ongoing visits to the hospital?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
35 When considering discharge, how important is it to consider the patient's cultural background?					
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

36	When considering discharge, how important is it to consider the distance between the patient's home and the clinic?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
37	When considering discharge, how important is it to consider the chronicity of the disease?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
38	When considering discharge, how important is it to consider the nature of the patient's job e.g. whether a patient has a busy job schedule or not?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
39	When considering discharge how important is it to consider the presence of a carer or family support for vulnerable patients e.g. patients with comorbidities or elderly patients?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

43	When considering discharge, how important is it to discuss problematic cases with other colleagues e.g. MDT meetings before discharge?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
44	When considering discharge, how important is it to ensure that patients are happy to communicate via phone or email after discharge?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
45	When considering discharge, how important is it to gauge how willing the GP is to share care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
46	When considering discharge, how important is it to consider the patient's wishes not to be followed up?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

47	When considering discharge, how important is it for the GP to have staff expertise and the essential equipment to handle skin problems?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
48	When considering discharge, how important is it for the clinician to consider other healthcare professionals' workload in secondary care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
49	When considering discharge, how important is it to consider healthcare financial resources?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

50	When considering discharge how important is it to have management support from other care providers e.g. oncologist, psychologist, specialist nurse before discharging your patient?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	

51	When considering discharge, how important is it to know whether the GP is competent in monitoring and handling a patient's skin problem?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	

52	When considering discharge, how important is it to know the quality of the patient-GP relationship?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	

53	When considering discharge, how important is the degree to which you know the patient?					Comments (if any)
	Unimportant	Of little importance	Moderately important	Important	Very important	

54 When considering discharge, how important is it to consider the carer's concerns?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

55 When considering discharge, how important is it to consider the patient's understanding of English?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

56 When considering discharge, how important is it for a patient to know about the treatment and its side effects?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

57 When considering discharge, how important is it to ensure that a patient understands how to self-manage and monitor the skin problem?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

58 When considering discharge, how important is it to consider a patient's compliance with treatment?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

59 When considering discharge, how important is it to have a clear and effective plan of treatment?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

60 When considering discharge, how important are the type and demands of the treatment plan currently used by the patient?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

61 When considering discharge, how important is it to ask this question before discharging your patient: "Will this patient benefit from further follow-up by myself?"				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

62 When considering discharge, how important is it for the patient to accept the diagnosis before discharge?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

63 When considering discharge, how important is it to address patient's concerns?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

64 When considering discharge, how important is it to consider the patient's mobility?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

65 When considering discharge, how important is it to consider the patient-carer relationship or the patient-parent relationship?				
Unimportant	Of little importance	Moderately important	Important	Very important
				Comments (if any)

66	When considering discharge, how important is it to consider the patient's likely initiative to seek help from their GP if their skin problem recurs?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
67	When considering discharge, how important is it to consider the availability of nurse led clinics in secondary care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
68	When considering discharge, how important is it to consider the patient's behaviour towards you? For example a patient with aggressive behaviour or a patient who seems dependent on you.				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
69	When considering discharge, how important is it to consider your own "gut feeling" or your own intuition?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

70	When considering discharge, how important is it to consider the patient's wishes to be followed up by the GP instead of in secondary care?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
71	When considering discharge, how important is it to consider the patient's ethnicity?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)
72	When considering discharge, how important is it to consider the patient's family's or carer's acceptance of the patient's discharge?				
Unimportant	Of little importance	Moderately important	Important	Very important	Comments (if any)

Appendix W: Delphi Questionnaire Round Two: Example of one of the raters responses

Figure 2 Delphi Questionnaire

Round Two Delphi Questionnaire

Version 1 Date 18-10-2014

Factors influencing discharge decision making in the dermatology outpatient clinic

In this round we provide you with your previous answer for each question, along with the median of the answer scores of the other participating consultants. Please look at each of your scores again and consider, in the light of knowing your colleagues' median score, whether you wish to alter your score. Please do this for each question. There is no requirement to make changes, it is entirely up to you whether you make several or no changes.

Please answer every question again by placing a tick in the appropriate box. Please record all your answers again in this round whether or not you change your score. We estimate that this exercise will take about 20 minutes. All responses will remain confidential and will only be known to the members of the research team. We would be most grateful if you could complete this questionnaire and email the answers back to us as soon as possible.

All questions should be answered independently of each other. Please do not discuss your answers with others. An optional space is provided at the end of this questionnaire if you wish to make any comments. The purpose of this round is to reach consensus on the most important pieces of information considered for discharge decision making. This information will be used to develop the final high quality discharge checklist.

Your participation in the study is voluntary and you have the right to withdraw at any point. If you have any questions or concerns regarding this survey, please contact Dr Nur Ainita Harun (Principal Investigator) at Harunn@cardiff.ac.uk. Thank you for participating in this project.

Participant code

Participant initials

1 When considering discharge, how important is it to consider the type of diagnosis?					
Unimportant	Of little importance	Moderately important	Important	Very important	Response
				★ ✘	Groups response (median score) Your response in Round 1 Your response in Round 2
2 When considering discharge, how important is it to consider the local discharge policy?					
Unimportant	Of little importance	Moderately important	Important	Very important	Response
	✘	★			Groups response (median score) Your response in Round 1 Your response in Round 2
3 When considering discharge, how important is it to make sure that patients can easily reaccess secondary care (dermatology clinic) if their skin problem worsens?					
Unimportant	Of little importance	Moderately important	Important	Very important	Response
			★	✘	Groups response (median score) Your response in Round 1 Your response in Round 2

Appendix X: Delphi Questionnaire Round Three: Example of one of the raters' responses

Figure 2. Example of one of the rater's reply in round three of the Delphi study

Round Three Delphi Questionnaire

Version 1 Date 18-10-2014

1 When considering discharge, how important is it to consider the type of diagnosis?						
Unimportant	Of little importance	Moderately important	Important	Very important	Response	
			✗	★	Groups response in Round 2 (median score)	
			x		Your response in Round 1	
			x		Your response in Round 2	
					Your response in Round 3	
2 When considering discharge, how important is it to consider the local discharge policy?						
Unimportant	Of little importance	Moderately important	Important	Very important	Response	
		★	✗		Groups response in Round 2 (median score)	
			x		Your response in Round 1	
			x		Your response in Round 2	
					Your response in Round 3	

Appendix Y: Delphi Consent Form used for Delphi exercise

Appendix Y

Clinician consent form

Version1- Dated 23/07/2014

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

Please put your initials in each box

I confirm that I have read and understood the Delphi Questionnaire (Version 1 - dated 23/7/2014) for the Delphi study.

I confirm that I have been given the opportunity to consider the information provided and ask any questions I may have had.

I understand that my participation in the study is voluntary and I have the right to withdraw at any point without justification.

I agree to take part in the Delphi Study

Participant Name: _____

Date: _____

Signature: _____

Researcher Name: _____

Date: _____

Signature: _____

Appendix Z: Discharge Checklist Invitation Letter: used for
Discharge Checklist Evaluation Study Version 1.1,
4th March 2015

Appendix Z
Quality Discharge Checklist Invitation Letter
4-3-2015 Vs 1.1

Date

Dr
Address

Dear Dr,

We would be most grateful if you would consider participating in a project, examining influences on discharge decision taking in dermatology outpatients. As you know, the discharge decision has critical importance in the efficiency of a dermatology service, but this has not been examined in the literature up to now. We think this study has potential implications for the management of dermatology services throughout the UK and beyond. A number of dermatologists have already helped us in this area of research and I hope that you may wish to contribute as well to this study. I am now writing to invite you to assist us in evaluating the usefulness of a Quality Discharge Checklist with your patients. This study consists of 2 parts:

Part One

A detailed explanation about the usage of the Quality Discharge Checklist will be sent to you by email. On the day of the study, the Principal Investigator will give you a brief explanation about the usage of the checklist before you start using it. You are then asked to use the Quality Discharge Checklist during **one** clinic session. The investigator will sit in with you during the outpatient session.

Part Two

After using the checklist, you are asked to answer briefly questions as to whether the checklist was useful or not to your discharge practice and whether any recommendations are needed to improve the checklist. This may take 3-5 minutes. You will be answering the questions in the absence of the investigator to avoid any potential biases.

All individual responses will be kept confidential and will only be known to the research team members. We would be most grateful if you could kindly consider (without any obligation) to be part of this study. Of course if you prefer not to be involved, that is no problem at all. We look forward to hearing from you.

Thank you very much for considering this.

Yours sincerely,

Dr Nur Ainita Harun
PhD Student
Department of Dermatology and Wound Healing
School of Medicine, Cardiff University
3rd Floor Glamorgan House
Heath Park, Cardiff, CF14 4XNand
School of Pharmacy and Pharmaceutical Sciences
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Email: HarunN@cardiff.ac.uk

Professor Vincent Piguet
Head of Department
Department of Dermatology and Wound Healing
Cardiff University, School of Medicine.

Professor Andrew Finlay
Research Affiliate
Department of Dermatology and Wound Healing
Cardiff University, School of Medicine.

Appendix AA: Discharge Checklist Instruction Sheet

Appendix AA

Discharge Checklist Instruction Sheet

The Discharge Checklist Instruction Sheet is to help clinicians take quality outpatient discharge decisions. It is simple to use and is usually completed in two minutes. The interpretation of each question is stated below.

1. Am I certain of the diagnosis?

Are you confident and certain of the patient's skin diagnosis? Have you discussed problematic cases with your colleagues?

2. Is the condition severe?

Have you noticed that the problem is severe or has worsened in severity despite treatment? Have you considered the complexity of the skin problem?

3. Is the patient on the appropriate treatment?

Have you considered the type and demands of the treatment plan currently used by the patient and that the patient is on appropriate treatment?

4. Can the patient be managed in primary care?

Have you considered all other treatment options in secondary care and are you confident that the patient can be managed in primary care? Have you determined a good patient-carer or the patient-parent relationship? Have you already ensured that there is the availability of good primary care support e.g. GP, community nurse, social support groups, patient's advocate?

5. Will this patient benefit from further follow up in your clinic?

Have you considered the limitations of your clinical expertise in further managing the patient's problem? You now should ask yourself whether it is necessary for the patient to be under your care or someone else's care.

6. Has the patient understood the diagnosis and disease outcome?

Have you explained the diagnosis to the patient and ascertained patient's understanding of the diagnosis and prognosis?

7. Have I explained to the patient a clear plan of treatment?

Have you discussed a clear treatment plan with the patient or family member and have they understood it?

8. Have I explained the treatment side effects?

Have you informed the patient of the treatment side effects?

9. Has the patient understood how to self-manage?

Have you empowered the patient to self-manage, ascertain the need for a carer or responsible family member to help in treatment management?

10. Has the patient any concerns?

Have you attempted to find out any concerns pertaining to the disease or issues surrounding the patient such as their psychological concerns or wishes not to be followed up?

11. Can the patient re-access care easily if the problem recurs?

Have you asked yourself whether the patient needs easy reaccess to secondary care if the skin condition worsens? Have you given the clinic contact details?

12. Is the patient happy to be discharged?

Have you perceived the patients' expectations or behaviour as accurately as possible and address any other concerns? Have you reassured the patient?

13. Am I happy to discharge this patient?

Are you really happy to discharge the patient or does your intuition say otherwise?

Appendix BB: Clinician Consent Form: used for Discharge
Checklist Evaluation Study Version 1, 21st August
2014

Appendix BB

Clinician consent form

Version 1 - Dated 21/08/2014

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

Please put your initials in each box

I confirm that I have read and understood the clinician information sheet (Version 1 -dated 21/8/2014) for the above study.	<input type="checkbox"/>
I confirm that I was given the opportunity to consider the information provided and ask any questions I may have had.	<input type="checkbox"/>
I understand that my participation in the study is voluntary and I have the right to withdraw at any point without justification.	<input type="checkbox"/>
I agree to take part in the above study	<input type="checkbox"/>

Participant Name: _____

Date: _____

Signature: _____

Researcher Name: _____

Date: _____

Signature: _____

Appendix CC: Discharge Checklist Evaluation Form Version 1,
21-8-2014

Appendix CC

Discharge Checklist Evaluation Form

Version 1 21-8-2014

The clinical and non-clinical factors influencing discharge decisions in dermatology outpatients

Thank you for using the Discharge Checklist. This Discharge Checklist Evaluation form intends to assess the usefulness of the checklist used during your recent consultation with patients whom you considered for discharge. Please answer all questions briefly by ticking in the appropriate space and write your comments or suggestion in the box provided at the end of the questionnaire. This takes only 3-5 minutes to complete. You will be answering the questions in the absence of the investigator to avoid any potential biases. All individual responses will be kept confidential and will only be known to the research team members. Your participation in the study is voluntary and you have the right to withdraw at any point. If you have any questions or concerns regarding this study, please contact Dr Nur Ainita Harun (Principal Investigator) at Harunn@cardiff.ac.uk.

Thank you for participating in this project.

Date : _____

Participant code: _____

Participant initial: _____

Please answer all questions briefly by ticking in the appropriate space.

1. Did you find the discharge checklist useful?

Yes: ____ No: ____

Why? _____

2. Do you feel strongly that the process of thinking through the discharge decision was made much easier for you using the checklist?

Yes: ____ No: ____

Why? _____

3. Do you feel that the information in the checklist used to guide your decision was inadequate? If yes, please suggest what was missing.

Yes: _____

Reason: _____

No: _____

4. Would you like to use the discharge checklist in future consultations?

Yes: _____ No: _____

If yes, what are the strengths of the checklist?

5. Please give further comments or suggestions pertaining to the educational or organizational needs of clinicians in performing a high quality discharge. This information will be used to inform the development of an educational programme on quality discharge decision-taking.

Thank you very much for your time and effort.

Comments and suggestions

Appendix DD: Clinician Demographic Data Sheet

Appendix DD

Clinician Demographic Data Sheet

Interview start time:

Code No:

Age/DOB:

Sex M F

Roughly how many clinical sessions do you do per week? _____

How many years of clinical experience do you have in dermatology ____ years

Do you also work in private practice? _____

Clinical Post (Tick as appropriate)

Consultant

Specialist Registrar

Staff Grade

Clinical Lecturer

Clinical Research Fellow

Specialist Nurse

GP with a special interest in dermatology

Others.....

Type of NHS contract:

Full time

Part time

Other (please specify).....

Place of specialist training (Tick as appropriate)

England Wales Scotland Northern Ireland Overseas

Special interest in dermatology: _____

Appendix EE: Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Appendix EE

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

DOMAIN 1: RESEARCH TEAM AND REFLEXIVITY

PERSONAL CHARACTERISTICS

1. Q: **Interviewer/facilitator:** Which author/s conducted the interview or focus group?
A: Nur Ainita Harun (First author, female researcher) conducted the interviews
2. Q: **Credentials:** What were the researcher's credentials? E.g. PhD, MD
A: MBBS (Malaya), DSc (Dermatological Sciences, Wales)
3. Q: **Occupation:** What was their occupation at the time of the study?
A: Research fellow (Postgraduate PhD student)
4. Q: **Gender:** Was the researcher male or female?
A: Female
5. Q: **Experience and training:** What experience or training did the researcher have?
A: The researcher is a clinician trained in internal medicine and dermatology. She received training in qualitative interviewing and transcription analysis, and conducted mock interviews before interviewing participants.

RELATIONSHIP WITH PARTICIPANTS

6. Q: **Relationship established:** Was a relationship established prior to study commencement?
A: No. The candidate did not know any of the participants before the study commenced.
7. Q: **Participant knowledge of the interviewer:** What did the participants know about the researcher e.g. personal goals, reasons for doing the research?
A: The participants only knew that NAH was a dermatology clinician who was currently a full time researcher.
8. Q: **Interviewer characteristics:** What characteristics were reported about the interviewer/facilitator? Bias, assumptions, reasons and interests in the research topic
A: NAH undertook this research as part of a wider PhD project and thereby was highly motivated to maximise information received from the participants. The assumption was made that interviewer bias would be minimised by one person carrying out all the interviews.

DOMAIN 2: STUDY DESIGN

THEORETICAL FRAMEWORK

9. Q: **Methodological orientation and Theory:** What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis
A: A thematic analysis underpinned the study: themes were derived from the data and not identified in advance. The interviews were manually transcribed, coded and analysed.
Page 146

PARTICIPANT SELECTION

10. Q: **Sampling:** How were participants selected? e.g. purposive, convenience, consecutive, snowball
A: Through purposive sampling 60 consultant dermatologists were invited from eleven different Trusts across England (consultants)
Page 72
A: The study participants were selected using both convenience and purposive sampling.
Page 145 (patients)
11. Q: **Method of approach:** How were participants approached? e.g. face-to-face, telephone, mail, email
A: This will be a qualitative study involving face-to-face qualitative interviews
Page 55 and page 145
12. Q: **Sample size:** How many participants were in the study?
A: A total of 40 (66.6%) consultant dermatologists from 11 Trusts consented to participate and were interviewed (page 75)
A: 64 consultations were observed and 56 adult dermatology patients were interviewed (page 61)
A: 17 Dermatology consultants took part in the Delphi exercise (page 64)
13. Q: **Non-participation:** How many people refused to participate or dropped out?
A: Sixty-four patients had initially agreed to be observed and interviewed. However, eight of these 64 patients changed their minds because four were in a hurry, three had personal obligations and the son of one elderly patient (on behalf of his father) later refused to allow his father to be interviewed because he felt his father was incapable of speaking English fluently enough and he felt that this may have caused him unnecessary anxiety.
Page 149

SETTING

14. Q: **Setting of data collection:** Where was the data collected? e.g. home, clinic, workplace

A: The number of sample sites for this study was limited to only 11 National Health Service (NHS) hospitals located within these relatively close English regions (consultants' interviews, page 58)

A: The study was conducted at the Department of Dermatology, University Hospital Wales in Cardiff (patients' interviews, page 61)

A: Five different NHS Trusts, namely from Birmingham, Bristol, Oxford, Gloucester and Cardiff (Delphi study, page 90)

15. Q: **Presence of non-participants:** Was anyone else present besides the participants

A: Yes. At 17 interviews a family member of the patient was present (page 149)

16. Q: **Description of sample:** What are the important characteristics of the sample?

A: Demographic data of the participants are found in the following tables:

Table 3.1 Demographic characteristics of the consultant dermatologists

Table 4.1 Demographic characteristics of the consultant dermatologists (observation study)

Table 4.2 Demographics of the patients interviewed

Table 5.9 Demographic characteristics of the 18 clinical dermatologists who took part in evaluating the checklist

DATA SATURATION

17. **Interview guide:** Were questions, prompts, guides provided by the authors?

A: Yes. At the end of the interview, an open-ended question was asked again: "Is there anything you would like to add that I may have forgotten to ask?" Prompts were inserted to probe further into the topic.

Page 70

18. **Repeat interviews:** Were repeat interviews carried out? If yes, how many?

A: No repeat interviews were carried out and the participants did not provide feedback on the findings.

Page 144

19. **Audio/visual recording:** Did the research use audio or visual recording to collect the data?

A: Yes. All interviews were audio recorded and later transcribed verbatim.

Page 60

20. **Field notes:** Were field notes made during and/or after the interview or focus group?

A: Yes. The researcher wrote field notes during the observation of consultations using an observation template.

Page 61

21. **Duration:** What was the duration of the interviews or focus group?
A: The mean interview time was 55 minutes (range = 15-80 minutes)
Page 55 for consultants' interviews
A: Mean interview time was 20 minutes (range 5-40 minutes)
Page 149 for patients' interviews.
22. **Data saturation:** Was data saturation discussed?
A: Yes. In this study saturation was achieved at the 28th clinician interview (consultants).
Page 72
A: Data saturation was achieved after 41 interviews (patients).
Page 149
23. **Transcripts returned:** Were transcripts returned to participants for comment and/or correction?
A: No. Transcripts were not returned to participants for comment.
Page 58 and page 62

DOMAIN 3: ANALYSIS AND FINDINGS

DATA ANALYSIS

24. **Number of data coders:** How many data coders coded the data?
A: Three of the authors were involved in the data coding.
These items were then collated into potential subthemes and themes by writing each influence in the right-hand margin of each transcript. 10% of the interview transcripts were analysed separately by two of the researcher's supervisors
Page 74
25. **Description of the coding tree:** Did authors provide a description of the coding tree?
A: Yes. Coding' refers to the creation of categories in relation to data; the grouping together of different instances of datum under an umbrella term that can enable them to be regarded as 'of the same type'. This process will be repeated to further identify themes or categories.
Page 58
26. **Derivation of themes:** Were themes identified in advance or derived from the data?
A: A thematic analysis underpinned the study: themes were derived from the data and not identified in advance. The interviews were manually transcribed, coded and analysed.
Page 146
27. **Software:** What software, if applicable, was used to manage the data?

A: Transcripts were further analysed using NVivo 10, a qualitative data analysis software program [QSR International Pty Ltd, Melbourne, Vic., Australia], to aid the organization of unstructured data

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28. **Participant checking:** Did participants provide feedback on the findings?

A: No. The participants did not provide feedback on the findings.

REPORTING

29. **Quotations presented:** Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. participant number.

A: Yes.

Page: Refer to the manuscript where the quotations are placed.

30. **Data and findings consistent:** Was there consistency between the data presented and the findings?

A: Yes

31. **Clarity of major themes:** Were major themes clearly presented in the findings?

A: Yes. These are presented in the Results and the Discussion in each chapter.

32. **Clarity of minor themes:** Is there a description of diverse cases or discussion of minor themes?

A: Yes. These are presented in the Results and the Discussion in each chapter.