Appendices

Appendix 1: Search strategy

Databases: EMBASE, PsychINFO and MEDLINE

All terms were entered with .mp

'Mobile devices' terms

Cell* phon* OR handheld computer* OR handheld devic* OR mobile phon* OR smartphon* OR smart-phon* OR smart phon* OR iPhone* OR (Blackberry adj10 phon*) OR (Blackberry adj10 devic*) OR (Blackberry adj10 mobile*) OR Nokia OR Symbian OR (Windows adj10 mobile*) OR (Windows adj10 phon*) OR (Android adj10 mobile*) OR (Android adj10 phon*) OR Palm OS OR Palm Pre Classic OR (HTC adj10 phon*) OR HTC adj10 mobile*) OR text messag* OR short messag* OR multimedia messag* OR multi-media messag* OR ((smartphone or smart-phone or smart phone or mobile) adj10 app*) OR iPad* OR tablet devic* OR tablet computer* OR personal digital assistant* OR mHealth OR m-Health OR m Health OR mobile health

'Information needs' terms

Information need* OR informational need* OR information gathering OR Interactive health communication OR communicat* OR self-efficacy OR quality of life OR social support OR health promotion OR self-care OR self-help OR health behaviour OR health behaviour Change OR behavior change OR health education OR health competenc* OR complian* OR adher* OR noncomplian* OR non-complian* OR nonadher* OR non-adher* OR self-management OR disease management OR long term management OR long term care OR patient empowerment OR self-monitoring

'Cancer patient' terms

Neoplasm* OR cancer* OR carcinoma* OR oncolog* OR malignan* OR tumor* OR tumour* OR leukemia* OR sarcoma* OR lymphoma* OR melanoma* OR blastoma* OR radiotherapy OR chemotherapy OR palliative care

Limits:

Language – English Human studies (Not all limits were valid in PsychINFO)

Appendix 2: CASP checklists

Quantitative checklist:

Paper Title	Year	First A	uthor
Screening questions		Yes	No
Was there a clear statement of the air -was the goal stated? - why is this important?	ms of the research?		
- how relevant is it?			
Is a quantitative methodology appropr	riate?		
Is it worth continuing?			
Detailed questions		Comm	ient
Was the research design appropriate research?			
 Has the research design been justified? Was the recruitment strategy appropriate to the aims of the research study? Has the researcher explained how participants were selected? Has the researcher explained why the participants were appropriate to provide answers to the research question? Has the research discussed non-participants and their reasons? Has the researcher discussed the response rate? Has the researcher discussed how the control group was selected and why (if appropriate)? Were demographic variables of respondents discussed? Were the data collected in a way that addresses the research issue? Was mode of data collection justified (medical) 			
records/questionnaires etc.)? - Is it clear how data was collec	ted?		
- Has the researcher made met	hods explicit?		
 If a survey was used, was the survey piloted? Were there open questions? How were they analysed? 			
Has the relationship between researcher and participants been adequately considered? - Has the researcher considered their own role, potential			
bias and influence? 1. during formation of research questions 2. during recruitment and data collection (if data collected from participants through face-to-face or telephone survey) Has the researcher considered the implications of any			
 Has the researcher considered the implications of any changes in the research design and events during the study? 			
Have ethical issues been taken into c	onsideration?		

 Were ethical standards maintained (if enough in provided)? 	formation
- Has approval been sought from ethics committe	e?
Was the data analysis sufficiently rigorous?	
- Has an in-depth description of data analysis bee	n
provided?	
- Is it clear which statistical tests were used/were	the tests
appropriate to answer the research questions?	
 Is sufficient data presented to support the finding 	
 To what extent was contradictory data taken into 	account?
Is there a clear statement of findings?	
- Are the findings explicit?	
 Is there adequate discussion of the evidence for 	and
against the researcher's arguments?	
- Has the researcher discussed the credibility of the	neir
findings?	
- Are findings discussed in relation to other resear	rch?
How valuable is the research?	
- Has the researcher discussed the contribution h	is study
makes to existing knowledge?	
- Does the researcher identify areas for further res	
- Has the researcher discussed whether findings of	
transferred to other populations or considered w	ays tne
research can be used?	
Further comments	
Score	

Qualitative checklist:

Question	Description	Study :
1. Was there a clear statement of the aims of research?	What was the goal of the research? Why it was thought important? Its relevance	
2. Is a qualitative methodology appropriate?	If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants Is qualitative research the right methodology for addressing the research goal?	
3. Was the research design appropriate to address the aims of the research?	If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)?	
4. Was the recruitment strategy appropriate to the aims of the research?	If the researcher has explained how the participants were selected If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study If there are any discussions around recruitment (e.g. why some people chose not to take part)	
5. Was the data collected in a way that addressed the research issue?	 If the setting for data collection was justified If it is clear how data were collected (e.g. focus group, semi-structured interview etc.) If the researcher has justified the methods chosen If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, or did they use a topic guide)? If methods were modified during the study. If so, has the researcher explained how and why? If the form of data is clear (e.g. tape recordings, video material, notes etc) If the researcher has discussed saturation of data 	

6. Has the relationship	If the researcher critically examined their	
between researcher and	own role,	
participants been	potential bias and influence during	
adequately considered?	(a) Formulation of the research questions	
auequately considered?	(b) Data collection, including sample	
	recruitment and	
	choice of location	
	How the researcher responded to events during the study and whether they	
	during the study and whether they considered the implications of any	
	changes in the research design	
7. Have ethical issues	If there are sufficient details of how the	
been taken into	research was explained to participants for	
consideration?	the reader to assess whether ethical	
Consideration:	standards were maintained	
	If the researcher has discussed issues	
	raised by the study (e.g. issues around	
	informed consent or confidentiality or how	
	they have handled the effects of the study	
	on the participants during and after the	
	study)	
	If approval has been sought from the	
	ethics committee	
8. Was the data analysis	If there is an in-depth description of the	
sufficiently rigorous?	analysis process	
3	If thematic analysis is used. If so, is it	
	clear how the	
	categories/themes were derived from the	
	data?	
	Whether the researcher explains how the	
	data presented were selected from the	
	original sample to demonstrate the	
	analysis process	
	If sufficient data are presented to support	
	the findings	
	To what extent contradictory data are	
	taken into account	
	Whether the researcher critically	
	examined their own role, potential bias and	
	influence during analysis and selection of	
	data for presentation	
9. Is there a clear	If the findings are explicit	
statement of findings?	• If there is adequate discussion of the	
	evidence both for and against the	
	researchers arguments	
	• If the researcher has discussed the	
	credibility of their findings (e.g.	
	triangulation, respondent validation,	
	more than one analyst)	
	• If the findings are discussed in relation to	
	the original research question	

10. How valuable is the research?	If the researcher discusses the contribution the study makes to existing knowledge or understanding e.g. do they consider the findings in relation to current practice or policy?, or relevant research-based literature? If they identify new areas where research is necessary If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used.	
Score		

Appendix 3: Patient invitation letter:



Ysbyty Athrofaol Cymru University Hospital of Wales

Heath Park, Cardiff, CF14 4XW Phone 029 2074 7747 Fax 029 2074 3838

Parc Y Mynydd Bychan, Caerdydd, CF14 4XW Ffôn 029 2074 7747 Ffacs 029 20743838

Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Patient Interview Invitation Letter

Dear patient,

I would like to invite you to participate in a research study. The study is being carried out by researchers from Cardiff University who are working with Velindre NHS Trust and Cardiff & Vale University Health Board. I am inviting you to take part because they are interested in hearing the views of patients with cancer.

The aim of the study is to find out what patients with cancer think about using a smartphone or tablet 'app' to help to provide them with information about their illness. The information they get from this study will be used to help create the app, which will be available for cancer patients to use in the future. During the study they will also be asking doctors and nurses and relatives of patients with cancer their views on the potential of such an app.

One of the researchers, Becky Richards, would like to interview you, in your own home at a time convenient to you, to ask your views about what you think the benefits or problems of the app may be. Becky would also like to hear your views about what sort of things you would like the app to do.

I have enclosed an information sheet for you to read and help you to think about whether you would like to take part. Taking part or not is entirely up to you.

If you wish to take part in the study, please tick 'Yes, I would like to take part

in this study', fill in the contact details section on the Study Reply Form and then return the form to Becky in the envelope provided.

Becky will then contact you to arrange an interview. If you do not want to be interviewed at present, but have no objections to being contacted in the future please tick 'I do not want to be interviewed but am interested in participating in other parts of the study at some time in the future'.

If you would like to find out more about the study before deciding whether or not to take part please contact Becky Richards, Cardiff University on 02920 687219, Email: Richardsb3@cardiff.ac.uk.

The research team are also looking to find relatives or close friends of patients with cancer to participate in the study. If you have a close family member or friend (aged over 18) who might be interested in participating in the study the researchers would like to hear from them. If your relative/friend might be interested please fill in the section – 'I have a close family member or friend who might be interested in participating in part of this study' and Becky will send them some further information.

Yours sincerely,

Dr Jared Torkington,

Consultant Colorectal Surgeon

Appendix 4: Patient information sheet:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Patient Information Sheet (v1.1, 05/08/2014)

Invitation to take part in the study

We would like to invite you to take part in a research study. Before you decide you need to understand why it is being done and what it would involve for you. Please read the following information carefully. You can talk to others about the study if you wish to help you decide if you want to take part (including your family and friends or your specialist nurse). Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

The aim of the study is to find out what patients with cancer think about using a smartphone or tablet 'app' to help to provide them with information about their illness. There has been a lot of research in the past showing that cancer patients do not have all the information that they want to have about their condition. This is because some patients find it difficult to ask questions or to remember all the information they have been told. The information we get from this study will be used to help design a mobile phone 'app', which we hope will help patients with information about their condition. During the study we will also be asking doctors and nurses and relatives of patients with cancer their views about the 'app'.

Why have you been invited to take part?

We have invited you to take part because we are interested in hearing the views of patients with cancer.

Do you have to take part?

No. Taking part is entirely voluntary. If you do not want to take part you do not have to give a reason. If you decide to take part but later change your mind, you can do so, and you do not have to give a reason why you no longer wish to participate. No one will be upset if you do not wish to take part and your treatment or care would not be affected.

What will happen to you if you take part?

If you decide to take part, a member of the study team will contact you to arrange a research interview (an informal discussion between the researcher and yourself) in your own home at a time convenient to you. If you would prefer to be interviewed at another location, such as Cardiff University, you will be reimbursed for your travel expenses. If you would like a friend or relative to be at your interview, that is fine. Interviews will take about 40 minutes. The interview will be recorded with your consent. Recordings will be stored in a secure office at Cardiff University. In the interview, you will be asked to tell us your views about what you think some of the benefits or problems of the app may be. In addition, we will also ask you what kinds of things you would like the app to be able to do. There are no right or wrong answers to the questions in this study. We want to know YOUR opinions.

What are the possible risks and disadvantages of taking part?

There are no specific risks associated with taking part in this study. You do not have to talk about any issues you do not want to discuss. If you find the interview upsetting it can be stopped at any time.

What are the possible benefits of taking part?

This research study will not directly benefit you, but it will give us a better understanding of the views and needs of patients with cancer. This should help us to conduct future studies to see if the app can help patients with cancer.

Will your taking part in the study be kept confidential?

Yes. All information that is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research study?

Audio-recordings and transcripts of interviews will be stored on Cardiff University password protected computers for 5 years. The data will then be securely archived and then destroyed 15 years after the study is completed. Only the research student Becky Richards and lead supervisor Fiona Wood will have access to the audio-recordings. The results of the study will be written up as a thesis and presented at conferences and published in scientific journals. A report will also be prepared for Tenovus, the Cancer Charity, who are funding

this study. Tenovus may wish to publish summaries of the study on their website. Short reports may also be prepared for interested government departments and the media. A summary of the research findings will be available to you at the end of the study if you would like it. We may use direct quotes from your interview in publications, however all information provided by participants will be anonymised. It will not be possible for anyone to identify you from any of the published results.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your safety, rights, well-being and dignity. This study has been reviewed by South East Wales Ethics Committee.

What if you are harmed or unhappy about any aspect of the study?

If you have any concerns or complaints about any aspect of the study please contact Dr Fiona Wood, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687185, Email: wood@cf.ac.uk. Alternatively, please contact Dr John Staffurth, Clinical Oncologist, Velindre Hospital, Cardiff. Telephone: 02920 196135.

If you have issues that are not related to the study, such as a complaint about your care, and wish to formally complain, you can go through the NHS Complaints Procedure. Details can be found at

www.puttingthingsright.wales.nhs.uk. In the interview, it is possible that you may raise other issues of concern, such as your health. If this happens, you will be advised to consult your GP or contact the Tenovus Helpline, telephone: 0808 808 1010. If the student is very worried about your health she may consider it necessary to discuss your situation with her clinical supervisor.

Who is organising the study?

The study is being organised by researchers from Cardiff University. It has been funded by Tenovus, the cancer charity.

Contact for further information

If you would like any further information, or have any questions concerning this study, please contact Becky Richards, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687219, Email: Richardsb3@cardiff.ac.uk.

Who else can take part in the study?

We are also looking to find relatives of patients with cancer to take part in the study. If you have a close family member or friend (aged over 18) who might be interested in taking part, we would like to hear from them. If your relative/friend might be

interested please fill in the section – 'I have a close family member or friend who might be interested in participating in part of this study' and we will send them out some further information.

What do I need to do now?

If you WISH TO take part please tick "Yes, I would like to take part in this study" and fill in the contact details on the Study Reply Form and return the form to Becky Richards in the envelope provided.

If you do not want to be interviewed but you may be interested in participating in other parts of the study (for example a consultation with a clinician whilst using the app) please tick "I do not want to be interviewed but am interested in participating in other parts of the study at a later date". Please also fill in the contact details on the Study Reply Form and return the form in the envelope provided.

Feel free to call us with any queries you may have.

Please keep this information leaflet for future reference.

Thank you for reading this information sheet and for taking an interest in the research study.

Appendix 5: Patient reply form:

Patient Interview Reply form





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

. d.	
I would like to take part in this study and I wish to be contacted by the research team.	
I do not want to be interviewed but I may be interested in taking part in other parts of the study at a later date.	
I have a close family member or friend who might be interested in participating in part of this study	
Name of Participant:	
Name of relative/friend:	

Appendix 6: Relatives invitation letter:



Ysbyty Athrofaol Cymru University Hospital of Wales

Heath Park, Cardiff, CF14 4XW Phone 029 2074 7747 Fax 029 2074 3838 Parc Y Mynydd Bychan, Caerdydd, CF14 4XW Ffôn 029 2074 7747 Ffacs 029 20743838

Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Family/Friends Interview Invitation Letter

I would like to invite you to participate in a research study. The study is being carried out by researchers from Cardiff University who are working with the team at Velindre NHS Trust and Cardiff & Vale University Health Board. We have invited you to take part because we are interested in hearing the views of close family members and friends of patients with cancer.

The aim of the study is to find out what patients with cancer think about using a smartphone or tablet 'app' to help to provide them with information about their illness. During the study we will also be asking patients, doctors and nurses their views on the potential of such an app. The information we get from this study will be used to help create the app, which will be available for cancer patients to use in the future.

We would like to interview you to ask your views about what you think the benefits or problems of the app may be. We would also like to hear your views about what sort of things you would like the app to do.

We have enclosed an information sheet for you to read and help you to think about whether you would like to take part. Taking part or not is entirely up to you.

If you wish to take part in the study, please tick 'Yes, I would like to take part in this study', and fill in the contact details section on the Study Reply Form and then return the form to us in the envelope provided.

Once we receive the form, a member of the research team will contact you to arrange an interview.

If you would like to find out more about the study before deciding whether or not to take part please contact Becky Richards, Cardiff University on 02920 687219, Email: Richardsb3@cardifff.ac.uk.

Professor Howard Kynaston,

Consultant Urologist.

Appendix 7: Relatives information sheet:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Family/Friends Information Sheet (v1.1, 05/08/2014)

Invitation to take part in the study

We would like to invite you to take part in a research study. Before you decide you need to understand why it is being done and what it would involve for you. Please read the following information carefully. You can talk to others about the study to help you decide if you wish to take part. Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

The aim of the study is to find out what patients with cancer think about using a smartphone or tablet 'app' to help to provide them with information about their illness. There has been a lot of research in the past showing that cancer patients do not have all the information that they want to have about their condition. This is because some patients find it difficult to ask questions or to remember all the information they have been told. During the study we will also be asking patients, doctors and nurses of patients with cancer their views about the 'app'. The information we get from this study will be used to help design a mobile phone 'app', which we hope will help patients with information about their condition.

Why have you been invited to take part?

We have invited you to take part because we are interested in hearing

the views of close family members and friends of patients with cancer.

Do you have to take part?

No. Taking part is entirely voluntary. If you do not want to take part you do not have to give a reason. If you decide to take part but later change your mind, you can do so, and you do not have to give a reason. No one will be upset if you do not wish to take part and the treatment or care of the person you care for would not be affected.

What will happen to you if you take part?

If you decide to take part, a member of the study team will contact you to arrange a research interview (an informal discussion between the researcher and yourself) at a time convenient to you. If possible, the interview will take place at the patient's home so that both interviews can be conducted on the same day. If you would prefer to be interviewed at another location, such as Cardiff University, you will be reimbursed for your travel expenses. Interviews will take about 40 minutes. The interview will be recorded with your consent. Recordings will be stored in a secure office at Cardiff University. In the interview, you will be asked to tell us your views about what you think some of the benefits or problems of the app may be. In addition, we will also ask you what kinds of things you would like the app to be able to do. There are no right or wrong answers to the questions in this study. We want to know YOUR opinions.

What are the possible risks and disadvantages of taking part?

There are no specific risks associated with taking part in this study. You do not have to talk about any issues you do not want to discuss. If you find the interview upsetting it can be stopped at any time.

What are the possible benefits of taking part?

This research study will not directly benefit you, but it will give us a better understanding of the views and needs of patients with cancer. This should help us to conduct future studies to see if the app can help patients with cancer.

Will your taking part in the study be kept confidential?

Yes. All information that is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research study?

Audio-recordings and transcripts of interviews will be stored on Cardiff University password protected computers for 5 years. The data will then be securely archived and then destroyed 15 years after the study is completed. Only the research student Becky Richards and lead supervisor Fiona Wood will have access to the audio-recordings. The results of the study will be written up as a thesis and presented at conferences and published in scientific journals. A report will also be prepared for Tenovus, the Cancer Charity, who are funding this study. Tenovus may wish to publish summaries of the study on their website. Short reports may also be prepared for interested government departments and the media. A summary of the research findings will be available to you at the end of the study if you would like it. We may use direct quotes from your interview in publications, however all information provided by participants will be anonymised. It will not be possible for anyone to identify you from any of the published results.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee to protect your safety, rights, well-being and dignity. This study has been reviewed by South East Wales Ethics Committee.

What if you are harmed or unhappy about any aspect of the study?

If you have any concerns or complaints about any aspect of the study please contact Dr Fiona Wood, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687185, Email: wood@cf.ac.uk. Alternatively, please contact Dr John Staffurth, Clinical Oncologist, Velindre Hospital, Cardiff. Telephone: 02920 196135

If you have issues that are not related to the study, such as a complaint about your care, and wish to formally complain, you can go through the NHS Complaints Procedure. Details can be found at www.puttingthingsright.wales.nhs.uk. In the interview, it is possible that you may raise other issues of concern, such as your health. If this happens, you will be advised to consult your GP or contact the Tenovus Helpline, telephone: 0808 808 1010. If the student is very worried about your health she may consider it necessary to discuss your situation with her clinical supervisor.

Who is organising the study?

The study is being organised by researchers from Cardiff University. It has been funded by the cancer charity Tenovus, the cancer charity.

Contact for further information

If you would like any further information, or have any questions concerning this study, please contact Becky Richards, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687219, Email: Richardsb3@cardiff.ac.uk.

What do I need to do now?

If you WISH TO take part please tick "Yes, I would like to take part in this study", and fill in the contact details on the Study Reply Form and return the form to Becky Richards in the envelope provided.

Feel free to call us with any queries you may have and/or talk the study over with anyone else.

Please keep this information leaflet for future reference. Thank you for reading this information sheet and for taking an interest in the research study.

Appendix 8: Patient consent form:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Interview Consent Form	you agree
interview Consent Form	
I confirm I have read and understood the information leaflet dated 05/08/2014, version 1.1 for the above study. I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
I give permission for the interview to be audio recorded.	
I understand and agree that quotes from my interview may be used within written reports or publications, and that any quotes would be completely anonymous and could not be linked to me in any way.	
I agree to take part in the above study	

Name of Participant:	
Signature:	
Date:	
Name of Person taking consent:	
Signature: Date:	

Appendix 9: Relatives consent form:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Interview Consent Form	Please initial if you agree
I confirm I have read and understood the information leaflet dated 05/08/2014, version 1.1 for the above study. I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	
I give permission for the interview to be audio recorded.	
I understand and agree that quotes from my interview may be used within written reports or publications, and that any quotes would be completely anonymous and could not be linked to me in any way.	
I agree to take part in the above study.	

Name of Participant:		
Signature:		
Date:		
Name of Person taking c	onsent:	
Signature:		
Date:		

Appendix 10: Patient demographic questionnaire:





Patient Demographic Questionnaire

Please circle the correct responses:

Age:

18-25

26-35

36-45

46-55

56-65

66-75

76-85

85+

Gender:

Male

Female

Type of cancer:

Breast

Urological

Gynaecological

Colorectal

Other

Time since diagnosis:

Less than 1 month

1-3 months

3-6 months

6 months-1 year

1-2 years

2-4 years

5 years+

Highest educational qualification:

GCSE/O Levels

A Levels

NVQ/HNC/HND

Diploma

Degree

Post Graduate degree

None of the above

Would you like to be contacted about taking part in a further phase of this study?

Yes

No

Thank you for completing this questionnaire.

Appendix 11: Relatives' demographic questionnaire:





Relatives Demographic Questionnaire

Please circle the correct responses:

Age:

18-25

26-35

36-45

46-55

56-65

66-75

76-85

85+

Gender:

Male

Female

Highest educational qualification:

GCSE/O Levels

A Levels

NVQ/HNC/HND

Diploma

Degree

Post Graduate degree

None of the above

Thank you for completing this questionnaire.

Appendix 12: Patient interview topic guide:

Phase 1 Patient Interview Schedule

Prologue

- 1. Introduce myself, explain where I am from, ensure they're comfortable etc.
- 2. Check understanding of reason for meeting, give an opportunity for questions: "Before we start, I wonder if you have any questions about this study or about why I've come to talk with you today?"

Set the focus of the interview and explain the app. Base this around the following script:

"Thank you for agreeing to take part in this study. I want to understand what patients with cancer think of a potential smartphone/tablet app for patients with cancer. The interview will take around half hour/forty minutes.

This app would be for use *after* diagnosis and would potentially help patients with their information needs (by providing information within the app and links to external websites, etc) and help patients to communicate with their clinicians in consultations (by bringing a prepared list of questions to consultations). The app could also help with things like adherence to medication (audio medication prompts) and social support (links to support groups, telephone helplines).

I will now show you an example of an app for healthcare that is already available, just give you an idea of such an app [Demonstration of a similar app here]. At the end of this study, we aim to develop an app based on the information gathered from interviews with clinicians, cancer patients and their relatives. I am interested in your views on a potential smartphone/tablet app for cancer patients. There are no right or wrong answers to my questions, I am interested in what you think."

- 3. After establishing what is understood about the study, and answering any questions, explain that the interview will be recorded:
- "I would like to record what you say as that saves me having to scribble when you're talking and means that I can concentrate on what you're saying. The recording will only be heard by people who are working on this project. The interview will be transcribed and your identity and the identity of any person you talk about today will be anonymised in any published work. Is that okay with you?"
- 4. Obtain consent for the interview and for the recording. If not already done, set up and switch on the recording equipment while the volunteer signs the consent form.

Opening question

Can you tell me why you were interested in taking part in this study?

Information needs

• Do you like to have information about your illness? (prompt: why, how much information?)

- Where do you normally get information about your illness (prompts: health professionals, friends/family, book/internet etc)?
- What sources do you use? Why?
- Was there a particular point where you felt like you needed more information?

Communication with clinicians in consultations, part 1

- How do you find talking to clinicians about your illness?
- How do you feel when you ask the doctors and nurses questions about your illness? (prompts: is it easy or difficult, what makes it hard to ask them questions?
- What makes it easier to ask doctors and nurses questions?
- Were there any barriers to communicating with your doctors/nurses?
- How do you remember all the information about your illness?
- Do you find it easy to talk to your family/ friends about your illness?

Experience with mobile technology

- Do you have experience of using a mobile/smartphone/ tablet computer?
- What was your experience of using a mobile/ smartphone/tablet computer? OR Why don't you use a mobile/smartphone/tablet computer?
- What do you use your mobile/smartphone/tablet computer for?
- Are you familiar with 'apps'?
- Have you ever, or do you currently use an app to help with your health or cancer? Why?

Perceived acceptability of an app

- Do you think you would find an app acceptable to use? (i.e. easy or difficult to use?)
- Do you think other patients who have cancer would find an app acceptable to use?
- Do you think families or friends of patients would want to use an app?
 Why?
- Do you think you/other patients would need initial training to use an app?
- If the app was made available, would you download it and use it?
- Would you have any concerns about using an app?

Desired app features

- What things would you like the app to do? Why?
- What sort of things do you think family and friends of patients would want the app to do?
- Is there anything that you would not want the app to do? If so, why?

Perceived benefits of the app

- What benefits do you think there might be for patients using the app?
- What benefits do you think there might be for clinicians?
- What benefits do you think there might be for the family/friends?

Communication part 2

- Do you think the app would have an impact on the way you talk to your doctors and nurses about your illness? How? Could it help? Could it make it more difficult to talk to them?
- Do you think the app might affect the way you talk to your family and friends? In what ways?

Perceived barriers of the app

• Do you think there may be problems with using the app? What do you think the problems might be of using the app?

Patient type

- Are there any particular types of patient that you think might find the app most useful? (prompt: age groups, patients at different stages of diseases). Why?
- When do you think it might be most useful for patients to use the app?
 (i.e. after diagnosis, after the dust has settled, pre-treatment, post-treatment and discharge)
- If any of your friends had cancer would you recommend they use it? Do you think they would use it? Why/why not?

Final question

What was your overall experience of being involved in this study?

Part of the research infrastructure for Wales funded by the National Institute for Social Care and Health Research, Welsh Government. Yn rhan o seilwaith ymchwil Cymru a ariannir gan y Sefydliad Cenedlaethol ar gyfer Ymchwil Gofal Cymdeithasol ac lechyd, Llywodraeth Cymru



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 Fiona Wood Senior Lecturer Cardiff University 3rd Floor, Neuadd Meirionnydd Heath Park, Cardiff CF14 4YS

Dear Dr Wood

Study title: Exploring the potential of a mobile phone or tablet 'app'

to help patients with cancer address their information

needs

REC reference: 14/WA/0066 Protocol number: SPON 1275-13

IRAS project ID: 143124

Thank you for your letter of the 28 March 2014, 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 Vice-Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the REC Manager Carl Phillips, Carl.phillips@wales.nhs.uk.

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

NHS 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).

1

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.
- Management permission ("R&D approval") should be sought from all NHS organisations involved in the study 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 a NHS organisation's role in the study is limited to identifying and referring
 potential participants to research sites ("participant identification centre"), guidance
 should be sought from the R&D office on the information it requires to give permission
 for this activity.
- For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.
- Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

- All clinical trials (defined as the first four categories on the IRAS filter page) must be
 registered on a publically accessible database within 6 weeks of recruitment of the first
 participant (for medical device studies, within the timeline determined by the current
 registration and publication trees).
- There is no requirement to separately notify the REC but you should do so at the earliest
 opportunity e.g when submitting an amendment. We will audit the registration details as
 part of the annual progress reporting process.
- To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.
- If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (<u>catherineblewett@nhs.net</u>), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

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
Evidence of insurance or indemnity	UMAL/Cardiff University	26 July 2013
Investigator CV	B Richards	31 January 2014
Investigator CV	F Wood	03 February 2014
Investigator CV	J Staffurth	26 February 2014

Investigator CV	K Brain	26 February 2014
Investigator CV	P Kinnersley	26 February 2014
Letter from Sponsor	Cardiff University	10 January 2014
Other: Confirmation of funding	Tenovus	25 March 2013
Other: Patient Invitation Letter	1.0	31 January 2014
Other: Relatives Invitation Letter	1.0	31 January 2014
Other: Health Professional Invitation Letter	1.0	31 January 2014
Other: Patient Interview Reply Form	1.0	21 March 2014
Other: Health Professionals Interview Reply Form	1.0	21 March 2014
Other: Family/Friends Interview Reply Form	1.0	21 March 2014
Other: Patient Interview Schedule	1.1	27 March 2014
Other: Relative Interview Schedule	1.1	27 March 2014
Other: Clinician Interview Schedule	1.1	27 March 2014
Participant Consent Form: Patient	1.0	31 January 2014
Participant Consent Form: Relatives	1.0	31 January 2014
Participant Consent Form: Health Professional	1.0	31 January 2014
Participant Information Sheet: Health Professional	1.1	27 March 2014
Participant Information Sheet: Patient	1.1	27 March 2014
Participant Information Sheet: Relatives	1.1	27 March 2014
Protocol	1.0	30 January 2014
REC application	3.5	10 February 2014
Response to Request for Further Information	F Wood	28 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.

After ethical review

Reporting requirements

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
- · Notification of serious breaches of the protocol
- · 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.

Feedback

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.

3

Further information is available at National Research Ethics Service website > After Review

14/WA/0066 Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

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

Yours sincerely

Mrs S Warrell

Vice-Chair, South East Wales Research Ethics Committee B

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

Copied: Dr F Wood, wood@cf.ac.uk

Ms B Richards, richardsb3@cardiff.ac.uk

R&D Office for Cardiff University,

resgov@cardiff.ac.uk

R&D Office for Cardiff & Vale UHB,

CAV_research.development@wales.nhs.uk

Appendix 14: R&D approval from UHW:



Ysbyty Athrofaol Cymru University Hospital of Wales

Heath Park, Cardiff, CF14 4XW Caerdydd, CF14 4XW Phone 029 2074 7747 F6x 029 2074 3838 Minicom 029 2074 3832 Minicom 029 2074 3832 Minicom 029 2074 3832

Tel: 029 20746986 Fax: 029 20745311

CAV_Research.Development@wales.nhs.uk

Professor C Fegan From:

R&D Director

R&D Office, 2nd Floor TB2 University Hospital of Wales

Cardiff CF14 4XW

17 April 2014

Professor Alison Fiander Cancer and Genetics Research Institute Cardiff University School of Medicine University Hospital of Wales Heath Park CF14 4XN

Dear Professor Fiander

Cardiff and Vale UHB Ref and Study Title: 14/DMD/5845: Potential Of An App To Address Cancer Patients Information Needs

IRAS Project ID: 143124

The above project was forwarded to Cardiff and Vale University Health Board R&D Office by the NISCHR Permissions Coordinating Unit. A Governance Review has now been completed on the project.

Documents approved for use in this study are:

Document	Version	Date
NHS R&D Form	3.5	Received 13/02/14
SSI Form	3.5	Received 13/02/14
Protocol	1.0	30/01/14
Relatives Interview Information Sheet	1.1	27/03/14
Patient Interview Information Sheet	1.1	27/03/14
Health Professional Interview Information Sheet	1.1	27/03/14
Invitation Letter: Patient Interview	1.0	31/01/14
Invitation Letter: Relative	1.0	31/01/14
Invitation Letter: Health Professional	1.0	31/01/14
Patient Interview Form	1.0	21/03/14
Health Professional Interview Form	1.0	21/03/14
Family/Friends Interview Form	1.0	21/03/14

Phase 1 Patient Interview Schedule	1.1	27/03/14
Phase 1 Relative Interview Schedule	1.1	27/03/14
Phase 1 Clinician Interview Schedule	1.1	27/03/14
Relatives Consent Form: Interview	1.0	31/01/14
Patient Consent Form: Interview	1.0	31/01/14
Health Professional Consent Form: Interview	1.0	31/01/14
Patient Interview Reply Form	1.0	21/03/14
Health Professionals Interview Reply Form	1.0	21/03/14
Family/Friends Interview Reply Form	1.0	21/03/14

I am pleased to inform you that the UHB has no objection to your proposal. You have informed us that Cardiff University is willing to act as Sponsor under the Research Governance Framework for Health and Social Care.

Please accept this letter as confirmation of permission for the project to begin within this UHB.

The UHB considers that this study is likely to be suitable for adoption onto the NISCHR Clinical Research Portfolio (CRP). This is important so that the UHB can receive funding to support this study. An application for adoption should be made by the Chief Investigator before commencing the study.

If your study is adopted onto the NISCHR CRP, it will be a condition of this NHS research permission, that you will be required to regularly upload recruitment data onto the portfolio database.

To apply for adoption onto the NISCHR CRP, please go to: http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=31979. Once adopted, NISCHR CRP studies may be eligible for additional support through the NISCHR Clinical Research Centre. Further information can be found at: http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=28571

If your study is adopted onto the portfolio, please inform NISCHR PCU and the R&D Office of your portfolio ID number,

To upload recruitment data, please follow this link: http://www.crncc.nihr.ac.uk/about_us/processes/portfolio/p_recruitment Uploading recruitment data will enable NISCHR to monitor research activity within NHS organisations, leading to NHS R&D allocations which are activity driven.

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 this project has not opened within 12 months of the date of this letter. Failure to do so may invalidate R&D approval.
- Inform NISCHR PCU and the UHB R&D Office if any external or additional funding is awarded for this project in the future
- Submit any substantial amendments relating to the study to NISCHR PCU in order that they can be reviewed and approved prior to implementation
- Ensure NISCHR PCU is notified of the study's closure

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- · Ensure that the study is conducted in accordance with all relevant policies, procedures and legislation
- Provide information on the project to the UHB R&D Office as requested from time to time, to include participant recruitment figures

Yours sincerely,

Professor Christopher Fegan R&D Director / Chair of the Cardiff and Vale Research Review Service (CaRRS)

Chief Investigator: Dr Fiona Wood

Becky Richards, Student, Cardiff University

Academic Supervisor: John Staffurth

Academic Supervisor: Professor Paul Kinnersley

Academic Supervisor: Dr Kate Brain

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Appendix 15: R&D approval from Velindre NHS Trust:



Velindre NHS Trust Ymddiriedolaeth GIG Felindre Velindre NHS Trust Headquarters Felindre

2 Chamwood Court/ 2 Owrt Charrwood Heal Billingsley Parc Nantgarw CF15 7QZ Tel/Ffon : 02920 196161

Correspondence to: Mrs Sarah Townsend, Research and Development Manager Velindre NHS Trust, Heaquarters 2 Charmwood Court, Heol Billingsley Parc Nantgarw
Cardiff, CF15 7QZ
Email: Sarah.Townsend@wales.nhs.uk Tel: 02920 196165 Fax: 02920 344695

Dr John Staffurth Clinical Senior Lecturer Velindre NHS Trust Velindre Hospital Cardiff CF14 2TL

6th October 2014

Dear Dr Staffurth

2014/VCC/0021: Exploring the potential of a mobile phone or tablet 'app' to help patients with Cancer address their information needs, Phase 1

Thank you for your e-mail dated 5th August 2014, in which you responded to the issues raised by the Research Risk Sub Committee on the 29th July 2014. Your response was forwarded to the RRRSC as per Trust procedures; the Committee has confirmed the response as satisfactory.

I am therefore pleased to take Chair's action to approve this project on behalf of the Sponsor and Research Risk Review Committee (RRRSC). This decision will be reported for ratification at the next RRRSC on 28th October 2014.

Approval lapses if the project does not commence within 12 months of Trust approval. The Committee reserve the right to information on the progress of the project at any time and should receive a progress report six monthly and a written report on completion. Random audits may be carried out to ensure that projects comply with the clinical guidelines for research. Any serious adverse incidents relating to the project should be reported to the R&D office and a Clinical Incident Form completed.

On completion of the project please inform the R&D office.

All correspondence relating to this project should be forwarded to Sarah Townsend, R&D Manager, R&D Office, Velindre NHS Trust Headquarters, 2 Charnwood Court, Heol Billingsley. Parc Nantgarw, Cardiff, CF15 7QZ ext 6165.

Yours Sincerely,

J.S. Harring

Professor Jane Hopkinson Trust Independent Member, RRRSC Chair















Mae'r Ymddiriedolaeth hon yn croesawu gohebiaeth yn y Gymraeg

1 2	Appendix 16: interview transcript for P5 Pam and R5 Susan
3	I – I'll put this here so I can pick you both up. Okay so I've got some
4	questions, but again if there's anything that you want to talk about or
5	feel is useful for us then please feel free, okay so could you tell me why
6	you're interested in taking part in this study?
7	
8	
9	DS240149.F – my background is research and development so I've always
10	been interested in helping people
11	
12	
13	I – okay and what about yourself?
14	
15	
16	Partner – been there done it, got the T-shirt
17	
18	
19	I – what research or?
20	
21	
22	Partner – yes
23	
24	
25	I – so when you were diagnosed and throughout your treatment, did you
26	like to have information about your illness, I know you said earlier that
27	you're very inquisitive
28	
29	
30	DS240149.F – when I was diagnosed I had enough information were you
31	saying?
32	
33	
34	I – did you like to have information, did you want it?
35	
36	
37	DS240149.F – oh definitely
38	,
39	
40	I - and what about as the stage progressed then?
41	
42	

43	Partner - anything and everything we could get our hands on we read
44	
45	
46	DS240149.F – yeah and if I couldn't find the answers I asked people, and if I
47	couldn't find them, I'd either go online or I'd just keep asking questions you
48	know,
49	
50	Bodon on the Land of the Land
51	Partner – we wanted to know the type, you know, we wanted to know
52	what was going to happen, how you were going to do that
53 54	
55	I - so did you go to people first before you went on the internet, what was
56	your first port of call for information?
57	your first port of can for information:
58	
59	DS240149.F – my very first port of call would have been the Macmillan
60	nurse. I have to say that the surgeon who operated, he answered all my
61	questions there at the time, he was very good, he had a list of things he
62	wanted to tell me and he went through that very methodically didn't he?
63	,,
64	
65	Partner – yes
66	
67	
68	I – that's good
69	
70	
71	DS240149.F – um so that was like on the Monday I was told I had cancer and
72	he spent about half an hour didn't he, and he went and left us with the
73	Macmillan nurse, the Macmillan nurse said "you know there's too much
74	going on here, I'll come out on Friday" So she came out on Friday so in that
75	time, I sort've get my head around it I suppose, so she came out and by that
76	time I had a load of questions to ask her
77	
78	
79	I – right okay
80	
81	
82	DS240149.F – um I think she did very well
83	Partner – she did, absolutely, she was amazing

84	
85	
86	DS240149.F – I mean she didn't know about the surgery and the prosthesis
87	and things, she knew about the cancer treatment, she could tell you about
88	the cycles you know she said down and told us "you're going to have 6
89	cycles"
90	
91	
92	Partner - she didn't treat you like an imbecile, she answered your
93	questions openly, honestly, and yes
94	
95	
96	DS240149.F – I found her very, very goodand if she didn't know something
97	she'd say "oh I don't know" but and she was great the phone in no time
98	
99	
100	I – and did you feel like you could approach her?
101	
102	
103	DS240149.F – oh absolutely, absolutely
104	
105	
106	I - so in the cases where she wasn't sure of the answers did you go on the
107	internet then, or did you go back to the consultant?
108	
109	
110	DS240149.F – well I have got this very good friend, um who is overseas and
111	she put me right about, I had what do you call in a seroma following surgery
112	and I didn't know why, or whatever, and it was she's qualified so
113	
114	
115	I – so was that the nurse?
116	
117	
118	DS240149.F – this is the nurse overseas she is, was a Macmillan nurse, I think
119	she still might be, I'm not quite sure
120	
121	Books on the Association of the Association (Conference on the Conference on the Con
122	Partner – oh <friend>'s daughter? Who is a medical consultant so we ring</friend>
123	her she's got this special thing that she goes intofor the medical
124	nrofessionals, and then she will ring us hack

I – yes so there's quite informed people around you then DS240149.F – So it was those two, if anybody and I've got these intellect friends/neighbours who have had cancer, they tell you terrible stories, they don't know the science behind it and I don't, I'm not one to be in a group of people all talking about breast cancer and things, it's all different for everybody, so I like to have my answers, you know questions answered by somebody who's intelligent and has the knowledge you know, not guess work Partner - that sounds awful DS240149.F – It does sound awful I know I – it sounds sensible DS240149.F – but anyway the only people I'd ask questions would be the people I knew had a wealth of knowledge I - yeah okay. Was there a particular point where you felt you needed more information? DS240149.F – I have to come back to that because I think, um after my first chemotherapy, you wait nearly 3 weeks and you have a blood test on the Monday and then on the Wednesday you have the chemo, so I had my first cycle, went in Monday 3 weeks later, bloods taken on the Tuesday morning I had a phone call, and it was "hi your nuetrophils are 0.9" "my was what, what, what are nuetrophils?" sorry, okay I know what they are, but no idea where they should be 900. So I said "what does that mean?" "well they have to be up to 1 before we can give you chemo" "okay" and that threw me into

a spin actually, I mean the whole of that Tuesday I was on...

167 Partner – you came off, you were online

DS240149.F – trying to find out why my nuetrophils had gone down, what I could do to up it and things. I went in on the Wednesday had the bloods taken, had to wait then 2 hours had no idea what was going to happen and then they just said "yep okay bloods back you're ready" so I said "what are they?" "1.9" and to me that was like – what within 48 hours you know? And it was that lack of knowledge, so much so that, spin on now to new year and uh you have to take your temperature morning and night, so I took my temperature in the morning I didn't feel well, obviously I'd been very poorly. Took my temperature and it was up 37.9 I phoned and I was asked to come in immediately, um and I was shocked that I was in what they call nuetrophenic sepsis and it's such a serious thing, fatality rate is 20% or something

I - oh really

DS240149.F – and I think I should've been told more clearly, because we had an hour education chat before chemotherapy

I – is that the induction, yes

DS240149.F – so we all sat around, all different types of cancer sat in this one room with people who had different roles, taking out our thermometers and we had to show that we could use them and things like that, but I don't think anyone of us realised the significance of your temperature going up and the timing of that, there's a specific time, they call it the nadir which is between 7 and 12 days where nuetrophils are incredibly low and I found that out by going through help and we

I – that seems important stuff to be passing on

205 DS240149.F – really I mean if apparently your nuetrophils will drop every cycle to a really, really, low level

207	
208	
209	Partner – you knew that
210	
211	
212	DS240149.F – and I knew that, but I didn't realise that this was, I thought it
213	was sort of going down and then would plateau and go back up, but it sort
214	of does that then suddenly it's really low and it's this real low period that
215	they should say you know "be very aware, make sure your temperature is
216	being recorded, make sure you don't go out and get a"
217	
218	
219	Partner - you did it
220	
221	
222	DS240149.F – I was frightened to death when I went in
223	
224	
225	Partner – I know that because you were at that stage
226	
227	DC240440.5
228	DS240149.F – you know people around me putting drips up they were
229	panicking
230	
231 232	Partner – it's very difficult what you say and what you don't
232 233	Partiler – it s very difficult what you say and what you don't
234	
235	DS240149.F – so how much do you tell people? There's me, I want to know
236	everything, and there's some people who say "I don't want to know". I mean
237	there were other complications that I didn't know about it is DVT and PE's
238	um and you're not told about that
239	,
240	
241	Partner – yeah, but that's everything isn't it, you know you go in for a
242	hospital appointment, DVT, PE
243	
244	
245	DS240149.F – but it's like side effects you don't want to be told all the side
246	effects because you'll, you'll have them, you know what I mean, but at the
247	same time. I was told I wouldn't vomit, categorically in this hour long

248	
249	
250	Partner – it wasn't categorically they just said "you probably won't vomit,
251	you'll just feel sick"
252	
253	
254	DS240149.F – I'd feel very sick, so when I came home 3 hours later and I was
255	really vomiting everywhere I'm thinking this shouldn't have happened
256	
257	
258	Partner – "oh they told me I wouldn't vomit! That oncologist told me I
259	could get on with life and be normal! I'm absolutely feeling rotten you
260	know" so don't say things likethey don't know do they? If you're
261	thinking about it, they don't know what you're going to be like in that first
262	cycle?
263	
264	
265	DS240149.F – of course not
266	
267	
268	Partner – so from the first cycle, they take it and they really have
269	
270	
271	DS240149.F – they've worked really hard to help me not, and I haven't
272	vomited since then
273	
274	
275	Partner – they knew what the first cycle was like, the second cycle they,
276	and every subsequent cycle they have worked their socks off to get it right
277	– you can't complain!
278	
279	
280	I – yeah well that's good, yeah
281	
282	
283	DS240149.F – no I think the thing is I don't know what the percentage is, but
284	say 70% or more don't vomit, so why treat them for that, you know wait
285	until they do and then we'll and I think that's what they do
286	
287	

288 289	Partner – and that's what is happening they do they wait to see if you have symptoms
290	
291	
292	DS240149.F – they'll wait to see, like you said, some people swan through it
293	and have no problems at all, they don't even know they're on
294	chemotherapy, so
295	
296	
297	Partner – ha, that would be nice!
298	
299	
300	DS240149.F – well I haven't met anybody yet ((laughs)) who doesn't have
301	any problems with chemo
302	
303	
304	I – so what do you think we should put in the app? Do you think we should
305	put possible side effects to prepare people, or do you think we should
306	leave that stuff out?
307	
308	
309	DS240149.F - I think something like a guide, sort of, every person is an
310	individual, depending on how much you want to know
311	
312	
313	Partner – and then they could go further
314	
315	
316	DS240149.F – open at A at B or at D, so each time you go in you can go
317	nuetrophils are - your white cells that fight infection and the normal range
318	would be between blah de blah and blah de blah if you want more
319	information then go into another, you know what I mean, so open a
320	different window
321	
322	
323	I – so they have the choice
324	
325	
326	DS240149.F – some people will go "okay I know about nuetrophils, but
327	people like me then, okay what's normal? What happens if it's abnormal,
328	do you know what I mean, so you don't frighten everybody by saying if your

329	nuetrophils drop down to 0.2 you've got a 1 in 5 chance of dying, you don't
330	want to be told that do you? I do, I think it has to be based on by stage
331	almost
332	
333	
334	I – yes that's a good idea
335	
336	
337	DS240149.F – you know just open that window up and when you want come
338	back and then vomiting, some patients won't get vomiting some patients
339	might be a bit nauseas, and then you can click on vomiting and go in on what
340	to do
341	
342	
343	Partner – If you do have vomiting then
344	
345	
346	DS240149.F - I just think it's a way to open the windows depending on a
347	person's nosiness if you like
348	
349	
350	I –tailoring it to them
351	
352	
353	Partner – yeah some people won't want to go into detail
354	
355	
356	DS240149.F – yeah I mean my mother for example, you could give her a
357	tablet, she will read all the side effects and then she will have all of them
358	((laughs)) all of them!
359	
360	
361	I - yeah ((laughs))
362	
363	
364	DS240149.F – and I just think yes, it's like consent you have to know the
365	basic things obviously, but every tablet starts with nausea and vomiting, so
366	my mother ((rambles in mother's voice)) noand there are people out there
367	who will do that so no it's a tough one
368	
369	

370	I – yeah, that's a good idea having a staged approach though
371	
372	
373	Partner – but then you know, depending on how much a person wants to
374	know, you can open those windows if you want to
375	
376	
377	I – yeah exactly, okay. What about communication then, how did you find
378	talking to the clinicians about the cancer?
379	
380	
381	DS240149.F – the surgeon and that Macmillan nurse, can't fault them, they
382	were there and they had time, and that's the thing I felt was special was that
383	the nurse had, she seemed to have loads of time, although I know she was
384	incredibly busy
385	
386	
387	Partner – she took the time to talk to us
388	
389	
390	DS240149.F – the first time, the only time I've met my oncologist, only once,
391	um he was running his clinic incredibly late, which I can understand because
392	when we went in that first time to discuss what time of chemotherapy I had
393	to have, he must have been 40 minutes over
394	
395	
396	Partner – and he was great
397	
398	DS240149.F – I asked him lots of things and he answered as truthfully as he
399	could, I think he did measure his words, but I've not seen him since, so I see
400	the nurse practitioners when I go in and all they do is "how have you been?"
401	and they try to stop those things
402	
403	
404	Partner – nothing like the Macmillan nurse, they haven't supported me at
405	all
406	
407	
408	DS240149.F – they haven't supported me at all, I don't feel supported at all
409	
410	

411 412	I – by the oncologist?	
413		
414	DS240149.F – by the second half the oncologist and their team	
415		
416		
417	I – and what about asking questions have you found it easy or difficult?	
418		
419		
420	DS240149.F – there's no one to ask	
421		
422		<<15:00>
423	I - okay and that's the oncologist	
424		
425		
426	Partner – but, she will ask anyway, you know she will ask	
427		
428		
429	I – yeah you should	
430		
431	Double of the country	
432	Partner – you know who ever it is that you know if the nurse practitioner	
433 434	is there you know we'll put her on the spot ((mobile phone rings)) sorry, if	
434	this is ((candidate's)) health and we would ask, if she doesn't know then she should get off her backside and go and find out	
436	sile siloulu get oli liei backside aliu go aliu liliu out	
437		
438	DS240149.F – for example, excuse me if I don't do this he'll keep onbing,	
439	bing, binging I can't remember which cycle, I think it was the second cycle,	
440	just before it was the day I was going to give my bloods to measure my	
441	nuetrophils so that would be a Monday, and then I go for chemo, so on the	
442	Monday morning I was having a shower and I had a huge flash in my eye and	
443	masses of floaters, so when I mentioned this to the nurse practitioner "no"	
444	she hadn't heard of that "no, you're better off going to your optician" go	
445	online there's a huge connection between chemotherapy and that, but she	
446	wasn't at all concerned, not at all	
447		
448		
449	Partner – why did she think you should see your optician?	
450		

452	DS240149.F – she thought my retina had torn away from the back of my eye
453	and she sent me to the ophthalmic bod's in Bridgend but because she hadn't
454	heard it, the nurse practitioner, no connection, I've got a black mark on my
455	nail, it's pathetic I know it's pathetic but I've asked about it, "don't know"
456	look it up black stripe on your nail indicates breast cancer, um and these are
457	things I've had to find out about myself
458	
459	
460	I – I would've thought that they'd be aware of that, or at least look it up
461	
462	
463	DS240149.F – but when I ask them, they don't, it's not like, I don't know, I'll
464	have to find out about that, which is what my Macmillan nurse would say, it
465	was "no, it's not connected"
466	
467	
468	I – I'm sorry that you experienced that
469	
470	
471	Partner – but, <hospital> have been amazing</hospital>
472	
473	
474	DS240149.F – no I can't, I don't want anyone, it's nobody's fault it's just
475	there not, they've got too many people, I think they go, they're
476	overwhelmed by the amount of patients
477	
478	I - What I've learned from this project so far is that there seems to be
479	variation in the information that some people are getting, <hospital> was</hospital>
480	voted the best for cancer treatment I think in Wales, um and then
481	
482	
483	Partner – it's a centre of excellence?
484	
485	
486	I – yeah, exactly and that's really been reflected in interviews and other
487	hospitals the standard of care appears to be different
488	nospitais the standard of care appears to be unferent
489	
490	Partner – well when we go and have blood, she goes in she has her blood
491	taken then we go around a corner and we could be sitting there for 2 hours
491	taken then we go around a corner and we could be sitting there for 2 hours
サジム	

I – really? DS240149.F - sometimes 3 Partner - when she's feeling poorly, or really, you know you're talking about a cancer patient here who is here, who is not up to scratch, who is having chemo I – yeah that's a very long time Partner - and it's 2 hours before, and that is waiting for a nurse practitioner to see us, not a consultant a nurse practitioner. I'm sorry that is appalling DS240149.F –last Monday when we went in Partner – that is appalling DS240149.F – there was a lady and she complained to one of the nurses, not the nurse practitioner, she complained to one of the nurses in the outpatient clinic, excuse me my appointment is at 10 o'clock and it's quarter past 11 now "oh yes, yes, what's your name?" so.... and I said "well actually my appointment is for 10 o'clock too" "oh okay" so they are just 10 o'clock appointments, you just sit there, she went in before me, so I went in after her, so I didn't get in until after 12 o'clock and I missed my lunch because they give you a prescription and you've got to go to pharmacy and wait and they're never ready, it takes ages to do it, so I missed my lunch and when you've had chemo you feel quite sick you have to eat little and often so I don't know what they can do about it it's just not particularly well organised

I – no it doesn't seem to be, it seems quite manic

534	
535	DS240149.F – but they're always hectic there seems loads, we went to
536	<hospital> at that time and there was hundreds of people milling around</hospital>
537	
538	
539	Partner – I was about to get up and just say you know "have you forgotten
540	that we're here?" and they just called us ((laughs)) and they just rush you
541	when they talk to you, and then you understand why actually, he was very
542	thorough, I asked him questions about her diet and whatever and you
543	know
544	
545	
546	I – yeah, if I was gonna ask were there any barriers communicating with
547	doctors and nurses, I'm guessing one of those then is sort of time pressure
548	isn't it?
549	
550	
551	Partner – really busy well I don't seewell you're in there isn't itthey do
552	take their time it's just the waiting to get in to see someone
553	
554	
555	I - yeah
556	
557	
558	DS240149.F – but it's like I was given the name and number of the Macmillan
559	Nurse after I had breast surgery, I haven't been given a name that I can
560	contract. The only number that I can contact is in an emergency. I've got a
561	number if my temperature goes up, or if I've got this, this, or this
562	
563	
564	I – but no one to have
565	
566	
567	DS240149.F – but not on a day to day to say "I'm not feeling so good, blah,
568	blah" you know, and sometimes I just want to run that past them
569	
570	
571	I - yeah exactly. I thought <hospital> had a Macmillan nurse, or I thought</hospital>
572	they had someone you could call and ask?
573	
574	

575	Partner – well I thought
576	
577	
578	DS240149.F – I don't have anybody
579	
580	
581	Partner – oh no you can, you could call and ask, but you don't know who
582	they are. You've got a phone number, that's what they want
583	
584	
585	DS240149.F – that phone number is only if I have a chest infection or I have
586	this, this, or this
587	
588	Destruction of the character street control of the Tennes and control tells
589	Partner – no, they have given you a number for Tenovus and you can talk
590	to anybody in Tenovus
591	
592 593	DS240140 F that's councelling no I maan
	DS240149.F – that's counselling, no I mean
594 595	
596	Partner – no, no, no, you can talk about treatment, or whatever with
597	Tenovus, there's somebody there
598	renovus, there's somebody there
599	DS240149.F – yes, but I don't have my own nurse
600	D3240143.1 — yes, but I don't have my own hurse
601	
602	Partner – no
603	Tartife. The
604	
605	DS240149.F – like with <nurse>, I don't</nurse>
606	Joz 102 1511 III.e Will Marger) Facilities
607	
608	I - yeah that would be really helpful if you had questions for a doctor or
609	nurse
610	
611	
612	DS240149.F – no, I've got an emergency number that they have to bleep the
613	on call oncologist, well I'm not gonna bleep her to say that I've got a little
013	of can officionally, well in flot golffa bicep fiel to sav that i ve got a fittle
614	grey line on my toe nail, what do I do about it?

616	
617	I – yeah you must have your own nurse that you can run that past
618	
619	
620	DS240149.F – and if she doesn't know, she'll come back to you
621	
622	
623	I - yeah exactly, so do you think an app could help with something like
624	that then, to be able to look that up. I mean I suppose you could do it on
625	the internet
626	
627	
628	Partner – If you really wanted to do it, you would do it
629	
630	
631	DS240149.F – well I can, it's like sometimes just for me, to have a voiceto
632	have someone to say, "well actually I don't know about that one I'll come
633	back to you"
634	
635	
636	I – okay
637	
638	
639	DS240149.F - I suppose I'm spoilt because of <nurse>, <nurse> was</nurse></nurse>
640	incredibly supportive
641	
642	Partner – she was
643	
644	
645	DS240149.F - and she did look after me and I felt, I did, I felt if I wanted to I
646	could've rung her and said "could you come out?" you know, where it's that
647	feeling where you're unsure and she would have, and I don't have the same
648	support going through oncology. Oncology in actual fact has been worse,
649	the side effects have been terrible, things that I don't know about yes I feel
650	like I've been hunting both of us, even her daughter
651	Ç ,
652	
653	Partner – it's been a bit learning curve for all of us
654	-
655	
656	DS240149.F – yes
	,

657	
658	
659	I – yes
660	
661	
662	DS240149.F - I got a lot of information when I was admitted as an
663	emergency because the doctor sat with me for hours
664	
665	
666	Partner – yes she was very good
667	
668	
669	DS240149.F – you know she was very concerned and she sat and she
670	answered all my questions
671	
672	
673	I - yeah okay, so just going back to the information, how did you
674	remember all the information, did you write it down or keep leaflets, or
675	just revisit, the resources you used?
676	
677	
678	Partner – we wrote it down, you took a little pad and paper and you wrote
679	it down
680	
681	
682	DS240149.F – I wrote notes. I've got a booklet in here thatthe other thing
683	which I had found very helpful is I've kept a very brief diary of my cycles and
684	I've found that really helpful to see a pattern and there is a definite pattern
685	and it's helpful to know I have this foul taste for example, for 5 days after
686	the chemo, it's so awful I, I have difficulty in eating anything, but I know it's
687	only going to be 5 or 6 days and then it passes
688	
689	
690	I – so does that help you to cope with it?
691	
692	
693	DS240149.F – absolutely, I would recommend that to people, I also put
694	down, I'll show you, it's pathetically basic, but it's been a real help to me
695	
696	

697	Partner – I whisked it off the computer and just said "fill it in" and now I
698	say to her
699	
700	
701	I – oh so was it, it was a?
702	
703	
704	Partner – day 5
705	
706	
707	I – ready made
708	
709	
710	Partner – I went on to a computer and
711	
712	
713	DS240149.F -
714	
715	
716	I – oh and you typed it out
717	
718	
719	Partner – typed in the diary a little bit and then she writes in it every day
720	and then I say to her "can you put a number there from 1-10 on how you
721	feel?
722	
723	
724	I – this is very good yeah
725	
726	
727	Partner – so sometimes she feels like a number 3 yesterday? I'd put you
728	down as a 1! ((laughs))
729	
730	
731	I - ((laughs)) yeah
732	
733	
734	DS240149.F - I think from my point of view I like to be doing, I like to be
735	proactive, trying to help myself you know
736	
737	

Partner – that's our background we are always proactive

DS240149.F — well that's as maybe, but if you look here so this is my first cycle day 1 I gave myself a 2 at the time about how I actually feel, vomiting, I was admitted to hospital for support, a bit nauseas and then ulcers and sore eyes, ulcers have gone and then back on obviously puffy eyes, nauseas, and then ulcers, ulcers and then tired, tired, dry eyes, same thing — space, space, space...that's when I was admitted, the zombie that's beginning that's day 1 and this is yesterday okay, bowels opened cos that's another thing 6 out of 10 yesterday and I find it useful because it's a definite pattern, absolutely definite pattern

treat you

I – yeah, it's really interesting that you've done that because a lot of studies are using apps now for patients do to exactly that, so they track their main symptoms and what is interesting though and it might've helped you is if the symptoms or the temperature goes up to a certain point, the nurse looks in and suggests remedies to help it you know reduce it at home, but if it goes so far they'll call you into hospital so they can

Partner – wouldn't that be a good idea?

I – yeah and you're already doing it yeah and it's incorporating then what you said then having a nurse just looking over and just watching....

DS240149.F – cos you do get paranoid every single thing like when my nails, my cuticles were splitting you know, but you want to know also, put it this way if you don't know anything, which is how I started off, how do you know what questions to ask?

I – yeah, so would you suggest something like this for the app to have then, a sort of electronic diary?

778 Partner – yes

779	
780	
781	DS240149.F – yes, I think that's brilliant
782	
783	
784	Partner – absolutely, cos we see a pattern, I say to her now – "what day
785	are you 6, okay what was last time's day 6? Oh okay"
786	
787	
788	I – and you sort of prepare
789	
790	
791	Partner – could fit then?
792	
793	
794	I – yeah exactly
795	
796	
797	DS240149.F – well somewhere in my first cycle my nose kept running, just
798	like a tap and I mentioned it to the nurse practitioner and she said yes you've
799	got no nose hair it's all fallen out
800	
801	
802	Partner – and we both went "oh right"
803	
804	
805	DS240149.F – and I mean it grows back a little bit and then half way through
806	the second cycle and suddenly it's like this and I've got no nose hair! You
807	know it's silly things like that, it's having this pattern and working it out
808	
809	
810	I - yes, I expect it makes it easier for you to cope with then if you know
811	what's coming
812	
813	
814	DS240149.F - well I know that my taste will get better, where as the first
815	time I had it, I thought I can't be like this for 6 months I won't be able to eat!
816	
817	
818	Partner – I've learned now what to cook you know the first 3 or 4 days I
819	

I – oh that's great Partner – and no salt, cos if I put a bit of salt in it, so I make her some sort of butternut squash soup, so that she can eat that with bread and she's fine, no butter, butter will make her sick and no salt because the salt then she'd go...I've got this salt in my mouth all the time so...but it's all its trial and error I – yeah, that's such a good idea. Okay, so how have you found it because we're still on communication so how have you found it, have you found it easy to talk to family and friends about the cancer? Or do you prefer to keep things to yourself? DS240149.F – I'm selective who I talk to I would say I – and for what reasons, why would you say you're selective? Partner – she wants to be a moaning minnie DS240149.F – no I don't mean to be, I don't want people coming around having to listen to me "oh I've got a bad ulcer...oh my pain" and things...I just say "I'm not too good today, come tomorrow" you know I – yeah, yeah DS240149.F – um and like I said if I need information there are certain people I will go to...so anybody who comes will just sit and they say "how are you" and I go "I'm getting there" I don't want to bore them, you know because it's quite an enjoyment sitting there talking about all you're pains and aches isn't it....you know you become a right old moaning minnie...

860 861	I – yeah I expect you don't want it to dominate you're whole day I would think talking about	
862		
863		
864	DS240149.F – it was hard at the beginning, deciding who to tell that I had	
865	breast cancer um, is it me or is it just hot suddenly?	
866	breast earlier ann, is it me or is it just not saddenly.	
867		
868	Partner – when the sun goes down it gets hot	
869	and the same and the same goes are same and goes	
870		
871	I – yeah, yeah	
872		
873		
874	DS240149.F – oh gosh I'm like an oven, it was hard at the beginning to say	
875	"I have breast cancer" I didn't know how to tell	
876		
877		
878	Partner – you didn't want to tell anybody	
879		
880		
881	DS240149.F — I didn't want to tell anybody because I didn't want people	
882	worrying about me, because when you get to the stage when you're having	
883	chemotherapy and people are going to wonder why I'm not going out, so I	
884	had to tell people, but I'm still selective who I told, not everybody in my	
885	friends, my close friends know, but my sort of peripheral friends	
886		<<30:00>
887		
888	I – okay, so working on to technology then, do you have experience of	
889	using a smart phone, or a tablet computer?	
890		
891	DS240149.F – yes I do	
892		
893		
894	I - is that both or either?	
895		
896	DC240440.5	
897	DS240149.F – yep phone and my Ipad is joined at my hip	
898		
899		

900 I – okay yeah so you prefer the Ipad, yeah so what do you use the devices 901 for?

DS240149.F – well the Ipad is for really the search engine to see Macmillan, I try to go on a medical site that <partner> uses because she has access to the information, I don't like these blogs where people write in you know I don't like that. I much prefer to have factual information Macmillan is, it's quite helpful, but it's very basic you know you go into the Macmillan site, only because I need to know the ins and outs of everything, I'm not like everybody I'm sure

I – yeah, no I think because you've come from a research background you're well educated, I think you'll want the more scientific sort of medical knowledge where as I think....

DS240149.F — well if I understand the workings of like nuetrophils I now understand the workings of it, I know what to look for and I know to avoid things like blue cheese, or live yoghurt there's no where you'd find that information, but if you're nuetrophils are fighting bacteria the last thing you need to be doing is eating bacteria, um which sounds logical now oh I should have thought of that, but it took me, only when they told me that my nuetrophils were 0.9 I thought so what do you think is doing that? We were having you know live yoghurt you know. I do look at American sites, the American's are much more upfront with the information, much, much, more

Partner – yes

932 I – really

DS240149.F – much more, you have mucositis where all your mucosa all your membranes are infected and uh the Americans have got like a herbal tincture if you like, you can only get from America, I bought it from America. Now why don't they have something like that you know, how many Cancer patients have sore mouths?

941	
942	I – yeah and did that help you?
943	
944	
945	DS240149.F - yes
946	
947	
948	I – and they don't sell it over here gosh. So do you use apps for your health
949	at all?
950	
951	
952	DS240149.F – I don't have an app specifically no, I just use search engines
953	
954	
955	I – okay so you're just looking through google and on the databases
956	
957	
958	DS240149.F - yeah
959	
960	
961	I – and what about yourself ((referring to partner))
962	
963	
964	Partner – same, same
965	
966	
967	DS240149.F – you don't have an app do you?
968	
969	
970	DS240149.F – no I go into google or ask Informed <medic friend=""> yeah we</medic>
971	ask Informed <medic friend=""> it's good that she knows, if she doesn't know,</medic>
972	which is very rare, if she doesn't know, she'll come back and find it, she will
973	go to ((both talking at once inaudible 33:03))
974	I – yes that's brilliant the internet. Okay so the type of app we've talked
975	about, we're hoping that it will help patients with appointments by
976	prompting them to ask questions, or think about the types of questions
977	they want to ask, it can be linked to reputable websites so they're getting
978	good information, and it could also help them with social support, so links
979	to support groups, so they're the sorts of things we're thinking about, but
980	really it's gonna come from what you suggest, so bearing that in mind, do
981	you think patients would use this type of app if we built it?

982	
983	
984	Partner – yes I think they would
985	
986	
987	DS240149.F – I actually think they would, because you are given a huge
988	amount of paperwork at the beginning you know about diet, exercise,
989	fatigue blah, blah, blah
990	
991	
992	Partner – all these leaflets
993	
994	
995	DS240149.F – masses of them, they're all in here and I have gone right now
996	I've put them in there, a lot of it because um
997	
998	
999	Partner – you weren't in the right frame of mind to look at it
1000	
L001	
L002	DS240149.F – I wasn't, it's all timing isn't it?
1003	
L004	
L005	I – it's too much
1006	
L007	
8001	DS240149.F – it's really overload. The number of appointments I had from
1009	the first time I went to a GP to my surgery, I got through 40 it was unbearable
L010	wasn't it
L011	
L012	
L013	Partner – we were going to Swansea um Bridgend, <hospital></hospital>
L014	
L015	
1016	DS240149.F – it was just awful
L017	
1018	
L019	Partner – I just stopped doing everything okay cancel everything
L020	
L021	
L022	DS240149.F – she had to give up work

1023	
1024	
1025	I - wow, yeah
1026	
1027	
1028	Partner – it's you know – let's see what's going on here
1029	
1030	
1031	DS240149.F – I don't know how they can avoid them, but it was overload
1032	
1033	
1034	I – and so did you read half of the information, or did you sort of leave it
1035	and then
1036	
1037	
1038	Partner – some of it
1039	
1040	
1041	DS240149.F – I have read it, I have read it now, um yes because most of it
1042	has been quite useful, but again it was too basic. They're using it for people
1043	you know don't know, which I can understand again. I think what you need
1044	is this like open window you need oh okay that's fine, that's as much as I
1045	need to know, if you want to know more you can, but I think if they'd said
1046	you know this is the basic if you want to know more, look up blah, blah, that
1047	would've been helpful, but it stopsit doesn't
1048	
1049	
1050	I – yeah it's interesting because some of the patients I've spoken to have
1051	said, "actually the information leaflets are too complicated, there was too
1052	many big words and I can't understand it all" so the app maybe could then
1053	starting simple and say if you want to know more and as you progress and
1054	for people like yourselves who really are getting down to the science
1055	behind it, so maybe like we could
1056	
1057	DS240149.F – maybe stages, you could have idiot, middle and bright
1058	
1059	
1060	I – yeah
1061	
1062	
1063	DS240149.F – you know, that sounds dreadful doesn't it?

1064	
1065	
1066	I – ((laughs))
1067	
1068	
1069	Partner – but we do have a medical background so we're a bit
1070	
1071	
1072	DS240149.F – well that's the problem
1073	
1074	
1075	I – yes exactly
1076	
1077	
1078	Partner – so we know what's going on and we're "oh okay let's go through
1079	here and find this"
1080	
1081	
1082	DS240149.F -
1083	
1084	
1085	I – or even if we link the app maybe to the internet to um a reputable
1086	scientific website
1087	
1088	
1089	Partner - absolutely, a medical site that we could go and have a look at,
1090	now that would be ideal
1091	
1092	
1093	DS240149.F – and there are going to be people who'll say "I didn't know
1094	that" or "I don't understand" my mother doesn't understand big
1095	wordsyou know if I said to her
1096	
1097	
1098	Partner – didn't understand what a protein is
1099	
1100	DS240149.F – nuetrophenic sepsis no idea, no idea, but if I said have you
1101	heard of white cells? "yeah" have you heard of red cells? "yes" and that's
1102	how basic it is. That's where have toyou have to cover it for everybody
1103	don't you?
1104	

1105	
1106	I – yeah exactly
1107	
1108	
1109	DS240149.F – and that's tough
1110	
1111	
1112	I – that's really, that'll be definitely noted down
1113	
1114	
1115	Partner – but if I opened that you see I'd go rightclose it down and go
1116	onto my((laughs))
1117	
1118	
1119	DS240149.F – no I know but it's like colour coding, you going to have to you
1120	know if you're interested it's green, if you're really interested it's amber and
1121	if you really want to know intricate details you go into red, or you could have
1122	a coloured section or something do you know what I mean?
1123	
1124	
1125	Partner – yeah absolutely
1126	
1127	
1128	DS240149.F – so I would go straight to the red and I would just be reading
1129	that
1130	
1131	
1132	Partner – yes absolutely
1133	
1134	
1135	I – yes cos that's avoiding the sort of
1136	
1137	
1138	DS240149.F – the dross that goes before it which we know and I think that
1139	is hard because you're reading something
1140	
1141	Partner - when the diagnosis comes, you read as much as you can you
1142	know I study the internet here, she's on the internet here and I go "did you
1143	know" and she goes "oh yeah that sounds interesting you know"
1144	
1145	

1146	DS240149.F – she says things like you've got lobular cancer HER positive,
1147	meant nothing
1148	
1149	
1150	Partner – but we logged it came home we were both on different sites and
1151	away we went you know
1152	
1153	
1154	DS240149.F – but you can't cover everything, but if you have links you know
1155	like you said to the higher information
1156	
1157	
1158	I – yeah to do guide you onto the right information for them
1159	
1160	
1161	DS240149.F – depending on where you wanted to stop
1162	
1163	
1164	I – yeah okay
1165	
1166	
1167	DS240149.F – some people would be petrified, I meanthat lady I shared a
1168	ward with she didn't want to know anything, she didn't want to know
1169	anything about anything
1170	
1171	
1172	Partner – another thing is if you're doing the surgery bit, it's about you
1173	know do I go for reconstruction or not?
1174	
1175	
1176	DS240149.F – that's hard
1177	
1178	
1179	Partner – you know there's a really
1180	
1181	
1182	DS240149.F – you don't have much time to make up your mind obviously
1183	
1184	
1185	Partner – it's a very short period to think about that
1186	

1187	
1188	I – yeah they said it's quite
1189	
1190	
1191	DS240149.F – they're rushing you through because of the government
1192	objectives, that you have to go from uh GP visit to surgery in X amount of
1193	weeks, then you are pushed and you've got all these appointments in-
1194	between as well, and you've got so much information to take indo I have
1195	a lumpectomy, do I have a mastectomy do I have reconstruction now, or do
1196	I have reconstruction later?
1197	
1198	
1199	I - yeah exactly
1200	
1201	
1202	DS240149.F – you have to say if you want it later because they have got to
1203	have the skin flap you know
1204	
1205	
1206	Partner – but you don't have to do that and my first instinct was take it
1207	awayI don't care what youjust take it away and then she said "hey
1208	hang on, no I need to think about this you know" and it was good for her
1209	to sit and think about it
1210	
1211	
1212	DS240149.F – I said I need an MRI, I want an MRI to see if I've got it in my
1213	other breast. I don't want to have to go through this again um and that gave
1214	me time to come to terms with what I'd decided, but if they'd given me a
1215	reason I would've just said "you've got breast cancer she would've said "I'll
1216	have a mastectomy on Wednesday"
1217	
1218	
1219	Partner – when he saidI would've been on the Wednesday had it done
1220	and I'd be out
1221	
1222	
1223	I – really yeah
1224	
1225	
1226	Partner – so it's a different thinking isn't it? My sisters came around and
1227	my one sister said "yeah I would've done the same as you" and the other

1228	one went"I'm not so sure, I don't know where I would've been with that
1229	till I'd thought about it"
1230	
1231	
1232	I – so it's really important then getting to the decision?
1233	
1234	
1235	DS240149.F – it's really important but you don't have time to think about it
1236	
1237	
1238	Partner – and she has a chest problem and she didn't want to be on the
1239	table too long, well if you have a reconstruction, you're adding on hours in
1240	surgery and she was petrified, you know if I'm hours and hours under
1241	anaesthetic, what's my chest gonna be like when I come out? And you
1242	know and we talked this through a lot
1243	
1244	
1245	DS240149.F – and I think American women just go for the mastectomy's
1246	their very gun-hoe about it no reconstruction it is what it is. British people,
1247	British women tend to go for reconstructions or lumpectomies, it's the
1248	different culture isn't it, we are about body image and so was I, you know
1249	and the thought of it was horrendous to me, but if I had a lumpectomy, I
1250	would've had to have radiotherapy and the radiotherapy would knackered
1251	my chest and I've also got, I've already got a knackered chest. So although
1252	I wanted a lumpectomy, I couldn't have it. I
1253	
1254	
1255	Partner – you couldn't have it anyway
1256	
1257	
1258	DS240149.F – I wasn't offered anything because of my lymph glands
1259	
1260	
1261	Partner – her glands had gone
1262	
1263	
1264	DS240149.F – but there was a point in this discussion that I could have a
1265	lumpectomy and I felt like, I should say yes you know
1266	
1267	

1268	Partner – but the surgeon was very good about that wasn't he, they were
1269	talking about it, but there's still that
1270	
1271	
1272	DS240149.F – there's a pressure on you to make a decision
1273	
1274	
1275	I - oh and it's a very big decision
1276	
1277	
1278	DS240149.F – and I'm intelligent so I don't know how somebody who's just
1279	"oh my god" what are they going to base their decisions on?
1280	
1281	
1282	Partner – I think they just say "go with it" I don't know
1283	
1284	
1285	DS240149.F – what would you do? That's whatput it on the surgeon, what
1286	would you suggest?
1287	
1288	
1289	
1290	Partner – because as you come out of the, the surgeon's consulting room,
1291	your mind is going 19 to the dozen is it a lumpectomy is it a mastectomy
1292	and you come home and you immediately go online to find out
1293	
1294	
1295	DS240149.F – and the problem we had also was that I was told it was in my
1296	lymph and I was told it wasn't in my lymph and then I was told it was in my
1297	lymphso if it wasn't in my lymph
1298	
1299	
1300	Partner – it was in the lymph
1301	
1302	
1303	DS240149.F – I couldthat was just
1304	
1305	
1306	Partner – mind blowing
1307	
1308	

1309	DS240149.F – you know I don't want chemotherapy, nobody wants
1310	chemotherapy and there was a point
1311	
1312	
1313	Partner – like being on a rollercoaster
1314	
1315	
1316	DS240149.F – there was a point, there was a glimmer in the middle of it all
1317	when he said "good news" he actually said "I have good news for you" and
1318	then half an hour later? I had an ultrasound and I had a full biopsy and I
1319	thought well what are you doing a full biopsy on if it's not in my lymph you
1320	know?
1321	
1322	
1323	I – I don't understand why they told you that?
1324	
1325	
1326	DS240149.F – I had an MRI and the MRI showed I didn't have it in my lymph
1327	
1328	
1329	I – oh when they took the biopsy
1330	
1331	
1332	DS240149.F – so when I went then he said "the MRI, I've got good news for
1333	you, you've got it in your breast, but you don't have it in your lymph, but I'll
1334	send you for an ultrasound just to be certain. I went for the ultrasound and
1335	instead of being in my armpit it's lower down here it's still lymph obviously,
1336	but for half an hour I had yes! I can remember I had that feelingI can have
1337	a lumpectomy no chemotherapy oh my god you know that, that was just.
1338	Right at the beginnings of everything isn't it, because you've got
1339	chemotherapy and then you've got 5 years of drugs andit's such a long
1340	haul
1341	
1342	Partner – it's a rollercoaster
1343	
1344	
1345	DS240149.F – that decision I still wonder if I should've had like a silicone
1346	implant even nowyou know it's too late now
1347	
1348	
1349	I – okay so going back, what about

1350	
1351	
1352	DS240149.F – too much information for you sorry
1353	
1354	
1355	I - no, no it's great it's just we'll just get through other questions these as
1356	well. So do you think other patients would find this app accessible for use?
1357	
1358	
1359	Partner – yes absolutely
1360	
1361	
1362	DS240149.F – definitely
1363	
1364	
1365	I – and what about friends, friends and family's of the patients?
1366	
1367	
1368	DS240149.F – yes I'm sure
1369	
1370	
1371	Partner – I would've been on it
1372	
1373	
1374	DS240149.F – everybody wants to help
1375	
1376	
1377	Partner – absolutely
1378	
1379	
1380	I – and do you think patients would need training to use it? Do you think
1381	we'd have to train patients up first of all?
1382	
1383	
1384	Partner – no
1385	DS240149.F – I think the majority of patientsare all computer literate now
1386	
1387	
1388	Partner – we're all computer, even her mother at 85 can use a computer
1389	
1390	

1391	DS240149.F – I think they are and they're grandchildren can show them if	
1392	they're stuck	
1393		
1394		
1395	I – yeah that's what we're hoping that there will be someone in the family	
1396		
1397		
1398	Partner – my 4 year oldwhat are you doing, quick and she's away gone	
1399	done everything, she's you know,	
1400		<<45:00>
1401	so computer literate ((laughs))	
1402		
1403		
1404	I - yeah okay and if it was made available do you think it's something you'd	
1405	download and recommend to friends as well?	
1406		
1407		
1408	DS240149.F – well I would absolutely when I heard about it I thought it was	
1409	a good idea	
1410		
1411		
1412	I – okay alright I know this is hard because it depends on what the app is	
1413	gonna do and we've touched on it briefly, but what benefits do you think	
1414	there might be for patients using the app?	
1415		
1416		
1417	Partner – information!	
1418		
1419		
1420	DS240149.F – well I think there's also all sorts of reassurance, that it's not	
1421	something that's unusual, you know 95% of my problem is from	
1422	chemotherapy are normal if you like, so it's all about reassurance and	
1423	information	
1424		
1425	I - and what about the clinicians do you think they'll get any benefit if	
1426	patients are using this type of app?	
1427		
1428		
1429	Partner – well they'll be asked more questions, so they will have to take	
1430	time to answer them	

1432	
1433	I – so how do you think they'll cope with that, do you think that they'll like
1434	that? Or do you think they won't like that very much
1435	
1436	
1437	DS240149.F – I know talking to my GP for example she hates me to know,
1438	because everyone knows everything and they go in and tell her what's
1439	wrong with them, you know so there is a point, there's a point there, too
1440	much information? I don't know, I think it's useful and yes there are going
1441	to patients who are going to sit and say "I have read" and they've got a 100
1442	questions you know. I think for the majority of people it'll just be
1443	
1444	
1445	Partner – information gathering and you know okay this is what I need to
1446	ask and what am I going to dookay so I'm going to ask him thisand
1447	hopefully he'll give me answers. We know they're rushed, we know they
1448	are, but you know they're not God they are people and they are dealing
1449	with people
1450	
1451	
1452	I – and if they don't know the answers they should definitely look them up
1453	
1454	
1455	Partner – absolutely
1456	
1457	
1458	I – and what about for family and friends, what benefits do you think they
1459	might get from using this app?
1460	
1461	
1462	DS240149.F – all my friends have said "what can I do to help you?" all of
1463	them, um they don't know how to deal with me
1464	
1465	
1466	Partner – we just say "meet us for coffee"
1467	
1468	
1469	DS240149.F - I think but if theythere's a lovely line um not another bunch
1470	of flowers.com this woman she's had 3 breast surgery's and uh she's fed up
1/171	of getting flowers, she wants useful gifts and I think that would be if they

1472	had some ideas about how to alleviate they might not feel so helpless are
1473	they, because they all want to help don't they?
1474	
1475	
1476	Partner – and don't bring another bunch of flowers!
1477	
1478	
1479	DS240149.F – I mean a friend of mine with breast cancer sent me a bra, now
1480	she obviously knew exactly
1481	
1482	
1483	Partner – excellent
1484	
1485	
1486	DS240149.F – what I was going through, because my bras don't fit
1487	
1488	
1489	Partner – and deodorant, special deodorant, it was amazing
1490	
1491	
1492	DS240149.F – it's the only bra in fact it's on my Facebook page, my profile is
1493	a picture of me sitting with on obviously smiling cos it's the only bra that's
1494	comfortablenot now this was immediately post surgery, you've got drains
1495	hanging down oh godtried all sorts of bras
1496	
1497	
1498	I - aw that's so useful isn't it?
1499	
1500	
1501	DS240149.F – but she'd been there, done it so you know
1502	
1503	
1504	I – so that sort of information would be helpful
1505	
1506	
1507	DS240149.F – of course yes I mean how
1508	
1509	
1510	Partner – with websites like not another bunch of flowers, because they've
1511	got lovely hats and all those sorts of things
1512	

1513	
1514	I – that's brilliant that is yeah
1515	
1516	
1517	Partner – but they are a bit expensive, but
1518	
1519	
1520	DS240149.F – it's things like cracked lips you know I talked about the sores
1521	in your mouthyou know the basics the actual how to stop it? What can
1522	we do about constipation?
1523	
1524	
1525	Partner – which is horrendous in the beginning
1526	
1527	
1528	DS240149.F – people don't, they say "make sure you don't get constipated"
1529	that's okay, but how do you make sure you don't? You're taking a drug that
1530	fluid retention is horrendous, it sucks out all the fluid from your bowel, so
1531	you don't go to the toilet for 4 days and you feel like death
1532	
1533	
1534	Partner – and we're vegetarian so you can imagine you know
1535	
1536	
1537	DS240149.F – well like it's the bottom line you address you when you have
1538	this << inaudible everybody speaking at once 49:23>>
1539	
1540	
1541	Partner – your food and your drink isn't it ((laughs)) your basic needs
1542	
1543	
1544	DS240149.F – are you warm, are you
1545	
1546	
1547	Partner – basic needs
1548	DS240149.F – it effects every one of your bodily functions chemotherapy
1549	
1550	
1551	Partner – and I feel useless because sometimes I can't help her you know
1552	and that's really hard there should be a practical part of the app like what
1553	to do to help

1554	
1555	
1556	DS240149.F – you know what to do, to help you have a cracked nose, your
1557	eyes get sore, there's a whole
1558	
1559	
1560	Partner – my remedy is "go to bed and sleep"
1561	
1562	
1563	I - yeah ((laughs))
1564	
1565	
1566	Partner – have this soup, feel the warmth, have a hot water bottle, please
1567	go to bed
1568	
1569	
1570	DS240149.F – just go away((laughs))
1571	
1572	
1573	I – so, what about for you then what could the app help with for yourself?
1574	Something you said you were finding it hard
1575	
1576	
1577	Partner – practical things you know?
1578	
1579	
1580	I –you don't know what to do what about supporting yourself, do you
1581	talk to other people or? How do you, because it's difficult for you as well,
1582	so how do you cope with everything?
1583	
1584	
1585	Partner – I take the dog for a walk, you know I'm not one to sit and talk to
1586	people, and in fact I'll tell you openly and truthfully if she hadn't said yes
1587	to this, if you had rung me I would've said no, because I don't do that sort
1588	of thing, that's not me
1589	
1590	I – Okay. Well what about for other relatives then do you thinkbecause
1591	some relatives go to support groups and things like that. Do you think that
1592	would be helpful for others?
1593	
1594	

1595	Partner – if the opportunity is there, then I'm sure some people would take
1596	that yes
1597	
1598	
1599	I – okay
1600	
1601	
1602	Partner – but I've had my own way of dealing with that and
1603	
1604	
1605	DS240149.F – oh I've been offered, have been offered it I've kept it
1606	
1607	
1608	Partner – there may be a time when you will need it
1609	
1610	
1611	DS240149.F – it's a very emotional thing for a woman to go through, but I've
1612	been able to
1613	
1614	
1615	Partner – some people grab it
1616	
1617	
1618	DS240149.F - I've talked to <partner> we talk about our problems we're</partner>
1619	very open about it you know it definitely helps
1620	
1621	
1622	I – yeah definitely
1623	
1624	
1625	Partner – I'm a psychotherapist as well, so you know
1626	
1627	
1628	I - oh there you go ((laughs))
1629	
1630	
1631	DS240149.F – I would've said psychobabble go away and leave me alone
1632	
1633	
1634	Partner – yes she does, "don't give me that psychobabble" okay
1635	

1636	
1637	DS240149.F – and she says "so I guess what you're saying" and I think ah,
1638	ahno don't, don't((laughs))
1639	
1640	
1641	I – ((laughs)) um okay so do you think the app would have an impact on
1642	the way you talk to doctors and nurses about the cancer? Do you think it
1643	could be easier or more difficult?
1644	
1645	
1646	DS240149.F – no, it's going to make it easier
1647	
1648	
1649	Partner – it will make it easier
1650	
1651	
1652	DS240149.F – you go in with a bit more information, you feel more
1653	comfortable, you can ask them a questions and the answer won't confuse
1654	you because you know the rudiments of it like
1655	
1656	
1657	
1658	Partner – or if it does, you'll take it into your head you'll come away and
1659	go and look it up ((laughs))
1660	
1661	
1662	I – yeah, what about writing things downdo you think the app should
1663	have a facility for writing the answers down? Because some people have
1664	said "I don't know if I would have time, or it'll distract me". What do you
1665	think about that?
1666	
1667	
1668	Partner – it would distract on an app
1669	
1670	
1671	DS240149.F – I think something like this that is perhaps a diary and
1672	Partner – you can make a recommendation to do that if they wanted to?
1673	
1674	

1675	I - I mean when you're in the consultation and you've got your list of
1676	questions on the app, what about writing the answers down during the
1677	consultation?
1678	
1679	
1680	Partner – no I write them on a bit of paper and I'd be then asking, I'd have
1681	my bit of paper in front of me
1682	
1683	
1684	DS240149.F – I wouldn't, I don't think I would be bothered to
1685	
1686	
1687	Partner – but then we're old
1688	
1689	
1690	DS240149.F – fill in the detail
1691	
1692	
1693	Partner – well no I take my app in there and say "hold on second, I need
1694	to"
1695	
1696	
1697	DS240149.F – but you see if you've got an interactive app, much more
1698	complicated then you must have some sort of scoring system or something
1699	in the end
1700	
1701	
1702	Partner – yes
1703	
1704	
1705	DS240149.F – and that would be too difficult you know. I think and make
1706	notes when you want to
1707	
1708	
1709	I – yeah okay, and what about family and friends, do you think the app
1710	could affect the way you talk to family and friends, or other patients?
1711	
1712	
1713	DS240149.F – the only way I could see with family and friends went into the
1714	app they had more understanding of what you're going through, because
1715	nohody knows what it's like until

1716	
1717	
1718	Partner – I don't see your sister asking questions on an app, or your mother
1719	
1720	
1721	DS240149.F – no I mean my family are not interestedthey just want to
1722	know that I'm okayare you alright today? "yeah I'm alright"
1723	
1724	
1725	Partner – they do get on with it?
1726	
1727	
1728	DS240149.F – they just want to know I'm okay
1729	
1730	
1731	Partner – are you alright today? Yeah I'm alrightwell that's fine
1732	
1733	
1734	DS240149.F – they don't want to know the ins and outs of it you know?
1735	
1736	
1737	Partner – but her family are completely different her sister wants to
1738	what
1739	
1740	
1741	DS240149.F – so maybe she would find some use for the app
1742	
1743	
1744	Partner – oh yes absolutely so there are people who are going to and there
1745	are people that are not, but if the availability was there, then most people
1746	would use it I'm sure
1747	
1748	
1749	I – okay and what about problems what do you think the problems might
1750	be, the barriers in practice?
1751	
1752	DC240440 F Lully
1753	DS240149.F — I think sometimes not understanding the information, you
1754	misunderstanding it perhaps can lead to confusion and they may might get
1755	very frightened if as I said you opened up different pages and they've

1756	followed it through, when I found out that I could've died when I went in
1757	over the new yearI was surprised, so if I'd been told
1758	
1759	
1760	Partner – you weren't frightened, you were sort of shocked, wow, in fact
1761	you were
1762	
1763	
1764	DS240149.F – sometimes it's maybe too intimate it's really to gainI can't
1765	really answer then. I can't have enough information, but I know from my
1766	experience people don't want a lot of information
1767	
1768	
1769	Partner - then they're not going to use the app are they? They won't
1770	they'll
1771	
1772	
1773	I – yes exactly
1774	
1775	
1776	Partner – you know they won't, they'll goor they may open it they may
1777	see a little bit and they'll go "okay that's as far as I want to go" Now the
1778	people who are going to use it are the ones with a little bit of brain and
1779	will want the information
1780	
1781	
1782	DS240149.F – I think this business of people thinking that consultants are
1783	God and you have to look up to them, I think that's moved on, I think most
1784	patients want some interaction and want to be part of the decision making
1785	
1786	
1787	I – yeah, I think that's
1788	
1789	
1790	DS240149.F – they want to be more in control
1791	
1792	
1793	I – yeah okay and do you think that's something that the app can help
1794	with?
1795	
1796	

1797	Partner – yes, absolutely
1798	
1799	
1800	DS240149.F – I mean you've been asked to make a decision about
1801	something incredibly important, what are you basing your knowledge on,
1802	you have no knowledge of this at all
1803	
1804	
1805	I – they did they give you a decision aid? So it's like an A4 piece of paper
1806	with the different treatments – they're making those at Cardiff
1807	Universities now they're very helpful
1808	
1809	
1810	Partner – no, no nothing like that
1811	
1812	
1813	DS240149.F – he sat, he had his notes and bit of paper, he went through
1814	them the cancer I had, what type I had, what ops blah, blah, blahand that
1815	was it
1816	
1817	
1818	I – and you had to go away and search all this information?
1819	
1820	
1821	DS240149.F – at that point I had no written information at all, I said to her
1822	"can you remember what" I was in a state of shock, cos I knew I had breast
1823	cancer
1824	
1825	
1826	Partner – but you can't take it all in though
1827	
1828	
1829	DS240149.F – you know if <friend> who went through it at the same time as</friend>
1830	me, she had no idea, no idea, she went for a mammogram and the person
1831	in the unit said, she'd been shopping of all things had a mammogram in the
1832	morning, it was the first one that she'd ever had in her life and then went
1833	on shoppingand the person, the radiographer said "I'm sorry, but this isn't
1834	looking good, you look like you've got breast cancer" that's how she was
1835	told! And she went through it blindly, she was really in a bad place wasn't
1836	she?

1838	
1839	Partner – oh I know, you did this, you
1840	
1841	
1842	I - that must've been such a shock
1843	
1844	
1845	DS240149.F – you see whereas when I went it was
1846	
1847	
1848	Partner – we'd had a week talking about it because
1849	
1850	
1851	DS240149.F – well I had a mammogram, I went to the GP I found my lump,
1852	I had a mammogram and then I had another mammogram 2 days later, so I
1853	knew, on the Friday I knew, so that Monday when he said, I felt like saying
1854	
1855	
1856	Partner – I kept on saying "wait till it's said, once it's said then that'll be
1857	okay" but we have to wait until it comes out of his mouth to say yes, cos
1858	you always have
1859	
1860	
1861	DS240149.F – and I think a lot of patients hear, yes you have cancer, that's
1862	it, nothing make sense, everything else has gone over the top and that
1863	would be so useful to have something you're going tothis is what we've
1864	discussed, take this away look at it I'm here for you I'll hear for your
1865	questions and that's what you need isn't it
1866	
1867	
1868	Partner – we did have that with <district nurse=""> I have to say she was</district>
1869	amazing
1870	
1871	
1872	DS240149.F – <district nurse=""> was the one that did that form</district>
1873	
1874	
1875	I – yeah, and at what point did <district nurse=""> come?</district>
1876	
1877	
1878	DS240149 F – she was there when they said to me

1879	
1880	
1881	Partner – at the diagnosis
1882	
1883	
1884	DS240149.F – I'm sorry you've got bad news
1885	
1886	
1887	Partner – she was amazing
1888	
1889	
1890	DS240149.F – she was sat in with him all that Monday and then he left the
1891	room and she sat with us while I cried and then she said, this is my name
1892	and number when can I come and see you? We said come on Friday you
1893	can have a coffee, she came and she sat with me for about and an hour and
1894	a half on that Friday and we discussed everything
1895	
1896	
1897	I – yeah, so that was from the Monday to the Friday
1898	
1899	
1900	DS240149.F - hmm
1901	
1902	
1903	I - so in that time did you have leaflets to take with you?
1904	
1905	
1906	Partner – no, nothing
1907	
1908	
1909	I – no
1910	
1911	
1912	Partner – we were on the internet on the settee we were away trying to
1913	find out
1914	
1915	
1916	I - the thing is some people don't realise that not all the websites have
1917	reliable information, so within that time they could've found unreliable
1918	information
1919	

1920	
1921	Partner – and they might not have remembered correctly what was wrong
1922	with them you know
1923	
1924	
1925	DS240149.F – yep, did he say I had to have a double mastectomy or?
1926	
1927	
1928	Partner – but you were good you had a bit of paper in your bag, or can I
1929	have a bit of paper and you had your pen out and you were writing things
1930	down all the time
1931	
1932	
1933	DS240149.F – I mean for some reason I can't remember what it was but it
1934	was something about 10% of information is retained, it was something really
1935	small
1936	
1937	
1938	I – yeah, yeah
1939	
1940	
1941	DS240149.F – yes big words come out medical words come out they don't
1942	understand so that goes over their heads and they don't feel confident in
1943	themselves to
1944	
1945	
1946	Partner – I can remember you saying "what was that again?" and then you
1947	wrote it down ((laughs))
1948	
1949	
1950	DS240149.F - and you said something and I said "so I don't know what I'm
1951	talking about" to initials you know like MRI
1952	
1953	
1954	Partner – I know what an MRI is, but not everybody does, you know
1955	
1956	
1957	I – yes exactly
1958	
1959	
1960	Partner – well we use PRN_RD whatever_vou know

1961	
1962	DS240149.F – you do it's just < <inaudible 01:01.12="">> and the doctor said</inaudible>
1963	can youwhy
1964	
1965	
1966	Partner – we didn't stop for a cup of tea ((laughs))
1967	
1968	
1969	DS240149.F – and she said "oh that was on the Monday afternoon it wasn't
1970	on the Monday after I tell a lie it was on the Tuesday" I was hanging up
1971	the washing, no I wasn't hanging out the washing, it was her ((screams)) she
1972	said you just went ((strange noise)) you know that's what's happened
1973	
1974	
1975	Partner - so many people can't get their mind into that sort of order
1976	because of fear, not because they are stupid, it' because they are petrified
1977	
1978	
1979	I - yeah just panicking
1980	
1981	
1982	Partner – cancer - death
1983	
1984	
1985	I – Okay, so based on your experiences and everything that has happened,
1986	what things should we put in the app?
1987	
1988	
1989	DS240149.F – most things
1990	
1991	
1992	I – and I know that's a hard question, you've already mentioned things like
1993	a staged approach of information, and information on side effects, surgery
1994	and that sort of thing
1995	
1996	
1997	DS240149.F – I think some of the technical jargon should be explained
1998	
1999	
2000	Partner – yes absolutely, yes that would be lovely
2001	

DS240149.F – explaining things like secondary dysplasia, invasive, words I would use, I mean they've heard of Partner – the different types of cancer there are, you could just put that in because it was the American sites that we found the explanations for the type of cancer that ((candidate has got)) I – yeah, I'm really shocked I see huge gaps of information Partner – huge gaps, huge I – especially with the information you've taken away from the hospital as well and it's not standardised across... Partner – it is absolutely DS240149.F – I thought the sort of thing, you know like I know nurse direct, I know they've stopped it and they've got that 111 which is but that was a computer program but half way, chemotherapy, nausea, yes/no yes...vomiting, yes...and it followed on you know things to help you out, if you haven't got vomiting do you miss that bit completely? I mean that's quite a useful way of doing.... Partner – and people like doing those sorts of things don't they? DS240149.F – you know it's like a guiz almost you know? I mean the leaflet they gave me in chemotherapy talks about painful hands and feet, I've never had pain in my hands and feet, so I felt much better because I was informed, but the information should be there and I know you don't agree with this, but DVT, DVT and PE I think are so important and I've never been told that, it was only the doctor when I went in she was sitting on the bed talking and she said "one of the biggest problems is DVT" Patients who have

2043	chemotherapy they're very lethargic and tired they don't move
2044	aroundbingyou know. Whereas all you've got to say is they're tired I
2045	know a lot of patients are, I'm lucky I don't have this exhaustion, but some
2046	of them can't get out of bed
2047	
2048	
2049	Partner – saying that what were you like last week?
2050	
2051	
2052	DS240149.F – oh I'm forgetting
2053	
2054	
2055	I – ((laughs))
2056	
2057	
2058	
2059	DS240149.F – I'm not a bed person, you won't find me in my pyjamas, I'm
2060	not
2061	
2062	
2063	Partner – she doesn't like a pyjama day
2064	
2065	
2066	DS240149.F – (L) spent the first 5 weeks after surgery in bed! So everybody
2067	is so different, but I really think a glossary would be incredibly useful
2068	
2069	
2070	I – Is there anything else can you think of, any other things?
2071	
2072	
2073	Partner – I think all the way through we've been talking about certain
2074	things, there isn't anything new
2075	
2076	
2077	DS240149.F – I mean the things that could kill you like nuetrophenic sepsis
2078	like DVT that should be made more clear
2079	
2080	
2081	I – it seems essential
2082	
2083	

2084	DS240149.F – have you seen what they've given me? this is what I've
2085	depended on
2086	
2087	
2088	Partner - he did say to her, but if you have everything you may have
2089	everything you know just go with the flow and what I've been trying to get
2090	her to do is to go with the flow, okay it's important to take your
2091	temperature morning and evening and if there are any deviations then
2092	that's important for you to do
2093	
2094	
2095	DS240149.F – that's all the information I have
2096	
2097	
2098	I – gosh
2099	
2100	
2101	DS240149.F – and these are the things for nuetrophenic sepsis if you have
2102	any of these you ring this number here and that's it and that's the
2103	information I got, and that is not enough and that the basics
2104	
2105	
2106	I - yeah does it even explain nuetrophenic sepsis in this
2107	
2108	
2109	DS240149.F - no
2110	
2111	
2112	Partner – no ((laughs))
2113	
2114	
2115	DS240149.F – that was just given to us with a thermometer and told to take
2116	my temperature and they pressed 37.5, 37.5
2117	
2118	
2119	Partner – they could've made so much more on the talk we had that
2120	evening, because we went to get information didn't we and we came away
2121	thinking okay
2122	
2123	
2124	DS240149.F – I didn't learn anything

2125	
2126	
2127	Partner – no we didn't but then I did say well that's us, maybe a lot of
2128	people came away from there knowing certain things, I don't know
2129	
2130	
2131	DS240149.F – one lady in the car park she could hardly work she had some
2132	sort of bowel surgery and she was so ill she didn't take anything in, for her
2133	it was a complete waste of time
2134	
2135	
2136	I - Some patients, if they don't understand why they should be doing
2137	something they often they often don't do it
2138	
2139	
2140	Partner – well we didn't, and I think she'd vomited quite a few times
2141	before I said ((candidate)) this isn't right, you need to ring them and then
2142	next thing we knew we were in casualty
2143	
2144	
2145	DS240149.F – on the Sunday night when I was feeling like death I took my
2146	temperature and it was 37.5 so I took it with another thermometer and it
2147	was 37.4, because 37.5 is the magic number I went to bed, in the morning I
2148	took my temperature and it was 37.9
2149	
2150	
2151	Partner – and I said it's about time now you rang
2152	
2153	
2154	DS240149.F – so I was in because they've a
2155	
2156	
2157	Partner – because she wouldn't ring
2158	
2159	
2160	DS240149.F – but because I didn't want to go in its 37.4 I don't want to go
2161	in, if I had understood the very important aspect of that I would've gone in
2162	that night
2163	
2164	
2165	I - exactly yeah

2166	
2167	
2168	DS240149.F – there's no point in saying 37.5 you have to
2169	
2170	
2171	Partner - but they have to give you a cut off don't they, I mean it's
2172	something that
2173	
2174	
2175	DS240149.F – yes but that card is it, that card is all the information
2176	
2177	
2178	I – you know that's unbelievable really
2179	
2180	
2181	DS240149.F – but then they're inundated with information, I mean there's
2182	no
2183	
2184	
2185	Partner - there's no getting is there? I mean we've learned by okay it's
2186	about time you went in now, give them a ring and I'll walk the dog quickly
2187	because I mean we can go
2188	
2189	
2190	DS240149.F – and I mean how far? How far do you go? You know do you
2191	frighten everyone to death, you can't, it's so tough
2192	
2193	
2194	Partner – I've just said to her we'll pack a bag came in and you said "I'm
2195	packing a bag" I came in and I said "you'd better pack a bag just in case,
2196	we can keep it in the car
2197	
2198	
2199	DS240149.F - and I said "I have, I felt poorly"
2200	
2201	
2202	Partner – so we were both thinking you know they're gonna keep her in
2203	
2204	
2205	DS240149.F – but even though I felt poorly, I didn't realise how poorly I was
2206	

I - What about family and friends, do you think there's anything additional we could include in the app for them? DS240149.F - I don't think so Partner - they will find what they need to find if you do that sort of sequence DS240149.F – maybe you could have a bit on the practicalities you know, sort of try and encourage different food and drinks and... Partner - I've tried everything, you name it, I've gone out and bought it ((laughs)) try this DS240149.F – oh that stuff I bought from America you know it's been a godsend Partner – yes if you think about mouth ulcers we've got soothe gel bonjela that bonjela that stings I've got that one, I think we've got a whole cupboard full of just preparations for mouth ulcers so that she can use that. Whereas they gave you one with that jel okay it's probably expensive, but that helped you a lot DS240149.F – that was when I was in the hospital and it was the time that my mouth ulcers were at their worst because my nuetrophils were low and although I felt horrible and I had bronchitis and I felt dreadful, this mouth ulcer was driving me nuts and I said to this night nurse "have you got anything?" "hang on" she said she just popped in on the desk, she'd picked it up ready it was something like clear gel or something it's called and you paste it on and it forms a coating and takes the swelling down, I went to sleep after about 10 minutes

2248	I – oh brilliant
2249	
2250	
2251	DS240149.F – you know, why didn't you give me that before!
2252	
2253	
2254	Partner – well if you knew that in the beginning, you know!
2255	
2256	
2257	I – it's so frustrating
2258	
2259	
2260	
2261	Partner – and constipation, we went into Boots ((laughs))
2262	
2263	
2264	
2265	DS240149.F – I don't know what this woman though
2266	
2267	
2268	Partner – and we just filled it all, and this woman said "I hope you're not
2269	taking these altogether" ((laughs))
2270	
2271	
2272	DS240149.F – I need a
2273	
2274	
2275	Partner – so you know you just go into boots and you put them all in
2276	
2277	
2278	DS240149.F – I think normally you don't get constipated, but normal people
2279	don't get constipated do they? But they're giving you something that will
2280	make you constipated. Instead of saying "if you're constipated, they want
2281	to say "before you get constipated, do this"
2282	
2283	
2284	Partner – exactly
2285	
2286	
2287	I - Is there anything you wouldn't want the app to do?
2288	

2289	
2290	Partner – I wouldn't want it to frighten people
2291	
2292	
2293	DS240149.F – well it's like this 111 thing they send everybody to A&E
2294	because they can't make a decision, they're not qualified people manning
2295	this line, and 60% of the people that phone in 111 are asked to go to A&E,
2296	so you wouldn't want an app that said you're in danger of dying quick get
2297	into <hospital>, you wouldn't want anything like that, you just want</hospital>
2298	information, I don't think any action plan really would be good
2299	
2300	
2301	Partner – but it's like the temperature of 37 if you've got a temperature
2302	at 37 you go in
2303	
2304	
2305	DS240149.F – 37.5, 37.5!
2306	
2307	
2308	Partner – then don't take another, use the same thermometer all the time.
2309	You see I have taken the thermometers away, she's got one thermometer
2310	back there
2311	
2312	
2313	DS240149.F – I thought it was a cunning and devious plan actually
2314	
2315	L. Olean as any last averation, and them are unanticular transport of maticular
2316	I – Okay so my last question, are there any particular types of patient you
23172318	think would find this technology most useful, so age groups or different
2319	points during the cancer?
2320	
2321	DS240149.F - because I'd love to ask patients how much they want to know?
2322	Some patients, they don't they just
2323	Some patients, they don't they just
2324	
2325	I - from those I've interviewed so far I'd say about 70-80% want the
2326	information and then the rest just want the minimum
2327	
2328	
2329	DS240149 F – well that's the thing you don't want to frighten them

2330	
2331	
2332	Partner – and I bet they're older?
2333	
2334	
2335	I – yeah, yeah
2336	
2337	
2338	Partner – they're the older patients that think oh well, what will be, will
2339	be, whereas the younger ones want as much information as they can
2340	possibly have
2341	
2342	
2343	I – yeah, have a bit of control over it and to
2344	
2345	
2346	Partner – because you lose total control of your whole lives you know it's
2347	all about, you know hospital appointments, we've got a diary with hospital
2348	appointments you know, it'sand the first couple of weeks it was just
2349	hospital appointments
2350	
2351	
2352	DS240149.F – every other day
2353	
2354	
2355	Partner – I just rang work and said "you know actually I'm not going to be
2356	there until end of March, put me down for the end of March and I'll
2357	probably come back and do some work ((laughs)) you know
2358	
2359	
2360	I – exactly
2361	
2362	
2363	DS240149.F – my concentration I've got chemo brain,
2364	
2365	
2366	Partner – they call it chemo brain ((laughs))
2367	
2368	
2369	DS240149.F - I absolutely can't remember names, I couldn't drive long
2370	distance, I'd crash

2371	
2372	
2373	Partner – you did try once
2374	
2375	
2376	DS240149.F – I came out on my own one day and I realised that I was in a
2377	bad way. I was in the slow lane about 50 mph to couldn't see very, very
2378	clearly I had the air con on cold and the music was loud
2379	
2380	Partner – and she hasn't driven since
2381	
2382	
2383	DS240149.F – I was so desperate I didn't know where I was
2384	
2385	
2386	Partner – that's okay I drive a BMW ((laughs))
2387	
2388	
2389	I – ((laughs))
2390	
2391	
2392	DS240149.F – any excuse, who put petrol in it, I got in it today to go to the
2393	shops and there's no petrol in the car
2394	
2395	
2396	I – well that's it really, is there anything else you think we need to cover?
2397	
2398	
2399	DS240149.F – no I think it's a great, I think it's a brilliant idea
2400	
2401	
2402	Partner – and the sooner you can do it the better
2403	
2404	
2405	I – yes definitely
2406	
2407	
2408	DS240149.F – sorry I gabbed on so much
2409	
2410	
2411	Fnd of interview. Duration: 1:15:06

Appendix 17: transcript for P3 John and R3 Helen

I – Right okay, so I'll start with some questions. Can you tell me why you were interested in taking part in this study?

DS240157.M — well basically it's because of the treatment that I've received, it's exceptional and I just feel that if I can do anything to repay in some small way uh that might benefit people, basically that's it

Wife – from my point of view, there were times during ((candidates)) treatment that I felt as you said, you do look things up on the internet and some of it is conflicting, some of it is worrying and actually especially if you're being dealt with by <hospital> and this app is developed with <hospital> you know that you're dealing with people that you're actually physically dealing with, so they're able to help you and I think if people other patients, we found that when we used to go down there, other patients with similar cancers receiving chemotherapy and you talk and that always helped to find out their experiences how they dealt with certain site effects and if that would be, if you could have that on an app I think it would be you know a help. I always, sometimes I felt it would've been good

DS240157.M — yeah you do get feedback from other people suffering with the same type of illness, I mean and you have people obviously who've suffered with the illness for years, and years, and of curse like there are different aspects when you've got the illness, like some people have you know depending on what type of cancer you've got, like uh, you know like people who have a stoma bag attached, some people have got it lifelong, other people like myself hopefully will have it reversed, but then you have other problems which like I have a hernia with it as well, and it's just finding certain ways of dealing with these things, I mean when I first had it I was leaking all over the place wasn't I?

Wife – yeah but that was not to do with the cancer as such...you know...

DS240157.M – well it's due to the cancer isn't it

Wife – the app wouldn't help with that

43 44 45	I – well I see what you mean though, that you wanted information on
46	DS240157.M – yeah you know you talk to people oh I've done this and the way I dealt
47 48	with it is thisso you get that information that otherwise
49	
50	I – yeah well that was my question actually, so where did you normally get information
51	about the cancer and the side effects was it mainly from doctors?
52	
53	
54	DS240157.M – well doctors and patients
55	
56 57	Wife and that was any St Devide Harriss names abole have really good you be say:
57 58	Wife – and that was our St David's Hospice nurse, she's been really good, you know if we couldn't find something out she would, she would find out for us
59	we couldn't find something out she would, she would find out for us
60	
61	I - oh that's good
62	
63	
64	Wife - yeah I found her marvellous
65	,
66	
67	DS240157.M – yeah hospice <nurse> yeah brilliant</nurse>
68	
69	
70	I - so when you said you talked to patients, were they the ones that you met at
71	<hospital>?</hospital>
72	
73	
74	DS240157.M – yeah
75	
76	Wife - yeah just other patients you'd see, going regularly you see regular faces you
77	would get to know people
78	
79	
80	I - yeah okay and what about the internet or books or did you get information there?
81	
82	

83	DS240157.M - well as we said, they're conflicting aren't they? When you look on the
84	internet
85	
86	
87	Wife - I did
88	
89	
90	DS240157.M – I mean not all the information on the internet is correct
91	
92	
93	Wife - but in all fairness you are told at the beginning, don't look it up on the internet
94	
95	Landa aliani and suba Aadd sees AbaA2
96	I – ah okay and who told you that?
97	
98	Wife ab and Loow/t versoushou
99	Wife - oh god I can't remember
L00 L01	
LO1 LO2	DS240157.M – well a few people because of the conflicting reports and that
LO2 LO3	D3240137.W — Well a few people because of the conflicting reports and that
L03 L04	
105	Wife - and they said "don't look it up on the internet because you'll consider yourself
106	to beeverything"
L07	
108	
109	DS240157.M – gone ((laughs))
L10	
l11	
L12	I – ah I see, so you did look things up <wife>?</wife>
L13	
L14	
l15	Wife - you do, you do look things up
L16	
L17	I – so did you find that helped you at all?
l18	
l19	
L20	Wife - to some extent yeah
l21	
L22	
123	DS240157 M – to some extent

Wife - it explained certain things, so it did help in certain ways
DS240157.M – yeah
Wife - but I never kept to one site I'd look at a couple
I – that's what I was going to ask you was there, you know did you use?
Wife - a couple of sites yeah
I - which sites were they?
Wife - don't askI've no idea
I – ((laughs)) okay so they weren't like Macmillan, or Cancer Research, or
Wife - I very rarely use Macmillan to be honest, um, the NHS one basically was the
one I used more than anything, but then I would go to ones to see if they said the
same thingfor comparisons, you know
DS240157.M – make comparisons
·
I – that seems a sensible way to do it
•
Wife - well yeah, it did help, but I mean you would still, at the end of the day you
would still pick up the phone and phone

I – okay. So did you like to have information about the cancer then? DS240157.M – well yes, yes because, I mean obviously it helps doesn't it? I mean having cancer is a pretty traumatic thing, when I was first diagnosed with it I was quite blasé about it, I didn't really appreciate the seriousness of having cancer like as never having it before, uh, and then suddenly as time went by before the operation I realised then and um, you then start asking questions, you know, it's a difficult thing, it's one of those things in life that you a....it's difficult to really assess isn't it <Wife>? Wife - yeah DS240157.M – you know you.... Wife - it turns your life upside down as you can imagine. It's just uh, everything is different, you know I – so you like to have information? Wife - I like to have information yeah because I'm one of these people I like to be prepared you know, because if I want to, if I think, if I read something and they suggested it would be better to have something here, then I would make sure I had something here, in case he went down the route of feeling this way with certain side effects. You know I'd rather him say the chemotherapy that <candidate> had, he um, the drug was Oxaliplatin <candidate> side effects were numbness in his fingers DS240157.M – ah I've heard of that yeah, yeah Wife - with gloves on and sometimes he would get lockjaw as well DS240157.M – oh when I, this is one of those things yeah, I couldn't understand that, um, if I closed my mouth with nothing in it and I clenched my teeth nothing happened, but as soon as I put food in my mouth to chew it....

206	
207	Wife - only initially
208	
209	
210	DS240157.M – initially and I'd go
211	
212	
213	Wife - his jaw would lock
214	
215	
216	I - really?
217	
218	
219	DS240157.M – yeah
220	
221	
222	Wife - and when we asked them about that, now here's an example, because this was
223	not one of the side effects they said that could happen, so we ended up phoning up
224	and they said "it is rare, but it can happen" so if you had an app there where a patient
225	has said this is what I experienced it would ease that worry a little bit until you manage
226	to see the consultant you know
227	
228	
229	I – yeah, yeah because if you've not been told that beforehand then I expect
230	
231	
232	DS240157.M – yeah that's right, but they give you certain things that normally happens
233	pins and needles uh, tiredness you know the things that normally
234	
235	
236	Wife - but if you remember <candidate> when we went up there, the <clinical nurse=""></clinical></candidate>
237	he was really good with us wasn't he, he said about the lockjaw, he said "we've got
238	one other patient with that" he said and that's up in <location> wasn't it? <hospital></hospital></location>
239	he said "it is unusual, but it does happen"
240	
241	
242	I – yeah, yeah, well it makes you feel better about it already then doesn't it?
243	
244	
245	DS240157.M – see a lot of people suffer with sickness as well, well I never suffered with
246	sickness

247	
248	
249	Wife - you were good you didn't
250	
251	
252	DS240157.M – you know so, variables depending on one's metabolism
253	
254	
255	Wife - everyone's different
256	
257	
258	DS240157.M – everybody's different, well to a certain extent
259	
260	
261	I – yeah, yeah, okay. So was there a particular point that you felt that you needed
262	more information, either of you?
263	
264	
265	DS240157.M – no I think we, I gotta be honest we were kept pretty well up to date on
266	all aspects of the illness um, yeah I can't fault that
267	
268	
269	I - that's good, okay
270	
271	
272	DS240157.M – and you know when you talk to the surgeon you could ask any question
273	and you know, your answers were given in laymen's terms because sometimes some
274	people can answer questions can't they, and they're using words that you've got no idea
275	what they're on about, but I was given information like with <doctor> you know plain</doctor>
276	language, which I understood, no messing around you know and I fully understood what
277	he was on about
278	
279	
280	I - yeah that's one of the things we're thinking about doing, is putting a glossary of
281	medical terms in there, because some patients have said that not all doctors and
282	nurses have given information in layman's terms and then it makes it difficult
283	
284	
285	Wife - that would be a very good idea
286	
287	

288	I – then for the patients and family to understand what they're saying and then
289	they've got even more questions then
290	
291	
292	Wife - I mean I found it last year, I, I'm not one to remember medical terms I mean
293	I'm on all these tablets and I can't remember the name of them, people say what are
294	you on? And I say oh
295	
296	
297	I – yeah they're so complicated
298	
299	
300	Wife-Benzo something or otherbut in the last year I know exactly what <candidate></candidate>
301	takes. I know exactly how many milligrams, I know the name of it what he was on,
302	cos now we go in and they say "well what did you haveand what are you on" and
303	he says " <wife>?" ((laughs))</wife>
304	
305	
306	DS240157.M – I mean you know, basically it is a form of laziness on my behalf, because
307	there's people like me uh, I've got my wife who's on the ball and she knows everything
308	you know uh in respect of my medical condition you know medication I take you know
309	and uh, yeah there's another question I mean there's a lot of blokes like me out there
310	who leaves it up to their partners or their wife or vice versa like you know
311	
312	
313	Wife - I think you've got enough to contend with
314	
315	
316	DS240157.M – thing is it's a mental state isn't it?
317	
318	
319	I – yeah I expect it really helps to take some of the burden off them so they don't have
320	to remember all this information
321	
322	
323	DS240157.M – well that's right I mean you know especially when you're undergoing
324	chemo as I said it varies from people I've found that um, my uh, sort of um, ((sighs))
325	here we go again see
326	
327	
328	Wife - this is another side effect you get sometimes

329	
330	
331	I - yeah like the concentration
332	
333	
334	DS240157.M – yeah, you've got a very short span
335	
336	
337	I – yeah you can be in the middle of a sentence and then you just can't remember
338	
339	
340	DS240157.M – it just goes blank
341	
342	
343	Wife - there's a gentleman who lives down the road that <candidate> talks to, and</candidate>
344	they've got a lot in common they were both in the army and he's been diagnosed with
345	the same cancer as you hasn't he? and he's on the same chemo that <candidate> was</candidate>
346	see and he finds, they compare, he says " <candidate> do you find, do uh, oh"</candidate>
347	
348	
349	DS240157.M – similar yeah, yeah and it just goes, like I used to do crosswords, always
350	doing crosswords I can't do a crossword now, because my, my here you arethe
351	
352	
353	Wife - concentration
354	
355	
356	DS240157.M – concentration putting things into perspective as well like as well like
357	you know, in context uh, I just lose it you know it's peculiar, I've never you know and
358	you thing well you end up shrugging your shoulders and I've got half way through
359	my crossword book and I haven't touched it see
360	
361	
362	I – oh yeah hopefully that, that'll come back, yeah
363	
364	
365	DS240157.M – yeah hopefully
366	
367	

368	Wife - well he did say that, he said it could take you know up to 6 months to a year,
369	cos I mean <candidate> had 2 major operations in a year and loads of chemotherapy</candidate>
370	so I mean he did have, and he had blood clots
371	
372	
373	DS240157.M – I told <interviewer> about that and that was horrendous that was, and</interviewer>
374	in between that, whilst undergoing all that, I had these spasms, remember that night
375	we had to call the ambulance out, I had spasms in my shoulders in my back
376	
377	
378	Wife - but they thought he was having a heart attack
379	
380	
381	DS240157.M – and I tell you what the pain was horrendous, I mean they put me on a
382	drip of Panacetum and eventually it subsided and the doctor gave me valium/diazepam
383	
384	
385	Wife - diazepam
386	
387	
388	DS240157.M – but what I'm doing now, I'm not taking them every day, I'm uh
389	alternating you know maybe a day or 2 days off but it petrifies me to think what I went
390	through I mean I was absolutely, I was on the floor and the pain was you know, I just it
391	was peculiar, it's just one of those things, anyway
392	
393	
394	I – was that related to the treatment?
395	
396	
397	DS240157.M – well I don't know
398	
399	
400	Wife - what the doctor said, because it was a spasm, not a muscle but a nerve spasm
401	and what he reckons is when he had the bowel operation, because it wasn't long after
402	you come home
403	
404	
405	DS240157.M – that's right
406	
407	

408	Wife - and he reckoned he was there in the operation for some time, he said you don't
409	know what position you were in on the operating table and he said "it could be that"
410	but because they couldn't when the paramedics come they just didn'tand they
411	went "it could be a heart attack let's get him to the hospital" mind you saying that we
412	went to <hospital> they said to him they didn't know what it was</hospital>
413	
414	
415	DS240157.M – this doctor was asking questions and
416	
417	
418	Wife - we told him he'd just had the operation he had cancer and basically because I
419	know they hoping to link up which would be a brilliant idea, to me it's ridiculous you
420	can't go into a hospital and they can't call up your records and see what's wrong with
421	you
422	
423	
424	DS240157.M – unless you're in the same NHS isn't it?
425	
426	
427	I – oh I know, I
428	
429	
430	DS240157.M – it's terrible that
431	
432	
433	Wife - and they didn't have a clue up in <hospital></hospital>
434	
435	
436	DS240157.M – you can imagine if you're on holiday in North Wales just for example, or
437	something like that and uh, you know how would they get that information, the only
438	way is by making a telephone call and you know answering phones, hospitals are
439	inundated with them, I mean, you know, other than that it's written application isn't it?
440	
441	
442	I – yeah I know, it's 2015 and we have the internet, all the things we have now
443	
444	
445	DS240157.M – I know
446	
447	
448	Wife - our son in law actually works for the

449	
450	
451 452	DS240157.M – for the NHS on the computers
453	
454	I – oh okay
455	- On Okay
456	
457	Wife - and he's been doing this project at the moment where what they doing they're
458	installing
459	
460	
461	DS240157.M – linking, linking up
462	
463	
464	Wife - not the hospitals, but all the GP's
465	
466	
467	DS240157.M – all the surgeries
468	
469	
470	Wife - but of course now they've had the go ahead, the Welsh Assembly are going to
471	put all this money in to making the hospitals able to link up with the GP's
472	
473	
474	DS240157.M – you'd think it would be normal wouldn't you? I mean it'sincredibleI
475	just dread to think
476	
477	
478	Wife - <hospice nurse=""> said she can look on the < hospital 1>, but she can't go to</hospice>
479	<hospital2>, she can't look on <hospital2> because the systems are different systems</hospital2></hospital2>
480	
481	
482	DS240157.M – different systems, different health authorities, it's ridiculous anyway
483	
484	
485	I – yeah, okay. So communication how did you find talking to the doctors and nurses
486	about the cancer?
487	
488	
489	Wife - good

490	
491	
492	DS240157.M - good
493	
494	
495	I - how did you feel when you had to ask them questions, was it easy or difficult?
496	
497	
498	DS240157.M – no easy, I mean as I said
499	
500	
501	Wife - yeah, and not just the doctors but their secretary's
502	
503	
504	DS240157.M – the secretary's, uh the nurses, the consultants, I've been very, very
505	fortunate, I just can't you know I know it sounds, I just can't complain
506	
507	
508	I – yeah, oh that's good and what do you think made it so easy to ask them questions
509	then?
510	
511	
512	DS240157.M – it's their demeanour, you know they way they presented themselves the
513	way they talked, um, and it basically helps a lot doesn't it, if you're taking having a
514	conversation with someone and you've got that response you know, thatit's much
515	easier to open up and ask questions and especially when you're getting the answers
516	which you understand. It's like <doctor> with the blood clots, the way you know he</doctor>
517	took time to draw diagrams and explain certain things, and I said oh yeah
518	
519	
520	Wife - you never felt as though you were
521	
522	
523	DS240157.M – imposing
524	
525	
526	Wife - no, you never felt like you were just another one of the sheep, you were made
527	to feel as though, yes what you've had and they were caring for you
528	
529	
530	I – veah oh that's brilliant

531	
532	
533	DS240157.M – they were concerned about you
534	
535	
536	Wife - they were concerned
537	
538	
539	I – that's really good, yeah because they see so many people every day, every week
540	and some people have said that they felt that sometimes that they were just a
541	'number', so to hear about the care that you've had, that's really good
542	
543	DC240457.N4
544	DS240157.M – yeah I mean, yeah
545	
546	Mile there's are automated and but I was a
547	Wife - there's one or two departments but I mean
548	
549	DC2401E7 M. Pyro had and are two but like everything also I maan
550	DS240157.M – I've had one or two, but like everything else, I mean
551 552	
553	Wife - the majorespecially at <hospital> absolutely brilliant, can't fault it</hospital>
554	whe - the majorespecially at \hospital> absolutely billiant, can tradit it
555	
556	I – most of the people I've talked to so far have been from <hospital> and have not</hospital>
557	had a bad word to say
558	nad a sad word to say
559	
560	Wife - they're brilliant
561	
562	
563	DS240157.M – they're very professional, put it this way, the professionalism and as you
564	say they see countless, hundreds and thousands of patients in a year and they go
565	through this routine and you know it's very gratifying you know they treat you
566	, , , , , , , , , , , , , , , , , , , ,
567	
568	Wife - even the staff, you can be walking down the corridor going to the canteen and
569	the staff coming the other way and they always got a smile and a hello for you
570	, , , , , , , , , , , , , , , , , , , ,
571	

572	I - yeah, it makes a difference
573	
574	
575	Wife - they gotta be happy in their job, I mean as far as I'm concerned
576	
577	
578	DS240157.M – well they do, the thing is there, they're doing a worthwhile job aren't
579	they, not to say they get reciprocated in uh, financial terms you know in that respect,
580	they do get a lot of satisfaction
581	
582	
583	Wife - I do feel sorry for the NHS staff, the actual working staff you know, because
584	they're under so much, you know, they are under so much pressure and they do work,
585	you know they work their
586	
587	
588	DS240157.M – well the nurses when I was in hospital 12¾ hours night shift
589	
590	
591	I – yeah my friend is a nurse I think sheshe's on the cardiac ward so she's very busy,
592	she's really feeling pressure and she's really laid back, so for her to be feeling it
593	
594	
595	DS240157.M - 12⅓ hours! The question you've got to ask there is this, how can a nurse
596	perform to the same level after 12¾ hours after 1,2,3, hours that's fair enough, after
597	12% hours can that person whether male or female perform to the same standard as a
598	normal person working normal hours, normal shift. I don't think so
599	
600	
601	I – yeah, and it can be life threatening consequences if anything goes wrong, they're
602	exhausted coming off nightshifts then going onto dayshifts
603	
604	
605	Wife - I really feel for them I do
606	
607	
608	I – yeah it's a problem at the moment isn't it
609	
610	
611	Wife - I really do
612	

613	
614	I –okay, so were there any barriers communicating with the doctors and nurses at all?
615	
616	
617	DS240157.M - no
618	
619	
620	I - and how did you remember all the information about the cancer, did you write
621	things down, or rely on memory or?
622	
623	
624	DS240157.M – well sometimes, we, we
625	
626	
627	Wife - you relied on me! ((laughs))
628	
629	
630	DS240157.M – we did take little notes, I threw them all the way actually I was reading
631	them last night, um, and we were asked one of the things as well with <hospital> I was</hospital>
632	asked to make notations of certain uh feelings whilst I was undergoing chemo, so I had
633	a little diary day to day and I used to keep notes like if, when I was on uh, medication,
634	how I felt, the side effects, uh and it was like what's the uh <wife> them tablets I was</wife>
635	taking to give me more energy?
636	
637	Wife - the steroids
638 639	wife - the steroids
640	
641	DS240157.M – steroids you know like obviously I had the chemo sometimes you're on
642	a down and then I think it was once ad day, or twice a day I was taking steroids wasn't
643	it?
644	
645	
646	Wife - yeah, and of course they have their side effects
647	yearly area or ecurso are y made areas or established
648	
649	DS240157.M – they have their side effects, but I noted down after taking the steroids
650	how I felt, so I kept a daily tag for a couple of months on different aspects and the way
651	I felt after taking certain medication, like the chemo medication, uh but the second time
652	I had the chemo it had adverse effects on me, I felt much worse after the second uh
653	than I did after the first sessions

654	
655	
656	Wife - not the session you had 4 you were the first time, you yeah
657	
658	
659	DS240157.M – you know what I mean
660	
661	
662	Wife – yeah but that was because of saturation
663	
664	
665	I – so how did the day to day diary help you?
666	
667	
668	DS240157.M – well
669	
670	
671	Wife - you can take that along to your consultation
672	
673	
674	DS240157.M – well I could make references
675	
676	
677	Wife - which is a bit like if you do react hopefully you'd be able to put it down which
678	will remind you to ask a question
679	
680	
681	I – yeah well another option is to have an electronic diary then where you can put how
682	you're feeling on the app so I'm just wondering how did that help you by doing that
683	do you think it's something worth putting in the app?
684	
685	
686	DS240157.M – well yes because um, whilst undergoing chemo obviously your diet is
687	different especially for people who wear stoma bags I mean there's you can eat and you
688	cannot eat, now unless you actually keep a notation of what you can't and what you can
689	you don't know do you, so by doing this I would like my wife would say we're having so
690	and so and I'd go, look well I had them last time and uh and I was very lose in theso I
691	had to take Imodium, you know so
692	
693	
694	I – you can alter your diet around how you expect to respond to it?

695 696	
697 698 699	DS240157.M – yeah
700	I – that's really good okay. So what about family and friends, did you find it easy to
701	talk to them about the cancer?
702	
703	
704	DS240157.M – um, ((sighs)) yeah difficult at times didn't I, cos I don't like imposing uh,
705	not so much imposing but uh
706	
707 708	Wife - it's strange really because um, certain friends yes you could tell and they would
709	be concerned and they would phone to see how things were, and then you'd get other
710	friends you'd mention it to and you tell them and you never saw them again, and you
711	can understand that they don't know how to deal with it, or they can't face it so if you
712	could say to them, if you want to know more, there is an app, so they could read it
713	might help them as well
714	6
715	
716	DS240157.M – yeah it's a question with family as well, you don't want to, like people
717	will say "how are you today?"
718	
719	
720	Wife - we're not a big family really are we?
721	
722	
723	DS240157.M – no, no we're not. You know you don't want to go into the depths of your
724	problem you'd say, "not too bad" when you really wasn't too bad, you were feeling
725	pretty crappy like you know, uh so that's part of the difficulty of answering questions,
726	it's depending like and how one felt when they asked you as well, this is the thing, you
727	know if you felt quite buoyant uh, yeah I feel great today like you know, but when you
728	wasn't up to that standard yeah I'm alrightwhich they deduced then by you saying
729	that then – yeah he's not on top form today like they just left it as it was
730	
731	
732	I - okay. So talking about the technology then, so have you used, so you're familiar
733 734	with apps but have you used a smart phone or a tablet computer like an Ipad or Iphone before?
, JT	NCIVIC:

736	
737	Wife - yeah
738	
739	
740	I – you do have one, so what's that?
741	
742	
743	Wife - an Ipad and an Iphone
744	
745	
746	I – okay and what about yourself <candidate>?</candidate>
747	
748	
749	Wife - he's got a fire a kindle fire
750	
751	
752	I – oh okay
753	· · · · · · · · · · · · · · · · · · ·
754	
755	DS240157.M – yeah but don't ask me anything about computers please, no I'm not
756	being ignorant orI'm a dinosaur when it comes toyou know
757	being ignorant or an a amosaar when it comes to myou know
758	
759	I – no, it's not, they're not for everybody, this is what is interesting to ask because
760	not everyone is going to want to use this app
761	not everyone is going to want to use this upp
762	
763	DS240157.M – but I mean my <daughter> my daughter and with our son in law they're</daughter>
764	all on the ball even the grandchildren they just lose me
765	an on the ban even the grandennaren they just lose me
766	
767	I – yeah okay, so is there any reason then that you don't like these sorts of devices?
768	1 - year oray, so is there any reason their that you don't like these sorts of devices:
769	
770	Wife - he's afraid of technology, he doesn't want to learn – it is the truth!
771	whe - he saliald of technology, he doesn't want to learn – it is the truth:
772	DC2401F7 N4 well I think it's lariness nersonally
773	DS240157.M – well I think it's laziness personally
774 775	
775 776	Wife - vou just can't be bothered
776	vviie - vou iust can't de dotnered

777	
778	
779	DS240157.M – well ironically when I was in the army I was a data telegraphist
780	
781	
782	I - wowyeah
783	
784	
785	DS240157.M – ((laughs)) so we had computers the size of that armchair
786	
787	
788	I – yeah wow
789	
790	
791	DS240157.M – but I just got to the stage oh I don't know I just
792	
793	
794	Wife - oh there's another one now stop it ((talking to the pet)) she's losing her teeth
795	
796	
797	DS240157.M - but you do you know I don't know as I've got older I've got a bit lazy, not
798	lazy in physical things to do
799	
800	
801	I – no, no I know what you mean
802	
803	
804	DS240157.M – in certain mental aptitude I justI just give it to the wife
805	
806	
807	Wife - it started when we got a video recorderhe didn't want to know how to use
808	that either
809	
810	
811	DS240157.M – the what?
812	
813	
814	Wife video recorder
815	
816	
817	DS240157.M – I can't do that either

818	
819	
820	Wife - we don't have them anymore
821	
822	
823	I – so what about yourself <wife> what sort of things do you use the Ipad and Iphone</wife>
824	for?
825	
826	
827	Wife - ooooh
828	
829	
830	DS240157.M - everything
831	
832	
833	Wife - I use it quite a lot, shopping, finance, news yeah, I do use it, games ((laughs))
834	
835	
836	DS240157.M – yeah you're brilliant at it you know I got to be honest
837	
838	
839	Wife - it's brilliant I do find it useful and my reading I can you know
840	
841	
842	I – and have you ever used an app to do with your health or <candidate> health?</candidate>
843	
844	
845	Wife - yeah
846	
847	
848	I – what sort of apps have you used?
849	
850	
851	Wife - well the NHS more than anything, it was like yesterday I looked up last night I
852	told you because our daughter's got diabetic neuropathy and um I thought I'll have a
853	look, and I look it up to see on a couple of websites what they had to say about it,
854	compare what they say
855	
856	
857	I – yeah okay
858	

859	
860	Wife - my first port of call is normally the NHS one yeah
861	
862	
863	I - yeah it's a pretty safe one. So the type of app we've talked about do you think
864	patients with cancer would want to use this type of app?
865	
866	
867	DS240157.M – well I think the question there is
868	
869	
870	Wife - yes
871	
872	
873	DS240157.M – the type it's a type of person
874	
875	
876	I - yes so for yourself then <candidate> do you think if it was available do you think</candidate>
877	you would download it and try to use it
878	
879	
880	DS240157.M – yes, because if you've got information there which would shall we say
881	alleviate certain problems, I mean sometimes you don't, you get this feeling and you
882	don't know what it's about, looking at the app and it might not turn out as bad as one
883	expects – yeah? So in that way it's a great thing, vice versa though
884	
885	
886	Wife - when you're sat with my husband you'll just assume by looking on the app
887	what you're looking for is a safe escape, so that I feel this, or this is wrong I look on
888	the app and that'll tell me everything is alright, it doesn't always work like that
889	
890	
891	DS240157.M – well no that's what I just said vice versa
892	
893	
894	Wife - but then if you have got more, you know yourself if you did have more worries
895	from that stage you would just phone <hospital> wouldn't you?</hospital>
896	
897	
898	DS240157.M – oh yeah, yeah, well that would give you some indication then
899	wouldn't it that things weren't as they should be

900	
901	
902	Wife - I think I would use it more than ((candidate)) would
903	
904	
905	I – yeah yes so I was going to say what about family and friends, do you think they'd
906	use the app?
907	
908	
909	Wife - yes I think family and friends would
910	
911	
912	DS240157.M – <son> yeah <son> would</son></son>
913	
914	
915	Wife - <son> partner would as well</son>
916	
917	
918	DS240157.M – and <son> partner yeah <son> would as well</son></son>
919	
920	
921	Wife - I think it's down to the individual if you're that way, if you've got as you said
922	the technology and you've got the equipment then yeah you would, cos as I said if
923	you've got that device in front of you, even though they've said to you "don't look it
924	up on the internet" you're going to that's the first thing
925	
926	
927	I – so it's you're saying if you can have something that you can trust?
928	
929	
930	Wife - exactly
931	
932	
933	I – okay so what about training do you think it would be useful if patients had training
934	to use the app? Do you think they'd need it?
935	
936	
937	Wife - now that might, well you can't really say that until it comes out can you, you
938	see, but it would be
939	
940	

I – I mean for someone like <candidate>, so he's not as experienced as yourself do you think that could help? Wife - yeah DS240157.M – well yeah I mean Wife - even when you're diagnosed as cos initially you know when you're diagnosed are sort of bombarded with this, that and the other and different leaflets and maybe say on your first visit to <hospital> you know there's someone there who can explain this to you and show it to you, once the initial shock has calmed down, I think for a patient it would be helpful yeah DS240157.M - and, and of course at the end of the day, it's the mental state of the individual isn't it? You know you have positive and you have negative and you know as I said like you know, if you are, and I truly believe that if you are positive in your outlook it goes a long way to make you better quicker and without a doubt I – yeah it gives you a better quality of life DS240157.M – well if you want to sit on your bum all day and just think about what's happening I mean, that's no good I - no exactly DS240157.M – you've got to get up you know, alleviate the old problem in the mind, find something different to do and it without a doubt it helps Wife - I tell you what I think would be helpful as well is if there was something on there for family, immediate partners where you could share experiences, or maybe chat to other people, because if you know what I mean you're, I've been strong for <candidate> and doing everything for <candidate> but then you get those moments

982	when I'm on my own, and you do think down the wrong way and you get worried, and
983	have concerns and then I don't want to go to him with it
984	
985	
986	I – yeah, so who do you talk to?
987	
988	
989	Wife - exactly and I did find that was, you know
990	
991	
992	I – yeah so there are support groups for relatives, or chat forums, or did you ever use
993	anything like that?
994	
995	
996	Wife - no, no I wasn't aware that there, there was anything I mean support, going to
997	actually see someone that wouldn't have worked because I was so involved with
998	<candidate> back and forth, but to maybe pickup of an evening and talk to someone,</candidate>
999	I mean it's like, I know I could talk to my daughter but I know she's going through the
1000	same thing as me
1001	
1002	
1003	I – yeah so perhaps having someone external to the whole situation?
1004	
1005	
1006	Wife - yes
1007	
1008	
1009	I – so yes, so you said that you know you're quite busy so you wouldn't maybe be able
1010	to get to one of those groups, so do you think that a smart phone thenthe app, if we
1011	could link you with something that's online and you don't have to leave the house
1012	
1013	
1014	Wife - I think it would be good yeah
1015	
1016	
1017	I – okay, that's a really good point. Right where am I, yes so right would you have any
1018	concerns about the app at all?
1019	
1020	
1021	DS240157.M – in what way?
1022	

I - well I mean some patients have said "I don't trust that type of technology" others have said "you know I'm worried that there will be too much information and that could worry patients", or....

Wife - that's the chance you've got to take, that's life, you know...if you are concerned about what's on there if you think that there's too much information and you're worried by it, it's like you said if what they say on the app is not what you want to here, you are gonna be worried by it, so your next step is to phone your consultant, or phone hospital<1> they've always got time for you

I – well what I've been thinking from the rest of the interviews what's coming out is some patients are saying "okay, well you can avoid that problem perhaps, not by putting the information in the app", but by perhaps signposting patients to external information, so if you want information on this treatment for this type of cancer there's a good section on the Macmillan website and you can put the link, click on that

Wife - yes but I always feel, I always feel when you go to an app and it gives you a link to another site, that sometimes as you said, for want of a better expression, their passing the buck, you want, I mean the fact that this app is gonna be something, cos it will be locally I take it won't it? It'll be something I would feel more inclined to trust that app

I - yeah than the website

and it takes you there...

Wife - than a bigger app, and if I did have any concerns I would just phone

DS240157.M – well yeah I mean that's right, I'm thinking with some of these apps I mean you got so many variables, so many different peoples' opinion on a particular subject haven't you I mean and that could be quite conflicted as well couldn't it? You know if you wanna go through it and you see people...well so and so says this, and you look at the next one and the other one....you know sort've says something totally different, cos that's their own opinion on a particular subject, but if you've got an app like that which is quite direct, this is what etc., et., and it's straightforward isn't it?

1064 1065	
1065	I – yeah I think my other concern is that there is so many different types of cancer, so
1067	much information, how would we pack that into one app you know I mean that's
1068	another issue we've got
1069	another issue we ve got
1009	
1070	Wife - yeah there is that about it
	whe - year there is that about it
1072	
1073	DC240457.N4
1074	DS240157.M – well, I think you'd have to well, yeah, how would you deal with it?
1075	Other than you'd have to categorise each different type of cancer, and it's like it just
1076	asked you know on the question form bowel cancer it doesn't say bowel cancer on
1077	there, it says urological, or whatever it is
1078	
1079	DC240457.14
1080	DS240157.M – well what I'm saying is it doesn't I want to ask the question in medical
1081	terms what type of cancer is this then like?
1082	
1083	NAU: For a policy
1084	Wife - colon
1085	
1086	DC240457 N4 well was be and reason as a sold as a basis of a second as a secon
1087	DS240157.M – well you know I mean you could say bowel cancer, well everybody knows
1088	then what bowel cancer is, lung cancer do you follow what I mean, that would be
1089	straightforward rather thanthese medical terms related to cancer, well what type of
1090	cancer? Like you know people get lost
1091	
1092 1093	I – yeah, use like the most common names, yeah
1093	1 – yeari, use like the most common names, yeari
1094	
1095	DS240157.M – yeah, yeah you know layman's sort of terms as we've said before
1090	D3240137.W – yearr, yearr you know layman's sort of terms as we ve said before
1097	
1098	I – so what about other concerns do you have any other concerns?
1100	1 – so what about other concerns do you have any other concerns:
1100	
1101	Wife - not really no, my personal opinion is I think it would be a good thing, it would
1102	
	be a help, it would be a tool to help you
1104	

1105	
1106	I - yeah it's not meant to replace anything, or be the be all and end all, it's just an
1107	extra additional tool isn't it?
1108	
1109	
1110	Wife - exactly yeah
1111	
1112	
1113	I – so what benefits do you think there might be for patients using an app like this?
1114	
1115	
1116	DS240157.M – well if we look at it from the point of view that with a certain type of
1117	cancer you know, for arguments sake um, the information you're given is maybe
1118	undergoing chemo, this might last for 6 months, uh some people it might be longer,
1119	some people it might be less, you know after a period of time you might be a bit you
1120	know I'm still feeling rather lethargic ur, airy fairy and you might want to look up and
1121	see how generally a generalisation about how people feel after undergoing chemo
1122	because people feel different ways don't they? And it might, by doing that you might
1123	feel oh, well yeah it's a general thing and it could last 6-9 months whatever it takes
1124	maybe, will it eventually be eradicated? This feeling like, will it eventually go? You know
1125	I mean it does, I, in the morning in I <wife>? Even now I'm absolutely terrible in the</wife>
1126	morning and usually I used to get up and I used to annoy her to hell because I used to
1127	get up and sing and whistle, didn't I?
1128	
1129	
1130	Wife - It takes me 2 hours to come around ((laughs))
1131	
1132	
1133	DS240157.M – you know I, I honestly I mean totally revered to what I used to be like
1134	
1135	
1136	I – so you think that app then could help to see if these sort of effects are normal, and
1137	how long they last?
1138	
1139	
1140	DS240157.M – that's right you know
1141	
1142	
1143	Wife - you know if patients share experiences and
1144	
1145	

DS240157.M – like I talked to <friend> the bloke who was in the army who's got....and yeah we can talk about certain things and we understand exactly because we're sharing the same of type of feeling and I've noticed when he's talking he's like me, he's half way through a conversation and he go's boing...! it's a blank spot you know, how are you feeling <friend>? Uh you know, a bit sort of....and then the next day you see him he's a bit more buoyant, so there's a fluctuation in feelings Wife - and he's only 45 I – oh gosh really DS240157.M - pardon? Wife - he's only 45 DS240157.M - yeah I - so what about, <wife> you mentioned that it would be good for you to talk to other, like immediate family of partners who've got cancer, so what about for yourself do you think it would be good if you were able... I mean you've met people down <hospital> and you said that helps, so what about having the app to maybe link to other patients or you know with, with similar cancers, do you think that would be a help to some patients? DS240157.M - it might be for some patients, I like, again you're talking about the individual I mean, I don't like, I like keeping things to myself basically, can you understand that, I, I, I am not one for really sharing other than with the person I know I – yeah, yeah, but what I mean is because you've got your friend who is fairly close by, you're able to see him face to face, some patients might not have that, so perhaps for them they could use the app as a way to contact someone, you know make a friend who has something similar

1187	
1188	DS240157.M – well with some people it might, it wouldn't uh, that wouldn't apply to
1189	myself, but it might do with other people
1190	
1191	
1192	Wife - that's because that's you
1193	
1194	
1195	DS240157.M – pardon
1196	
1197	
1198	Wife - that's because that's you
1199	
1200	
1201	DS240157.M – well exactly, that's what I'm saying you know we're individual aren't we,
1202	I don't like sharing you know I'm very sort of secular in my way of thinking, in I, I'm quite
1203	closed
1204	
1205	
1206	I – yea, yeah. I'm thinking the app could be a way to set people up with a network of
1207	you know people who have the same thing, just to say "how are you feeling" you
1208	know the same sort of thing that, it won't be the same thing because you've known
1209	him a while and you see him face to face, but just to give them the opportunity if they
1210	wanted to
1211	
1212	
1213	DS240157.M - well as I said, with certain people, yeah I mean there's people who
1214	haven't got family
1215	
1216	
1217	I – yeah exactly
1218	
1219	
1220	DS240157.M – there's people who haven't got you know and they'rethey are basically
1221	alone, people like that I think it would be a benefit because at least they've got someone
1222	to contact
1223	
1224	
1225	I – yeah exactly yeah and what about clinicians the doctors and nurses, what benefits
1226	do you think they could get if patients are using an app?
1227	
1222 1223 1224 1225 1226	I – yeah exactly yeah and what about clinicians the doctors and nurses, what benefits

1228	
1229	Wife - well once again it's like um, I said about the clinical nurse<1> he was able to
1230	say that he, there was another patient of his upso we can see if someone else is
1231	experiencing the same, um, maybe somebody isn't experiencing it, maybe it's only
1232	one person so then they can look into it further, I think it can help with somebody's
1233	recovery, somebody's treatment, if they can see how other people are feeling
1234	
1235	
1236	I – what doctors, so they'd be able to look at the app and see from the electronic diary,
1237	the symptoms is that what you mean?
1238	
1239	
1240	Wife - yeah it could do
1241	
1242	
1243	I - yeah so if patients are recording how they're feeling on the app and the doctors
1244	can have a look, yeah
1245	
1246	
1247	Wife - it could help in the future towards
1248	
1249	
1250	DS240157.M – yeah, I mean it's
1251	
1252	
1253	I – yeah, they could collect some data and things
1254	
1255	
1256	DS240157.M – I mean there are variables aren't there? You know in the way different
1257	people feel
1258	
1259	
1260	Wife - absolutely
1261	
1262	
1263	DS240157.M – you know I mean unbeknown sort've symptoms like, like giddiness I used
1264	to suffer with giddiness terrible and I still do, and it's a long term affect probably the
1265	chemo, well I suspect it's the chemo anyway, but um, yeah I mean, does anybody else
1266	suffer from it?
1267	
1268	

1269	I – you know, symptoms just the side effects are so different, there's so many random
1270	things that you would never think was a side effect
1271	
1272	
1273	Wife - yeah I know, it's like when you had to take the steroids, now the steroids they
1274	make the skin very, very fineand he'd only have to
1275	
1276	
1277	DS240157.M – touch myself and I
1278	
1279	
1280	Wife - touch himself and
1281	
1282	
1283	DS240157.M – I still got them now, I still get, but I don't suffer with them so bad
1284	
1285	
1286	Wife - I thought he was patched up to hell with plasters everywhere
1287	
1288	
1289	DS240157.M – plasters all over my hands, I'd just touch something and I, the skin would
1290	break and of course you've then got to be careful of infection, so you know it's
1291	germolene, uh alcohol wipes, germolene and plasters, I used to have plasters all up my
1292	arms down my legs! You know so do other people suffer with it? Some people do
1293	some people don't
1294	
1295	
1296	I – yeah. So what about family and friends how do you think they could benefit from
1297	using the app?
1298	
1299	
1300	Wife - well I think as I said some friends and family find it difficult to talk to you, they
1301	don't know what to say to you
1302	
1303	
1304	DS240157.M – yeah that's a
1305	,
1306	
1307	Wife - and if they had the ability to look at the app, they could find out, I mean not
1308	reading peoples' diaries or whatever, but
1309	

1310	
1311	I – yeah I know, that would be confidential
1312	
1313	
1314	Wife - exactly yeah, they could see the general of what to expect, how the progression
1315	would go, what's to be expected, or what could happen from side effects, and I think
1316	it would help yeah
1317	
1318	
1319	I - and do you think the app could affect then the way family and friends talk to each
1320	other about it, do you think that would help?
1321	
1322	
1323	Wife - yes I think it would be more open and not
1324	
1325	
1326	DS240157.M – it would give them more understanding wouldn't it?
1327	
1328	
1329	Wife - yeah more confidence, not worry about
1330	
1331	
1332	DS240157.M – that's what I think, it's like I said when the sons, when our son's phone
1333	us up and they say "how are you dad?" and you goyou know you don't wanna say "oh
1334	I feel shitty today like" and all this like, I mean it puts a worry on them doesn't it
1335	thenyou know it's very conflicting
1336	
1337	
1338	I - so perhaps if they could have more of an understanding
1339	
1340	
1341	DS240157.M – yeah they could look and then say "ah yeah it's not too bad" even though
1342	he feels that way, or she feels that way, uh you know things are progressing as normal
1343	like you know
1344	
1345	
1346	I – okay so what about doctors and nurses do you think the app could help with the
1347	way patients talk to the doctors and nurses, do you think it could help, or do you think
1348	it could make it more difficult?
1349	
1350	

Wife - yeah, no I think it could help DS240157.M – I mean it's one of those situations like you go to the doctors and you've just read an app, looked up the app on certain, and you're talking to the doctor um, I suppose you've got to be careful what you say really, it's like you're taking over the job...((laughs)) doctors opinion like, do you follow what I mean? I – yeah, yeah so... DS240157.M – this is one of the things that you've got to be careful off...."well I've read on the app that so and so has said..." you know the doctor might have a different, a totally different opinion Wife - yeah there is that side you know... DS240157.M – that's one of the problems like you know Wife - people do that now don't they, they go to the doctor and say "look I've self diagnosed myself, I've got this, I've looked on the net" DS240157.M – and the doctor you know has got a totally different opinion exactly what's going on with the person, I mean generally the GP has got a finger on the pulse haven't they, if they are good GP's you know, they know your medical history and that's one of the things you've got to be careful of I think is passing your opinion onto them I – yeah cos I think one of the things this app could do is, so for those patients who are not very vocal at their appointments and they tend just let the doctor do the talking, you know even if they've got questions, it's trying to give patients a bit of confidence to speak up and say well I want to ask this, but then there is, you are sort've changing the dynamic of the consultation then, because typically it's the doctor dictating isn't it?

1392	DS240157.M – yeah, I mean exactly, exactly yeah
1393	
1394	
1395	I - you know that's what we're trying to push for now you know in healthcare at the
1396	moment is to get a level playing field then, so the you know what's important to the
1397	patient becomes important to the doctor, but the doctor doesn't know how the
1398	patient is feeling if the patient doesn't tell them soit's trying to give them a bit of
1399	confidence I suppose
1400	
1401	
1402	DS240157.M – yeah you could take that to the extremes can't you uh, where some
1403	people by reading the app would might play on what he or she is reading and making
1404	the symptoms worse than they really are
1405	
1406	
1407	Wife - you're always going to have that though, it's going to be, I mean there's nothing
1408	that's a 100% useful, good and wonderful, there's always going to be that element the
1409	downside to something, the negative side
1410	
1411	
1412	DS240157.M – yeah
1413	
1414	
1415	Wife - but overall I think it would be helpful and a good thing
1416	
1417	
1418	DS240157.M - I mean as I say, if you're getting information which is relevant, it's
1419	excellent
1420	
1421	
1422	Wife - and these doctors I mean, well we're luck, the one's we've dealt with they
1423	aren't stupid, I mean they'd know if somebody was going in and
1424	
1425	
1426	DS240157.M – not in all cases <wife>, not in all cases, people can play on uh, on factors</wife>
1427	which are not really relevant to their condition and the doctor has got to take notice of
1428	that haven't they?
1429	
1430	
1431	I – yeah, yeah
1432	

1433	
1434	DS240157.M – this is the thing
1435	
1436	
1437	I – so can you think of any problems with this app in practice? Or any problems at all
1438	really, can you foresee any?
1439	
1440	
1441	Wife - no, because I think whatever problems you get, I mean you're going to get from
1442	any app you're gonna it's
1443	
1444	
1445	DS240157.M – it's up to the individual how they determine it and how they actually
1446	read and understand what they're reading
1447	
1448	
1449	Wife - as <candidate> just said you'll get these people that will read it and ooooooh</candidate>
1450	you know and then you'll get people who'll find it useful. I think myself that it'll be a
1451	high percentage of people that will find it useful, those who are used to technology
1452	and using things. I would trust, as I said I personally would trust an app that is local
1453	that comes from <hospital> more than I would trust an app from somebody who I</hospital>
1454	didn't know, who they were apart from NHS, but even saying that sometimes the NHS
1455	you can, oh well you know
1456	
1457	
1458	I – yeah sometimes it's a bit
1459	
1460	
1461	Wife - exactly
1462	
1463	
1464	I – okay so what sort of things would you like the app to do?
1465	
1466	
1467	Wife - well everything really ((laughs)) no, I mean
1468	
1469	
1470	I - I mean we've covered a few things but
1471	
1472	

Wife - yeah everything that we've said previously basically to be able to go through like a medical dictionary as you said a glossary, be able to give you a diary you could follow, shared experiences with other patients, um, side effects of different things you know like you could say you've had that and they could say well I've had that, useful things that are basically say what each and as you said I know it's gonna be a lot, there's so many different cancers, but if they could sort've dilute it down and like the colorectal cancer and you could have bowel cancer uh like a side effect. I read the side effects from uh first bowel cancer is secondary lung cancer, which is what you've got, and things like that I found helpful, I mean it's what they wanted to determine they found the bowel cancer, and when they found on the lung because of where it was situated they couldn't take a biopsy, so until they removed it they didn't know whether it was primary, or a secondary because you can get secondary's from bowel cancer I - oh I didn't know that Wife - no until I read the NHS app I didn't know that either, so things like that I think are helpful DS240157.M – and that was reassuring Wife - that's to make you...it's to make you basically understand what you or your partners condition is, and how to deal with it DS240157.M – I mean anything relating to cancer in that respect, it's like the question we've got now with the surgeon concerning my blood clots, question is do I still want the reversal? You know that you suffer with blood clots, uh and this can be fatal, now using the word fatal, you know, so I know the problems or the possible problems that might occur, but I still prefer to have the stoma bag or the stoma reversed Wife - but he wouldn't be a good doctor if he wasn't pointing out the risks

DS240157.M – no but then you know then the risks that you're taking

1514	
1515	Wife - I tell you something else I used to find useful, is when we knew we were dealing
1516	with a new consultant or doctor I'd look them up on the app on the internet as well
1517	
1518	
1519	DS240157.M – and find out peoples' opinion
1520	
1521	
1522	Wife - you know and find out what they've done they're coming here I've found that
1523	quite reassuring
1524	
1525	
1526	I – yeah that's a really good idea
1527	
1528	
1529	DS240157.M – aw when we looked up um, yeah you're right itit's and the man is
1530	brilliant
1531	
1532	
1533	Wife - I mean it's like <doctor> now, I mean alright he hasn't phoned, but you can't</doctor>
1534	be angry at him because if you knew how busy he is, and how he treats his patients
1535	
1536	
1537	DS240157.M - I was telling <interviewer> he used to come in on the weekend, on a</interviewer>
1538	Saturday and Sunday sit on the bed and go and he'd look at my catheter and one thing
1539	and the other I had all these things stuck in me all over the place
1540	
1541	
1542	Wife - half past seven every morning he was there and he was immaculate
1543	absolutely
1544	
1545	
1546	DS240157.M – it's getting a nice strawberry colour now he's say with my, not my
1547	catheter, I had a catheter I had another drain thing like "yeah that's getting a nice colour
1548	that is" and then you know he came in and said "yeah we can have that one out"
1549	
1550	
1551	Wife - his care and consideration was unbelievable and I mean uh, <doctor> has spent,</doctor>
1552	he's done a lot of work abroad as well voluntary work, with prostate cancer and things
1553	like that, he's well respected and to be able to look at that, that gives you confidence
1554	as well vou know

1555	
1556	
1557	I - yeah, yeah exactly
1558	
1559	
1560	Wife - well you've got a good job here <candidate> he's gonna do a good job</candidate>
1561	
1562	
1563	DS240157.M – yeah I mean that, that helped a lot that did
1564	
1565	
1566	I – yeah no one's mentioned that, that's a really good idea
1567	
1568	
1569	DS240157.M – yeah that helped a lot, it give you I mean to undergo an operation it's
1570	quite traumatic unless you know I mean it's okay going back a couple of years people
1571	talked about operations and you'd goyou know, but once you've gone and had to go
1572	through that experience you know you're thinking there like you know uh
1573	
1574	
1575	I - you wanna know you've got someone good
1576	
1577	
1578	DS240157.M – yeah you know am I gonna come out of this or, you know I mean things
1579	go through your mind
1580	
1581	
1582	Wife - well it's just, it's just nice to know what that person, I mean at the end of the
1583	day you're putting your life in that person's hands, so you want to know about theml
1584	did anyway you know
1585	
1586	
1587	DS240157.M – it gives you confidence doesn't it? And confidence is a big part of
1588	everything you know, yeah
1589	
1590	
1591	I – so what about family and friends is there anything the app can do to help them
1592	above what we've talked about?
1593	
1594	
1595	Wife - not really well I mean we've covered it there I think you know it's uh

1596	
1597	
1598	I – and is there anything you wouldn't want the app to do?
1599	
1600	
1601	DS240157.M – well I mean as long as it keeps confidentiality, which is I think absolutely
1602	imperative, I mean certain things slip past the old uh marker at times, um, yeah I think
1603	that's generally that's the most important thing confidentiality is not in any way
1604	breached, you know
1605	
1606	
1607	I – yeah, okay. So the last question is are there any particular types of patient might
1608	find the app most useful so perhaps different age groups, or patients at different
1609	stages of the cancer, so you've got diagnosis, treatment, post-treatment, or do you
1610	think it could be useful throughout the whole thing?
1611	
1612	
1613	DS240157.M – oh basically <interviewer> it would have to go through the whole thing,</interviewer>
1614	because even after you know, post operation, post cancer, I mean don't forget you're
1615	not cleared I think it's 5 years, uh so sometimes you might want to find out generally uh
1616	you might have sort've a down period 2 or 3 years later you know, um, how do people
1617	go through this, how do they deal with it?
1618	
1619	
1620	I – so you've still got questions then yeah?
1621	
1622	
1623	DS240157.M – yeah you know, it's always that thing, you just don't know, once you've
1624	had it you just don't know, people have been in remission for years great and then
1625	suddenly, we lost our grandson he was only 7½ years of age
1626	
1627	
1628	I - oh gosh really?
1629	
1630	
1631	DS240157.M – oh yeah and he was in remission
1632	
1633	
1634	I – oh that's awful
1635	
1636	

1637	DS240157.M – and everything was looking hunky dorey and he come back from Florida
1638	he had a relapse at 7½ years of age, and so you know, I suppose we didn't have that
1639	information this is going back, he would've been how old would he have been now
1640	mamma21?
1641	
1642	
1643	Wife - 25 this year
1644	
1645	
1646	DS240157.M – 25 this year, so you're going back 20 years virtually like so I mean a lot's
1647	happened in 20 years hasn't it?
1648	
1649	
1650	I – yeah, yeah it has
1651	
1652	
1653	DS240157.M – you know progress you know so as I said like they didn't have, there's
1654	more people now surviving, there's well there's 50% more people surviving now than
1655	they were 20 years ago
1656	, , , ,
1657	
1658	I – yeah I think It's all about catching it in time now isn't it, if you catch it in time
1659	you've got a great chance
1660	,
1661	
1662	DS240157.M – I was actually, I mean my GP I mean, brilliant and it was you know, and
1663	that was virtually operation((laughs))
1664	, , , , , , , , , , , , , , , , , , , ,
1665	
1666	Wife - having the colonoscopy he had
1667	
1668	
1669	I – yeah I've heard they're not very nice
1670	
1671	
1672	DS240157.M – ooohdon't
1673	
1674	
1675	Wife - they told you there and then actually
1676	
1677	

1678	DS240157.M – yeah that's what I said I was saying to <interviewer> I was quite blasé</interviewer>
1679	about it, I wouldn't say blasé in the sense of you know, it didn't really, it don't really uh
1680	register
1681	
1682	
1683	I – sink in yeah
1684	
1685	
1686	DS240157.M – you know then afterwards after a while you start sitting down and then
1687	you know((talks to the dog)) dog growls back
1688	
1689	
1690	I – so what about, this is the last question we're talking about are there any particular
1691	types of patient that you think might use the app, or find it most useful? So we're
1692	talking about different points of the cancer and <candidate> was saying he might still</candidate>
1693	want information even 5 years after
1694	
1695	
1696	Wife - well you don't actually get the all clear do you for 5 years
1697	
1698	
1699	DS240157.M – 5 years
1700	
1701	
1702	I – and are there any different age groups that you think might find it most useful?
1703	
1704	
1705	Wife - it's alright it's only my phone
1706	
1707	
1708	I – do you want to answer it I can always
1709	
1710	
1711	Wife - no, it's only a message it's alright, um, ((sighs))
1712	
1713	
1714	DS240157.M – I don't know how to answer that question, it might benefit certain other
1715	people I mean you know
1716	
1717	
1718	I – or do you think it's something that can be used for everyone?

1719	
1720	
1721	Wife - yes I do
1722	
1723	
1724	DS240157.M – yeah, yeah, yeahI think that would, yes
1725	
1726	
1727	Wife - if you want to use it, and it's there then I think anyone would use it
1728	
1729	
1730	DS240157.M – yeah
1731	
1732	
1733	Wife - I mean some people might choose not to use it because they don't want to
1734	know
1735	
1736	
1737	DS240157.M – surprisingly the amount of people who do look up on the computer, or
1738	whatever like Wikipedia and stuff like that, again you've got to be careful because
1739	Wikipedia has been noted that a lot of information given, is only that person's opinion
1740	
1741	
1742	I - yeah exactly yeah
1743	
1744	
1745	DS240157.M – uh and it's been totally wrong you know, and I've read things on
1746	Wikipedia and about 4-5 conflicting different uh reports on certain things and your
1747	thinking which one is?
1748	
1749	
1750	I – yeah that just confused you even more
1751	
1752	
1753	DS240157.M – that's right
1754	
1755	
1756	I – alright, well that's it really is there anything else you think we should cover?
1757	
1758	Wife - not really, no
1759	

0	50	1760
1 DS240157.M – no	51	1761
2	52	1762
3	53	1763
4 I – okay let me just switch this of	54	1764
5	5 5	1765
6	66	1766
7 End of Interview. Duration: 59.03	67	1767

Appendix 18: transcript for P19 Paula

I – okay so could you tell me why you're interested in taking part in this study?

DS240141 F – well to be honest with you after being diagnosed with cancer I think I just try to do my best to help other people, it's not easy, it's not an easy process, it's much easi...better now than it used to be, I think you know anything that I can do to help I'm more than willing to do so, that's why

I – that's great okay, so when you were first diagnosed and throughout your illness did you like to have information about it?

DS240141 F – I think I was very lucky because with the experts that I dealt with they only gave me the information I needed and nothing else, because if you do go to the internet and you do search you get bombarded with too many bad scenarios that might not be your case, so from start I can tell you from my diagnosis I've never, ever tried to investigate anything on the internet at all, I was given at every stage the right information about what was happening, why, the type of treatment, the type of drugs what was going to happen and I think it was spot on

I – yeah, okay well that's good that you recognise that there's a lot of...

DS240141 F – it's too much, it's too much, cancer is hard as it is, um it's a lot going on, there's a lot of things can go wrong and I think when you're going through, after diagnosis you go so low emotion wise and you just panic so much, if you start reading about everything you will lose it and for me personally I think one of the most important things throughout the entire process is your attitude and if you get too much information that will bring you even more... no so for me um, I can tell you I've never done too much research, it's not like I don't want to know, I've always been the type of person that you know, I'll research this and see what this is related to, what's that? This time I didn't actually, first time ever so as soon as I was told I had cancer I just didn't, I stopped there and then

I – okay, and when you had the information from the clinicians how did you receive it? Was it verbal or did you have leaflets as well?

43	
44	DS240141 F – leaflets, yeah every stage was verbal and leaflets and I had my breast care
45	nurse, that she came to the house as well before every surgery to tell me what was
46	happening, to see any questions, um, chat about the process itself every stage
47	
48	
49	I – okay and did you get information from elsewhere so perhaps from your friends and
50	family or was it just from your doctor?
51	
52	
53	DS240141 F – just from the doctors and nurses yeah
54	
55	
56	I - okay and how did you find talking to the doctors and nurses about your illness did
57	you find you could communicate with them?
58	
59	
60	DS240141 F – yeah, yeah it was awesome I've got a thing with me that I talk a lot and I
61	think that helped me a lot as well
62	
63	
64	I – yeah, okay so you felt that you could engage with them?
65	
66	
67	DS240141 F – yeah, yeah every single one of them yeah
68	
69	
70 71	I - okay so how did you feel when you asked them questions, was it easy or difficult
71	to ask them something in a consultation?
72 73	
73 74	DS240141 F – not really, to be honest with you um, I could've asked anything even when
74 75	I was told I had cancer, I didn't even ask what type of cancer, I was told what type of
75 76	cancer, but I didn't really want to know
70 77	cancer, but I didn't really want to know
77 78	
78 79	I – you didn't want to know?
80	you didn't want to know:
81	
J ±	

DS240141 F – no, I you know your mind, your mind plays up and you think okay I've got cancer and it's the 'C' word, so I was trying just to get the information I needed and nothing else

I – right okay, so when you were first diagnosed how did you feel? Did you think right you know "I'll get through this", or did you, did you worry or?

DS240141 F – oh you always worry, there's no way you can avoid it, and to be honest with you, we go through stages like that you've got days like, yes I'm fine, other days you feel like gosh am I going to die? and especially if you've got small kids like, I don't know it's even worse, I can tell my worst day actually from all the process was um when I went to <hospital> to the scans and I thought it wasn't going to be anything, I was one who pushed the GP to refer me there, um so I wasn't expecting anything, so when they looked at me they did the scan and they said "well hmm we can see something so we're going to do um the mammogram they could see it straight away, then I went for the scans and biopsies and that's when I crumbled because they said "look it doesn't look good, I'm glad you picked it up early but there is something there" my first thought was what about my child I couldn't stop crying for the entire, the rest of the morning, and I was stupid because I went on my own as well so that didn't help, you know that was my worst day when I went and I was told that I actually had cancer, um I was ready, if you can ever be ready, I did meltdown, uh but since then just ups and downs surgeries they went really well second worse than the first but they went okay, chemo, you go through a lot on chemo so you've got days when you think gosh I'm not going to cope with this, yeah you just go through it

I – oh okay, yes that's really interesting that you pushed the GP to refer then, then that sounds like that you....

DS240141 F – I was and when I got there to be honest with you the cancer wasn't that big, but the cells still hasn't changed where <<inaudible 5:24>> hasn't really changed, so when I'd got there it was just in time. I had a mastectomy, I had it taken out straight away um I wasn't given the choice of reconstruction straight away because they weren't sure what kind of treatment I would have to have after, I felt really lucky, angry at some stage because I thought well I shouldn't need to push anyone for this and I was really unwell since January and this was diagnosed in October, so what can you do?

I – yeah gosh okay so what about the family and friends did you find it easy to talk to them about this? DS240141 F – I never had any problems to speak with anyone at all, I think it's more hard for them than myself because for them they have to cope with the fact that you know I might die, um it's a critical illness and I think I was more upfront, but I can tell you it was easier for me to speak with strangers and I did I spoke with loads and loads and loads of people throughout the entire process and I found that really easy to do so I – that's really good yeah, that's a really good thing to do DS240141 F – patients, nurses, loads of people was really good, while for example with my mum, I wouldn't speak too much about it because she would get too sensitive and that would get into my nerves as well I think when it comes to people that are close to you it's harder for them than yourself I - okay, that's interesting so did you find that your family wanted information then perhaps more than you did? DS240141 F – I don't think so to be honest with you because I had information with me, I think for them, like for example my partner and my mum for example, they were trying to think positive they didn't want to know too much I – they didn't want... DS240141 F – I had my sister in law that actually she did some research on the internet and she was asking me questions that I did not have the answer to, um but I think those who were closer to me they didn't ask too much technical questions it was more "how was I doing" if I needed anything how I was coping, symptoms, like that I - okay and when you said you spoke to loads of other patients was that through a charity you'd call, or through like an organisation or...?

DS240141 F - uh loads of things, through charities through hospital, um, Tenovus they're awesome I – oh they're funding this study DS240141 F - I use Tenovus a lot for loads of things, they're really, really good I use them for counselling, I use them for, what was it? Oh gosh they helped me with benefits as well, I had a nurse that they call it the I think that it's the call back service, I had a nurse ringing me about every 4-5 weeks to see how I was coping, if there was anything she could help me with symptoms wise, she was really good. They gave me a grant as well that helped me a lot about March time, they managed to give me £300 I think yes, and that was to help me, cos when you go through the chemo, the treatment most women, I did as well you go through flushes, um so they gave me that grant to assist me with clothes that I needed, healthy eating, um things like that, it was really, really good I – aw that's good DS240141 F - and I used um here at <hospital2> I think I had the information through Breast Cancer Care, where they gave me a lot of support groups so I went to a lot of sessions and I met loads of women there. I went for a session of 'Looking Good Feel Better' that was awesome where I met other women going through the same thing as well, it was really, really, good and they give you makeup and products it was, that was really good as well I – aw that's good DS240141 F - I've done loads I – yeah well it sounds like you've done all the right things, you've really sort of, you know you haven't cut yourself off you've mixed with other patients and....

DS240141 F - no, that, that's not the attitude at all, but if you go that route you are just adding to yourself and then to go through all that and not be able to let it out that makes it even worse

I – yeah, yeah well that's brilliant that you did all that. So... how did you remember the information that the doctors gave you did you remember it by sort of memory, or did you write things down?

DS240141 F – I just remembered it, the only time I started writing was when I was starting was when I was starting chemo cos they do advise you when you go to the infusion session that it's good for you to have a daily record of how you feel, and it's spot on, because every cycle you get exactly the same times, because I had exactly the same symptoms, it got worse, and worse and worse obviously, but more or less those specific days I knew what was going to happen, so after the first and second session I knew exactly when and what was going to happen

I - how did that make you feel, did that make you feel better about things or worse or...?

DS240141 F – better because I knew honest I dread some of the days cos I knew what was coming, but at least I knew that it would go, I knew what I was going to expect, what I could do about it and then what do to next

I – so you went to, they run like an educational session about the treatment, is that what you're talking about in <hospital 2> that you went to?

DS240141 F – yep, before you start chemo you've got 2 meetings the very first one is a personal one, one-one with the oncologist and the oncologist nurse where they explain to you what's happening, the type of treatment and everything else, then they send you a letter and before you start chemo you get a group of people in and they go through what's going to happen, why you need to do, they give you a thermometer as well because you have to monitor your temperature they tell you what you can have drug wise, um why you can't, or why you shouldn't so they explain the full scenario, the cold cap the different types of chemo that was really good

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       I - that's great, okay. Okay so talking about technology now, do you have experience
247
       of using a mobile, a smart phone or a tablet computer or...Ipad?
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250
       DS240141 F - yes
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252
253
       I – yeah, so is that both or just one...?
254
255
256
       DS240141 F - both
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258
259
       I – both
260
261
262
       DS240141 F – uh hmm
263
264
265
       I – and how do you find them, do you find them easy to use, do you like using them?
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267
268
       DS240141 F – yeah I do, yeah
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270
       I – yeah and what do you use, what would you use a tablet computer for?
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272
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274
       DS240141 F – uh at the moment it's more for emails, to be honest with you, check your
275
       bank account, do my banking, um obviously I check online shopping wise
276
277
278
       I – so it's just all the sort of regular things?
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       DS240141 F – yeah, you just get....
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283
284
       I - and do you do the same things on your smart phone, or do you use it slightly
285
       differently?
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288	DS240141 F – uh, I don't use it as much my smart phone obviously because I don't use
289	so much data I can check Facebook to see if I've got any messages umit gives me a
290	rest to be honest with you I could do some banking on my phone as well, but I use more
291	the tablet than actually the phone itself
292	
293	
294	I – oh okay
295	
296	
297	DS240141 F – that through the internet
298	
299	
300	I - alright then and have you ever used an app to do with your health at all?
301	
302	
303	DS240141 F - no
304	
305	
306	I – no, okay and is there any particular reason you haven't used any health apps?
307	
308	
309	DS240141 F – no, not really uh to be honest with you I never have enough time to
310	actually do it, I could be days without checking anything, um especially now I really don't
311	have a chance with the small one, the house, work wise fulltime, it's just too much going
312	on for me
313	
314	
315	I – yeah okay
316	
317	
318	DS240141 F – and I just don't have a chance to do it
319	
320	
321	I – Okay. So the type of app that we talked about do you think, do you think patients
322	would want to use this type of app?
323	
324	DC240444 F. I don't him works he have set to the control of the co
325	DS240141 F – I don't know to be honest with you uh because every time it depends on
326	the range and ages as well I can tell you I'm not sure. I can easily see them using it but

others love them, where they're much older they wouldn't have the, the knowledge to actually use it at all, now it all depends what the app itself it will do for you, because you know you go through clinic every 3 weeks you discuss all the symptoms and that's when they, they check the drugs that they give you to make sure that you've got the right dosage and the right drugs as well, mine changed halfway through, um they are really good in that sense, when you're going through chemo you shouldn't be having any other drugs, you really shouldn't and they advise you not to and if you do have any problems any symptom that you can't shift away, or it's persistent, or they will, you can always give them a ring and they can tell you what you need to do, because I thing every person's different even the type of treatment you're having, so I don't know, I think it's, it's it might be interesting to see, you know, using the app to see symptoms, to see different stages, different phases of the process, what's going to happen, but then I personally think then the app should be really specific for specific people so if I am at that stage where I was going through chemo if I had any questions, then I would have, personally I would think I would have to specify that I was << inaudible 14:08> treatment that my age, type of cancer and everything else, so it can filter the information that I was going to have, because if it just brings up everything, it's too confusing personally. I personally find so I can tell you I registered myself in McMillan's and I think I used their website about twice, never again, it's too much on um it gets a bit confusing, um I don't know it all depends on exactly what the app is going to do, for me personally I think it's really good if, and that's my personal opinion, if before you get information you need to choose, uh the type of treatment and everything else so it can give you that information, I think that would be...

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I – so it's not giving you general information yeah

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DS240141 F – yeah I think that would be really good

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I – okay, okay and do you think patients would need training to use the app? do you think you know they'd need to be taught to use the app beforehand?

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DS240141 F – I don't think so nowadays you learn it yourself, the app will actually teach you what you need to do next so to be honest with you, even if you're not that IT kind've person, I think uh as a normal app it just drives you through, so it should be straightforward, but it all depends on the people themselves using it....and the age, I met some woman love them, they were there with they're grandchildren and they

didn't really know what was going on...they knew they had cancer, they knew they were going through treatment, but they couldn't even start a thermometer I - oh yeah, so how are they going to use an app? DS240141 F – so how are they going to use an app? I – yeah and were these patients quite elderly or...? DS240141 F – I had a mix unfortunately there was very young girls, extremely young, uh the average of most of the women that I met I would say the average age was, I don't know middle 40's I think I - gosh that's young isn't it? DS240141 F – a lot, a lot, um, I'd never met them, but when I went for my session on the course to feel better, there were 2 kids they were 16 I – oh gosh DS240141 F – and the lady that was actually running the session said "I was dreading it" cos she did 2 sessions in <hospital> one in the morning, one in the afternoon and mine was the afternoon one and she said "she was dreading it" because you know it's teenagers isn't it, being teenage and going through that...it's, it's not easy to deal with so she was a bit concerned on how they would react, but the kids were awesome, they were raising funds towards research, they had a webpage, they were doing the lot, awesome I – wow...it's a way of coping I suppose isn't it?

DS240141 F – you need to put your mind into something and then I think, it's dreadful that it happens to you, but then if you can put some sort of input to help the next one, or who's coming next I – yeah, yeah then something good is coming from it, yeah, yeah DS240141 F – like chemo, it used to be dreadful and to be honest with you I'm not saying it's easy because it's not, but it's so, so much lighter than what it used to be, and the effects so.... I – yeah, yeah okay. So what about families of patients do you think that they might want to use the app for themselves or maybe not? DS240141 F - I think so, thinking about that I think it would be quite interesting some of the women that I've met, the husbands for example, they went through a rough stage, but they wouldn't speak about it, uh and Tenovus they've got an awesome service that is for relatives as well and if you want to have questions, if you wanna find a specific service for them there's some book groups there's a lot going on, but I think for the relatives they try, I don't know, if it's just trying to stay strong for you, or what they are trying to do, but the women I spoke to they, they didn't really speak much about it, it really brought them down, but they wouldn't see a counsellor as well, so if you do have the app then at least they can do the research without too many questions or registrations or you know, without getting too much involved I would've thought I – so do you mean the patients or the families? DS240141 F – the families I - the families DS240141 F – yeah the families I remember one that she told me that her husband she

could see it affected him, well it affected mine as well and only just recently we finally got it, out um but he refused to do counselling, he refused to do any research, he went

to the sessions with her and to see the oncologist, but, and I think if there's an app at least they can get the information they need to without having to go through chat forums, with all of that, without having to go to those specific cancer websites that it's a lot on, so I think that for relatives I think that's very good, because that means that they can actually search without letting you know

I – yeah, yeah, okay. So if the app was made available and going back to your diagnosis, do you think it's something that you would use, or like you said do you think that you just wanted information from the doctor personally?

DS240141 F – I don't know, I don't know if I would uh, it devastated me I was hmm... would I use the app? At the beginning I can tell you I don't think I would, the surgeries... until I knew what happened until I knew what type of cancer um, I don't think I would, until my second surgery that I had to have my lymph nodes removed to make sure because I had one affected already, um until I actually knew the type of cancer, if they managed to get it out, um what was coming next I don't think I would. After the surgeries and probably before the chemo time, probably yes, but not after the diagnosis, not the first stages of surgeries

I - because it's too hard?

DS240141 F – it's too much and you know and especially because you don't know what type of cancer because with breast cancer you can only be specify the type of cancer when it's out by result that's what I was told breast cancer that's how it works, you only know the type of cancer you've got after they do the analysis, so I knew the type of cancer when I went a week later after my surgery and because one of my lymph nodes was affected I had 3 for the second one they had to get everything out, so until I told just before Christmas that you know that it was clear it was just that lymph node, so I knew exactly the type of cancer that they managed to get it out and everything then I could get my mind set for the next stage, until then I don't think I would cos it's too....

I – it's too much

487 DS240141 F – yeah you know <<inaudible 20:41>>

I – yeah, yeah, okay. So touch wood I mean if your friends or people that you knew were diagnosed with cancer would you recommend something like an app to them if we developed this?

DS240141 F – it depends how it works I always tell everyone the type of help I had I always say to everyone you know what's available, what's there for you where you can go, systems that can help where you can get information from, I always do, and I always tell people you know "don't just investigate, don't search on websites limit that, restrict that because it's too much" so I always share every single experience that I had with any

woman who is actually willing to speak to me I have no problem at all, and I have, not immediate friends, but for example, relatives of friends that unfortunately have been diagnosed recently and going through treatments, and I don't know I can only talk about

my own experience so I do, what helped me when I struggled with, what you know

I – yeah, yeah, yeah, okay so would you have any concerns about using the app?

DS240141 F – concerns....? It all depends how the app runs, it all depends the basis, or what it's based on, um for me when I think of the internet as a reliable source, can I trust it or not? You know if it makes sense

I – okay so how reliable it is

DS240141 F – how reliable it is, if for example you told me that, that app had a support or background from the cancer research, I would be more than happy to you know to look up anything that I would read, or that I would obtain from the app was accurate and that I could rely on, for me that would be 'the' thing reliability, where it comes from, what's the basis, can I trust it personally?

I – yeah, yeah okay. What about benefits, what sort of benefits do you think there might be for patients using this app? I know it's tricky to think about this because we don't know what the app is going to do, but the things that we think that it will have is things like questions to ask the doctor, links to websites with reliable information so they don't go off looking all over the internet and things like that...

DS240141 F - If it works that way it can be extremely useful I can tell you I, I when I went to some of my sessions, especially with the surgeries, I, I < husband > asked some questions because I didn't and your brain just goes absolutely, it just melts, so you do forget about everything and the first time they tell you, you've got cancer you won't hear anything else, your mind is just set "gosh I've got cancer" I don't think I even asked a question, no my question was "what's next?" okay I've got it so what's now...that was my question um and then after the second one actually it was <husband> that was asking the questions about losing hair, about how it would affect me and stuff like that, I didn't, so I think if the app does you know what you're planning to do, I think it would be really useful, uh because it will help you to set up like you said the questions to doctors because you will forget and then later on you think oh gosh I should've asked this, uh I know of for example my case can cos it's breast cancer you've got a breast cancer nurse allocated to you and she does visit, she does give you the information before the surgeries, but sometimes it's really hard to get in touch with them because unfortunately the amount of women affected by this is increasing so, so much they're always so, so busy at the hospital it's really hard to actually speak with one of them, so if you do, I think if the app does that, you know gives you a list of questions that would be useful for you to ask so you can write them down, if it gives you information about the type of cancer, what could come next, the type of treatment you've got to have, what's linked to it, I think it's extremely useful because at least you've got your mindset to ask the questions if you've got any....cos yes I was still needing information and I think it was just the right information I read when I got home but if I had any questions when I got home I'd have to ring back and say "look I don't understand this" you know so I think if the app does that, that's really good

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I – yeah, okay

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DS240141 F – to me that would be a good

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I – Okay great and what benefits do you think there might be for doctors and nurses if patients are using this type of app?

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DS240141 F – I think for them it's more the case that you know they can see that the patient has a bit more information, the patient is a bit more aware of what's going on and you know, I hope they just don't rely on the fact that you, you, you will use the app, therefore they don't need to give you that much information, I hope not, uh so I think

for the doctors it would be just the case that you know me as a patient I am more aware of what's there and can be more productive cos I can, like you say write down questions and to ask to organise myself towards whatever stage is coming. So I think for them it could be the case that it is useful for the patient's side because it has my information and it's more organisation and structured

I - okay that's great. What about...do you think the app might have an impact on the way you talk to the doctors and nurses about your cancer? Do you think it could...do you think it could make it more easy or difficult to talk to them?

DS240141 F – I don't know actually it depends on the person that uses the app okay uh I can say for example you know for people that if they use the app they've got the technical terms, they might get to the doctor or the oncologist and to ask some technical questions that might be a bit to, beyond their level, I'm not sure if that would be beneficial or not, it just depends on how the people use the information I don't think it would hurt, uh if that would help the doctors, it depends on the patient isn't it because if you, if you're the kind of person that just because you read something you think you're an expert on the matter, but then start coming up with random stuff and not actually listening to the experts then... or the person themselves

I – okay. What about family and friends do you think the app can affect communication with them?

DS240141 F – no, why would it? No personally I don't see how

I – yeah do you think it could improve at all?

DS240141 F – I think personally when you go through cancer um I think it would just help people to get more information, would it help with communication? Um I don't know, I personally say that I don't think it would make a change because when you've got a life threatening disease it's more your sensitive part you know, your emotions and how you're going to organise them, having the app that will give you more information on what access to whatever, it's there, it just makes you more aware of what's going to happen, now if that's going to help with communication, I personally don't think it's going to make any difference because it's hard communication anyway

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614	I – yeah, yeah that's what a lot of patients and doctor have said actually yeah
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617	DS240141 F – personally that's how I see it
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620	I - okay great. So we've talked a little bit about some of the concerns that you have
621	with the app like confi, like reliability of the information. Are there any other
622	problems that you may see with this app working in practice? I mean I know it's hard
623	to think about, but just, just in case you think of something that we don't, can you
624	think of any problems that might come up?
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627	DS240141 F – If I use the app just to obtain information about for example my type of
628	cancer, hormone positive, HR positive, grade II, if the app was going to give me
629	information of you know, the type of cancer that would be brill, um, what kind of
630	treatment I was having the impact on myself, if the app would give me just to help a list
631	of things that you know, what I could ask just to support me in that sense I don't see
632	any problem I can foresee. It all depends again, if the app would give you reliable and
633	the information you need to obtain for your particular case, if it's designed that way, if
634	it works that way, and it filters and it gives you what it should give I think. I don't foresee
635	any problem it all depends on how it's going to work
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638	I – yeah, yeah okay and what about um what sort of things do you think the app should
639	do for patients? I mean I know we've talked about some questions and links to
640	websites, is there anything in particular you think would be useful for us to build into
641	the app?
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644	DS240141 F – hmm, ((pause)) I don't know it's a tricky question
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647	I - yeah it's hard because apps can do so many things now, so we're wondering yeah,
648	what would be most useful
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651	DS240141 F – I personally think the app should be, I mean this is my personal opinion,
652	it should be very positive, and even though it's you know we all know it's cancer, it's a

serious illness and everything else that's on the back of it, we all know bad things about it, but I think if it has some sort of positivity on it, if that makes sense, you know there are people that do make it they get on with the rest and they're fine, yes there's a lot of people that don't make it, and unfortunately you know they don't get there, but I think if the app, the way it works, it gives you some sort of positivity in some way you know, if it links to cases that people that actually made it, some comments from people that you know, I've been there, I've done that, I've made through, I think that would be extremely beneficial for whoever is going through, because you're so scared of what's coming next I – I suppose there's a lot of sort of doom and gloom information out there it's, it's.... DS240141 F – It just brings you even down, down, and down you know I – yeah, yeah so you don't want something that... DS240141 F – you need to know the information, it's good to have it, it's good for you to be aware of, it does help a lot I – but focus on the positives? DS240141 F – but then have a bit of positivity to whoever is reading it because you know if it's possible I - yeah, yeah okay that's useful. So what about for family and friends do you think that there's anything that we could build into the app that would be useful for them? Or do you think it would be the same stuff as for the patient? DS240141 F – It would probably would be the same stuff as for the patient, I think personally you know be able to filter and get that, the right information you know have

connectivity, have links or whatever, to um I don't know comments from people that

went through different experiences of how they managed to go through

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695	I -okay and is there anything that you wouldn't want the app to do? I know you're
696	really sort of stressing that it needs to be reliable information and
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699	DS240141 F – oh yes I can tell you I wouldn't like that at all
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702	I – yeah, yeah is there anything else that you wouldn't want the app to do, or you
703	would be wary of?
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706	DS240141 F – I wouldn't want the app to bombard me with loads of stuff
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709	I – not to bombard you okay
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711	DS240141 F – cos that would put me off completely. McMillan did that for me, even
712	though so many people say "oh you know you've got the forms, you've got this" and, to
713	be honest with you
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716	I - it's just too much yeah
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719	DS240141 F – and some people are I always try to be very positive I always try to do
720	comments of stuff that I have read, and I was kind've told off by one of the patients and
721	he kindly said "well you know < <inaudible 33:15="">> when he's said "you're new to this</inaudible>
722	so don't speak about things you don't know" and I thought well, thanks very much I
723	know it's hard, I know you're going through a lot but I was just trying to help
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726	I – yeah, yeah
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729	DS240141 F – and I never did it again I can tell you
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732	I - okay. Well moving on this is the last question, are there any particular types of
733	patient that you think might find this app most useful? So for example different age
734	groups, or different points in the disease, diagnosis or pre-treatment, post treatment.

or throughout all of it? All patients, is there a particular group we should target do you think or?

DS240141 F — I'm unsure if you're talking about an app that it, it is designed to help people through the cancer disease, I think it should be there for everyone, I think if you target just specific range of people I find that idea unfair, I find that you know, it should be there, it's cancer, where it affects, it should be there for whoever wants to use it, I think everyone should be targeted not only those of a specific age, obviously I can tell you that I can easily see the younger people using it, I can't see a 60, 70, 80 year old using the app, even though I can think of my mother in law and touch wood, if she had to I can see her using it you know, it just depends on how the mentality of people, I don't think it should be targeted for a specific range, I think it should be easy access to all range of ages, it's simple information but you know

I – okay and what about the different stages of disease, the reason I ask these questions is that some clinicians think it should be, this would be most useful for around diagnosis because that's when they feel patients have the most questions, or perhaps this would be most useful after their discharge because that's when patients are out of the system and they have more questions, so what do you think? Could the app be used all the way through or do you think there's more of an information need at certain points?

DS240141 F - yeah, you always need information and I think that it mean all the way through okay, like I said at the very first beginning, until you know the type of cancer you've got, you don't know, isn't it? Until you have the diagnosis you know, there's nothing that you can do, but then I think that's when you're diagnosed, that's when you start the process, so when you're diagnosed you are told what type of cancer you've got and what's happening next, so I think from the entire process whether there's surgeries, doing chemo, radio, afterwards getting back to normal life, any questions at all and if the app is designed you know if it has information for every stage to support you and you know to answer the questions that you've got, because for example the questions that I will have after my first surgery would be exactly the same questions I would ask through chemo isn't it cos I know when I had the chemo I knew the type of cancer, I knew the size, the whatever else isn't it, so my questions would be "well how is this cycle going to affect me?" I know I'm going to lose all my hair, I know this is going to dry me completely and it did uh how can I sort it, what should I be doing, is there any specific foods I should be having, I had tips that the nurses gave me that they were absolutely fab and I didn't have a clue, if she didn't tell me, I was very sick and unfortunately cos it

has to be given to you, the nurse has to administer it, manually you can't do it by... cos it's 6 syringes for different stuff, her mum love her, she went through, she just finished I think when I started chemo her mum was just finishing or something like that and I was sat with her ((names her)) she was given the tips with her mum that was something for the dryness cos after the chemo the next day you struggle is with dehydration it feels like you're burning, you don't have a temperature, but your body is so, it's so toxic and you need to detox and the best thing to do it is water with lemon, and I never had a clue, so water with lemon and ice soothed my throat, if it gets really dry it detoxed me, it helped me to hydrate because one of the things they tell you with chemo obviously you need to drink a lot of water, now I struggle to drink water anyway so I would have to drink about 4 litres of water I thought I'm not doing that I'll tell you know and if I wanted to I would just physically sick it up, you know so I had a lot of tips I was given by different women, nurses that was really, really helpful, so if you know if those, because obviously I can see the app working on studies on scientific stuff, like NHS, or whatever, it's extremely, extremely useful, but you can have tips on experiences as well, this helped me a lot, like pineapple helped me a lot just pineapple in your mouth just suck it and it soothes the throat, it hydrates you it was awesome and there was no way that I would know that, that would help me the first few days and I was told actually in this case

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I – so perhaps having some tips like that on the app would be helpful?

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800 DS240141 F – they are all, yeah really, really useful yeah I had loads

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I – I hadn't thought of them, yeah

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DS240141 F – I had those like losing hair, I would never know it would be so painful

807 808

809 I – oh really

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DS240141 F – never, and I can tell you I was in agony by the 2nd and 3rd day yeah

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815 I – really, gosh

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818	DS240141 F - because I thought to shave my head, and then my partner he's got
819	alopecia so he was struggling with the idea that I was losing my hair as well. I knew it
820	was going to happen, they wouldn't believe it, so instead of shaving my hair like I'd
821	planned to do, so I just cut it as a bob when it started falling out, I could tell you the
822	third, I couldn't cope with the pain on my head
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825	I - really
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828	DS240141 F – I had to cut it short I couldn't cope with it
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831	I – and was it better when you shaved it then?
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834	DS240141 F – yeah, yeah
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837	I - yeah okay so that might be another tip for patients, yeah
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840	DS240141 F – yeah it really is if you are < <inaudible 39:16="">> and I choose not to use</inaudible>
841	the cold cap for several reasons but, if you're not using the cold cap you will lose your
842	hair, I didn't lose it a 100% I still have some resilient ones standing up but, it went, and
843	it went spot on the day they said it would start falling
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846	I - really
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849	DS240141 F – spot on a week later, yeah
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852	I – okay well that's really interesting information especially about the tips, that hasn't
853	come up yet so that's really helpful
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856	DS240141 F – that's a shame because it's really, really helpful you know when the nurses
857	speak to you on the phone and I have a Tenovus and she was awesome um, what was

the thing she gave me? Was my throat I was struggling with my throat and she told me to use...I don't know? I can't remember now...I suffered from heartburn a lot, they told me about Gaviscon and I found that the little drops they told me to have, she told me to have some sweets you know your throat gets so, so, so dehydrated it's painful and you get prickly coughs as well, so if you've got something sweet that you keep in your mouth it helps a lot

I – oh okay

DS240141 F – so I think you know there's a lot of tips I've learned from other women that were awesome

I – perhaps if they didn't get it from the nurse and they could get it from the app

876 DS240141 F - yeah

I – well that's great. Is there anything else at all that you think we might've missed today, or anything else that would be helpful? Just to make sure we've covered everything

DS240141 F – I don't think so I think it's fine, we've covered everything it all depends on how it's designed, how it's going to work, I think for me personally if it's objective, if it's filtered that would be awesome, it would be a massive help if it would give you the chance for example one of the things I think is really good, and I didn't think about that before, excuse me, uh like I told you when you start chemo it's really good for you to have a report, a detailed report of symptoms, how you feel. So throughout the cycles, not only for yourself to prepare yourself for what's coming as well, for the nurses because they ask you, they ask you every clinic, they ask you how you're feeling? How did it go? If you don't write it I can tell you, you will forget. If the app has um a way so that you could personalise your own link and then you can actually have a diary, so instead of writing, I got to the stage where I'd forgotten completely I thought oh I'll remember, I'll remember, well if you've got because cos it's much easier with technology so instead of writing having an agenda or whatever, it's much easier if you've got it there so when you do go to the nurse you can easily pop it up and say "look that

day I went though that, this was a different symptom, or this one might've been a bit more graphic than the other time you know" that would be, that would be quite useful I - yeah well that's great thank you very much DS240141 F – you're welcome I – let's turn this off End of Interview. Duration 42:05

1 2	Appendix 19: transcript for P13 Lynne
3	I – right okay, so could you first tell me why you're so interested in why you're so
4	interested in taking part in this study?
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7	DS240148.F – um well I think anything that helps to inform medical professionals and
8	patients, you know as an ex teacher I'm all about education, so
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11	I – okay yeah, okay so talking about information then, did you like to have information
12	about your cancer you know when you were diagnosed, and throughout?
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15	DS240148.F - yes
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18	I – where did you normally get information about your illness?
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21	DS240148.F – um well mainly from the doctor I'd get it. I didn't really, I would sort of
22	look at websites, but I didn't really trust you know? I wanted it from the mouths of the
23	professionals
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26	I – yeah, and what sort of websites did you look at?
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29	DS240148.F – well I looked at things like the McMillan and um I can't tell you, but I
30	would google things like cancer of the wombyou know
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32	L. week week week
33	I – yeah, yeah
34 25	
35 36	DS240149 E but to be hencet it was mainly I did like mainly get information from the
30 37	DS240148.F – but to be honest it was mainly, I did like mainly get information from the hospital in the form of leaflets and booklets
37 38	nospital in the form of leanets and booklets
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39 40	I - OKAY and did you read those?
40 41	I ORAT and did you read those:
71 //2	DS240148 F - ves yeah

I – because I know, I've heard that you get quite a lot of those if you're diagnosed and then.... DS240148.F – yes it is overwhelming at first I - yeah, so did you search for information straight away or sort of...staggered along? DS240148.F – no it was later on really, cos of course initially you are quite shocked and I really just wanted, I was more concerned about my own personal case and wanting to know what the doctors thought I – yeah so you searched for information at a later point DS240148.F - yeah I - okay and you said that you went on the McMillan website which are quite, you know is quite trustworthy, did you trust them or did you.... DS240148.F - oh yeah, yes I did, um I did trust them, but I still wanted, I suppose everybody's got their own personal.... I - you still wanted your own, yeah it's all individual isn't it? Okay, so when we talk about then, would you say that the information from McMillan wasn't specific enough, and that's why you got it from the doctors? DS240148.F - yeah, no it was, uh I think like in my particular case, I had particular concern because I had a weight problem and there was so many risks with the operation you know and I had to weigh up the risks, so I think maybe I was perhaps more dependent on the actual, my surgeon, um...

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125 126	I – yeah, yeah, which is fair. So no one spoke to you about that sort of thing?
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128	DS240148.F – no, no one mentioned um sex, and you know, was it okay? And how long
129	and
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132	I – yeah, yeah and so when you had these questions, how did you get them answered?
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135	DS240148.F – well funnily enough I was having the district nurses in um, because of my
136	wound which wouldn't heal, and there was a trainee nurse that had a whole load of
137	leafletswell I just got on well with her and she'd um, and she'd done some work on
138	that area and she had a whole load of stuff that she gave to me, but that was just pure
139	coincidence
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141	
142	I – yeah so was that like leaflets and booklets and things?
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145	DS240148.F - yes
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148	I – okay so you, did you look on the internet at all for that sort of stuff?
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151	DS240148.F - yeah
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154	I – okay, and did you find that helpful?
155	
156	
157	DS240148.F – a little bitwhen I say leaflets, they weren't commercially produced
158	leaflets for general distribution, they were things that she'd had because she'd done an
159	academic study
160	
161	
162	I - ah really, okay
163	
164	
165	DS240148.F – so I don't think there was anything produced, you know

166	
167	
168	I – that's interesting
169	
170	
171	DS240148.F — I don't know if there's anything produced? But I certainly didn't get
172	anything
173	
174	
175	I – yeah, yeah you would have thought that you would've had something explained
176	to
177	
178	DC240140 F
179	DS240148.F – nobody ever mentioned it, and then of course you know you start feeling,
180	is it me you know, it's embarrassing in a way to sort of
181	
182	I was as how did it make you feel not having this information, you mantisped you
183	I – yes, so how did it make you feel not having this information, you mentioned you
184	felt embarrassed at times?
185	
186	DC240149 F well I'm just a hit income weally um //neuse)) you know it's a your integral
187	DS240148.F – well I'm just a bit insecure really, um ((pause)) you know it's a very integral
188 189	thing for a woman isn't it? Your womb andyou know? And suddenly you haven't got it anymore ((laughs))
190	it anymore ((laughs))
190	
191	I – yeah, and no information on it either
193	1 – yeari, and no information on it either
194	
195	DS240148.F – and no information and with the best will in the world I'm not criticising
196	the nurses, and the doctors, they've go so much to do
197	the harses, and the doctors, they we go so much to do
198	
199	I – yeah but it is a big operation isn't it?
200	year sacress a sig operation is never
201	
202	DS240148.F – it's a huge operation yes
203	D3240140.1 It 3 a hage operation yes
204	
205	I - okay. So moving on then to the clinicians how did you find talking to them about
206	the cancer and the operation and everything else?

207	
208	
209	DS240148.F – they were very, very good, brilliant, the only thing is, again not their fault,
210	but I always felt a little bit rushed because there was so many patients and so much to
211	do
212	
213	
214	I – yeah, was it down at <hospital> or <hospital2>?</hospital2></hospital>
215	
216	
217	DS240148.F – it was <hospital 3=""></hospital>
218	
219	
220	I – okay, so you felt a little bit rushed, you were aware of
221	
222	
223	DS240148.F – yes I mean, they were brilliant, perhaps it was my own you know
224	
225	
226	I – there have been other patients who have said that they're aware that it's a very
227	busy clinic
228	
229	
230	DS240148.F – it's so busy and I mean you know with the best will in the world, I mean,
231	the surgery itself was marvellous because I needed a lot of reassurance um, because I
232	mean I suppose they have to, but again they were really sort of you know ((sighs)) risk
233	of death and all the rest of itand there were specialist nurses and I was assigned a
234	specialist nurse and she was lovely, um and it was "oh ring up at anytime you know"
235	bless them, again, they've got so many people you ring up and you've got an answer
236	phone message, they would get back to you eventually, but I must, I have to admit I did
237	feel a bit isolated you know
238	icei a sie iseiatea yea mien
239	
240	I – so sorry, you rang that number when you had questions?
241	1 30 3011y, you rang that hamber when you had questions.
242	
243	DS240148.F - yeah
243	D3270170.1 - yCall
244	
245	I - yeah, okay and they'd get back to you?
247	1 - yeall, okay allu tiley u get back to you:
4 4/	

248	
249	DS240148.F – they would get back to you eventually, but again they had so much to do
250	((laughs))
251	
252	
253	I – so when you had those questions and they didn't get back to you straight away,
254	what did you do then? Did you wait, or did you go and find the information
255	elsewhere?
256	
257	
258	DS240148.F – no, I just waited
259	
260	
261	I - waited okay, and how was that for you?
262	
263	
264	DS240148.F – frightening sometimes
265	
266	
267	I – and what sorts of questions did you have for them?
268	
269	
270	DS240148.F – um, oh gosh it's hard to remember now uh
271	
272	
273	I – I mean were they about side effects, or psychological worries you know?
274	
275	
276	DS240148.F – there were some about um medication I needed to take different
277	medication, I was worried about
278	
279	
280	I – yeah that's quite important isn't it yeah
281	
282	
283	DS240148.F – yeah because you know again uh I didn't know whether I'd have to take
284	hormones? Um and I had, nobody seemed to volunteer information like that
285	
286	
287	I – yeah, so did they tell you this before you were discharged then about what to take,
288	or did you tend to forget or? Or it's complicated?

289	
290	
291	DS240148.F – they didn't tell me anything
292	
293	
294	I – oh really?
295	
296	
297	DS240148.F – yes you do tend, until you, you know at first I was, all I was worried about
298	was getting through the operation um surviving the operation and so you're not worried
299	then about whether you are gonna have to take hormones ((laughs)) and then after a
300	while you start worrying about that sort of thing you know
301	
302	
303	I – yeah, yeah cos it's the sort of next step
304	
305	
306	DS240148.F – because I wasn't of the age where I knew definitely whether I'd been on
307	the change or not? Um and I didn't know and nobody seemed to, you get the feeling
308	because they're all so busy, um and again it's not a criticism, I think that basically they
309	need more staff don't they?
310	
311	
312	I - yeah definitely
313	
314	
315	DS240148.F – but because they're all so busy, um they, you get the feeling that perhaps
316	things have been forgotten, you know?
317	
318	
319	I - okay yeah which I'm sure does happen
320	
321	
322	DS240148.F – and also there's this feeling of one had not knowing what the other hand
323	is doing
324	
325	
326	I – yeah, yeah, okay. So then you called up then with the questions and then
327	eventually they got back to you about how to take the medication
328	
329	

330 331	DS240148.F – oh yes they always got back to me
332	
333	I – yeah it's just the waiting in between isn't it?
334	
335	
336	DS240148.F – it's the waiting and the knowing I think that they're under pressure you
337	know
338	
339	
340	I – yeah, yeah and how did you feel when you contacted them? Were you happy to
341	phone them, or did you dislike phoning them?
342	
343	
344	DS240148.F – well I was happy to phone them, I didn't dislike phoning them, but I did
345	feel oh is this wasting their time?
346	
347	
348	I – okay yeah and I think that's a common feeling amongst patients, but you're
349	definitely not wasting their time soyeah
350	
351	DC240440 5
352	DS240148.F – no, no and they never gave me the impression that they felt that, you
353	know they were wonderful
354	
355	Liture instabat sout of dolon year
356 357	I – it was just that sort of delay, yeah
358	
359	DS240148.F - yeah
360	D3240146.F - yeari
361	
362	I – okay. So, so we talked about how you felt when you asked some questions and
363	you were happy to ask them. Was there anything that made it easier to ask doctors
364	and nurses questions, or did you find it more difficult to ask questions?
365	and harses questions, or the you mid it more difficult to ask questions.
366	
367	DS240148.F – um, no, no I think they were all very approachable to ask them
368	approximate to ask them
369	
370	I – okav

DS240148.F – the only difficulty was feeling all the time that there was so little time, you always felt rushed and a bit of time constraint and again it wasn't them making you feel like that, it's just the whole atmosphere of the place ((laughs)) I - yeah, yeah I know, I visited some of the nurses in the clinics down in <hospital 2> and <hospital 3> and it's just crazy DS240148.F – it's just ridiculous. I mean you know I just felt so sorry for them because they weren't going around feeling sorry for themselves, but you could see the pressure they were under you know I – yes exactly, I think the patients definitely pick up on that then DS240148.F – they do, and of course to be told you've got cancer you know, your whole world crashes around you and uh you really want to be able to sit down and talk to somebody, or at least have like you say like an app or something I – yeah to just have time to take it in yeah DS240148.F – yeah, yeah I – okay. So the next question here is were there any barriers to communicating with doctors and nurses? I mean you said you know it was fairly easy apart from the time pressure, but were there any other barriers to communicating with the doctors and nurses in general? DS240148.F – well um, not really, I mean, you did feel as if you wouldn't....my main, it's funny it's a strange thing to say, but my main point of contact for me felt like it was the surgeon's secretary, she was always there, she always picked up the phone. Although I wouldn't talk to her necessarily about the medical stuff, at least with her I felt that she would get a message through, that she had her hand on everything that was happening,

412	it was simply you know, you didn't feel, like you could pick up the phone to the nurse,
413	but you'd get an answer message and sometimes you want the reassurance there and
414	then
415	
416	
417	I – yeah and do you think that's something an app could help with potentially?
418	
419	
420	DS240148.F – I think so, especially if it's one that when you go to the hospital the nurse
421	and the doctor says to you look, you know, they'd tell you about the app and then you'd
422	feel that it's something that they endorsed, you know what I mean?
423	
424	
425	I – okay, yeah so you'd want it t feel supported by the clinicians?
426	
427	
428	DS240148.F – by them, yeah
429	
430	
431	I - okay. So why would you want them to endorse the app then? Why is that
432	important?
433	
434	
435	DS240148.F – not endorse itI didn't mean
436	Doz lor lon line endorse itim dian emeanim
437	
438	I – yeah I know what you mean like, sort of get behind it and say this isyou know
439	use this
440	
441	
442	DS240148.F – well because you'd feel, well for me personally, I'd feel that it was um,
443	you know if the medical professionals were recommending it then if you like
444	you know it the medical professionals were recommending it them if you like
445	
446	I – yeah, yeah
447	i – yeari, yeari
448	DC240149 E than they must feel that it's worthy and reliable and a warful assure of
449	DS240148.F – then they must feel that it's worthy and reliable and a useful source of
450	information, I mean there's so much out there isn't there?
451	
452	

453	I – yeah, exactly
454	
455	
456	DS240148.F – not in terms of apps, butyou know
457	
458	
459	I – yeah, yeah so many different sorts of resources of information. Okay well we'l
460 461	come on to the app a little bit later. So how did you remember all the information about the cancer? Did you write it down, rely on memory, or use any other ways to
462	remember it?
463	
464	
465	DS240148.F – um, when it, when it came to my personal situation, the things that the
466	surgeon was saying to me I wrote things down and I went in with a list of things
467	
468	
469	I – oh okay
470	
471	
472	DS240148.F – I had to because otherwise I'd forget, you know
473	
474	
475	I – and did you take anyone into the consultation with you, or did you go alone?
476	
477	
478	DS240148.F – initially I took my mother but then I endedI went on my own after that
479	cos I felt it was too upsetting for her you know?
480	
481	
482	I – yeah and how did you find using the list of questions, did you find that helped?
483	
484	
485	DS240148.F – yes he was, I mean he was very accommodating and I, you know me being
486	me I kept apologising and he said "it's alright, I understand, you know" because you
487	know there is the white coat syndrome as well isn't there? Where you go in and
488	everything in your mind goes blank
489	
490	
491	I - yeah, so what, what do you mean by the white coat syndrome? Just so that I've
492	got it on tape
493	

494	
495	DS240148.F – the whole thing of you know, as soon as you go into a medical professiona
496	setting, maybe more someone of my age who is used to, I mean I'm still surprised when
497	a doctor comes up to me in hospital and says "I'm Luke I'm one of the doctors" I expect
498	it to be "I'm Dr so, and so" ((laughs)) and there's that sort of you know, it's a doctor
499	and I know it's silly, but uh and I and when I go to the GP I take a list with me because
500	um you do you've got that sort of, again, you're afraid of wasting time, and you've got
501	that oh it's a doctor, I don't know whether I'm explaining?
502	
503	
504	I - yeah, yeah I know what you mean, I have to ask the obvious questions really for
505	the purpose of the tape, yeah so we've got it on paper, because I can't um just assume
506	what you're saying you know?
507	
508	
509	DS240148.F - hmm
510	
511	
512	I - yeah okay, so that's good you take a list of questions in then and that. So do you
513	find that helps the communication between you?
514	
515	
516	DS240148.F - yeah
517	
518	
519	I – and do you find that you get your answers then? compared to if you didn't take the
520	list in
521	
522	
523	DS240148.F - yeah
524	
525	
526	I – okay and you said the doctors were accommodating?
527	
528	
529	DS240148.F – very much so yeah
530	
531	
532	I – okay then so did you find it easy to talk to your family and friends about when you
533	had cancer?
534	

535	
536	DS240148.F - no
537	
538	
539	I – and is there anyis there any
540	
541	
542	DS240148.F – friends yes, well no, no actually I didn't cos I, I remember not wanting to
543	ring particular friends because I'd have to say
544	
545	
546	I – okay and why did you feel like you didn't want to tell them?
547	
548	
549	DS240148.F – because I felt it was such bad news, uh and also I, I don't like, I've got a
550	thing about, I don't like the phrase I've got cancer, not because I don't want to face it or
551	anything, but it seems to me, I in fact, I never, ever said it, I never said it to anybody
552	"look I've got cancer" I would say they've found some cancerous cells in my womb,
553	because I had cancer in my womb, I wasn't my whole person, it wasn't my whole body
554	
555	
556	I - yeah, yeah that's exactly, that's a really good attitude to have towards it, because
557	I think when people say, "I've got cancer" it's likethere's a stigma attached to it
558	
559	
560	DS240148.F - yeah
561	
562	
563	I – that it's um you know life, always life threatening
564	
565	
566	DS240148.F – always life threatening, and you know okay you've got perhaps you've got
567	cancer in some part of your body, cancer's not like you know
568	
569	
570	I – it doesn't have to define you
571	
572	
573	DS240148.F – it doesn't have to define you as a whole person you know
574	
575	

576 577	I – okay, so would you say then did you prefer not to talk about for that reason?
578	
579	DS240148.F – well for the family it was certainly more, I didn't want to accept it
580	232 101 101. Well for the family it was certainly more, raiding want to accept it
581	
582	I – okay
583	
584	
585	DS240148.F – because my mother is 80 and she's very um, she's not a strong person in
586	terms of coping with stress and worry and she's absolutely, well you know me and her
587	are really close so I felt I had to protect her a bit, and the same with my son, my son was
588	21, 22 at the time and brilliant, he was absolutely marvellous, but I felt I had to protect
589	him a bit, I mean I did talk to him about it, but only what I had to say and then only really
590	to reassure him you know ((laughs))
591	
592	
593	I – yeah, okay. So looking at the technology then, so you have an Ipad so you have
594	experience of using that. So what do you use the Ipad for?
595	
596	
597	DS240148.F – what do I use the Ipad for?
598	
599	
600	I – what sort of things?
601	
602	
603	DS240148.F – everything ((laughs)) um I do my shopping on it, I do my banking on it, um
604	I do research things, you know if I want to find out about anything, I'll use it. I play
605	games on it, ((laughs))
606	
607	
608	I - yeah, have you ever used an app to do with your health?
609	
610	
611	DS240148.F – I've used my fitness pal
612	
613	
614	I – oh I use that yeah
615	
616	

617	DS240148.F - yeah
618	
619	
620	I – and that's to track sort of diet and things like that
621	
622	
623	DS240148.F – diet and things like that yeah
624	
625	
626	I – okay how do you find using apps, when did you start using apps, is this something
627	that you've used since the beginning or?
628	
629	
630	DS240148.F – yeah I've been using them because I used to use them on my phone as
631	well you know yeah
632	
633	
634	I – okay so have you got a smart phone, or is it a regular?
635	
636	
637	DS240148.F – no a smart phone
638	
639	
640	I – yeah and do you use apps on there as well?
641	
642	
643	DS240148.F – yeah
644	
645	
646	I – do you prefer one device over the other?
647	
648	
649	DS240148.F - I'd prefer the Ipad, um but obviously then I'd prefer, but you know it
650	depends on whether I'm in or out really you know when I'm out and about I use my
651	phone, when I'm in, I use my Ipad
652	
653	
654	I - yeah okay. Right well that's great, so the type of app we talked about, do you think
655	patients would find this type of app acceptable to use?
656	
657	

658 659	DS240148.F - yeah
660	
661 662	I – and do you think they would use it?
663	
664	DS240148.F - yeah
665	
666	
667	I – okay. Can you think of any friends of yours, or you know if they had diagnosis of
668	cancer, are there any that you think wouldn't use it?
669	
670 671	DS240148.F – um, only the odd one or two friends I've got who don't do technology,
672	those who do I'm sure would use it. There's not many that don't do technology but
673	there are still some
674	
675	
676	I – and do you know the reasons why they don't use that technology?
677	, , , , , , , , , , , , , , , , , , , ,
678	
679	DS240148.F – well usually it's to do with their age and generation
680	
681	
682	I – yeah. Okay, so what about family and friends of patients, do you think that they
683	would want to use an app, for the patient or for themselves?
684	
685	
686	DS240148.F – I think they might want to use one for themselves, to find out information
687	about things for themselves and it could be I suppose, it might be useful, right say my
688	mother had it, which hopefully she won't, she wouldn't use an app, but I might use it,
689	to find out for her
690	
691	
692	I – yeah so you'd use it on behalf yeah. Okay and what sort of information would you
693	hope to get off it, would it be stuff to learn about your mother's illness, you know if
694	she had cancer, to learn about her, or would it be things to help you, so perhaps
695	relative's support groups?
696	
697	
698	DS240148 F – ob both Lthink really yeah

I – okay, so that's one of our concerns that there will be a group of people who won't like this sort of technology and won't use it and like you said yeah, we are hoping that maybe there would be a relative in the family, which there usually is, who are familiar with apps, and might use it for the patient. Okay so do you think patients would need initial training to use the app?

DS240148.F – um well I think some might possibly, probably not most people know, but there might be some who um might benefit from maybe you know somebody just showing them it look this is what it can do and....

I – and what sort of person would that be?

 DS240148.F – well again, people who don't particularly use technology and if you said to me there's this app called such and such then I'd just go and look at it and find it out for myself, like my dad bless him who's 82 and he plays around with his laptop um he wouldn't know like to look at the little words and to click on them and things and explore an app you know

I - yeah, yeah...so someone to teach them how to sort of navigate, okay

DS240148.F – and also just to tell them the things that they can look at, because the word app not very few people these days now I should think you know when somebody of your generation finds it, oh that sounds patronising – but imagine that um you know there are some people they still don't know what an app is, I'm sure you know that

I - yeah, yeah exactly. Do you know my mum and dad are not very good at using computers it's taken them ages to learn, I mean they're in their fifties which is young, but my dad started using an Ipad now and he finds that a lot easier than using a computer, but he had no concept of what an app was before...

DS240148.F – no, no...

740	
741	I – so
742	
743	
744	DS240148.F – well my dad is 82 bless, cos I'm 57 um I think having a son, because my
745	son is 24 now, I think having him and also I worked in schools so you had to get a bit
746	savvy, but my dad bless him he's 82 but he does really well, you know he sends emails,
747	and he googles, but to us you know it's the air we breathe, but to them it's you know
748	
749	
750	I - my grandmother then, she uses her laptop now to, for booking her golf
751	competitions and things and the only reason she's learned because it's all gone online
752	and she's had to learn
753	
754	
755	DS240148.F – she's had to learn
756	
757	
758	I – yeah, or she'll be missing the games, but to sit down and do it it's quite a task for
759	her, where as for us we just sort of do it by second nature. Okay so we've talked about
760	training then, do you think some patients would be able to use the app after some
761	training, do you think they'd get on with it?
762	
763	
764	DS240148.F – oh yes, yeah
765	
766	
767	I – okay, and if the app was made available would you download and use it and do
768	you think
769	
770	
771	DS240148.F – I would yes
772	
773	
774	I – would you recommend it to other patients?
775	
776	
777	DS240148.F – definitely, I've been looking it up now, even though it's you know
778	
779	
780	I – yeah, would you have any concerns about using the app?

DS240148.F – I wouldn't personally, but I would've had concerns about I wouldn't have just said to my son "there's this app have a look at it" I would've wanted to look at it first, but that's just me probably being over protective I – yeah, no I understand that yeah, in case there's too much information, okay. So this question is a bit difficult because it depends on what the app is going to do, but the type of app we've talked about, so for example, looking at helping with questions before consultations, and reliable information where there is some sort of link, or to social support, what benefits do you think there would be for patients using an app like this? DS240148.F – well I think that perhaps it would help then to prepare for consultations because I think it can be a bit of a shock how much information you are given and you end up going from a consultation thinking oh my god, you know what was I told there sort of thing, so I think it might help to prepare people, um.... I - what about taking information away, how could, do you think the app could help with actually writing the information, or recording or...typing it in? DS240148.F – yeah I think it could I – do you think that would be a good idea because I'm not sure whether that would distract from the consultation, I'm just wondering what you think about it? DS240148.F - I don't know whether you would want to be messing about you know, I think that's an individual thing, I think...I don't think it be, I don't think there would be any harm in providing that facility if people wanted to use it they could, it would be up to them wouldn't it? I – yeah that's a good idea yeah. When you took in the question list did you write the answer down, or did you just use it as a prompt?

822	
823	DS240148.F – I just wrote them down ((laughs))
824	
825	
826	I – and did you find that impacted on communication at all?
827	
828	
829	DS240148.F – I think it improved it, certainly from my point of view. Oh I see what you
830	mean, no I think it did improve it, and you know from, it's helpful from the doctor
831	because they can see exactly what the patient's concerns are then, you know
832	
833	
834	I – so anymore benefits for the patients, can you think of any more for the patients?
835	
836	
837	DS240148.F – um ((pause))
838	
839	
840	I – I mean preparing for the consultation, that is perhaps a short term benefit, can you
841	think of any longer term benefits from a patient just using this app throughout their
842	cancer?
843	
844	
845	DS240148.F – well certainly it would provide, I think some sort of reassurance and some
846	support and certainly a source of information, um
847	
848	
849	I - yeah and how do you think having that information would help the patient, I mean
850	you mentioned that it would provide reassurance, is there anything else it could help
851	with?
852	
853	
854	DS240148.F – um, well certainly finding out things that perhaps people haven't got the
855	time to tell you, you know like side effects, like things that would happen to you after
856	the operation in terms of effects on your body and things like that you know
857	
858	
859	I - okay and what about clinicians, what benefits do you think there might be for
860	clinicians if patients are using an app?
861	
862	

DS240148.F – well if it would, if they could have input into it, I don't know whether an app, within an app would there be um an opportunity to perhaps email, not to the clinician in hospital, would there perhaps be a possibility to email a question to somebody? I - yeah, yeah we could use that, maybe email questions to the nurses instead of phoning them up, maybe it would be a bit quicker, I don't know? So how do you think that would benefit the clinician? DS240148.F – when you're talking, how it would benefit the clinician? I – yeah, or the app in general? DS240148.F – well it would benefit the clinician in that perhaps they'd get some insight into the problem before they contacted you and it would benefit the patient because speaking to a machine is you know when you've got perhaps a very personal problem, it's not good really, um I – so would you prefer then to email it across and perhaps them call you back? DS240148.F – yeah I think, I mean obviously in an ideal world you'd like to pick up the phone and have somebody answer it, but given that, that's not the case I think it probably would, yeah I – okay, and what about family and friends, what benefits if they're using an app, or the patients are using an app? DS240148.F – well certainly obviously finding out information, finding out procedures you know what are the sorts of things that happen you know what's the stages you know

I – and how do you think that might help the patient you know if the patient knows this information? DS240148.F - um, well because they would perhaps have more understanding, sometimes a patient is feeling too stressed and is too distressed to talk about it themselves, um, certainly in, in terms of perhaps an older person being the patient it enables a younger person to provide more support, more informed support and obviously the same for people who are younger, you know a child or a younger person, or somebody who's got learning difficulties you know I – okay great. So I think we've talked about communication, well we've talked about how the list impacted on communication with the doctor, do you think an app would have an impact on the way you talked to doctors and nurses about cancer? DS240148.F – it could do, I think you know an app could help explode the myths but uh, you know it...that doctors do like to be asked questions and they don't mind you know and they understand that uh your questions to them may seem very basic but they understand why you are asking them I - okay, - and do you think the app could affect the way you talk to family and friends? DS240148.F – I think, it certainly it would help if you could say well if you want to find out more about it, or if you want to um use it to help yourself you know to support yourself and there is an app there could it you know? I – okay so do you think there might be any problems with patients using this app? Can you think of any, any barriers to this working in practice? DS240148.F – well the only barrier I can think of is that some people do not have any access to the internet and I suppose that's something that you just have to accept you know that's not a reason for not producing something, but that's the only barrier that I can see, in that people, there are people who don't have internet access, um and I suppose the other barrier is....people who are not able to read and understand. I think

943	it would have to be very accessible I suppose there is a section of society where language
944	might be ayou know
945	
946	
947	I - yeah, and you mentioned earlier you'd want the clinicians to support it
948 949	
950	DS240148.F – yes I would want to feel that is something that they were saying "look this
951	is good, have a look at it, it might help"
952	
953	
954	I – do you think if it wasn't recommended by healthcare professionals, if they didn't
955 956	sort of mention it, what do you think the impact might be there? What would the difference be?
	difference be:
957 958	
959	DS240148.F – I don't, it probably for some people it might not make any difference I
960	don't think it's a, it's not a, it's not a deal breaker you know, um I just think it would
961	make it, for me it would just make it even more supportive
962	
963	
964	I – okay, would it make you feel like you trust the app more? Is that what you would
965	get from it?
966	
967	
968	DS240148.F – yeah, I mean if I google any health issues I've always looked out, you know
969	you google and you get those thingsI'll always look for any that are NHS
970	
971	I. akawasah
972 973	I – okay yeah
973 974	
975	DS240148.F – I don't know why it's probably rubbish you know
976	D3240148.F — Fuolitic know why it's probably rubbish you know
977	
978	I – yeah, yeah but you sort of fairly know that it's up to a fairly good standard
979	year, year but you sort or fairly know that it's up to a fairly good standard
980	
981	DS240148.F – being an independent thing rather than a you know
982	222.22.31. Sound an interpretation than a you know
983	

I – yeah, okay so what sort of things do you think the app should do to help cancer patients? I mean I know it's a broad question. We're hoping to build the app in March so we're asking patients, or past patients like yourselves, based on your experience, what could've really helped you, and you know within the means of an app? DS240148.F – um, I think to find out information about the particular type of cancer than you've, you've got, I suppose there could be that within an app couldn't there you know? I - yeah DS240148.F – research different types, I, I, I when I say find out about, I don't think you want to know um, the sort of scientific facts of it, but how it affects your body and what the risks are you know and what the general um course of methods of treatment are um....and yes with an operation what are the down sides that would...maybe some I can't think of the word people who have had it done talking about their experience I - so and how could we best fit that in then? Would that be perhaps a blog from a patient, or would it be more of an interactive chatting facility? DS240148.F – I think it could be both really, it could be you know some aspects of people just, just telling about their experiences and there could be some sort of forum I suppose as well I - okay any other ideas at all? DS240148.F – sorry I'm not very good at this sort of thing I - no I know it's tricky because apps can do so many things and you've not had a lot of time to think about it so I understand yes it's quite tricky. What do you think about the question prompting idea, do you think that's something that would be useful?

1025 1026	DS240148.F – I think that's a very good idea, I think that's a very good idea yeah
1027	
1028	I – and what about the links to recommended websites?
1029	
1030	
1031	DS240148.F – yes, yeah
1032	
1033	
1034	I – how do you think that could help patients? The links to the websites?
1035	
1036	
1037	DS240148.F – well it's just another tool to find out information isn't it and also support
1038	you know, because it wouldn't only just be information at websites it would be people
1039	like McMillan or Tenovus
1040	
1041	
1042	I – yeah, yeah so links to selective websites as well
1043	
1044	
1045	DS240148.F – and with a lot of people I think money is an issue isn't it. Like people like
1046	Tenovus and McMillan who deal with that, within the app itself it could perhaps even if
1047	it's just that information that cancer charities will help with benefits and things like that
1048	you know
1049	
1050	
1051	I – yes this has been suggested by a few patients actually, they did a survey I think in
1052	<hospital> and maybe a few other hospitals on what information patients with cancer</hospital>
1053	are really missing and financial issues was number one so it's definitely something we
1054	could help with
1055	
1056	
1057	DS240148.F – you know for me it wasn't an issue, because I'd been retired medically
1058	anyway, but you know if you're going to have 6 months of work you know it's a huge,
1059	and I mean stress is the one thing
1060	
1061	
1062	I - okay so anything else or?
1063	
1064	

DS240148.F – I think possibly but then again I don't know if you'd be interested or, I have a particular problem in that I've got mobility issues, so getting to appointments

I – yeah that's definitely that's something to think about yeah

DS240148.F – and I mean some people might not even be aware that you can qualify for hospital transport if you have mobility issues you know they'll come and...the ambulance you know, not an emergency ambulance a transport ambulance will come an pick you up and get you to your appointment because you know when I first started going to <hospital 2> I didn't realise I could get hospital transport and my son at the time, he was still at uni so he could take me, but again was a stress, because it meant he had to have time off missing lectures and things like that, I...and at <hospital 2> the wheelchair situation is terrible I didn't have my own wheelchair then, I've got my own wheelchair, one that folds down now and I remember cos I'm a very calm quite of laid back sort of person and not usually rude to people, but I remember getting so frustration once sitting in the reception in <hospital 2> my son had to drop me off at the main door I was crying and saying to somebody look I've got cancer and I need to get to my appointment and I haven't got a wheelchair ((laughs))

I – yeah oh gosh yeah

DS240148.F – so I know you couldn't go into specifics like that even sort of letting people know that if they talk to the ward staff or their doctor that they've got an issue, with getting to appointments you know they will help, but even things like you know I had to be in a bed on the ward that was as near as possible to the toilet because otherwise I'd be calling a nurse all the time, now I know that you wouldn't want to go into those sorts of specifics but....

I – but it's handy to give this information, because it could prevent you getting into a state where you're really upset and that's not helping anything is it so if we can prevent that

DS240148.F – you know just reassurance to people that if they do have any issues about getting to appointments, or worries about when they're in hospital you know, to talk to

1105	people about it you know to talk to them about it, because a lot of people won't they
1106	just suffer in silence
1107	
1108	
1109	I – yeah, yeah okay so what about the family and friends do you think the app could
1110	help them with anything in particular?
1111	
1112	
1113	DS240148.F – um, well again the same sorts of things I suppose information about the
1114	you know the general way of treating that cancer, how it can affect the patient, both
1115	physically and mentally and ways that they can help I suppose
1116	
1117	
1118	I – yeah and what about things for the relatives themselves?
1119	
1120	
1121	DS240148.F – well we could have the links to, because I mean again, people like
1122	McMillan and Tenovus, they do deal with everybody don't they it's the whole, whole
1123	person, a whole family issue really
1124	
1125	
1126	I – so that's support for the support groups then?
1127	
1128	
1129	DS240148.F – yeah and also just simply I think if an app gives you the information that
1130	it's normal to feel the way a relative might be feeling and they're not on their own and
1131	other people experience it as well and you know there is help to be found
1132	
1133	
1134	I - and is there anything you wouldn't want the app to do?
1135	
1136	
1137	DS240148.F - I don't think so, um obviously, obviously not to be too sort of, you
1138	wouldn't want it to say you know people with this type of cancer often die
1139	
1140	
1141	I – yeah, yeah definitely so, don't give any sort of prognosis, or statistics?
1142	
1143	
1144	DS240148.F – um, probably not no unless they're positive ones like you know 97% of
1145	people survive, or I mean even that can be dangerous can't it?

1146	
1147	
1148	I – okay and so not to worry the patient?
1149	
1150	
1151	DS240148.F – no, not to worry the patient or the relative really
1152	
1153	
1154	I – okay are there any particular types of patient that might find the app most useful,
1155	so we've talked about do you think all age groups would find it useful, or do you
1156	think there would be a particular age group?
1157	
1158	
1159	DS240148.F – well I think all age groups apart from maybe the very old, but then you
1160	know I wouldn't want them to be excluded if they wanted to be, you know that's not
1161	what I mean
1162	
1163	
1164	I – yeah, yeah and what about patients at different stages of the cancer? So diagnosis,
1165	sort of treatment, post-treatment. Do you think it would be something that is sort of
1166	useful throughout the whole thing, or do you think there's particular points
1167	
1168	
1169	DS240148.F – no, I think it would be useful throughout the whole thing
1170	
1171	
1172	I - okay, okay so if we made this app available, how would we, how would we
1173	introduce it, how could we best get people to recognise the app as a trusted source of
1174	information, how do you think we could get people to use it? How would we get you
1175	to use it for example? Because there's loads of websites, information leaflets, groups
1176	there's hundreds of things so how could we make this appealing?
1177	
1178	
1179	DS240148.F – well I don't know, I suppose you could have
1180	
1181	
1182	I – well you said "have the clinicians endorse it"
1183	•
1184	

1185	DS240148.F – have the clinicians endorse it, maybe advertise it through GP surgeries,
1186	um, have you know, like big posters and things like that, maybe even through television
1187	and radio umdoes that make sense?
1188	
1189	
1190	I – yeah, yeah
1191	
1192	
1193	DS240148.F – you know advertise it cost money I know but um, um I don't know, I don't
1194	know how you would advertise an app it's all about getting it out there isn't it?
1195	
1196	
1197	I - yeah, yeah
1198	
1199	
1200	DS240148.F – making people aware of it and certainly for me it's this idea you know if
1201	you went to the hospital and you were diagnosed maybe they'd give you, they'd say to
1202	you "look there's this app you can use" maybe give you a leaflet with the web, you know
1203	have it written down
1204	
1205	
1206	I – yeah, okay so do you think it would be helpful then to have a leaflet on how to use
1207	it?
1208	
1209	
1210	DS240148.F – yes, yeah I do
1211	
1212	
1213	I - okay, well that's it so is there anything else that you think would be helpful or we
1214	should know?
1215	
1216	
1217	DS240148.F – no I think we've just about covered it really haven't we?
1218	·
1219	
1220	I – yeah lovely okay thank you, I'll just switch this off
1221	
1222	End of Interview Duration 54:07

Appendix 20: Clinician invitation letter:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Health Professional Interview Invitation Letter

We would like to invite you to participate in a research study. The study is being carried out by researchers from Cardiff University who are working with the team at Velindre NHS Trust and Cardiff & Vale University Health Board. We have invited you to take part because we are interested in hearing the views of clinicians (consultants, nurses and trainees) of patients with cancer.

The aim of the study is to find out the views of cancer patients, their clinicians and relatives on a smartphone/tablet 'app' that aims to address the information needs of cancer patients. The information we get from this study will be used to help create the app which will be available for cancer patients to use in the future.

We would like to interview you, at a time and place convenient to you, to ask your views on the subject.

We have enclosed an information sheet for you to read and help you to think about whether you would like to take part. Taking part or not is entirely up to you.

If you wish to take part in the study please contact Becky Richards using the contact details below and she will send you an information sheet about the study.

If you decide to take part, Becky will contact you to arrange an interview. If you do not want to be interviewed at present, but may be interested in other parts of the study please tick 'I do not want to be interviewed but am interested in participating in other parts of the study at some time in the future'.

If you would like to find out more about the study before deciding whether or not to take part please contact Becky Richards, Cardiff University on 02920 687219, Email: Richardsb3@cardiff.ac.uk.

Yours sincerely,

Dr John Staffurth Consultant Urologist

Appendix 21: Clinician information sheet:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Health Professional Information Sheet (v1.1, 27/03/2014)

Invitation to participate in the study

We would like to invite you to take part in a research study. Before you decide you need to understand why it is being done and what it would involve for you. Please read the following information carefully.

What is the purpose of the study?

The aim of the study is to find out the views of cancer patients, their clinicians and relatives on a smartphone/tablet 'app' that aims to address the information needs of cancer patients. There has been a lot of research in the past showing that cancer patients have unmet information needs. There has been limited, if any, research on the potential usefulness of a smartphone/tablet app in addressing cancer patients information needs. The information we get from this study will be used to help create the app, which will be available for cancer patients to use in the future.

Why have you been invited to take part?

We have invited you to take part because we are interested in hearing the views of clinicians of cancer patients.

Do you have to take part?

No. Taking part is entirely voluntary. If you do not want to take part you do not have to give a reason. If you decide to take part but later change your mind, you can do so, and you do not have to give a reason why you no longer wish to participate.

What will happen to you if you take part?

If you decide to take part, a member of the study team will contact you to arrange a research interview at a time and place convenient to you. Interviews will take about 30 minutes. The interview will be recorded with your consent. Recordings will be stored in a secure office at Cardiff University. In the interview, you will be asked to tell us your views on the potential benefits, barriers to, and desired features of such an app.

What are the possible risks and disadvantages of taking part?

There are no specific risks associated with taking part in this study. You do not have to talk about any issues you don't want to discuss.

What are the possible benefits of taking part?

This research study will not directly benefit you, but it will give us a better understanding of the views and information needs of cancer patients. This should help us to conduct a short trial of the app, in the hope of the app being available to cancer patients in the future.

Will your taking part in the study be kept confidential?

Yes. All information that is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research study?

Audio-recordings and transcripts of interviews will be stored on Cardiff University password protected computers for 5 years. The data will then be securely archived and then destroyed 15 years after the study is completed. Only the research student Becky Richards and lead supervisor Fiona Wood will have access to the audio-recordings. The results of the study will be written up in the form of a thesis and presented at conferences and published in scientific journals. A report will also be prepared for Tenovus, the cancer charity, who are funding this study. Tenovus may wish to publish summaries of the study on their website. Short reports may also be prepared for interested government departments and the media. A summary of the research findings will be available to you at the end of the study if you would like it. We may use direct quotes from your interview in publications, however all information provided by participants will be anonymised. It will not be possible for anyone to identify you from any of the published results.

Who has reviewed the study?

This study has been reviewed by South East Wales Ethics Committee.

What if you are harmed or unhappy about any aspect of the study? If you have any concerns or complaints about any aspect of the study please contact Dr Fiona Wood, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687185, Email: WOOD@cf.ac.uk. Alternatively, please contact Dr John Staffurth, Clinical Oncologist, Velindre Hospital, Cardiff. Telephone: 029 2019 6135.

Who is organising the study?

The study is being organised by researchers from Cardiff University. It has been funded by Tenovus.

Contact for further information

If you would like any further information, or have any questions concerning this study, please contact Becky Richards, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687219, Email: Richardsb3@cardiff.ac.uk.

What do I need to do now?

If you WISH TO take part please tick "Yes, I would like to take part in this study" and fill in the contact details on the Study Reply Form and return the form to Becky Richards via email.

If you do not want to be interviewed but you may be interested in participating in other parts of the study (for example, a consultation with patients who will be using the app) please tick "I do not want to be interviewed but am interested in participating in other parts of the study at a later date". Please also fill in the contact details on the Study Reply Form and return the form via email.

Feel free to call us with any queries you may have and/or talk the study over with anyone else.

Please keep this information leaflet for future reference.

Thank you for reading this information sheet and for taking an interest in the research study.

Appendix 22: Clinician reply form:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Health Professionals Interview Reply form	
I would like to take part in this study and I wish to be contacted by the research team.	
I do not want to be interviewed but I may be interested in participating in other parts of the study at a later date.	
Name of Participant:	

Appendix 23: Clinician consent form:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs

Interview Consent Form	Please initial if you agree
I confirm I have read and understood the information leaflet dated 27/03/2014, version 1.1 for the above study. I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	
I give permission for the interview to be audio recorded.	
I understand and agree that quotes from my interview may be used within written reports or publications, and that any quotes would be completely anonymous and could not be linked to me in any way.	
I agree to take part in the above study.	

Name of Participant:	
Signature: Date:	
Name of Person taking conser	ıt:
Signature: Date:	

Appendix 24: Clinician demographic questionnaire:

Clinician demographic questionnaire

Gender: male/female (please circle)
Occupation:
Cancer clinic:
Stage of disease that you usually deal with:
Time since graduated:

Thank you for completing this questionnaire.

Appendix 25: Clinician interview topic guide:

Phase 1 Clinician Interview Schedule

Prologue

- 1. Introduce myself, explain where I am from, ensure they're comfortable etc.
- 2. Check understanding of reason for meeting, give an opportunity for questions: "Before we start, I wonder if you have any questions about this study or about why I've come to talk with you today?"

Set the focus of the interview and explain the app. Base this around the following script:

"Thank you for agreeing to take part in this study. I want to understand what clinicians of cancer patients think of a potential smartphone/tablet app for patients with cancer. The interview will take around half an hour.

This app would be for use *after* diagnosis and would potentially help patients with their information needs (e.g. by providing information within the app and links to external websites, etc) and help patients to communicate with their clinicians in consultations (e.g. by bringing a prepared list of questions to consultations). The app could also help with things like adherence to medications (e.g. audio medication prompts) and social support (e.g. links to support groups, telephone helplines). At the end of this study, we aim to develop an app based on the information gathered from interviews with clinicians, cancer patients and their relatives. I am interested in your views on a potential smartphone/tablet app for cancer patients. There are no right or wrong answers to my questions, I am interested in what *you* think."

- 3. After establishing what is understood about the study, and answering any questions, explain that the interview will be recorded:
- "I would like to record what you say as that saves me having to scribble when you're talking and means that I can concentrate on what you're saying. The recording will only be heard by people who are working on this project. The interview will be transcribed and your identity and the identity of any person you talk about today will be anonymised in any published work. Is that okay with you?"
- 4. Obtain consent for the interview and for the recording. If not already done, set up and switch on the recording equipment while the volunteer signs the consent form.
- 5. Explain how the interview will work:

"I've planned some ideas about the sorts of things I'd like us to talk about today, and if it's okay with you we'll try and base our conversation around those points. Having said that, if you want to tell me about anything that I don't ask about, please just tell me. Also, if you find a question difficult to answer, please say and we can move on or I could try to ask it in a different way. Of course, if you'd prefer not to answer any question, that is absolutely fine. There aren't any right or wrong answers to anything

I ask you, we're just interested in your own opinions and experiences. Does that all sound alright to you?"

6. Obtain demographic information.

Opening question

Can you tell me why you were interested in taking part in this study?

Information provision

Rationale: establish amount and source of information provision

- How do you decide how much information you give to patients about their illness?
- How do you provide information to patients about their illness? (prompt: verbally, written information, combination]
- Do you recommend any sources of information for patients and family/friends?
 (Prompt: websites, helplines, and charities. What sources?)

Communication in consultations

Rationale: barriers to doctor-patient communication in consultations

- What kinds of issues do you think clinicians are faced with when talking to patients about their illness?
- Do you think there are any barriers to communicating with patients in consultations?

Experience with Smart technology

Rationale: to establish clinician's personal/professional experience with mobile technology and apps

- What experience do you have of using a smartphone/tablet computer?
- What do you use your smartphone/tablet computer for?
- Are you familiar with 'apps'?
- Do you currently use any apps for work-related purposes? Why/why not?

Perceived ease of use and acceptability

Rationale: to anticipate ease of use and clinician's support and acceptability of patient app use

- Do you think patients and their relatives would want to use it?
- Do you think patients and their relatives would find this kind of app easy to use?
- Do you think clinicians would be happy for patients to use this kind of app during their consultations?
- Do you think clinicians would be happy for patients to use this kind of app at home?

Perceived benefits of app

Rationale: perceived benefits of an app for cancer patients

- What benefits do you think there might be for *patients* using the app?
- What kinds of benefits do you think there might be for clinicians?
- Do you think families or friends of patients would want to use this kind of app?
 Why?
- Do you think the app would have an impact on communication with your patients? How would it affect communication?
- Do you think the app would have an impact on how patients and their family and friends talk about their illness and share information about their illness?

Perceived barriers of the app

Rationale: perceived barriers of app

• Do you think there may be problems with patients using this app? What do you think the problems might be?

Training needs

• Due to the app, do you feel that clinicians would require training in how to deal with more active patients/changing communication?

Desired app features

Rationale: establish what clinicians would like a cancer app to do/not do

- What sort of app features do you think would be most useful for patients?
- What sort of app features do you think would be most useful for relatives/friends?
- Is there anything that you would want the app to do? If so, why?
- Is there anything that you would not want the app to do? If so, why?

Patient type

Rationale: anticipate what type of patient might find an app most useful

 Are there any particular types of patient that you think might find this mobile technology most useful? (prompt: age groups, patients at different stages of diseases). Why? Appendix 26: transcript for C19 (Sur) (urological cancer)

3 INT: Okay. So could you tell me why you are interested in taking part in the study?

5 RES: Um, er, I guess, I have got two reasons; one is to, um, one one side... I'd
6 always, um, supported initiatives at the medical school, and make sure
7 students have opportunities to do, um, er, to do projects and things like
8 that... that's one reason of course. And the other reason is that if it does,
9 um, result in improvements in information giving for the patients, it provides
10 an overall benefit, so ...

11 INT: Okay.

12 RES: ... so I think those are the two main reasons.

13 INT: Okay. Um, so how do you decide how much information you give to patients about their cancer, within a consultation?

15 RES: Er, I think that depends on a few things; one is whether it's the first time
16 they have heard they've got cancer. So it's at the time of diagnosis. It may
17 be the time of staging, so whereby the patient already knows they have
18 cancer. Or it may be at a later stage, a later time, so you are trying to, um,
19 modify what you say, and how much you say, depending on when you see
20 them in their particular, er, pathway, if you like. So ...at the outset it's
21 probably best not to say too much, and try and be fairly reassuring.

22 INT: Mhm.

RES: It's important both to get the diagnosis across, um, and then outline other tests, if you need them, before you make a decision about what should be done. Er, because patients often find if you tell them they've got cancer, they often will take in very little subsequently during that consultation, because there's a, sort of, element of shock. I guess in terms of giving information, that may depend on, again, which time point we are seeing them, but at the outset it's probably best to give them a small amount of information which is quite general. So if it was prostate cancer it would be a little bit of information about prostate cancer, and a little bit about PSA tests, what the staging tests often involve, and then how, the sorts of principles of treatment rather than detail. Because if you give them a lot of detail and a lot of leaflets they probably won't read any of them. Whereas

- if you give them a small amount of information at that point in time they may well read through it, or their partner will read through it.
- 37 INT: Okay.
- Of course, if you then see them at a later date when you have got all your 38 RES: 39 staging information, and you are deciding between a relatively small number 40 of treatment options, you may then give them, during the consultation, a lot 41 of information verbally about that. And then you may give them written 42 information about that, er, specific treatment option; so maybe two or three 43 different options. So in localised prostate cancer we often talk about 44 surveillance, external [unclear] radiotherapy [unclear] therapy and surgery 45 is the main, sort of, treatment option, so we may well give them information 46 about that. There is very little point in giving them a lot of information about 47 palliative care, and permanent hormone therapy which we give to men as 48 mainly a palliative treatment.
- 49 INT: Mhm.
- So you cater the information needs for the stage of the patient at subsequent points. The other thing that you can do, which we don't, we are probably not very good at, is, er, is addressing the information on the internet with the patient in the room.
- 54 INT: Mhm.
- We might give them information booklets which describe ... Prostate Cancer
 UK website, is very good. So we are, sort of, signposting reasonably reliable
 sources of good information for them. But in some appointments, er, we
 might, if we have got a reasonable screen, we might show them, "this is the
 Prostate Cancer UK website, this is the, sort, of localised treatment section
 that tells you a little bit about them there", and, um, and I see it with that
 sort of thing.
- 62 INT: Yeah.
- RES: But we don't do that very often I don't think, and obviously there are issues around availability of computer screens and showing patients, er, it's not straightforward.
- 66 INT: Yeah.

67 RES: I think. So I think that probably sums up ...information giving at that point, 68 at those points in time.

69 INT: Yeah. Okay then, um, so what kinds of issues do you think clinicians are faced with when talking to patients about their illness, during a consultation?

RES: I think they are faced with different issues at different time points. So at diagnosis, the issues you face are that a) you have got to give someone very bad news, because no matter how aggressive or not the cancer is patients will take that very badly usually.

75 INT: Mhm.

76 RES: And they also will then, as I said, will take in very little information 77 afterwards, so it's challenging (phone ringing) them to get over the, um ... 78 do you want to pause that?

79 INT: Yeah, yes.

80 RES: Just in case.

81 INT: Okay. [Recording is paused].

RES: [Recording resumes]. So it at the diagnosis appointment, the challenges are to give them bad news but don't be too gloomy. The challenges are to give them information when they are not actually taking it in very easily.

85 INT: Right.

86 You are trying to give them some encouragement, or some, to give them, RES: 87 er, a steer as to... well actually, although it is cancer, actually there is 88 something we can do about it. Getting those informations across to the 89 patient so that they can remember it. And the other challenge is not to give 90 them too much information; if you say well you have got cancer and then 91 you go into a convoluted story around the principles of staging they are not 92 going to remember anything about that. And you haven't helped them 93 much. You've just given them some bad news and then you have confused 94 them. So, you know, you've got to be giving them the news, try and be 95 accurate, give them some positive encouragement. And tell them about the 96 next steps, but not go into a lot of detail.

97 INT: Mhm.

98 RES: For most patients I think that's the challenge in that appointment. If that's done well, and they have the right information, their next appointment, hopefully with the same person would be much better, because you had met before. They haven't got to get over that cancer issue of diagnosis. If the staging tests have shown its localised disease you have got quite positive views because their worry is that it's spread.

104 INT: Yeah.

105 RES: Every patient who has been diagnosed with cancer, well if it's spread that's 106 the end. I think that's the way many people would probably think. Whereas 107 if it hasn't spread that's great news for patients, and then, er, and then 108 you've got to go through a lot of information at that point, and that's much 109 easier if they've had good information before and not been confused. You 110 know, they can relax a bit, and you've got a bit more time, and hopefully 111 they've read some information. And you can often ask them well what have 112 you, you know, they've seen the, you know, the cancer nurses in between 113 seeing the doctors often. They are on the telephone if they want to ask 114 questions. So it's quite good at the outset then to say well, you know, what 115 do you think of the information? And once you've got the, er, the staging 116 sorted out you know roughly where the treatment options lie, and you can 117 then start to get the patient to tell you what they, what they think about 118 treatment options.

119 INT: Mhm.

RES: Maybe when we know it's going to be in that group where the decisions may be around surgery/radiotherapy, or a surveillance programme, so ...

122 INT: Okay. Um, in terms of communicating with the patients in consultations, do
123 you think there are any barriers there?

124 RES: Sorry?

125 INT: Um, do you think there are any barriers when communicating with the patients?

127 RES: Yeah, and I think not all ...

128 INT: In terms of what type of patient you have, or ...?

- RES: Well I think doctors are nurses, not all of them are very good at communicating anyway. And that's, that is a clear issue.
- 131 INT: Yeah.
- 132 RES: Um, and no matter how, maybe, senior they are... some the communications
 133 skills is not a given. That's one issue. And some, I don't think some people
 134 actually like giving bad news to patients, um, feel it's, sort of, maybe letting
 135 them down, or, you know, in some way they would rather give people good
 136 news all the time. Rather than apologise that things are so bad.
- 137 INT: Yeah, yeah.
- 138 But that, I guess that's human nature. But in terms of receipt of information RES: 139 patients are very different. Some patients don't want any information on 140 treatment options if it's complex, um, and, um, but they will vary a lot. And 141 individuals may have read a lot in the intervening appointment if they've 142 been told before what they've got, they may read a lot about it, and 143 therefore they may have a lot of questions, and very, um, enthusiastic to 144 know precisely what their stage is, precisely what are the treatment options, 145 might ask you well if it's an operation, how many have you done, are you 146 any good at it, in other words. Um, a huge variation.
- 147 INT: Okay.
- RES: So I guess there's a, sort of, level of information giving appropriate to what the patient actually wants. Um, so you have to think on your feet a little bit, and yeah you want to give information, basic information, then a bit more complicated, until at some point you have given enough in order to make decisions to the patient, so they are part of the decision making.
- 153 INT: Mhm.
- 154 RES: And that can vary a lot between patients. So if you are converting that
 155 concept into an app you might say well this is the basic information; it's a
 156 bit like the levels in Nintendo II or something. This is your basic level, right
 157 we are okay with that now, let's move on a bit more to this if you want to.
- 158 INT: Yeah, yeah.
- RES: And then, yeah, and then you can go off to different treatment options with the basic information, then that's a bit more. And you have to judge how

161 162 163 164		soon you can move between those levels of information with patients. And in the clinic, doctors have to think about that on the spot. So actually I think that's a bit much, that's enough now, I am going to step back a bit, and let's look at it again once you've had time to have a think.
165	INT:	Yeah.
166	RES:	So, you know, of course that's just a judgement thing during consultation.
167 168	INT:	Yeah okay, great. Um, so do you have any experience of using a smartphone or a tablet computer, personally and professionally?
169 170	RES:	Um, I use standard computers to show patients illustrations on websites but not a smartphone or a tablet.
171	INT:	Okay, so not professionally?
172	RES:	No.
173 174	INT:	Um, and what about personally, do you use any, sort of, smart technology outside of work?
175	RES:	I have got a phone.
176	INT:	Yeah so you are using, so you are familiar with apps?
177	RES:	Not really.
178	INT:	Okay yeah, alright then.
179	RES:	I phone mainly and text.
180 181	INT:	Okay, okay. Um, so do you think patients, the type of app we are talking about, um, do you think patients would want to use this sort of app?
182 183 184 185 186 187	RES:	I think many would, um, er, if you look at the, sort of, if you can imagine in your own mind the, sort of, age of the patients with different cancers. So testes cancer would be affecting quite a young male population, um, peak incidence in the late teens, early twenties. So that group would probably be quite familiar with smart phones and apps. Er, many cancers, of course, affect the elderly population.
188	INT:	Yeah.

189 190 191	RES:	And, er, prostate cancer, bowel cancer, a proportion of patients who are using apps on a smartphone, and it's probably worth a survey of that actually.
192	INT:	Mm, yeah.
193 194 195 196 197 198	RES:	I mean, if you, if you said well actually I want to survey the urology clinic for a couple of weeks, and ask the patients how many at this point in time compared to their age would be familiar with an app, that would be quite interesting. Er, I expect, I would be surprised if it was than 50% use an app, currently anyway. But, er, I guess at the end of the day, thinking of the future
199	INT:	Mhm.
200 201	RES:	the men who are 50 now are going to be 60 and they will be using the mobile at home I suspect.
202	INT:	Yeah.
203	RES:	So there is element of future-proofing in that, in this kind of work, I guess.
204 205	INT:	Yeah, yeah okay. And do you think patients would find it easy to use, or do you think they might require some training beforehand?
206207208	RES:	I think a minority would probably benefit from training within the environment that they are working in. I suspect if they are using the phone apps they are, they will know how to work their way around it.
209	INT:	Uh-huh.
210211212213214215216	RES:	If they are not using it I expect what they will do is speak to their kids and sayI've got this app thing, I want tocan you help me with it. Let's look at your phoneand let's show me. And then that may be a way of doing it. Running training of apps within the clinic for patients might be difficult. Unless there is an inherent willingness for them to do it on a personal level. Because, you know, if they are shown how to use an app at the clinic, and they haven't got a smartphone
217	INT:	Yeah.
218	RES:	er, that's going to be difficult isn't it?

219	INT:	Yeah, yeah.
220 221	INT:	Okay, um, do you think clinicians would be happy for patients to use this kind of app during a consultation?
222 223	RES:	Oh yeah, I mean, patients bring bits of paper, articles, all sorts of things. I mean, I think the patient population is changing.
224	INT:	Yeah.
225 226 227 228 229 230 231	RES:	You know, we are probably 10 years behind America, maybe longer, in terms of what patients want to know in an appointment. And as time goes on patients will bring more and more things in to say I read this, I saw this, um. And if there was a, you know, when we give them written information they come back and say well the information said this what does that mean? And there is no reason, if all that was app driven, why they wouldn't do that with an app.
232	INT:	Yeah.
233 234	RES:	Um, because, you know, it's just a screen with information on it really isn't it? Or a diagram.
235	INT:	Yeah.
236 237	RES:	So I think, you know, the delivery is not criticalin terms of what the response would be to them bringing it in and discussing it.
238 239	INT:	Yeah. And do you think clinicians would be happy for patients to use app at home, sort of, um, not under the supervision of the clinician?
240241242	RES:	Oh yeah, as long as it was, you know, the information on it was accurate and you know, reliable and, you know validated, agreed etc. Yeah I can'tI mean, they are doing it now aren't they?
243	INT:	Yeah.
244	RES:	You know on computers and things, so
245246247248	INT:	Yeah. Um, okay so what benefits do you think there might be for the patients using the app? So I know it's a tricky question, because it sort of depends on what the app will do, but what sort of benefits do you think there could be from an intervention like this, for the patients?

249	RES:	Of information, so it's an informationapp
250 251	INT:	And, sort of perhaps, helping to improve communication and social support, and so on
252 253	RES:	Um, yeah I guess there's information giving at the level which is patient ledpatient driven, so you've got those levels of information.
254	INT:	Yeah, so, sort of, at their convenience?
255 256 257	RES:	Yes, they say right let's just talk a little bit about prostate cancer and PSA, which is a small module, if you like. And then if they want to move onto other thingsthey can do at their own pace. So that's good.
258	INT:	Yeah.
259260261262263264	RES:	Um, so other things, well if you are going to link in with other resources, of course it could do that. Prostate Cancer UK websiteetc., etc., so we could do that. Linking into other support, well, for example, there is a patient support group we have here, they come to the clinic, you could link into that group, or give contact details, you know, could use, could it allow them to get into a blog?
265	INT:	Mm.
265266267268269270	INT: RES:	Mm. It could do, you've got to be terribly careful, of course, in that patient data and confidentialitynot all patients want to telltheir partners they've got prostate cancer, never mind someone they don't know. Soin terms of the confidentiality issues, yeah the patient could look outside the box and see what's there for support.
266 267 268 269		It could do, you've got to be terribly careful, of course, in that patient data and confidentialitynot all patients want to telltheir partners they've got prostate cancer, never mind someone they don't know. Soin terms of the confidentiality issues, yeah the patient could look outside the box and
266 267 268 269 270	RES:	It could do, you've got to be terribly careful, of course, in that patient data and confidentialitynot all patients want to telltheir partners they've got prostate cancer, never mind someone they don't know. Soin terms of the confidentiality issues, yeah the patient could look outside the box and see what's there for support.

279 RES: So that confidentiality issue, and accessing support, great but you've got to 280 be very careful about the direction of flow of information. 281 INT: Yeah. 282 RES: Er, because they can, that can be ...very difficult of course. So yeah in 283 principle I can see how the link into things can help, but, again, there has 284 got to be an ability to protect the patient from anybody saying, by inference, 285 because they got it through this way, and that means they must have this 286 disease. 287 INT: Yeah. Okay, um, so you talked a little bit about just some of the short-term 288 benefits of an app for patients, can you think of any long-term benefits, um, 289 to patients of something like this? 290 RES: Yeah, I guess it could hold patient information. Um, so say, for example, if 291 a cancer has got, um, a tumour marker we could add in their tumour marker 292 every time they come to the clinic. And then when they come back to the 293 clinic they can say to the doctor that's my record. I had treatment in 2007 294 using my tumour markers ever since...isn't it great, um, I've done very well. 295 Or they could actually complete, um, some quality of life studies on, um, for 296 use, or they could engage in research. So there are other potential benefits 297 to help with their care. So if there were things like tumour markers, or 298 whatever within one cancer site. 299 INT: Yeah. 300 RES: And prostate, of course, is the PSA. So whilst PSA is not very reliable at low 301 levels, plus we get levels of type of diagnosis and staging, it's very reliable 302 after treatment. And therefore, you know, we would like, it would be nice 303 to, you know, those PSA members who are recorded, and then we could look 304 at a graph maybe and then you would see them, if there are changes, what 305 were the rate of changes. 306 INT: Yeah. 307 That would be very helpful. Both for the patient and their doctor. RES: 308 INT: Okay, yeah. Um, you mentioned quality of life studies, do you think an app 309 like this might have any impact on the patient's quality of life, from using 310 this throughout their treatment and throughout their cancer?

311 312 313	RES:	I mean, it might be helpful, but whether it'll, it would, you know, you would be able to demonstrate an objective improvement in health related quality of life, that's a big ask I think to prove it. Um, that's difficult to say.
314 315 316 317	INT:	Okay, alright then. And do you think, um, families and friends of patients would want to use this sort of app themselves, or on behalf of the patient? Because some patients might be, sort of, elderly, but perhaps they have a daughter or son who might want to use the app?
318	RES:	I am sure some will yeah.
319	INT:	Yeah.
320	RES:	I am sure some would.
321 322	INT:	Yeah okay. And what kinds of benefits do you think this app might bring for clinicians?
323 324 325 326 327 328 329	RES:	Um, well, as I said before, I think if they've got, um, er, information that they can retrieve from it with tumour markers, example, so urology, prostate cancer has got a tumour marker, testes cancer has got a tumour marker, um and other cancers have got a signature mark, so if you had thosethat would be helpful. If you were engaging in a project that they could use to help bring data back for youum, that would help for the clinician.
330 331	INT:	Yeah. And do you think the app would have an impact on communication with your patients?
332 333 334 335 336	RES:	Um, you might communicate appointments, but I think communicating medical information about the individual, because of the issues of confidentiality, that would be quite difficult. You know, at the moment it's actually not appropriate to e-mail patients to non-secure websites, to non-secure e-mail addresses.
337	INT:	Yeah.
338 339 340 341 342	RES:	So if you had to, if I e-mailed a patient and said actually you are due in my clinic tomorrow, so, er, that doesn't give anything away does it. But if you said I will see you in my clinic tomorrow and it says my name, cancer specialist and then the e-mail is not secure, the patient's mother reads it, son reads it catastrophe. Um, so, you know, if you bear that in mind,

343 344 345		whilst you may be able to give some, or help with organisational things having a communication with an app, which might then breach confidentiality, would require a lot of thought.
346 347 348 349	INT:	And what about in the consultation, so say a patient has gone away and used the app to gather information um, and comes back to the consultation, do you think that might affect the consultation in any way, sort of, improve it, or hinder it, or?
350 351 352	RES:	No. The patients write things down quite a lot now. If they, I think if they did something on the app as opposed to the writing it down, I don't think it makes any difference.
353 354 355	INT:	Okay. Um, and what about the patient's communication with their family, and how they talk about, and share information with them, do you think the app might, sort of, facilitate or hinder information then?
356 357 358 359 360 361 362 363	RES:	I think it probably would help if they had a clear understanding themselves. And maybe, you know, if you were able to make it interactive in the clinic, to say right with this app I am going to sum up the staging. So I am going to do T2, N0, M0, these are the treatment options that I am going to press the button, that will save on the app, I can take that home and say this is what the doctor said, this is my stage, this is my recent grade, this is my PSA, these are highlighted that I've got three or four options, and I can expand those options up and it will tell you a bit more about them.
364	INT:	Okay.
365 366	RES:	So then they are recording the information in a much more presentable, communicable way to their families. That may be an option.
367 368 369	INT:	Okay. And do you think there might be any problems with patients using this app; what sort of barriers do you think there might be to this type of intervention?
370 371 372 373 374 375	RES:	Um, the main barrier will be using it. If the, if thenew, you know, access to a smartphone, or whatever, a tablet, I think if they are familiar with that I can't really see there would be any particular difficulties. Providing the information was logged in, you know, provided the information was in a logical format and the patient was able to step up the complexity of the information in an easy way. If the first time you went in and you were told

376 377 378		about the complexities of, a, you know, a drug that we don't often use, as opposed to the basics, patients will get confused. So I think, provided it was set up well I don't think I probably envisage any major problems.
379 380 381 382 383 384 385	INT:	Yeah okay. Um, and just going back, you mentioned earlier that, you said some clinicians don't particularly like giving bad news. Do you think an app that might, sort of, facilitate question asking on the patients part, do you think that might help difficult conversations like that? Do you think you might, or the patient, um, the patient might be more informed, and would be able, would be more quick to bring up difficult conversations, do you think it might help with something?
386	RES:	Yeah, it may help if the app was
387 388	INT:	So I don't think it will come at the diagnosis stage, but in terms of talking about prognosis perhaps, do you think it might help with
389	RES:	Oh that would help
390	INT:	difficult conversations?
391 392	RES:	\dots yes, yeah, yeah, it would help with that. Not at the diagnostic phase, I think that \dots
393	INT:	Yeah, yeah.
394	RES:	you know, yeah, but
395	INT:	Yeah.
396	RES:	decisions about treatment stage yeah.
397	INT:	Yeah, yeah, mm.
398	RES:	I think it would help.
399 400 401 402	INT:	Okay. And, er, do you think that patients using this app would affect your workload anyway? Because I know you mentioned that you think that the mode of delivery, they bring in paper clippings and things anyway, um, but do you think it would affect your workload if patients brought the app in?
403	RES:	Not really no, no not really.

404 405 406 407	INT:	And you said that some patients might be more informed, and perhaps become more, um, involved in decision making. Er, do you feel that clinicians would require training in how to deal with the more active patients as a result of the app?
408 409 410 411 412 413 414 415	RES:	Well I think the clinicians would have to have some training on the app, um, because if I, if I am giving any patient information, say Prostate Cancer UK website. And I am showing it to them, I need to know what bits I am going to show them. And what, anything on there that I haven't seen because you don't want you know, when you are in with a patient you don't want to be trying to take in information and then you look, er, it's very messy then, it's not not good for the patient. So youthe clinicians would have to be fully familiar with what is on the app.
416	INT:	Okay.
417 418	RES:	Like any, anything you give the patients you have got to know what you are giving them.
419 420 421 422	INT:	Yeah, yeah okay. Um, and so you mentioned a few features that you think would be useful, such as the, um, sort of, tumour markets and things like that. Is there anything else that you could think would be useful for patients for the app to do, other than what we have talked?
423 424	RES:	Scheduling appointments maybe. Giving them a reminder to get their PSA tests done, the tumour marker before their appointment.
425	INT:	yeah.
426 427 428 429	RES:	Um, it might be particularly helpful in that system to, um, er, trigger a telephone appointment withBecause patients often don't need to come to the clinic if they are well. But you need to touch base with them to just make sure their PSA is okay.
430	INT:	Yeah.
431 432 433	RES:	Maybe if you build in a trigger that will set, say, for example, in some patients we don't need to see you unless your tumour marker goes above X.
434	INT:	Yeah, yeah.

435 436	RES:	So if it was plugged in and the PSA was X it would say you need to go see your GP.
437	INT:	Yeah.
438 439 440	RES:	And go back to for a hospital appointment. So you could build in something which would be tumour specific to say, mm, that doesn't sound quite right, I think you need advice on that. So you could build in triggers as well.
441 442	INT:	Yeah okay. And, um, do you think there's any features that would be useful for the relatives or friends?
443 444 445 446 447 448 449	RES:	I'm not sure there's anything over and above that would be unique for their purposesas opposed to over and above what would be helpful for the patient. And the only times at which I am giving information to a relative more than the patients, is where the patient is very sickor they are terminally ill and you, you know, they are in theer, you know, in the terminal stages of cancer, then you are obviously giving information to relatives in a certain way, rather than directly to the patient.
450	INT:	Yeah, yeah.
451 452	RES:	So in this context I am not sure there is anything. Apart from encouraging the patient to share it with their partners/next of kin.
453 454	INT:	Yeah okay. And is there anything that you would want the app to do, other than what we've talked about?
455	RES:	Tell me the lottery numbers every Friday night.
456 457	INT:	((Laughs)) Um, is there anything that you wouldn't want the app to do, that you wouldn't feel comfortable with?
458 459 460 461	RES:	Yeah I think the, you know, the confidentiality thing is an issue. Um, I can't think of anything I wouldn't want it to do without probably looking at what it's going to look like, and can do. Um, I can't think of anything immediately, off the top of my head, that I wouldn't want it to do.
462 463 464	INT:	Okay. And the last question, um, do you think there's any particular types of patient that might be most suited to something like this? So, sort of, age groups, or patients at different stages throughout their cancer journey, do

465 466		you think there's a particular, er, niche for this type of intervention within your clinic?
467 468 469	RES:	Um, I guess it's around the diagnostic stage, and the decision making stage. Because I think there probably is a benefit there, er, because I guess that's what it's targeted at really, isn't it, the information giving around?
470	INT:	Yeah, yeah.
471 472	RES:	You know, not the follow-up stuff particularly. So I think, er, yeah I think it would have a place in that, yeah.
473	INT:	Yeah okay. Alright well that's great, thank you.

1 Appendix 27: transcript for C12 (Onc) (colorectal cancer) 2 3 INT: Okay, um, so could you tell me why you were interested in taking part in 4 this study? 5 RES: Um, I think, er, very important to get the right information to patients, er, 6 it reduces anxieties, it improves, er, that communication link, it improves 7 the understanding between clinicians and the patients. Help in terms of, er, 8 choosing the right treatment for patients, help in terms of not choosing 9 treatment for patients, which is obviously a technically difficult, er, thing as 10 well. Allows that communication probably to expand more appropriately to 11 other members of the family; relations that are obviously important in that 12 also. So I think knowledge is a good thing, um, I think it should aid the 13 interaction between clinician... and demystify a lot of what actually happens. 14 INT: Yeah. 15 RES: And I think the complexity of treatment is what is often the fear, er, for the patients, because it's very much the unknown. So if we can remove that 16 17 fear then that will improve things. 18 INT: Yeah, okay, er, and so how do you decide how much information to give the 19 patients about their cancer at the consultation? 20 RES: Er, so I think some of it is, it's fairly easy to say oh we should give them 21 everything, but actually I think there are two issues; one there is a pace at 22 what information should be given, so certain bits of information will be given 23 at a different time. Now that varies from person to person. 24 INT: Yeah. 25 RES: So I think you do assess the individual, and you see what their responses 26 are to your initial, er, introduction of information, and then decide what that 27 pace is. You will also decide how far you go with that information. 28 INT: Yeah. 29 RES: So some patients don't want to know everything, some patients do want to 30 know everything, and some ... everyone else is a spectrum in the middle. 31 Um, and there's a bit of clinical judgement there; and that's the challenge 32 in terms of an app, er, in terms of how you deal with that. So that I think 33 that's a key component as to how this should be worked.

- 34 INT: Yeah.
- 35 RES: Um, I suppose there some cues that we use, obviously there are various
- non-verbal cues as well as verbal cues. But, er, on app I think you probably
- have the ability to double-ask certain questions where you know there are
- some sensitivities, and that's often what we do as clinicians.
- 39 INT: Yeah.
- 40 RES: So if somebody asks me how long have I got to live, I don't instantly blurt
- out you have got six months. One, because I don't know, er, and two
- 42 because actually sometimes people ask the question without thinking,
- because they think it's just a question they should ask. So actually, in a
- clinical scenario, you can actually say do you, you know, do you really want
- 45 to know that, what are you going to do with the information.
- 46 INT: Yeah.
- 47 RES: Um, er, will it make a difference to you. Er, and sometimes people in this
- situation, if they are given that information, then assuming it's bad, i.e. they
- perceive things very negatively. Um, so within an app I think you need to
- 50 build in that pause, almost to, particularly with more sensitive information,
- 51 um, and obviously it's more difficult to be very specific for the individual on
- an app ...but there are certain sensitive items that are more generic that
- they may not want to know about.
- 54 INT: Right okay. And do you, well how do you provide that information, is it, sort
- of, verbal, written information or ...?
- 56 RES: So, um, verbal initially, but followed up with written information.
- 57 INT: Okay.
- 58 RES: Um, certainly when their therapy is going to be ongoing, um, er, or general
- cancer information leaflets [inaudible 03.03] situation, bowel cancer
- leaflets and other cancers that I'm dealing with then.
- 61 INT: Yeah. And do you recommend any sources of information to patients?
- 62 RES: MacMillan Back-up, um, is generally the first port of call, I know it's well
- worked, I get to review some of the stuff myself, so, um before it goes out.

64 Um, then we have, from Velindre, we have specific ones around the types of 65 treatment, er that we would deliver in sometimes non-surgical cancer care. 66 INT: Yeah. 67 RES: So that's radiotherapy, chemotherapy etc. Um, so those are the probably 68 the core components yeah. 69 INT: Okay. Um, alright then, um, so what kinds of issues do you think clinicians 70 are faced with when talking to patients about their cancer? 71 RES: Um, the clinicians, er, they have to deal with, um, I think, er, giving 72 information in a clear, understandable fashion, that is delivered in a timely 73 fashion to the patient, at a place that they can cope with. 74 INT: Yeah. 75 RES: And then tailoring that into information to the individual. So you are dealing 76 with very sensitive, very emotional, times for the patient, and knowing that, 77 er, individuals can take in that information in very different ways. Knowing that when you are giving information, that actually the majority of what you 78 79 are saying is not going to be taken in first time around, and actually 80 repeating and going over things is, can be a very, er, important part of that. 81 INT: Yeah. 82 RES: But that's where you'd see an app as support, that sort of, that component 83 for patients, I think. Or as written information can do for certain patients. 84 INT: Okay and what about in terms of the patient, um, do you think there's any 85 barriers to communication, um, within the consultation, on the patients... 86 RES: Yes, I mean, I think certainly initially, er, the first barrier to communication 87 is the anxiety ... 88 INT: Yeah, and you've mentioned ... 89 RES: ... that the patient has. 90 INT: ... that they, sort of, don't take it in. 91 RES: Yeah. Um, I think, er, we know through previous experience of interviews, 92 that most of what they take in, as soon as you mention the, and particularly 93 a new diagnosis, cancer, then that's pretty much where the information

94 95 96 97 98		stops. And after that they get very little more from that initial consultation. That's not to say you shouldn't try and give them some more information; obviously other family members, and things, are often present and can take in a little bit more. Um, but I think, er, you know, that's a huge issue to bear in mind.
99 100	INT:	Yeah okay. Um, so do you have experience of using a smartphone or a tablet, um, personally or professionally?
101 102	RES:	Um, personally, I mean, I have a smartphone, er, I have a tablet, I use them frequently for gaining information. I will even
103	INT:	Is that personally?
104	RES:	Personally and
105	INT:	Yeah, ah both
106	RES:	professionally.
107	INT:	Yeah.
108 109 110 111	RES:	Um, so personally definitely, professionally at certain times I do. Er, I think there are, er, certain apps I am not using at the moment that I have used before, er, which can give you information in terms of prognostic information that can stratify patients into different groups.
112	INT:	Yeah.
113 114	RES:	So you can, you can plug in certain, er non, er, named data for a patient and actually it will tell you what their risk of cancer recurrence is.
115	INT:	Right okay.
116 117 118 119 120 121 122 123 124	RES:	That sort of thing. So there are scoring systems for that which can be quite useful. And some of those produce images which can be quite useful for discussing with a patient as well. So you can actually look at the, er, at the survival, let's say, of a patient if they don't receive an agilent chemotherapy. Er, and then you see what impact the agilent chemotherapy would have in terms of increasing that survival, and that will then, it can visually help discussing with the patient um, how that's used. Again, I don't use them at the moment, that's because I don't have a tablet like they use in clinic.

125 INT: Right okay. 126 RES: Um, but in theory there's things that the clinician could certainly use quite 127 effectively. 128 INT: Okay. So do you think if clinicians had access that this is something they 129 might take up? 130 RES: Yeah, no I think it, I think they would do, yeah. 131 INT: Okay, um, alright then. Um, do you think patients would want to use, um, 132 an app, um, the type of app we talked about? 133 Definitely a proportion of patients. I think there is, er, and I think it will RES: 134 increase as well. I think this is why it's timely, and you look at the, er, for 135 want of a better word, younger generation, er, and they will almost 136 inevitably, by the time they get to the median of where cancer's occurring 137 ... obviously it can happen young, but the majority of cancers happen as you 138 get older. 139 INT: Yeah. 140 RES: Er, will be in the scenario, in the technology world, where the app is 141 standard, or an equivalent, there may be something beyond the app that 142 will occur, where they will look to the app to try and answer questions. They 143 will look to their smartphone to try and answer questions. Um, I think that 144 having said that there is an older population at the moment who have 145 adapted apps very effectively. 146 INT: Yeah. 147 RES: Er, and it is, they are generally very user friendly. There is a cohort of 148 individuals, particularly the more mature group, who don't know what an 149 app is. Er, and so I think there is a spectrum obviously. 150 INT: Yeah. So would you say age is a barrier, or do you think [inaudible - 07:36] 151 . . . Not age specifically. I think you've got this trend across the different ages 152 RES: 153 which will, if you wanted to, sort of, put it statistically then they are less 154 likely, er, than the younger group to use the app, yeah.

- 155 INT: Okay, alright then. Um, and what about clinicians, do you think they'd mind 156 patients using this app during a consultation? 157 RES: Um, I think, er, there would a variety. 158 INT: Yeah. 159 RES: I think there are clinicians are wary of things ...that break up this scenario. 160 There are, um, there were, there are, very sensibly I think, concerns about 161 what information is on there, and the speed at which that information is
- There are, um, there were, there are, very sensibly I think, concerns about what information is on there, and the speed at which that information is given. Um, and the, and the utility for the individual. Um, so I think there are some sensible concerns, there are some blocking concerns, just because ...because people don't want to change things. Um, they can potentially, obviously, slow down consultations, so then ...you make them longer.
- 166 INT: Yeah.
- 167 RES: Er, we have to bear that in mind. But I think in the end of you have a quality
 168 consultation, in the end it probably speeds things up overall. As well as
 169 improves the quality of that consultation.
- 170 INT: Yeah okay. And what about outside of the consultation; do you think 171 clinicians would mind patients using an app, sort of, without their 172 supervision?
- 173 RES: Um, I think, well I think if you are going to have an, er, then I think you 174 have to be prepared for that. I mean, they can get this information off the 175 internet generally speaking anyway. Um, what you have, the ability with an app is to give some control over that, because if you go to the internet and 176 177 do a random search you will come up with a lot of misleading information 178 ...a disinformation. Er, which patients find scary, because they are then 179 confused by, er, the information given by the clinician, and they haven't, er, 180 and it's not necessarily true for their case.
- 181 INT: Yeah.
- 182 RES: Um, so I think we are, we are aware that happens anyway. If you have an app in which that information is more effectively controlled; both in terms of the type of information available but the speed at which that information will come through, er, then I think you have got a greater utility for that app to work.

187 188 189 190	INT:	Yeah okay. Um, and what about, um, relatives, because we are thinking perhaps the patient, um, isn't keen to use the app, they may have a son or a daughter that might use it on behalf of them, do you think this is something they would like to use?
191	RES:	Yeah, no I think that would be a very, very good way of doing it, yeah.
192 193 194	INT:	Okay. And what benefits do you think there might be for patients using this type of app? I know this, sort of, depends on what features the app will have, but, um in general?
195 196 197 198 199 200	RES:	I thinkI mean, it does depend on the feature, I mean, I think there are, er, in one of the, er, a common scenario, let's say, is when I see a patient, particularly in a new situation, or a changing situation, I am aware the information I will give, and the limited, sometimes limited information they will retain. But I encourage people to go away and think of questions and bring them back and write them down.
201	INT:	Right.
202203204205206	RES:	This will help augment that, so you could have things on an app that trace the sorts of things they wanted to look up. So that then when they go away, and they say right well I, when I got away from you I couldn't quite remember what you said about this or you said this, and I was worried about that, so I looked it up.
207	INT:	Yeah.
208 209	RES:	And you can almost go back through the history of what they looked up, and actually retrace some of those questions.
210	INT:	Yeah.
211 212	RES:	And make sure the information on the app was clear, whether it related to them specifically or not.
213	INT:	Mm.
214215216	RES:	So you have an ability to use the app to track and store the information that the patient has actually tried to utilise and guide that then once they've actually looked it up, and see if it's appropriate to them.

- Yeah okay. And, um, what about clinicians; what kinds of benefits do you think there might be for clinicians?
 RES: Um, I mean, although the initial impression is that it will probably slow things
- down, I think overall it will speed things up. Um, I think overall it will create a much better relationship between the clinician and the patient and relatives. Er, I think communi... you know, the biggest problem in medical healthcare, generally speaking, is poor communication. It's where something has been miscommunicated, or not effectively communicated, um, that leads then to anxiety, to medico-legal issues etc. So I think if you are clear about that information I think it will be a very positive outcome ...
- 227 INT: Yeah.
- 228 RES: ... for clinicians as well.
- INT: Exactly. Um, and just going back to the patients, we touched on some of the short-term benefits, do you think there are any longer term benefits, do you think this could affect patient outcomes...So you mentioned that perhaps it could reduce anxiety?
- 233 RES: Mm. So I think reducing anxiety is obviously a very clear one. I think you've
 234 got, you have a lot of patients now who have been cured with their
 235 treatment, whatever treatment that is. And actually they are then put into
 236 follow-up regimens. Now you could build in an app that did multiple different
 237 things; one, you could build in so that that patient understands what their
 238 standard follow-up pathway would be.
- 239 INT: Yeah.
- 240 RES: You could even build in things that go onto their calendar and say you will
 241 be due a colonoscopy in three years' time, a follow-up appointment in three
 242 months' time. So that they take a bit of responsibility for their own care.
- 243 INT: Yeah.
- 244 RES: The NHS is, has got all its imperfections, and actually if the patient is in charge of their own care and is able to augment that by saying actually I should have been this, that or the other, and for some reason it's gone missing, they can really help.
- 248 INT: Yeah.

249 RES: Um, it also has the ability to link in then with, you know, making sure you 250 come to appointments even. 251 INT: Yeah, yeah. 252 RES: Making them understand why that happens. I know in other hospitals, not 253 on an app, so to say, but actually people have the availability in certain 254 hospitals in the UK to actually access online their actual clinical data. So they 255 can look up their tumour marker result, for instance if that's part of their 256 follow-up. 257 INT: Yeah. 258 RES: And actually they can then flag any issues if they are concerned about it. 259 Now as long as they are well informed as far as that's concerned I don't have 260 any fears about that. They will know, they might even get their CT scan 261 result that they can get downloaded from the computer. So an app could 262 actually, potentially, be integrated with that in the long-term as well. So 263 very much personalising their information. Which over a longer period of 264 time, er, will help engage their, them as an individual in the process of their 265 care. 266 INT: So do you think this app has a place, um, sort of, post-treatment then? 267 RES: Yeah. 268 INT: Do you think it could help them? 269 RES: I think so, yeah. Okay, um, alright then. And we talked about, you said, um, perhaps it could 270 INT: 271 improve the relationship with the clinicians. 272 RES: Mm. 273 INT: Um, so do you think the app would have an impact on communication with 274 your patients? 275 RES: Yeah. So I think there may be, the app, um, can be introduced, obviously, 276 at various different stages, but certainly prior to the second visit, if they 277 download the app and they have been on to answer those, ask those 278 questions, they will be able to, you know, certain things might be, common 279 questions that are asked. The frequent, you know, the facts, the frequently

280 281		asked questions, they may want to go through those before they then come back and see you second time, or even, or the first time.
282	INT:	Yeah, yeah.
283 284 285 286 287 288 289	RES:	Because if it's a well-known app then the carer, the relative, the son, the daughter or the individual may well have downloaded it. And said right I am going to see them, I know it's going to be something about bowel cancer, because they had a look and they said there was a lump, and they thought it was going to be a cancer. Well look, I have looked up these questions, and actually that will, like, help guide them when they actually come to that assessment.
290	INT:	Yeah.
291	RES:	And help aid them in that process.
292 293	INT:	Yeah okay. And do you think the app would have an impact on how patients and their family share information?
294 295 296 297 298 299 300 301 302 303	RES:	Yeah, well I think again, if there is more commonality in terms of the information that's given then actually if son A in Australia has the app, and, um, the individual has the app also then they have looked up the same consistent information. And the consistency of information is important, as I say, the difficulty is you have one family member that looks it up on the internet, has slightly the wrong information, and gets a very differently outlook the disease. Compared to people looking up on the same information sites, and therefore being consistent in terms of how they are discussing things and that will improve family communication, which is a very positive outcome.
304 305	INT:	Yeah okay. And do you see any problems with patients using this app; were there any barriers that you can see?
306	RES:	Those who don't want to engage in technology.
307	INT:	Yeah.
308 309 310 311	RES:	So you miss a cohort of people as far as that's concerned. I think it's technically a very difficult thing to do well. Um, it's, it can be done, er, very superficially, or it can be done in-depth. Um, there could be potentially a huge amount of work engaged in it, if you want to take it and build on it,

312 313 314 315 316 317 318		but I, you know, the first steps I think you need to take are fairly simple annd that's things like frequently asked questions, things that lead them to websites that would actually give them additional information. Um, things that lead them to, er, places or persons that actually can be of help to them. Um, whether that be ensuring that somebody with an incurable disease is referred through palliative care, and what palliative care consists of, and what local facilities for palliative care there are.
319	INT:	Yeah.
320 321	RES:	Um, or, er, more specific information about treatment that's going to be potentially required.
322 323	INT:	Yeah okay. Um, and do you feel that patients using this app would affect your workload in any way?
324 325 326 327 328 329 330	RES:	Um, I think, er, it does depend; I think there are certain patients who will want to scroll through the app consistently through the, um, through the consultation and you have got to be a little bit cautious of that. One, that they are actually paying attention to the answers you are giving, rather than just the app. But I think it could be a support, certainly a supporting tool. Um, I think overall it's got potential to improve the time management, as opposed to be detrimental to it.
331	INT:	Yeah.
332 333	RES:	But I think there are probably some short-term losses and some long-term gains.
334 335 336	INT:	Yeah okay. Um, do you feel that clinicians might require extra training in how to deal with perhaps more active patients as a result of the app, if they are asking questions?
337 338 339 340 341	RES:	Um, I think, I think we should, I think it's not specific to the app, I think, um, we are getting increasingly, without necessarily any training, increasingly aware of the cohort patients who will go out, look up everything on the internet, bring in the information to you in reams of documents and things.

342 INT: Yeah.

343 RES: Or say do you know about this or this, etc., etc. So we are getting used to 344 that anyway. Having said that, I don't think it's a bad idea that clinicians 345 are continually updated in terms of what's available, er, and how individual 346 patients are managing this. So I think there is very limited research to say 347 how we should deal with it, we deal with it because we are used to dealing 348 with communication with a, with a broad spectrum of patients but actually 349 there may be specifics, er, related to patients who are very proactive in 350 seeking things on the internet, alternative therapies, for instance, as well, 351 for which better training for doctors would be useful. But we haven't got the 352 evidence base to say whether that would help or not. But you, you could ... 353 certainly another piece of research would be to look at that sort of issue.

354 INT: And what about, um, training on the app, do you think it might be a good idea, um, to have clinicians just trained in, you know, this is what the app ...

357 RES: Yeah.

358 INT: ... does, do you think ...

359 RES: I think ...

360 INT: ... that would be useful?

361 RES: ... I think that's very, very useful. And, er, cancer clinicians, I think,
362 particularly oncologists, are aware of things like websites such as MacMillan
363 Back-up and things like that, Cancer Research UK. Um, not all are, and I
364 think if an app was to become fairly standard, then actually knowing about
365 that information would be good.

366 INT: Yeah.

367 RES: We are generally used to what's contained in our information leaflets. Er,
368 but actually this would expand beyond that and, er, it would be helpful to
369 have some sort of training in it absolutely. Most of it hopefully would be fairly
370 simple, so it maybe the app itself you can train just by downloading the app
371 and having a look at it.

372 INT: Yeah, yeah.

373 RES: And it would tell you what it's about, the sort of information ...

374	INT:	A tutorial.
375	RES:	that's on it. Absolutely.
376 377	INT:	Yeah okay. Alright so what sorts of app features do you think would be most useful for patients? I mean, other than the ones we've talked about.
378 379	RES:	Um, again it depends on the spectrum that you wish this app to, sort of, link into in the end.
380	INT:	Yeah, yeah.
381 382 383 384 385 386 387	RES:	So you've got everything from the, er, the more generic information about what, er, what the cancer is, that particular cancer type, what it means, what the types of treatment are, um, down to things that are local level, so bring them as local as possible. So you might say, you know, your treatment is likely to be given in Velindre, if it's this type of cancer. Or it might be, it might be it is likely to be given in your local hospital, er, down to that whole specific information. It links, as I say, with palliative care.
388	INT:	Yeah.
389 390	RES:	Contact, er, financial support that's locally available, for instance. Transport links, and how you
391	INT:	Sort of, addressing
392 393 394 395 396 397 398 399	RES:	what if there's an ambulance issue and you haven't got a car, how do you go about doing that, so logistical things which are a bit more specific, and then you can move on all the way down to the other end of the spectrum, which again, as I said before, is you could use the app, potentially, to link to their personal information in a secure fashion. That actually they would log on to their computer notes, they would log on to their results. Er, they would, er, download specific timetabling of when their appointments should be.
400	INT:	Yeah, yeah.
401	RES:	Um, and I think those could take it, you know, to that extreme, I would say.
402 403	INT:	Okay. And what about, um, for relatives and friends, do you think there are any app features that would be useful for them, if they're any different from

405 406 407 408 409 410 411 412 413	RES:	Yeah I think there are, I think there are; I think the relatives' perspective is often very different to the individual. Um, relatives will often feel that, strangely enough, relatives often feel more stressed than some of the patients, because they feel useless, they feel they can't do anything. I think where one, an appreciation of the perspective of the relative, um, an appreciation of their optimal interaction with the patient, generally speaking, so actually talking about things is not necessarily a bad thing. Things like, particularly with more advanced disease, where things like appetite become an issue.
414	INT:	Mhm.
415 416 417 418 419 420	RES:	Often things, family get very stressed about how much the individual is eating. Whereas the person with the anorexia just doesn't feel like eating anything, and the anxieties that raise then between family members, both meaning very well but actually not fully appreciating or understanding where the other person is coming from, and information like that would probably help with their interaction much more effectively.
421	INT:	Yeah.
422 423 424 425	RES:	I think there are support networks which, er, could be more specific to patients as well, so the ability, the knowledge that as a relative or a carer they are actually talking with things like palliative care teams is actually still very relevant.
426	INT:	Yeah.
427 428 429	RES:	The palliative care team is for the whole unit and if your palliative care team can help, er, the carer that will help the individual, and that's the whole process which is important. So I think that will, that it can certainly help.
430	INT:	Yeah.
431 432	RES:	Um, I thought of something else for relatives as well, but they are probably the main things I can think of at the moment.
433 434	INT:	Yeah okay. Um, and is there anything that you would want the app to do, as a clinician?
435	RES:	Um, I think it would be nice to know if it, if the patient wishes you to do so,

um, the sorts of things that patients are looking up.

437	INT:	Yeah right.
438 439 440	RES:	I think it would be nice to have feedback from the app, to say right what sorts of things are happening, I think, er, you could also use the app more effectively in the future. I mean, in Wales as a whole, but in Velindre
441		probably more specifically, we do a lot of trying to get patient feedback.
442	INT:	Yeah, yeah.
443 444	RES:	So there may be questionnaires about satisfaction, er there may be them being able to raise issues that they are concerned about. Um, that could be
445		hugely powerful in terms of us trying to adapt our service to a more effective
446		system in the future. So I think that's, you know, it adds potentially great
447		value to that sort of thing.
448	INT:	Okay, that's interesting. Um, and is there anything that you wouldn't want
449		the app to do, that you wouldn't feel comfortable with it doing?
450	RES:	Um, no I think, I think in the right context you can deal with most things. I
451		think there are, I can see how some clinicians would have concerns. So you
452		look at the situation in England at the moment with regard to surgical
453		outcomes, and, sort of, this slightly, er, which you can do anywhere on the
454		web, is try and find out what, you know, how many operations your surgeon
455		has done of that particular type, etc. I think they are still good things to do,
456 457		but I can see there are anxieties, um, from clinicians that may be, er, slightly problematic in terms of the depth at which such an app would go to.
458	INT:	Yeah okay. Um, and so the last question, er, are there any particular types
459		of patient that you think might find this app useful; do you think there is a
460		niche, perhaps, along the cancer pathway for this app? Or do you think that
461		it could be suitable?
462	RES:	I think it could be suitable for all; I don't think there is any
463	INT:	Because you mentioned that
464	RES:	routes.
465	INT:	with treatment it could be, so
466	RES:	Yeah.
467	INT:	do you think that?

- 468 RES: So I don't think there are any groups that it shouldn't be considered for.
- 469 INT: Yeah, okay that's great. Do you have anything else you would like to add?
- 470 RES: Um, so the only other thing I would add is just in terms of what other things 471 are happening elsewhere for ... you develop an app, and you have basically 472 got to pool things together. So I know there is work going on, er, for
- instance, for toxicity assessment apps. So, um, let's say we are routinely
- giving a course of chemotherapy, let's say over six months.
- 475 INT: Yeah.
- 476 Then each week, every second week, or third week, somebody has to come RES: 477 in, and then they are seen by the clinician or the non-medical prescriber. 478 They go over their list of side effects from previous treatment, then, er, then 479 adaptations are made. You would have the potential facility within this to, 480 er, link to the same app there, where what is actually happening, patients, 481 before they come to clinic, are answering a fairly standard group of 482 questions, which is then available to be recorded on their notes. You could 483 then look at the trend in changes of toxicity; so if you can see certain things 484 are accumulating in terms of significant problems, it might be much more 485 effective in terms of raising concerns about the next cycle of treatment.
- 486 INT: Yeah.
- 487 RES: And therefore reduce, not only morbidity, but potentially mortalities,
 488 because patients can die of treatment. But if you can flag things at an earlier
 489 time point by tracking them in detail, using the... the patient, then I think
 490 that's got potential ...
- 491 INT: Has that ...
- 492 RES: ... safety issues.
- 493 INT: ... [Inaudible 25:25] evaluations of, um, toxicity actually? Are they the ones you are referring to, have you come across them?
- 495 RES: Yeah.
- 496 INT: Yeah, yeah. So I am aware of this, it's really interesting, yeah.
- 497 RES: You can also look at toxicities, sort of, late outputs as well; so when we give, 498 I mean, I give radiotherapy to the pelvis, and radio... to the pelvis, when we

499 500		use it it can be palliative, but for a lot of the patients it's for curative treatment.
501	INT:	Oh yeah.
502 503 504 505 506 507	RES:	And we follow up people for a period of time. But some toxicities can come quite late, so actually the ability to link into some of those other things from patients, even when they are discharged and see where help can be sought, whether their symptoms are expected, whether there's anything can be done about them. Thosethose sorts of things might be helpful in the future as well. So survivorship issues I think are important.
508	INT:	Yeah.
509 510 511	RES:	One of the important things we are beginning to look at in terms of clinical research, and clinical care, is a think called patient reported outcome measures, or PROMs.
512	INT:	Yeah, yeah.
513	RES:	And so you would have some ability to look at those more effectively as well.
514	INT:	Yeah. And what sort of PROMs would you suggest might be helpful for us
515516517518519	RES:	Well that's the whole difficulty about PROMs, so to get a good PROMs data- set you need a, you know, quite an extensive analysis to actually hone those down which consists of interviewing numbers of patients and clinicians, and, um, er, nurse specialists etc. So, er, and certainly it comes down to be fairly disease specific, fairly treatment specific.
520	INT:	Yeah.
521522523524	RES:	But in the context of, let's say, pelvic disease it's going to be things like incontinence, urinary incontinence, bowel incontinence, pelvic pain, buttock pain, er, these are things that are commonly flagged by patients as a concern. Um, and
525	INT:	And what about psychological PROMs?
526 527 528	RES:	Yeah, and they are important as well; so emotional anxietiesall of those issues, the ability to interact socially, era very important patient reported outcome measure potentially as well.

529530531532	INT:	Okay. Um, and I just quickly wanted to ask you, because you are an oncologist, do you think you have any, sort of, different perspective on this app compared to a surgeon? Do you think there is anything that you would want the app to do that?
533534535536537538	RES:	I think we are, we are becoming increasingly multi-disciplinary in terms of understanding what one another do. But I am sure we will have different contexts in terms of what we would expect it to do. I suspect, as an oncologist, we are probably more broad reaching than some of our other colleagues in terms of what we would anticipate from it. Um, but no, I mean, I think it's, er
539	INT:	You seem to have touched onto
540	RES:	generic [unclear – 27:44] (speaking together)
541 542	INT:	the same issues. I am just, I am just trying to pick up if there is anything that you, sort of, view differently to a surgeon, as an oncologist?
543 544	RES:	I think my, er, I suppose you could flag there are things, er, and the instant thing is that ability to track somebody's toxicity over the period of treatment.
545	INT:	Right, okay yeah.
546547548	RES:	You know, most surgical treatments are as treatment would cover. Um, you do want some follow-up data, or you want some data that says actually you've got chronic abdominal pain after your surgery then that's useful.
549 550	INT:	So perhaps we could incorporate, you know, a feature that it might be useful to incorporate.
551	RES:	Yeah.
552	INT:	Okay that's great, thank you.
553	RES:	Thanks.

554 End of Interview. Duration 29:00.

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I - okay, so firstly could you tell me why you're interested in taking
    part in this study?
2
  3
  4
    DS230135.M – always happy to help with research and I think any
5
    patient information is under studied, probably not that well
6
7
    addressed with a lot of new technology we should be able to use it
    better and there's lots of sources that we should be able to put
8
9
    together to help people ask the right questions, not just rely on
10
    what's said during consultation perhaps be supported better with
    other media that would be good
11
12
13
14
    I – okay and so in your consultations how do you decide how much
15
    information you give to patients about their illness?
16
17
    DS230135.M - um, mainly it's led by the patient um, sometimes by
18
    the relative, the family whoever is attending with them as well
19
20
21
    I – so they could decide how much they'd like?
22
23
24
25
    DS230135.M - yeah I mean in general our patient group, breast
26
    cancer um, is most patients want most information so we go with the
27
    premise that we've got to have time to give information, if the
28
    balance you know um, is not overwhelming important information
29
30
31
    I – okay
32
33
34
    DS230135.M - we have to answer questions that people want
    answered not just, some of it you've got there is information that you
35
36
    have to give, you've got to give for safety reasons and stuff, but
37
    mainly it's let by the patient
38
39
40
    I - by the patient, okay and how do you provide that information is
41
    it verbal, written or a combination?
```

I - and do you recommend any sources of information to patients like helplines, or charities?

DS230135.M – yes, I mean we have, so I think the information that we give does have some....I think some of the recent information sheets to recommend, do mention that you can get extra information from the <hospital> intranet which has recently re-launched, um and we, I know that patients come because we're not seeing patients we're not the first people to see them, so they've had information, they've had sorts of information, often breast cancer care, and information sheets and we have 2 sources that we generally say to trust because they're relevant they're proportional, they quite well written that's Breast Cancer Care and McMillan but we offer, like we do give people information about Tenovus, but that's more um, but that's more for counselling and help with benefits and stuff like that

I - okay

DS230135.M – and we're aware that a lot, you know some information out there, sometimes that's daunting rather than helpful we signpost generally to McMillan or Breast Cancer Care and a lot of information in all the places is quite similar it's been adapted, people have shared it around and adapted it

 I – yeah, alright then and what kind of issues do you think that clinicians are faced with when talking to patients about their illness in consultations?

 DS230135.M – well um, well I guess there are, there are different agendas there's what the patient wants to know and there are things that you feel that need to be said, that maybe as we said for safety, also for moving the treatment plan forward, so there's a bit of pressure of time to get it all, to get it all done in the time that you've got and, and not spend too much time, that you've got too much information and they can't take it in

```
I - yeah
86
 87
 88
89
     DS230135.M - and what's the bit I'm not sure I've answered your
     question?
90
 91
 92
     I - uh yeah, yeah what kinds of issues do you think clinicians are
93
     facing, so other things that clinicians have said, or you know there's
94
     too much information patients hear the word cancer and then they
     you know it goes over their head, or they're in an anxious state
96
97
     coming in...
 98
 99
     DS230135.M - yeah, so yeah and often there's also the complex, or
100
     differences between what the patient may want, the amount that
101
     the patient may want to know and can take in, and there's the needs
102
103
     of the partner, there which may be quite different, and though one is
     there for the patient primarily obviously the family have an impact
104
105
     and that can drive you as a clinician, it's unfair to leave them without
106
     some guidance, I mean we do a lot of it by staging because we can do
107
     a certain amount and then we tend to reinforce, we have multiple
108
     visits usually
109
110
111
     I - right okay
112
113
114
     DS230135.M - so we can reinforce it and then there's
     professional teams there's usually a nurse specialist involved who
115
116
     may not, maybe more than one and then maybe in, in each of the
     times, but they're always there for, there's other people you know to
117
     ask questions
118
119
120
     I - okay and what about experience of these sorts of devices. Do
121
122
     you have any experience of using a Smartphone or a
                                                                      Tablet
     computer personally or professionally?
123
124
125
126
     DS230135.M – personally yeah, yes very
127
```

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```
I - and is it a mobile or a tablet or both
129
130
131
132
     DS230135.M - both
133
134
135
     I - both yeah
136
137
138
      DS230135.M – as little as possible
139
140
141
     I - okay ((laughs))
142
143
144
      DS230135.M – professionally....hmm with patients, no but
      considered trying to get hold and I think if there was
145
      information um, especially visual information, perhaps I think tablets
146
      would be excellent, but I haven't pursued that much because the
147
      visual information isn't great, the provision of information out there
148
      isn't great, so a lot of people like to, often a picture is better than...
149
150
151
152
      I - right okay yes, so that's what I was going to say what would you
153
      use the tablet for with the patients?
154
155
156
      DS230135.M - well I think in a consultation you could use it to show
      things, ((rummages in bag)) things like this, and this is not
157
      relevant to us cos it's from an app this is from bowel cancer type
158
159
      things, but um you can show anatomy which is, for some things it's
      quite helpful, um, and you might be able to show imaging, if you
160
      know if you could show their scans and stuff on a tablet it might be a
161
      lot easier, because we do often try to show it on the screen on
162
      desktop screen, but that's a bit cumbersome and it's not, I feel
163
164
      not great, it's nothing to point at...
165
166
167
     I - yeah, yeah
168
169
170
      DS230135.M – so that would be quite useful um, and you could show
      figures like survivor and risk information. I do show that to people
171
```

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that might, that might be friendlier if it's in front of them like that
172
     and then potentially if you could take that away in an electronic form
173
174
     and then the patients could sit and think about it, rather than having
175
     it flash up on the screen and then take a slightly black and white
     dodgy printed version of it if they really wanted to
176
177
178
     I - so you've mentioned that it might be friendlier, can you just
179
180
     explain what you mean by that? It could be friendlier on a tablet
     for the patient compared to looking at a computer?
181
182
183
184
     DS230135.M – well um, because if you've got it on your lap you've
     got control of it, and you, it's I don't know ((laughs))
185
186
187
     I - ((laughs))
188
189
190
     DS230135.M - I don't know, it's just, yeah what's the word the
191
     ergonomics of it, you can see it better and you can focus in, because
192
193
     if you're leaning over somebody's desk it's, it can be, you might find it
     difficult to see, let alone feel that it's yours, and then you could take
194
     it away couldn't you into another room and have a look at it and have
195
196
     it on in the car
197
198
     I - hmm that's brilliant that's a good point.
199
                                                                 Okay so that's
200
     interesting. So you are familiar with apps and you don't use any for
201
     work, okay
202
203
204
     DS230135.M – no, not for....
205
206
     I - patients?
207
208
209
     DS230135.M – yeah not for patients, educational and stuff
210
211
212
213
    I – educational and stuff, and what sorts of things have you used?
```

215 216 217 218 219 220 221 222 223	DS230135.M – well sometimes at the meetings, I'll tape stuff and that, but I do look at journals and stuff. I do use apps for practical stuff like converting weights and stuff like thatand they're very useful for managing diaries and stuff like that uhif you're looking at protocols sometimes and you can just surf, just looking on the internet sometimes, but not actually showing to patients I don't, no, I don't
224 225 226 227	I - okay alright so the type of app we've talked about, do you think patients would want to use that type of app?
228 229 230	DS230135.M - well obviously some would, and some wouldn't yeah
230231232233	I – okay so could you just elaborate a bit on that
234235236	DS230135.M - I mean there's
237238239	I – who could you imagine would use it, and who might not use it?
240 241 242 243 244 245 246 247 248 249 250 251 252 253 254	DS230135.M – I mean sweeping statements like that, I imagine that younger people who and we do have quite a significant uh percentage of our patients maybe under 50 um, I imagine that they generally most people would have a smart phone and they would be used to using apps, um, I think those people would want that kind of information but it's whether the technology would be something that they would be able to use comfortable with, but maybe, you know if you took in people and their families then that would probably be lots of people, most people would come with somebody because you know at that sort of age I – okay so you think mayberelatives and friends could use it?
255 256	DS230135.M – yeah

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258
     I – well that was my next question ((laughs))
259
260
261
     DS230135.M - you know I hadn't thought
262
263
264
     I - yeah, if they have a younger daughter or son
265
266
     DS230135.M – yeah I mean most people would come with somebody
267
268
     who's in an age group who's comfortable with technology
269
270
     I - yeah, yeah okay and what about clinicians, do you think they
271
     would mind patients using the app during consultations?
272
273
274
275
     DS230135.M – I would be happy, I can't...yeah
276
277
    I - yeah, and what about other clinicians can you see any concerns?
278
279
280
281
     DS230135.M - I think er, I mean it's a bit irritating when people are
     using their phones and texting and stuff, but I think as long
282
283
     as...people realise, it's for, it's just like having it written on a piece of
     paper isn't it?
284
285
286
     I - okay and do patients come in with a list of questions?
287
288
289
290
     DS230135.M - yeah, yeah
291
292
293
     I – and how do you find...
294
295
     DS230135.M - they come in with their spiral notebooks and things
296
     like that
297
298
299
```

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I - ((laughs)) how do you find that in terms of communication? Do
300
     you find that, that can be a bit distracting for them, or do you feel
301
302
     okay with that?
303
304
     DS230135.M - no I think that's usually healthy and helpful because it
305
306
     means that you know they, they remember the things that they
     wanted to ask and get a chance to go through...
307
308
309
     I – okay, so you might think that there might be a different attitude
310
311
     if someone was doing that on a mobile?
312
313
     DS230135.M - no because as long as that, it was if they only did
314
315
     that....
316
317
    I - and they weren't calling people up
318
319
320
321
     DS230135.M - yeah okay, getting multiple texts during the
     consultation, it's more likely to be people, like sat next to the patient
322
     rather than them themselves, it can be you know it's a bit distracting
323
     and the boundaries, peoples' boundaries are quite different aren't
324
     they?
325
326
327
328
    I – yeah, and what about....
329
330
331
     DS230135.M – it's a generational thing isn't it...
332
333
334
     I - and what about at home do you think clinicians would be happy
     for patients to use it at home?
335
336
337
338
     DS230135.M – yes of course
339
```

I - okay, so what benefits do you think there might be for patients using this sort of app, I know it's difficult because we don't know exactly what the app will to do at the moment DS230135.M - it'll give a framework wouldn't it for helping um helping people to cover the right sort of domains and questions, um, and to give um, help people to consider all the things that they might want information about, and um, and obviously then to prioritise and personalise things that they want to know and things they specifically want to know and then, you know like bits of paper is to me to help them to remember and to recall. I don't know how easy it would be to record the answers that you've got, but that's a disadvantage isn't it? I think it's you know probably quicker for me anyway it's quicker to write it on a piece of paper than it is to try and type something in I - yeah, yeah that's true DS230135.M - but I mean would this be personal an app on their personal device? I - yes I think so yes DS230135.M - so I - so maybe it might be easier for them to record it DS230135.M - yeah you could record, but I mean in the other way, I don't know, a bit like you can do with apps that children have, whether it would help for it to explore, or maybe to be probed to see what information has been looked at you know what I mean? I - yes so...

DS230135.M - so the clinician or the team could 383 see what 384 information the patients have been, not to sort of spy on them, you 385 know to 386 387 388 I -ah okay, yeah to get a feel for what information the patients 389 want 390 391 392 DS230135.M – yeah and maybe how much they've accessed and...um 393 yeah cos word, yeah I guess the main benefit from anything 394 electronic you can link, you can link to, it's easier to signpost and link to other electronic resources then rather than....and that might break 395 down the barriers for some people who, you know aren't used 396 397 that kind of thing, if it's got an easy interface and they go well you know click on this bit here to find out about information about 398 McMillan then that's quite, if it's quite simple and accessible then 399 that's... 400 401 402 403 I - okay, and what about the long, do you think there would be any 404 long term benefits? 405 406 407 DS230135.M - well generally if people are better informed then 408 usually it's better for everybody, if they want to be, as informed as 409 they want to, it usually makes communication much better and 410 people ask about questions and yeah... 411 412 413 I - okay, you just mentioned a lot of similarities that people 414 bringing in pieces of paper, can you think of any advantages that 415 this app might have over patients bringing in bits of paper or... 416 417 418 DS230135.M - well it would be hard,...you should be able 419 safeguard the information better because it could get lost, and you 420 could share it eas...more easily couldn't you with your um, with your 421 relatives and yeah, if you could, yeah 422 423

424

425

I – would you be able to share, do you think it's more accessible or?

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426 DS230135.M – yeah I would imagine it is... 427 428 I - what they could download the app, I'm not sure 429 430 431 432 DS230135.M - yeah I don't know, I know from personal experience 433 you know when your family go to see somebody it's quite common 434 now for them they'll send you the information about it in an email 435 you know or something like that....so you're sending out you know give you the option and you could share it with your family without 436 437 having to.... 438 439 440 I - so they get 441 442 443 DS230135.M - and they could get the details from the information, 444 rather than having to...yes so direct rather than to be um, sort 445 translated from the patient and they don't want to keep talking about it and they can sent that 446 447 448 449 I - yeah okay 450 451 452 DS230135.M – but that's if what the information is personalised to 453 them you know exactly rather than just more general information 454 about their condition 455 456 457 I - okay and what about, yes and we said that family and friends 458 might want to use this kind of app, but what benefits do you think there might be for clinicians if patients are using an app? 459 460 461 DS230135.M - well yeah I think, it would help people to focus about 462 what they want, they could do some preparation for consultation 463 um, because it could guide people, I mean there is information 464 people out there, I know McMillan do a good leaflet about questions 465 466 you should ask your cancer specialist, something like that but you know if we gave everybody all these leaflets.... 467 468

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469
      I - we'd just have...
470
471
472
      DS230135.M – you'd have to have a suitcase for some, where
      they had a bit more, if bits of those were taken into the app so it's a
473
474
      bit more personalised, it's got the relevant bits of each thing I
475
      suppose clinicians could set up you know an information prescription
476
      I mean you could have a set prescription for each of your types of
477
      patients I think that could go onto the apps that could be quite
478
      adaptable you know some could have the basic bits and
479
      tailored for this, bits tailored for that uh you could tailor it for your
480
      patient
481
482
483
      I - and what about communication, you said earlier you think "it
484
      could improve communication"
485
486
487
      DS230135.M - ((interview interrupted with someone walking into the
488
      room))
489
490 *End of part 1 of recording*
491
 1
     *Part two of recording*
     DS240136.P2.M - I mean what we found from and this is anecdotally
 2
     um, with any qualititative research but when we done a pilot here in
 3
     our team of doing copy letters, so copying clinical letters to the
 4
     patient, so that, I mean in my experience doing that I found was very
 5
     helpful in uh, improving the accuracy of what was in them and also
 6
 7
     helping people to focus on sort of the information they wanted and
     asking about peer questions, some of it was already answered, you
 8
     know some of it didn't need to be questioned because the reminders
 9
     or prompts were in the letter cos I think that this could work really
 10
     well if it, if you could tailor it exactly, you know to that person
11
12
     their condition and you could um, yeah, then it would be such good
     backup so they wouldn't have to remember everything, it would take
13
14
     some of the pressure of as well so you could have a more, the
     consultation is, can be overwhelmed by information giving, it can be
15
     more of an exchange then if they haven't got that pressure thinking
16
     they've got to try and remember everything
17
17
18
19
     I - okay, yeah so they can sort of focus more on the discussion
     rather than try to take everything down?
20
21
22
23
     DS240136.P2.M - yeah
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24
25
26 I - okay, and what about communication and their families? Do you
27 think an app would have an impact on how they talk about their
28 illness and share information? I mean you've already said "it's

easier to sort of send the information to your family" So do you think it might improve it, or hinder it?

DS240136.P2.M – yeah I think it might, yeah I think it could be much more open then

I – okay

DS240136.P2.M – I'm sure it won't... it'll have downsides for some people but it would be much, it would be much more open...

I - and what do you mean?

DS240136.P2.M – ...and accurate, and then the information that the relatives, second hand information would be more accurate wouldn't it? Because that's where some of the...

I - okay, what about for some people, you said, "it might not be useful"

DS240136.P2.M – well I think it's, it's good for transparency and openness and if you're um, if you've got difficulty accepting some of what you're told and you don't believe it applies to you exactly and then you, and then you want um, then you might, say you disagree with the information, then I guess you might feel that you don't want to pass it on to your family and then.. "don't pass any of it on, because I don't want them to see that because that says stuff I don't want them to know" it would be much more complicated wouldn't it to, to sort of partition information rather than, you would have less control over what information they've got potentially. I think that would worry some people, some people don't like electronic transmissions cos they think it can be got at, also that kind've...it's like sending one of those emails you accidently send it to somebody and you realise that you've put somebody in, you've copied in and you didn't really, you know once it's out there it's sort of....

```
74
    something...
75
76
77
     DS240136.P2.M – yeah, it's more about sharing things you didn't
78
     necessarily authorise, if you wanted more control over saying it and
    you end up just sending it out
79
80
81
82
    I - yeah, okay and what about the barriers of the app, do you think there
83
     maybe any barriers to patients using this, what do you think the
84
     problems might be?
85
86
87
     DS240136.P2.M – well I think some people just won't, it won't, it just
88
     won't um appeal to them
 89
 90
91
     I – yeah and you mentioned like the older, people who are less...
 92
 93
94
     DS240136.P2.M – yeah I think if people who aren't used to that sort
     of technology will take a lot of persuading um, I think that would be
95
     the main barrier, obviously assuming it's, it's, well designed and easy
96
97
     to use, and it's, you know it depends on the quality of the info and
     stuff won't it?
98
 99
100
101
     I - yeah, yeah of course yeah. Okay then do you feel that clinicians
102
     would need extra training on how to deal with more active patients,
103
     or the change in communication because of the app?
104
105
     ((door opens interrupted by a female))
106
107
     DS240136.P2.M - I'm quite used to, I think we're very used to active
108
109
     participation that's what, yeah, I think although it's easy to be a bit
110
     nervous of it, generally...
111
112
113
     I – and you mentioned that patient bringing sort of paper....
114
115
116
     DS240136.P2.M – it's actually better yeah, yeah
117
118
119
     I - and what about app features, so what sort of app features would
120
     be most useful for patients. I mean you've already mentioned
121
     diagrams and scans and things like that, is there anything else that
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I - yeah, so the confidentiality of freedom of information

is

122 123 124	you think the app could do? Apart from like the question prompt list that we mentioned?
125	
126	DS240136.P2.M – well I think good links, linking it well to other, to
127	other sources um, I think I'd want to see it before
128 129	
130	I – I know it's hard to imagine isn't it because they can do so many
131	things
132 133	
134	DS240136.P2.M – yeah I think if you're tempted to try and do a lot, it
135	might be better to not, stay fairly simple
136	ggggggggg.
137	
138	I - yeah and concentrate on one or two things
139	
140	
141	DS240136.P2.M – yeah um, yeah I think that would be better to start
142	with, that would be wise, otherwise it might be a bit daunting
143 144	
145	I - yeah, and what about the relatives and friends are there
146	anything, any features for them that would be useful for them?
147	
149	
150	DS240136.P2.M – well I supp there might be some information you
151	can signpost I would say, like um, I don't know, because there will be
152	support, there's a lot of support for patients, that's sort of embedded
153 154	in the system, but whether, it's more difficult to support the families and stuff uh, you know there is such specific support from various
155	places and the information for people you know, young people
156	affected by cancer and their relatives and stuff like that and um, like I
157	guess that would be generic that would be unless the apps could be
158	how old you are and stuff like that couldn't it so it could be tailored
159	from some of those, whether you're a man or a woman and anything
160	else, you'd need to know really, yeah so it could help with the more,
161 162	broader stuff that's available
163	
164	I - okay well and then tailor it
165	
166	
167	DS240136.P2.M –so the relatives could have a broader menu, for
168	more general support whereas the patient would be more focused
169	on exactly on what's going on, it's got to be better than going to, just having the information essentially in leaflets people don't really like
170 171	going into andit's so much readily available isn't it? You can carry

```
it around with you and you can sit doing it when you're in the waiting
172
      room which is, you know hours and hours and hours patients journey
173
174
      is waiting in the waiting area which you could, and people don't get
      up and look at leaflets it's just...
175
176
177
178
     I - if it's already...
179
180
181
      DS240136.P2.M - especially younger people they could be just
182
      looking at their phone, it would be, I think it's an opportunity to do that
183
184
     I - okay and what about.....
185
186
187
188
      DS240136.P2.M - I'm sure if you ask other people they'd say stuff
      like "we should think of fundraising" and do other things on the
189
      website and forums and stuff like that
190
191
192
193
      I - yeah okay, and what about as a clinician, is there anything that
194
      you would like the app to do? I mean apart from the diagrams and
195
      things....
196
197
198
      DS240136.P2.M – I think it would be good to...
199
200
201
     I - you know is there anything....
202
203
204
      DS240136.P2.M - it would be really good if you could you know add
      extra things for this patient and stuff like that
205
206
207
     I - yeah, it could really tailor it
208
209
210
211
      DS240136.P2.M – you'd really be able to tailor it, I don't know how
      you'd do that ((laughs))
212
213
214
215
      I - okay, yes
      DS240136.P2.M – um, you could send information to it
216
217
218
219
     I – yeah, so you could link it to the computers
220
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DS240136.P2.M – yeah, and as I said I think it would be quite interesting to see if you could, with permission, pull out how much it had been used and in what way, so you could have an idea of how

225 much of the information needs to be covered

226227

228

229

I - and is there anything you wouldn't like the app to do? That you wouldn't feel comfortable with?

230231

DS240136.P2.M – um, well I don't know how it's being partnered and that, but I think um, I think, I don't know whether, I suspect the patients wouldn't like, I don't think it should have any advertising

236 237

238 I – oh yeah, yeah

239240

DS240136.P2.M – and it shouldn't, you need to be um, definitely try to avoid, um, uh industry sponsored information, cos a lot, you know there's a lot of armoured sponsored information out there which may not be that independent, so I would say stuff like that

245246

247

I – yeah, yeah okay

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DS240136.P2.M - having said, they're often the best looking information cos it's um, it's where the money is. You know, some of the information, it can't hurt, information is power, it can't hurt, it's all out there anyway isn't it...it's not...yeah, what could it have? Things like...you could do a lot couldn't you, you could have things like um, uh ((whispers to himself)) I mean because people have been trying to work on things, apps like to capture stuff like diaries for digitising your treatment, what would the side effects be and stuff like that, there is a study that we're trying to run that does have a tablet and stuff on that, we haven't got any patients, uh but I think that's a different thing I think that would be confusing, trying to do too much at once. I mean what about having a....I don't know you could always have like a diary, but I think that's getting a bit to, trying to do too much isn't it? Yeah but it would be good if it had a little place where patients could add little, could add free text so you know...you could have remember to do such and such a thing and that sort of thing

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270 271 272 DS240136.P2.M - and maybe, you know if we were doing copy letters there's gonna be this portal at sometime my clinical, where 273 you would be able to log on and look at your own information but 274 whether you could, with all the permissions and the nightmare of all 275 276 that sort of stuff, email information to, you know send information to the app for that page, for the letters, and stuff, whether that's 277 278 possible, that might, that would be really, that would be really 279 powerful at some point, probably not in the first generation 280 281 282 I - yeah, yeah okay and what about, the last question is are there any particular types of patient that you think might find this most 283 284 useful and at what sort of stage along the cancer pathway do you 285 think it would be useful, if there was one specific? I mean you already said sort of "those who are more familiar with the 286 technology a bit younger" 287 288 289 290 DS240136.P2.M – I don't see why it couldn't start really, you know 291 right, really, really early, I mean that's not...imagine if you've got a 292 breast lump you go to your breast clinic.... 293 294 295 I - ... thinking you know this app would be after diagnosis, 296 you know so they can get their head around it and then they could 297 start using the app 298 299 DS240136.P2.M - before, it would be good, yeah, I don't know, I 300 301 think it could work, it could be used as early as possible 302 I - really? 303 304 305 DS240136.P2.M – yeah, it would have to be you'd have to open up new stages, keep opening up new parts of the information as you 306 went along, you know download, a download could be 307 308 309 310 I – so a staged approach? 311 312 313 DS240136.P2.M - I have a breast cancer, a bit of information, and 314 Then, that would be a good thing about it, it could be chunks rather than having too much at once 315 316 317 DS240139_clinician_RJ.DS2 Page 7 of 16 February 2015

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I - yeah okay, so like a diary option

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318
    I - so sort of paced you know
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320
321
     DS240136.P2.M - yeah
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323
324
     I - okay and what about the follow-up? Do you think it would be
325
     useful for patients who have been treated?
326
327
328
     DS240136.P2.M - yeah...
329
330
331
     I – and then they're discharged
332
333
     DS240136.P2.M – or if they're being followed-up which is not very
334
335
     you know, yeah I think that would be excel....that would be
336
     particularly helpful actually I hadn't thought about that, um, yeah so
337
     there's lifestyle, lots of patient type stuff that you can pick up, but
338
     also then uh, yeah how to, what things to be concerned about. So I
     think as a reference it would be really helpful really to have a
339
     reference, so if it could, you know if it could send stuff like a
340
341
     document of your personalised treatment plan which could mirror
342
     your developing....and they're doing work in this area?
343
345
     I - McMillan? Yeah there is a well, I'm not sure if there's an app,
346
     there's a follow-up project going on in <hospital>
347
348
349
     DS240136.P2.M – yes that's what I was thinking, that's an app isn't
350
     it?
351
352
353
     I - yeah well I think it's the same one
354
355
356
     DS240136.P2.M - that would be the sort of follow-up
357
358
359
     I - yeah and they do like a holistic needs assessment and that sort
360
     of thing so yeah
361
362
363
     DS240136.P2.M – I know McMillan are very keen on this information
364
     prescriptions, I don't know, I mean this was, that was quite a
     years ago, that was a few years ago I don't know if....
365
366
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36/	
368	I - okay is there anything else you'd like to add?
369	
370	
371	DS240136.P2.M – it would have to, yeah, I mean it would be great
372	thing to have um, but obviously it would have to be ongoit would
373	have to have an ongoing management of itwouldn't it?
374	
375	
376	I – yes, sort of keeping it up to date, keeping it relevant you know
377	
378	
379	DS240136.P2.M - cos that's always an issue isn't it?
380	
381	
382 383	I - yeah, yeah okay well that's great thank you
884	End of Interview Duration 34:00

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I – okay, so firstly could you tell me why you're interested in taking
    part in this study
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  4
    DS240139.F - well I think anything that um gives a patient more
5
    information in an understandable format is helpful because some of
6
    them come to clinic with very little understanding of what's being
7
    said and I think for some patients a lot of them I don't think would
8
9
    engage with much information even before they come to see
10
    certainly some of the older patients, but a lot of the younger ones are
11
    more motivated to try and find out as much as they can, or their
    families are motivated to find out as much as they can, so if there
12
    was something that would signpost them, to help them
13
    through all of the evidence that is out there, which is not all helpful
14
    on the internet I think that's worthwhile
15
16
17
    I - yeah, yeah okay and with your patients do you see mainly
18
    younger or older patients, or is it a mix?
19
20
21
22
    DS240139.F – It's a mix, you know it's an absolute mix
23
24
25
    I - yeah okay, okay so in terms of information how do you decide
    on how much information you give to patients about their illness?
26
27
28
    DS240139.F - I always start with new patients by first asking
29
    what they understand about coming to see us in <hospital> so that,
30
    I give the opportunity to say even if they understand that they've got
31
32
    cancer because some of them turn up and deny all knowledge of
33
    even been told that they've got cancer
34
35
36
    I - oh really
37
38
    DS240139.F – so therefore you have to always gauge
39
    conversation by what they know before they even come in so if you
40
    have somebody who comes in and says "I know I've got cancer and
41
42
    it's affecting this, this and this, and I'm looking at chemotherapy"
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43 then obviously you can have quite a detailed discussion about what, you know the stage of the diagnosis, the type of cancer, um the 44 treatment - whether surgery would be an option and you can have 45 quite a detailed discussion you know, or the clinical trials that are 46 available, but if you've got someone who either hasn't taken onboard 47 their diagnosis, or says they didn't know their diagnosis then you're 48 starting from a much lower level and you have to kind've simplify it, 49 and some patients don't want to know everything and they, straight 50 away they say "I don't want to know, I just want to keep it basic" and 51 52 other patients you know want a lot of detail, so as I say I always start by asking what they understand before, and then you know tailor it 53 54 to what they seem to want 55 56 I - yeah, it's funny that you said that because when I interviewed 57 58 some other nurses they said that some of the patients, they're 59 surprised that, some of the patients come in and they don't 60 know that they've got cancer, or that's what they say... 62 63 64 DS240139.F – absolutely and, but we get them referred from 65 <nurse1> and <nurse2> 66 67 68 I - okay yeah 69 70 71 DS240139.F - so cos, all 90% of my patients come from <Health Authority1> so they'll have gone through that clinic with < nurse1> 72 73 with <nurse2> and the gynae oncologist and would've gone to see a 74 gynae oncologist and they still come to me and say "they didn't know 75 they had cancer" 76 77

I - wow

DS240139.F – so a lot of it is, some people it's genuine, some people it's just denial they can't take it in

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85 I - so they are referred from the cancer nurses then, so where do they come from prior to that, is it from the GP 86 87 88 DS240139.F – usually it would be either through the GP or they may 89 have been admitted to hospital with something non-specific, 90 91 what we deal with in ovarian cancer, the symptoms a very nonspecific, abdominal distension, bloating, nausea, off their food, that 92 can be so many things that they often go in under a general medical 93 team and then if they're...or a surgical team and then referred on, or 94 95 come through the GP 96 97 I - yeah okay, okay then so how would you provide that 98 information to patients, is it verbal or written information, or a 99 combination? 100 101 102 DS240139.F - the information about stage, diagnosis is all verbal, the 103 104 information about chemotherapy is both we go through it in and then we give them written information leaflets on a general 105 chemotherapy booklet and then the specific chemotherapy that 106 107 we're offering to them and if they then are patients who are going to need you know, suffer hair loss we give them a hair loss booklet as 108 109 well 110 111 112 I - yeah, yeah okay, and are there any other resources that you recommend to patients, like charities or helplines and such? 113 114 115 DS240139.F - I don't routinely recommend patients, we have 2 116 excellent specialist nurses specialist <nurse1> and <nurse2> and they 117 will often speak to them as well <nurse2> is McMillan funded so 118 they will often signpost them to, not always, but if it's appropriate 119 you know we, I usually say if somebody asks me, I say to go to the 120 121 Cancer Research, or McMillan websites 122 123 124 I – okay yeah 125 126 127 DS240139.F - UK, McMillan

128 I - so you wouldn't routinely recommend it, you'd wait until they ask for the information 129 130 131 132 DS240139.F - no, yes 133 134 135 I - okay, so what kind of issues do you think clinicians are faced 136 with when talking to patients about their illness in a consultation? 137 138 139 DS240139.F – I think it's at what stage the patient is in accepting their 140 diagnosis 141 142 143 I - okay 144 145 146 DS240139.F - because if they've accepted the diagnosis they just 147 want to know everything about all the treatment options and you can 148 have a very detailed discussion about the pros and cons and clinical trials and what's available, if they're even still struggling with the fact 149 150 they've got cancer they're not going to take any of that in 151 152 153 I - yeah and how do you deal with that because I expect there's 154 time pressure, how long are the consultations usually? 155 156 157 DS240139.F - we usually, for a new patient we try to give them about 158 half an hour, um but we don't, I don't consent them 159 chemotherapy at that same appointment, so what I always say them usually at the end is you know "obviously we've given you lots 160 of information, go away have a think about it" um, I usually get 161 answer out of them, whether or not they even want to consider 162 chemotherapy so which one, so then we put that in the system and 163 164 then we usually start the chemotherapy you know 10 days later um, and so they come and see us again in clinic before then and that's 165 166 when we consent for the chemotherapy but we always say to them 167 "well look we'll see you again before the chemotherapy starts, if 168 you've got any questions write them down and we can go 169 them again"

171 172	I - oh that's good
173	
174 175 176 177 178 179	DS240139.F – and when we see them at the second appointment prior to their chemotherapy starting, some of them it's a quick 5 minutes, yes happy with everything no questions sign the consent form, and other patients maybe another you know 10-15 minutes going through things again because they just need to get things into their head
180	
181 182 183 184 185	I – yeah okay so there's sort of 3 appointments then, well including the treatment
186	DS240139.F - 3 including the treatment yeah and the nurses, when
186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201	they turn up for the treatment the nurses will go through the practicalities of the chemotherapy again with them as well and they also get offered here now, or they, not all attend, they get offered a patient education session on chemotherapy um where they actually come to <hospital> and one of the chemo nurses, it's a general one, but then she tries to talk about the individual chemotherapies that they're going to have, so they have that as well, education session, and not all of them go to it but the ones who do often find it quite helpful and you can usually tell the ones who've gone to it because when you start going through the toxicities on the consent form they say "oh yeah, yeah we know about that" so you can see that it's gone in</hospital>
202 203 204	communicating with patients during consultations?
205 206 207	DS240139.F – well there's always a time pressure
208 209 210	I – yes and you mentioned patient understanding earlier
211 212	DS240139.F – and yeah, the time pressure, what they can take in, how much they can take in

214 215 216	I – and do you find they come with pieces of paper to write down questions, or do they bring anything with them into consultations
 217 218 219 220 221 222 223 	DS240139.F – completely varies, sometimes they do, or sometimes they somebody else comes in with them to do the writing, I've found that quite a few times, rather than the patient themselves doing it, they bring somebody else with them who'll make notes
224 225 226 227 228	I – okay that's useful, okay so in terms of experience with smart phones, do you have a smart phone or a tablet computer, do you use it personally or professionally
229 230 231 232 233	DS240139.F – I have a smart phone personally and I use the computer um at work just because we can't really use the tablets at work
234 235 236 237 238	I - yeah, okay and are you, obviously you're familiar with apps and things, would you ever use any for work at all or do you know of anybody who does?
239 240 241 242 243 244	DS240139.F – yeah, no I have a couple of apps that I use some of the medical calculators, I often use the NICE um there's sort of FIGO staging app which stages the cancer and gives pictures as well which is quite a good one
245 246 247	I – what, to share with patients?
248 249 250 251 252 253 254	DS240139.F – well I don't usually um, I don't usually show it to the patients but it, I can if they're really struggling and they doI also have a paper copy of that if they're really struggling with the pictures that I can show them, um most of my apps have been superseded by my children's so I have more peppa pig that medical apps on my phone now, um, no I ((laughs)) they've all been superseded, the NICE one you can get things like for clinical guidelines ESMO um, NCCN those types of things

257 258 259 260 261	think patients would find that kind of app, do you think they'd want to use it?
261 262 263 264 265 266 267 268 269 270	DS240139.F – I think some would, some are very electronically based and therefore would find that helpful, there are some patients who do not engage at all, either because they're older patients, um and they're not interested in that side of things, or they just don't want to know they have that very almost old fashioned kind of paternalistic approach that what the doctor tells them is all they want to know type thing um, but
270 271 272 273 274	I – would you say they're in the minority of patients, or are there quite a number?
275 276 277 278 279	DS240139.F – no, no, no I'd say there's quite a number that is like that, but what you usually find in that situation their relatives, their children, their sons and daughters who want to find the information, so you can give them a signpost
280 281 282 283 284	I – okay, and what about, yes family and friends do you think they would want to use an app like that?
285 286 287 288	DS240139.F – yes, yes, yeah I think a lot of the family and friends, families certainly are wanting to get more information
289 290 291 292 293	I – okay and what about clinicians, do you think they'd be happy if a patient brought an app into a consultation, or was using it throughout their illness?
294 295 296 297 298	DS240139.F – throughout their illness, I'd have no problems with them using it throughout their illness, it could be quite difficult in a consultation if they're kind've going through everything that's on an app just because of time pressure

300 I – yep okay 301 302 303 DS240139.F – um but certainly as a guide to support them and point them in the direction of information I think that's a really good thing 304 305 306 307 I - yeah okay so what benefits do you think they're might be for 308 patients using an app like this, I know it's sort of dependent what the app is actually going to do, but it general can you think of 309 310 any benefits? 311 312 313 DS240139.F - well I think it just gives them a better understanding of their illness and what you know what kind of thing is, you know a 314 question we get asked a lot is "why don't you give radiotherapy in 315 316 ovarian cancer" you know why....and you kind've try to describe the 317 difference between chemotherapy and radiotherapy and because 318 they're given the information leaflet on chemotherapy sometimes 319 say by the gynae team and <hospital2> they're not given information on radiotherapy because we don't use it, and they're saying 320 don't you use it?" just having something where they can get a bit 321 322 more information, and know about different treatments that are available, say sign posting for clinical trials and things like that, the 323 concept of clinical trials even if you can't....on an app probably can't 324 325 cover every trial because it changes so much, but the concept of 326 them 'why you might be asked to do research, what's the importance of that?' you know all of those kind've things you know I think would 327 328 be quite helpful for them and if they have dipped in and dipped out you know the gene...for us I think it's a kind've thing like the genetics 329 guidelines as well you know when you pick up when you have a 330 331 significant family history, because that's what a lot of them ask with the ovarian cancer. So yeah you could see the potential for quite a 332 few helpful things 333 334 335 I - and what do you think, if they have a better understanding, what 336 337 do you think the benefits would be in the long term for the patients? 338 339

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DS240139.F – it just gives them more control, um I think when they have more control, feel more control that helps them because it's

their lack of control, their lack of being able to plan, their lack of, things just happening around them and at least if you know what's happening, so many patients come in and say, "even though you kind've given me bad news I feel better leaving than I did coming because I know what's happening and I know you've got a plan" so you kind've think actually as long as it's not an information overload and it's not sign posting them to inappropriate sites um, I think, you know the kind of information you get from McMillan or CRUK where it puts things quite well is, is useful

I – okay and what about for the family do you think there's any benefits for them, and for the clinicians as well?

DS240139.F – well for the family I think the same thing, it gives them more information and it points them in the right direction if they're trying to get more information, for clinicians well if patients are better informed um, it, it enables you to have a better discussion with the patient because you can discuss treatments it can make it more challenging for the clinician ((laughs)) when they're very well informed! Sometimes they know things you don't know, so make sure we have the app as well ((laughs)) so we know what they're sign posting to, but no it's good, it's good and I think I, I'd much rather be able to go through things with patients and you know when they come in with all the cuttings from the Daily Mail and all their questions because at least you feel that you've answered everything as best you can

I - yeah, yeah okay and what about communication, do you think it would have an impact on the way you communicate with patients?

DS240139.F – it would probably be a more fluid conversation between us, rather than you talking to the patient because if they've already got a general understanding before you've even started

Then it allows you to have more of a discussion rather than you just imparting information to them

I – okay and what about with their family do you think like an app would help patients to communicate with their families or do you think there would be no difference?

DS240139.F – I'm not sure if it would help the patient communicate with their families any better, but it you know they can sign post their families to that information if they don't want to keep repeating it so at least then you know that the family are getting reasonable sensible advice

I – yeah, yeah okay, so what about barriers to the app, do you think there would be any problems with patients using this appor general barriers to this working in practice?

DS240139.F – I think you will have a cohort of patients who just won't engage with it, you know they're not into mobile phones and on smart phones you can't say that's an age thing, because I know a lot of older patients are very you know IT savvy and you get a lot of others who aren't, so I think you'll always have a group, a cohort of patients who just won't engage with it. I suppose the other thing if anything with that, it depends how you're going to do it because I think it's updating it, is, is the because you know oncology changes so quickly and even if you're trying to do just 3 or 4 sites, you know making sure things aren't out of date and they're not being told out of date information, or being led to kind've sites which may not be that helpful to them and might just confuse them

I – yeah okay. So do you feel that patients using this app could affect your workload in anyway?

DS240139.F – um you could argue it both ways I don't think so because you say consultations might be shorter because they're better informed before they come, consultations could be longer because they are better informed you end up having more in-depth discussions about smaller details so I'm not sure, it could go either way

I – okay and do you feel like clinicians, if patients are better informed and sort of more active in the consultation, do you think clinicians would require extra training on how to deal with the change in communication?

433 DS240139.F - no I don't think so

436 I - and what about for the app, do you think clinicians would need 437 training on how to use the app and patients would they need 438 training? 439 440 DS240139.F – well most apps are pretty straightforward I have to say 441 442 I mean certainly the apps that we use when you download you just 443 download the information and do it, I think most clinicians are pretty IT savvy, yeah as long as you know it's highlighted that it's there and 444 what it does, I think most clinicians are pretty IT savvy and would be 445 able to cope with it and I think if patients are engaging with it then as 446 447 long as it's a well sign posted app, you know I'm quite used to apps so 448 for me I wouldn't see that I'd need... 449 450 451 I - so do you think patients would benefit then if the nurse, 452 someone on site were to go through the app with the patient, do you think that would be helpful or do you think that, that's not 453 454 needed that they would...? 455 456 457 DS240139.F – I don't, I think a lot of the role of the apps, potentially 458 will be them looking at it at home 459 460 461 I - right okay 462 463 464 DS240139.F - just going through it in their own time, um you know 465 an information leaflet about the app saying what it is, what it does 466 and maybe you know a flow diagram on how to use it kind've thing, or signposting you know maybe helpful rather than an indiv...because 467 you can't be, one person can't be in all the clinics at all the sites at all 468 469 the centres so I think even if you have an information, or posters up, because if you're going to advertise it, which presumably is what you 470 would do is advertise it as an app, then probably you'd need to have 471 472 that as a poster 'this is how you do it, this is how you download it' a 473 simple guide as to how you use the site 474 475 476 I - okay, great, and what features do you think would be most useful for 477 patients, so what should we put in the app do you think? 478 479 480 DS240139.F – from a gynae, from an ovarian point of view 481 particularly? Are you talking generally and....?

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484 I – yeah both really, generally and specific

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DS240139.F – I mean I think you need to, I think I, I'm not sure how much you're planning to build in to your app in terms of information, or whether you are using it more as to a sign posting to other sites?

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I – we're not sure yet, we want to know what you think

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DS240139.F – I mean for me, for patients I suppose it would be the types of cancer they can get

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I - so information on...

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DS240139.F - yeah you know the type of cancer, staging, so you know the app that I used to use which isn't on my phone anymore, um which is the FIGO one which was really good because it gave you the FIGO staging which you could push on the, you know push on it and it would flip over and it would give a picture of where it was so it did both, words and pictures, but you know that kind've thing makes it more obvious to them and they can get their head around it, um so be kind've information on staging, information of types of the cancer, what symptoms they could get because you will find some patients will look at it to look for symptoms whether you're going to give kind've presenting symptoms or red flag signs or whatever, um and then the treatment options, um you know that they might have chemotherapy, for us it would be chemotherapy, or chemotherapy plus surgery um and there's no clear role for radiotherapy so know that because that's often a question that I hear and then also kind've who they would expect to meet in their journey, so you know you'll meet a surgeon and then a specialist nurse, oncologist you know oncologists work as a team, so you may not always meet the same person you know it's that kind've information. I think it would be really good to get something in on clinical trials that you know, if you were looking at this from oncology from Wales, in the first instance, or even in south Wales, I don't know, you'd say <hospital> you know does clinical trials you may be asked to participate you know either to donate a blood sample or tissue that's already been taken, or to actually participate in a treatment trial, just because a lot of them, I mean then there's not always trials available for them, but you know there was a study funded by McMillan recently um, I think

it was McMillan and they looked at, kind've they had secret shoppers going around various centres around the UK, to say you know if you walked into...would you think that this is a site for research and trials and how were you asked about it and actually the patients were saying, the majority of patients it wasn't even mentioned they weren't aware of clinical trials, they didn't see it... I think that's really good just to float an idea to them, they may be asked I think the clinical trial side. Um, support, so you know support sites, um you know the role of palliative care, getting it across that palliative care does not mean you're dying, it just means you know symptom support, um so you're kind've looking at all the layers that would then would be built up as they come in to the system you know side effects of chemotherapy, you could always then link them to know who to contact, but that becomes a very detailed, I mean if you were doing it for <hospital> that's easy cos it's one person for that, you know one number for the whole of all the cancer sites but it becomes a bit harder if you are trying to generalise it a bit more. Um if you were then going into more detail you could link to some of the websites where they do list the cancer trials, you know list happening, what's new, um I'm not sure if you want to be, you know sort of, patients want to know about prognosis, not everyone does, even if you just signpost them, but the thing is, is you don't want to re-invent all of this, because all of this is put quite well on like McMillan sites and the Cancer Research UK site and it is how much do you link in with them and just sign post them, or how much are you planning?

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I - Yeah I think, from the interviews, I think we may, mainly concentrate on the question list to prepare them for consultations rather than sort of reinventing information, so probably signpost them to reliable web-sites and have some, you know, you can click on diagnosis or treatment or follow-up, what stage you're at and then the relevant, relevant links then really

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574

DS240139.F – yeah I think once you get past that first initial consultation how are they followed up, so for us in ovarian cancer, whether we use the tumour marker, there's lots of evidence and discussion about that, you know we don't regularly do CT scans in ovarian cancer because it's symptom led follow-up and so, so they know that kind've thing you could use to give them more information but it becomes very specific because it's very different for breast cancer and very different for colorectal cancer, so how much um you know whether you're saying you know, make sure you know how you will be followed up, or whether you're saying in gynaecological

cancers you're likely to be followed up 3 monthly with an 575 576 examination and the doctor will discuss with you. I, I don't know how much information you are planning to put in so it's a bit hard to 577 578 579 580 I -yeah, okay and do you think there are any other features that would 581 be useful for relatives or friends, or do you think it's the same 582 information the patients will want? 583 584 585 DS240139.F - I think it's the same information because the information needs, you don't want to put more information, 586 587 could, uh you have a link to a support or carer's forum, which the patient can click on if they want, or the, the family can click on, 588 um you kind've don't want the patient to feel that they're getting 589 information that, someone else is getting information that 590 not getting 591 592 593 594 I - and what about as a clinician is there anything you'd want the 595 app to do, other than what we've talked about? 596 597 598 DS240139.F - no because it's hard isn't it because until you actually 599 kind've see it, a kind've a mocked up version it's hard to know 600 how it's going to work, and whether...the other thing I'm thinking there are some for breast you know putting in the genetics guidelines, because a lot of people get very concerned about genetics and I mean that page up there, I know it's a bit old now, but that's...the referral, do you see what I mean it's only 1 side of A4 and it's all of the cancers and that who will accept referrals with the following criteria met and that comes from genetics I mean they change a little bit, it's probably a little bit old, but it's the kind've thing when they say "oh you know" and that's the kind've thing families and daughters are concerned about ovarian cancer "am I at high risk?" you know so a link for them being able to look at something to see whether they need to be concerned and do something, or whether actually because their mum's 65 they really don't need to be concerned as a genetic thing 614 615

619 DS240139.F – you wouldn't want them to be signposting them to the more conflicting information, some patients get

617618

616 I – and is there anything you wouldn't want the app to do?

themselves really caught up about diets and you know and supplements and things like that and I'm not saying that they can't gain the information, but if you're trying to, if it's something you want us to promote, probably wouldn't over, you know make, I wouldn't over try to promote that side of it as much because I thing patients get really confused 626 627 628 I - okay yeah, so last question is there any particular type of patient that you think might find this app most useful, or any particular stage of their illness, or there...I mean we've talked about age groups, but what about the different stages do you think....? 632 633 634 DS240139.F - In ovarian cancer 80% of patients are at advanced 635 stage, so the majority are going to be at advanced stage anyway 636 637 638 I - yeah, yeah that's quite a lot isn't it gosh 639 640 641 DS240139.F – it's ovarian cancer that's why it's called the 'silent killer' 642 643 I - so what's the prognosis with that then? If they come at an 644 advance stage? 645 646 647 DS240139.F - maybe about 25% long term survival, but for the majority they will relapse within 2 years 648 649 650 651 I - oh really 652 653 654 DS240139.F - but they can still go for 3 or 4 years even once they've relapsed so it's, it's still years rather than months 655 656 657 658 I – hmm gosh, okay is there anything else that you want to add that 659 we might have missed? 660 661 662 DS240139.F - I don't think so 663 664

665	I – okay thank you
666	
667	
668	DS240139.F - that's alright, we're dead on
669	
670	
671	End of Interview. Duration: 28:03

Appendix 30: Information sheet for informal user-testing session:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address their information needs: focus group

Information Sheet (V1.0, 30/07/2015)

I recently spoke to you about taking part in a study. The study is funded by Tenovus Cancer Care. The aim is to conduct user-testing for an app that aims to help patients with cancer prepare for consultations with their doctors and nurses.

The study involves a focus group to find out what people think about the app that we have developed. This sheet will tell you more about the study.

Invitation to take part in the study

We would like to invite you to take part in a research study. Before you decide you need to understand why it is being done and what it would involve for you. Please read the following information carefully. You can talk to others about the study if you wish to help you decide if you want to take part. Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

The aim of the study is to find out what previous patients with cancer think about using a smartphone or tablet 'app' to help to help them to prepare for consultations with their clinicians. There has been a lot of research in the past showing that cancer patients do not have all the information that they want to have about their condition. This is because

some patients find it difficult to ask questions or to remember all the information they have been told. The information we get from this study will be used to further develop and improve the 'app', which we hope will help patients with information about their condition.

Do you have to take part?

No. Taking part is entirely voluntary. If you do not want to take part you do not have to give a reason. If you decide to take part but later change your mind, you can do so, and you do not have to give a reason why you no longer wish to participate. No one will be upset if you do not wish to take part.

What will happen to you if you take part?

You will take part in a focus group with up to 6 other members where you will be shown the app and asked a series of questions.

What are the possible risks and disadvantages of taking part?

There are no specific risks associated with taking part in this study. You do not have to talk about any issues you do not want to discuss. If you find the focus group upsetting it can be stopped at any time.

What are the possible benefits of taking part?

This research study will not directly benefit you, but it will give us a better understanding of the views and needs of patients with cancer.

Will your taking part in the study be kept confidential?

Yes. All information that is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research study?

The results of the study will be written up as a thesis and presented at conferences and published in scientific journals. A report will also be prepared for Tenovus, the Cancer Charity, who are funding this study. Tenovus may wish to publish summaries of the study on their website. We may use comments from the focus group in publications, however all information provided by participants will be anonymised. It will not be possible for anyone to identify you from any of the published results.

What if you are unhappy about any aspect of the study?

If you have any concerns or complaints about any aspect of the study please contact Dr Fiona Wood, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687185, Email: Wood@cf.ac.uk. Alternatively, please contact Dr John Staffurth, Clinical Oncologist, Velindre Hospital, Cardiff. Telephone: 02920 196135.

Who is organising the study?

The study is being organised by researchers from Cardiff University. It has been funded by Tenovus, the cancer charity.

Contact for further information

If you would like any further information, or have any questions concerning this study, please contact Becky Richards, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687219, Email: Richardsb3@cardiff.ac.uk.

Thank you for reading this information sheet and for taking an interest in the research study.

Appendix 31: Consent form for informal user-testing session:

CONSENT FORM

Please complete and return this consent form if you are happy to take part in the study

	Please initial each box
I have read and understood the information sheet dated 30.07.2015, (version 1.0) for the study, and have had the chance to ask questions.	
I understand that taking part in the study is up to me, and that I can stop at any time without giving a reason.	
I agree that the researcher can take notes of any comments that I make during the user-testing session.	
I understand that the focus groups will be typed and may be used in a written report of the study. My name will <u>not</u> be typed, so that the report cannot be linked back to me in any way.	
I agree to take part in the study.	
our name (BLOCK CAPITALS):	
our signature:	Date:
ame of Researcher:	
esearcher's signature:	Date:

Appendix 32: Demographic questionnaire for user-testing discussion group:





User-testing discussion group

Demographic questionnaire

Participant type: Patient/relative (please circle)

Age:

18-25

26-35

36-45

46-55

56-65

66-75

76-85

85+

Gender:

Male

Female

Highest educational qualification:

GCSE/O Levels

A Levels

NVQ/HNC/HND

Diploma

Degree

Post Graduate degree

None of the above

Type of cancer (for patients only):

Breast Urological Gynaecological Colorectal

Other

Time since diagnosis (for patients only):

Less than 1 month

1-3 months

3-6 months

6 months-1 year

1-2 years

2-4 years

5 years+

Thank you for completing this questionnaire.

Appendix 33: User-testing session topic guide:

User-testing session topic guide

Design

What do you think of the overall design of the app?
What do you think of the colours?
Is the font size large enough to read easily?
What do you like about the design?
What do you dislike about the design?
Do you think there is anyway that we could improve it?

Usability

Is the app easy to use/navigate around or difficult?
Is there anything that we could change to make it easier to use?
Can you understand the language used in the app?
Do you think patients would need training in how to use this app?
Do you think we could improve the user-friendliness of the app in any way?

Content

What do you think about the features of the app?

Introductory text

Do you think the introductory text explains the purpose of the app well enough? How could we improve it?

QPL

Do you think the introductory text explains the purpose of the QPL well enough? How could we improve it?

Can you understand the questions?

Are there important questions that you think should be added to the list?

Are there any questions that you particularly like?

Are there any questions that you dislike?

Are there any questions that you think should be reworded?

Do you think we could improve this feature in any way?

Glossary

What do you think about this feature of the app?
Are there any important terms that we may have missed?
Can you understand the definitions of terms?
Do you think we could improve this feature in anyway?

Resources

What do you think of this feature of the app?
Are there any important resources that we may have missed?
Do you think we could improve this feature in any way?

Contacts

What do you think of this feature of the app?

Do you think we could improve this feature in any way?

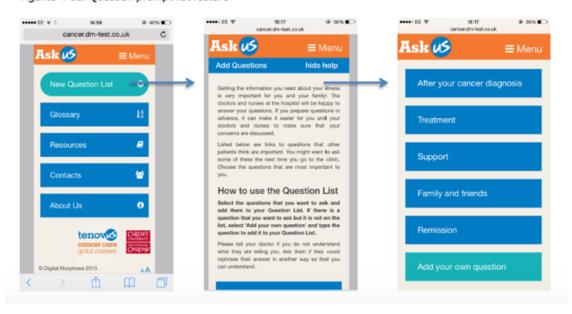
Additional questions

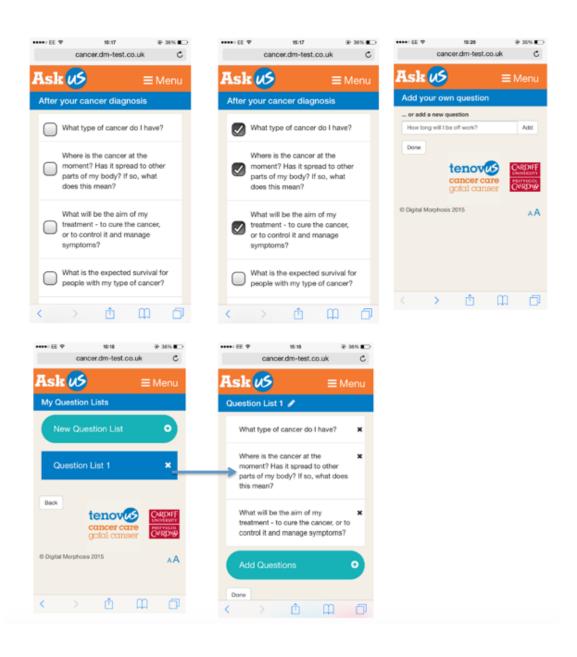
Is there anything else that you think we should add to the app?

Appendix 34: Screen shots of the final version of the 'Ask Us' cancer app

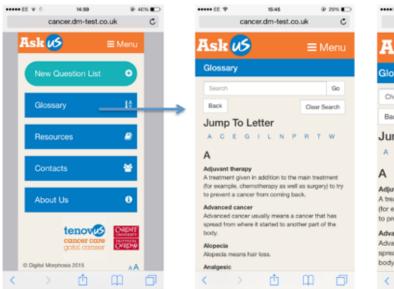
Figure 1. Disclaimer Figure 2. Main menu Figure 3. In-feature menu **** EE ♥ ○ 14:59 ⊕ 40% ■□ ***** EE ♥ ○ 14:59 15:00 ***** EE 🕈 cancer.dm-test.co.uk C cancer.dm-test.co.uk cancer.dm-test.co.uk Č Ask 🕠 Ask us **■** Menu Ask us **≡** Menu This app is intended to help you to choose This app is intended to help you to choose questions that you may wish to ask your doctor or nurse at appointments. If you have an urgent question or issue then seek help from your family or specialist doctor immediately - do not wait until your next appointment. The links to other B websites on this app are to trusted charities and organisations, however any decision about your health or medical care should not be solely based on the information obtained from these websites. tenovus cancer care gofal canser 쑙 tenov About Us © Digital Morphosis 2015 ΔА m < > <u>0</u> <u>0</u> <u>0</u> **d m o**

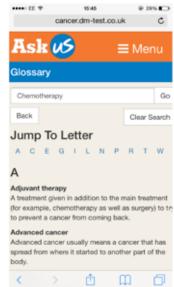
Figures 4-11. Question prompt list feature





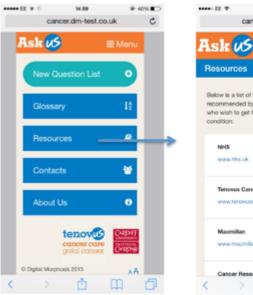
Figures 12-15. Glossary of cancer terms

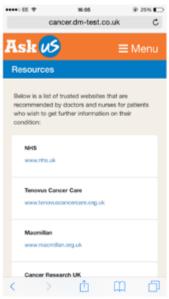


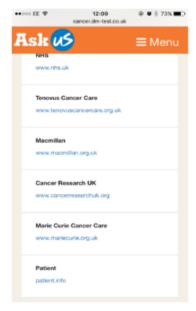


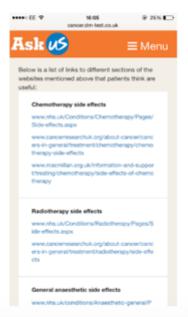


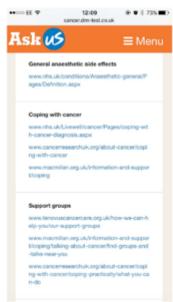
Figures 16-21. Resources feature

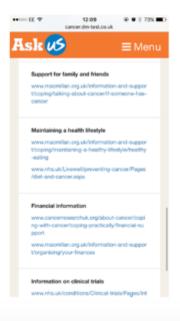












Figures. 22- 27. Contacts feature

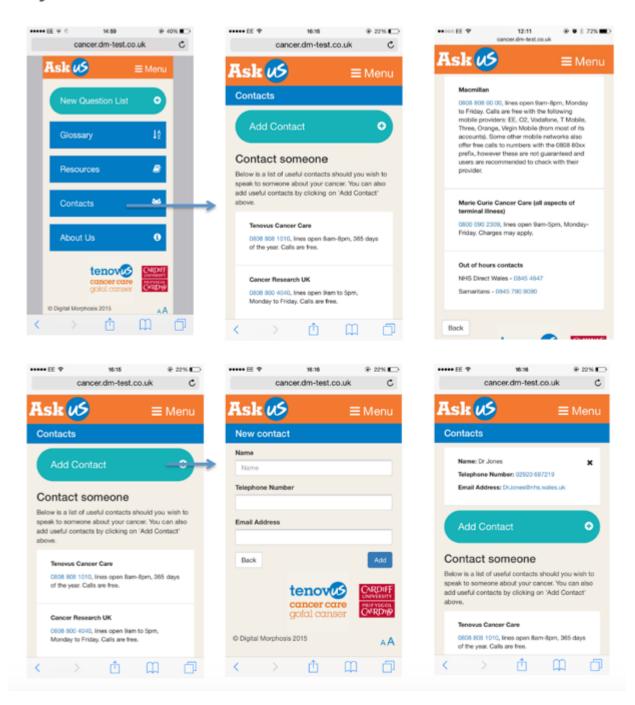
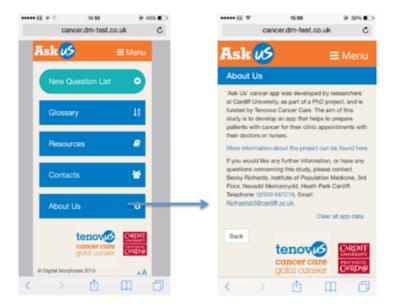


Figure 28-29. 'About us' page



Appendix 35: Feasibility study invitation letter:







Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer prepare for consultations

Patient Invitation Letter

Dear patient,

I would like to invite you to participate in a research study. The study is being carried out by researchers from Cardiff University who are working with Velindre NHS Trust and Cardiff & Vale University Health Board. We have invited you to take part because we are interested in finding out whether a Smartphone or tablet 'app' would be useful for cancer patients.

The aim of the study is to find out what patients with cancer think about using a Smartphone or tablet 'app' to help to provide them with information about their illness. The information we get from this study will be used to help create the app, which will be available for cancer patients to use in the future. As you will be using an app, you will need to have access to a Smartphone or tablet device to take part in this study.

Once you have used the app, we would like to interview you in your own home at a time convenient to you to ask about your experiences of using the app.

We have enclosed an information sheet for you to read and help you to think about whether you would like to take part. Taking part or not is entirely up to you.

If you wish to take part in the study, please tick 'Yes, I would like to take part in this study', fill in the contact details section on the Study Reply Form and then return the form to us in the envelope provided.

Once we receive the form, a member of the research team will contact

you to arrange to meet you and download the app to your Smartphone or tablet and then arrange an interview once you have used it. Please note that your name and contact details have not been given to any researchers at Cardiff University.

If you would like to find out more about the study before deciding whether or not to take part please contact Becky Richards, Cardiff University on 02920 687219, Email: Richardsb3@cardiff.ac.uk.

Yours sincerely,

Dr John Staffurth Clinical oncologist

Tel: 029 2019 6135

Appendix 36: Feasibility study information sheet







Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address prepare for consultations

Patient Information Sheet (v2.1, 18.01.2016)

Invitation to participate in the study

We would like to invite you to take part in a research study. Before you decide you need to understand why it is being done and what it would involve for you. Please read the following information carefully. You can talk to others about the study if you wish to help you decide if you want to take part (including your family and friends or your specialist nurse). Ask us if there is anything that is not clear or if you would like more information.

What is the purpose of the study?

The aim of the study is to find out what patients with cancer think about using a Smartphone or tablet 'app' to help to provide them with information about their illness. There has been a lot of research in the past showing that cancer patients do not have all the information that they want to have about their condition. This is because some patients find it difficult to ask questions or to remember all the information they have been told. The information we get from this study will be used to improve the 'app', which we hope will help patients with information about their condition in the future. As you will be using an app, you will need to have access to a Smartphone or tablet device to take part in this study. You will need to bring your Smartphone or tablet device with you to your next clinic appointment, where a researcher will meet with you to download the app onto your device so that you can use it at home.

Why have you been invited to take part?

We have invited you to take part because we are interested in finding out whether a mobile phone or tablet 'app' would be useful for cancer

patients.

Do you have to take part?

No. Taking part is entirely voluntary. If you do not want to take part you do not have to give a reason. If you decide to take part but later change your mind, you can do so, and you do not have to give a reason why you no longer wish to participate. No one will be upset if you do not wish to take part and your treatment or care would not be affected.

What will happen to you if you take part?

If you decide to take part, a member of the study team will contact you to arrange a time to show you how to use the app on Smartphone or tablet device. This will take place either at your next clinic appointment or in your own home and will take approximately 30 minutes. If you choose to meet the researcher at your next clinic appointment, please remember to bring your Smartphone or tablet device with you. If you would prefer to meet the researcher at another location, such as Cardiff University, you will be reimbursed for your travel expenses. The researcher will also call you one week later to answer any further questions you may have about using the app. You will be asked to use the app running up to an appointment with your cancer doctor. Once you have had the appointment, you will be asked to be interviewed to tell us what you think of the app, what sort of things you may have found useful and what sort of things you think could be improved. Researchers will also download data from the app to look at how and when you used it. The interview will be at a time convenient for you and will take place in your own home but if you would prefer to be interviewed at another location, such as Cardiff University, you will be reimbursed for your travel expenses. If you would like a friend or relative to be at your interview, that is fine. Interviews will take about 40 minutes. The interview will be recorded with your consent. Recordings will be stored in a secure place. There are no right or wrong answers to the questions in this study. We want to know YOUR opinions.

What are the possible risks and disadvantages of taking part?

There are no specific risks associated with taking part in this study and you may withdraw from the study at any time. If you find the interview upsetting it can be stopped at any time.

What are the possible benefits of taking part?

This research study will not directly benefit you but it will give us an understanding of the potential usefulness of the app for cancer patients. This should help us to improve the app, in the hope of the app being available to cancer patients in the future.

Will your taking part in the study be kept confidential?

Yes. All information that is collected about you during the course of the research will be kept strictly confidential.

What will happen to the results of the research study?

Audio-recordings and transcripts of interviews will be stored on Cardiff University password protected computers for 5 years. The data will then be securely archived and then destroyed 15 years after the study is completed. Only the research student Becky Richards and lead supervisor Fiona Wood will have access to the audio-recordings. The results of the study will be written up as a thesis and presented at conferences and published in scientific journals. Direct quotations from parts of your interview may be used in the thesis and publications, but these will be anonymised and will not be linked back to you in any way. A report will also be prepared for Tenovus Cancer care, the cancer charity, who are funding this study. Tenovus Cancer Care may wish to publish summaries of the study on their website. Short reports may also be prepared for interested government departments and the media. A summary of the research findings will be available to you at the end of the study if you would like it. All information provided by participants will be anonymised in any publications. It will not be possible for anyone to identify you from any of the published results.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee to protect your safety, rights, well-being and dignity. This study has been reviewed by the Wales REC 2 committee.

What if you are harmed or unhappy about any aspect of the study?

If you have any concerns or complaints about any aspect of the study please contact Dr Fiona Wood, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687192, Email: Wood@cf.ac.uk. Alternatively, please contact Dr

John Staffurth, Clinical Oncologist, Velindre Hospital, Cardiff. Telephone: 029 2019 6135.

If you remain unhappy and wish to complain formally, you can go through the NHS Complaints Procedure. Details can be found at www.puttingthingsright.wales.nhs.uk. In the interview, it is possible that you may raise other issues of concern, such as your health. If this happens, you will be advised to consult your GP or contact the Tenovus Cancer Care Helpline, telephone: 0808 808 1010. If the student is very worried about your health or other issues that you may disclose (e.g. a complaint about medical treatment), she may consider it necessary to discuss your situation with her clinical supervisor.

Who is organising the study?

The study is being organised by researchers from Cardiff University. It has been funded by Tenovus Cancer Care, the cancer charity.

Contact for further information

If you would like any further information, or have any questions concerning this study, please contact Becky Richards, Institute of Primary Care and Public Health, 3rd Floor, Neuadd Meirionnydd, Heath Park Cardiff. Telephone: 02920 687219, Email: Richardsb3@cardiff.ac.uk.

What do I need to do now?

If you WISH TO take part please tick "Yes, I would like to take part in this study" and fill in the contact details on the Study Reply Form and return the form to Becky Richards in the envelope provided.

Feel free to call us with any queries you may have and/or talk the study over with anyone else.

Please keep this information leaflet for future reference. Thank you for reading this information sheet and for taking an interest in the research study.

Appendix 37: Feasibility study reply form:







Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer address prepare for consultations

Patient Reply form	
I would like to take part in this study and I wish to be contacted by the research team	
Name of Participant: Telephone: Mobile:	
Email: Preferred way to be contacted:	

Appendix 38: Feasibility study consent form 1:





Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer prepare for consultations

Feasibility study Consent Form 1	initial if you agree
I confirm I have read and understood the information leaflet dated 18.01.2016 v2.1 for the above study. I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
I give researchers permission to download data from the app to look at how and when I used it	
Name of Participant:	
Signature: Date:	
Name of Person taking consent:	

Signature:
Date:

Appendix 39: Feasibility study demographic questionnaire:





Patient Demographic Questionnaire

Please circle the correct responses:

Age:

18-25

26-35

36-45

46-55

56-65

66-75

76-85

85+

Gender:

Male

Female

Type of cancer:

Breast

Urological

Gynaecological

Colorectal

Other

Time since diagnosis:

Less than 1 month

1-3 months

3-6 months

6 months-1 year

1-2 years

2-4 years

5 years+

Are you currently having treatment?

Yes

No

Highest educational qualification:

GCSE/O Levels

A Levels

NVQ/HNC/HND

Diploma

Degree

Post Graduate degree

None of the above

Smart device:

Smartphone

Tablet computer

Thank you for completing this questionnaire.

Appendix 40: Feasibility study consent form 2:







Exploring the potential of a mobile phone or tablet 'app' to help patients with cancer prepare for consultations

Please initial if **Pilot Evaluation Interview Consent Form** you agree I confirm I have read and understood the information leaflet dated 18.01.2016 v2.1 for the above study. I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. I give permission for the interview to be audio recorded. I understand and agree that quotes from my interview may be used within written reports or publications, and that any quotes would be completely anonymous and could not be linked to me in any way. I agree to take part in the above study.

Name of Participant:
Signature: Date:
Name of Person taking consent:
Signature: Date:

Appendix 41: Feasibility study interview topic guide:

Feasibility study Interview Schedule

Opening question

How did you find using the app?

Training

- Did you feel comfortable using the app after the training session?
- Did you feel comfortable using the app in general over the last few months?

Acceptability of the app

- Did you find the app easy to use? Or did you find it difficult?
- Did your relatives/friends use the app with you? Did they find it easy to use/understand?
- Do you think other patients with cancer would find this app acceptable to use?
- Did you experience any technical problems?

Actual use of app

- How often did you use the app?
- When did you use the app? (e.g. daily, weekly... / around consultations, treatments)
- Where did you use the app? (e.g. in your home, in the clinic, other community settings?)
- Was there a point where you found the app most useful?
- Was there a point where your relatives/friends found the app most useful?
- Was there a point where you found the app least useful?
- Was there a point where your relatives/friends found the app least useful?

Use of app content

- What were the most useful features on the app?
- What were the least useful features on the app?

Benefits of and barriers to app

- What sorts of benefits did you get from using the app? (knowledge, confidence, communication with clinicians/family)
- Did you find any problems with the app?

Communication in consultations

- Did you use the app leading up to/in a consultation with a doctor or nurse? If not, why not?
- What benefits did you get from using the app leading up to/in a consultation?
- Were there any problems with using the app leading up to/in a consultation?
- Do you think the app made a difference to how you talked to the doctors and nurses? (For example did it help you clarify your questions). How?
- Do you think the app made a difference to how you talked to your relatives/friends? How?

App development

- Now that you have used the app, are there any features that you would like added to the app? Why?
- Are there any features that you think should be removed from the app? Why?
- How else might the app be improved? (navigation, understanding etc)

Closing question

• Overall, how did you find being involved in the study?

Appendix 42: Ethical approval for the feasibility study:

Part of the research infrastructure for Wales funded by the National Institute for Social Care and Health Research, Welsh Government. Yn rhan o seilwaith ymchwil Cymru a ariannir gan y Sefydliad Cenedlaethol ar gyfer Ymchwil Gofal Cymdeithasol ac Iechyd, Llywodraeth Cymru



Wales Research Ethics Committee 2 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

4 June 2015

Dr Fiona Wood 3rd floor, Neuadd Meirionnydd Cardiff University Heath Park CF14 4YS

Dear Dr Wood

Study title: Exploring the potential of a mobile phone or tablet 'app'

to help patients with cancer prepare for consultations:

Phase 3 pilot evaluation

REC reference: 15/WA/0161 Protocol number: SPON 1412-15

IRAS project ID: 172524

Thank you for your letter of the 3 June 2015, 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..

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details.

Publication will be no earlier than three months from the date of this favourable opinion letter.

The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Carl Phillips, carl.phillips@wales.nhs.uk.

Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

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.

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.
- Management permission ("R&D approval") should be sought from all NHS
 organisations involved in the study 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 a NHS organisation's role in the study is limited to identifying and referring
 potential participants to research sites ("participant identification centre"), guidance
 should be sought from the R&D office on the information it requires to give permission
 for this activity.
- For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.
- Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant. There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact https://prescription.org/ they should contact ht

The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

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).

Ethical review of research sites

NHS 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).

Approved documents

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

Document	Version	Date
Covering letter on headed paper [Cover letter]		23 April 2015
Covering letter on headed paper [Ethics reply covering letter]	1.0	26 May 2015
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only)	UMAL	01 August 2014
Interview schedules or topic guides for participants [Patient interview schedule]	1.0	10 February 2015
IRAS Checklist XML [Checklist_29042015]		29 April 2015
IRAS Checklist XML [Checklist_03062015]		03 June 2015
Letter from sponsor [Letter from sponsor]		10 April 2015
Letters of invitation to participant [Patient invitation letter]	1.1	26 May 2015
Other [Patient Reply Form]	1.0	10 February 2015
Other [App Summary document]		
Participant consent form [Patient consent form (1of2)]	1.0	26 May 2015
Participant consent form [Patient consent form (2of2)]	1.1	26 May 2015
Participant information sheet (PIS) [Patient information sheet]	1.1	26 May 2015
REC Application Form [REC_Form_29042015]		29 April 2015
Referee's report or other scientific critique report [Evidence of scientific review]		25 March 2013
Research protocol or project proposal [Study protocol]	1.0	23 April 2015
Summary CV for Chief Investigator (CI) [Fiona Wood CV]		29 April 2015
Summary CV for student [Becky Richards CV]		25 April 2015
Summary CV for supervisor (student research) [Fiona Wood CV]		29 April 2015

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.

After ethical review

Reporting requirements

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
- Notification of serious breaches of the protocol
- Progress and safety reports
- · Notifying the end of the study

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

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors.

You are invited to give your view of the service you have received and the application procedure.

If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

15/WA/0161 Please quote this number on all correspondence

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

Yours sincerely

p.p. **Dr I Doull**

Chair, Wales Research Ethics Committee 2

a 1 PR:11/2

Email: carl.phillips@wales.nhs.uk

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

Copied: Dr F Wood, wood@cf.ac.uk

Ms B Richards, richardsb3@cardiff.ac.uk

R&D Office for Cardiff University,

resgov@cardiff.ac.uk

R&D Office Velindre, Sarah.Townsend@wales.nhs.uk

Appendix 43: R&D approval for the feasibility study:





Velindre NHS Trust Headquarters Pencadlys Ymddiriedolaeth GIG Felindre

2 Charnwood Court Heol Billingsley Parc Nantgarw Cardiff CF15 7QZ

Tel/Ffon: (029) 2061588 www.velindre-tr.wales.nhs.uk

Correspondence to: Mrs Sarah Townsend, Research and Development Manager, Velindre NHS Trust,
Research & Development Office, Velindre Cancer Centre, Velindre Road, Whitchurch,
Cardiff, CF14 2TL
Email: Sarah.Townsend@wales.nhs.uk
Tel: 029 20 615888 ext: 4670

Dr John Staffurth Consultant Oncologist Velindre NHS Trust Velindre Cancer Centre Whitchurch Cardiff CF14 2TL

24th August 2015

Dear Dr Staffurth

2015/VCC/0031 Exploring the potential of a mobile phone or table "app" to help patients with cancer prepare for consultations; Phase 3 pilot evaluation

Thank you for your mail dated 10th August 2015, in which you responded to the issues raised by the Research Risk Sub Committee on the 30th June 2015. Your response was forwarded to the RRRSC as per Trust procedures; the Committee has confirmed the response as satisfactory.

I am therefore pleased to take Chair's action to approve this project on behalf of the Sponsor and Research Risk Review Committee (RRRC). This decision will be reported for ratification at the next RRRSC on 29th September 2015.

Approval lapses if the project does not commence within 12 months of Trust approval. The Committee reserve the right to information on the progress of the project at any time and should receive a progress report six monthly and a written report on completion. Random audits may be carried out to ensure that projects comply with the clinical guidelines for research. Any serious adverse incidents relating to the project should be reported to the R&D office and a Clinical Incident Form completed.

On completion of the project please inform the R&D office.

All correspondence should be forwarded to Sarah Townsend, R&D Manager, R&D Office, Velindre NHS Trust, Velindre Cancer Centre, Cardiff CF14 2TL ext 4670.

Yours sincerely

J.B. Hardinson

Professor Jane Hopkinson Trust Independent Member, RRRC Chair

> Mae'r Ymddiriedolaeth hon yn croesawu gohebiaeth yn y Gymrae This Trust welcomes correspondence in Welsh











