Title: A survey of the treatment and management of patients with severe chronic spontaneous urticaria: A UK DCTN Trainee Group Initiative

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None: B. Ho[1], K. Heelan[2], L. Solman[3], R. Jones[4], J. Dua[5], J.R. Ingram, C. Flohr

Chronic spontaneous urticaria (CSU) is characterized by the recurrent appearance of wheals, angioedema or both, occurring at least twice weekly for longer than 6 weeks (1), often managed with antihistamines, but occasionally requiring other systemic agents in recalcitrant cases.

A cross-sectional survey was conducted by means of an internet-based survey tool (Typeform). Participating consultants with a specialist interest in urticaria were identified and invited through the specialist registers of the British Society of Allergy and Clinical Immunology (BSACI), the Improving Quality in Allergy Services (IQAS) Group and the British Association of Dermatologists (BAD).

The survey content was based on current CSU treatment guidelines from EAACI/GA2LEN/EDF/WAO (2) and the British Society for Allergy and Clinical Immunology (BSACI) (3). The EAACI/GA2LEN/EDF/WAO guidelines are a joint initiative of the Dermatology Section of the European Academy of Allergy and Clinical Immunology (EAACI), the EU-funded network of excellence, the Global Allergy and Asthma European Network (GA2LEN), the European Dermatology Forum (EDF), and the World Allergy Organization (WAO). . To standardise responses, all participants were presented with a case of recalcitrant CSU (failed on maximum dose non-sedating antihistamines and montelukast), requiring alternative systemic treatment. Questions covered usage of systemic treatments, routine disease severity assessments, adherence to treatment guidelines and perceived barriers to prescribing.

Responses (table 1) were received from 19 UK consultants (completion rate 73%), 15 of whom had greater than 10 years experience in the treatment of chronic spontaneous urticaria. The majority were allergy (58%) and dermatology consultants

(37%) and 56% provide a dedicated urticaria service. 37% treat adult and paediatric patients, and the majority (79%) use other systemic medications than antihistamines and montelukast. Omalizumab and ciclosporin were the most commonly used first line agents (47% and 27% respectively) (figure 1). 84% use validated measures to assess disease severity, including the urticaria activity score (UAS-7, 63%), the Physician Global Assessment (63%), the Patient Global Assessment (44%) and the Dermatology Quality of Life Index (DLQI, 38%). 89% use guidelines to direct their management of chronic spontaneous urticaria, with 50% using the EAACI/GA2LEN/EDF/WAO guideline (2), compared to 31% primarily using the BSACI one (3). The main perceived barriers to prescribing systemic medications were potential adverse effects (32% strongly agreed), potential long term toxicity (26% strongly agreed), cost of treatment (42% strongly agreed), and views expressed by patients and their family (37% agreed).

Our findings show variance between dermatology, allergy and immunology consultants with regard to the prescribing of systemic agents in CSU (figure 2). Our findings suggest allergists are more likely to prescribe omalizumab as first line treatment, while dermatologists more commonly prescribe ciclosporin, which is not in keeping with NICE guidance (5).

Drug-related adverse effects are the main perceived barrier for clinicians to prescribe systemic medications. Other barriers to prescribing are the cost of medications. The list price for 300mg Omalizumab monthly for 12 months is £6150 (4), excluding the cost of post-injection observations required in a secondary care setting, while ciclosporin (in generic formulation) costs £2660 for 300 mg/day for 12 months (4 mg/kg/day for 75 kg patient) (4), excluding the cost of renal function and blood pressure monitoring. The main limitation to our survey was the number of

respondents, as we chose to focus on consultant physicians with a specialist interest in urticaria.

In summary, our UK survey highlights the differences in management of CSU between dermatologists and other specialists, resulting in variation in the care provided for CSU patients. Although national and international treatment guidelines now recommend omalizumab as a first line agent for severe CSU not responding to antihistamine and montelukast treatment, these are based on placebo-controlled studies. The current lack of head-to-head comparisons between conventional systemics and biologic therapies may explain some of the variation in treatment approaches we observed and highlights the need for further research in this area, including a comprehensive health economic evalation. (5,6).

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Table 1: Summary of survey results

Section 1: Demographics		
Country of work	United Kingdom	100% (19)
Hospital grade	Consultant	100% (19)
Specialty	Allergy	58% (11)
	Dermatology	37% (7)
	Immunology	5% (1)
Caseload	Adults only	42% (8)
	Both Adults and Paediatrics	37% (7)
	Paediatrics only	21% (4)
Number of years in specialty	>20 years	53% (10)
	10-20 years	26% (5)
	<10 years	21% (4)
Section 2: Use of systemic medications		
Do you use systemic medication for the management of chronic urticaria?	Yes	79% (15)
	No	21% (4)
First line?	Omalizumab	47% (7)
	Ciclosporin	28% (4)
	Other	20% (3)
	Dapsone	7% (1)
Second line?	Omalizumab	40% (6)
	Ciclosporin	33% (5)
	Mycophenolate Mofetil	13% (2)
	Other	13% (2)
Third line?	Other	27% (4)
	Dapsone	20% (3)
	Ciclosporin	13% (2)
	Methotrexate	13% (2)
	Mycophenolate Mofetil	13% (2)
If you use any of the listed treatments in children, which ones do you use?	Ciclosporin	80% (4)
	Omalizumab	80% (4)
	Azathioprine	60% (3)
	Dapsone	60% (3)
	Mycophenolate Mofetil	60% (3)
	Methotrexate	20% (1)
Section 3: Use of standardised measures		
Do you use standardised measures when assessing disease?	Yes	84% (16)
	No	16% (3)
Physician global assessment	Most of the time	63% (10)
	Sometimes	13% (2)
	Never	25% (4)
Patient global assessment	Most of the time	44% (7)
	Sometimes	25% (4)
	Rarely	6% (1)
	Never	25% (4)
Urticaria activity score (UAS) 7	Most of the time	63% (10)
	Sometimes	38% (6)
In-clinic UAS	Most of the time	25% (4)
	Sometimes	13% (2)
	Rarely	19% (3)
	Never	44% (7)
Angioedema activity score	Sometimes	44% (7)
	Rarely	25% (4)
	Never	31% (5)
Itch-severity score	Most of the time	13% (2)
	Sometimes	19% (3)
	Rarely	31% (5)
	Never	38% (6)
Weekly number of hives score	Most of the time	13% (2)
	Sometimes	25% (4)
	Rarely	19% (3)
	Never	44% (7)
DLQI	Most of the time	38% (6)
	Sometimes	25% (4)
	Rarely	25% (4)
	Never	13% (2)
Chronic Urticaria Quality of Life Questionnaire (CU-Q2oL)	Sometimes	25% (4)
	Rarely	25% (4)
	Never	50% (8)
Angioedema Quality of Life Questionnaire (AE-QoL)	Sometimes	6% (1)
	Rarely	31% (5)
	Never	63% (10)
Section 4: Use of guidelines and perceived barriers		
Do you use guidelines to direct your management of urticaria?	Yes	89% (17)
	No	11% (2)
Which guidelines do you refer to?	EACCI/GA(2)LEN/EDF/WAO	50% (8)
	Other	38% (6)
	Local guidelines	13% (2)
Support services for patients	Access to nursing support	89% (16)
	Access to inpatient facilities	61% (11)
	Dedicated urticaria service	56% (10)
	Nurse prescribers	28% (5)
Main perceived barriers to prescribing systemic medications	Cost	
	Side Effect of treatments	
	Views expressed by patient or family	
	Long term toxicity	

Figure 1: First-, second- and third-line systemic drug selection

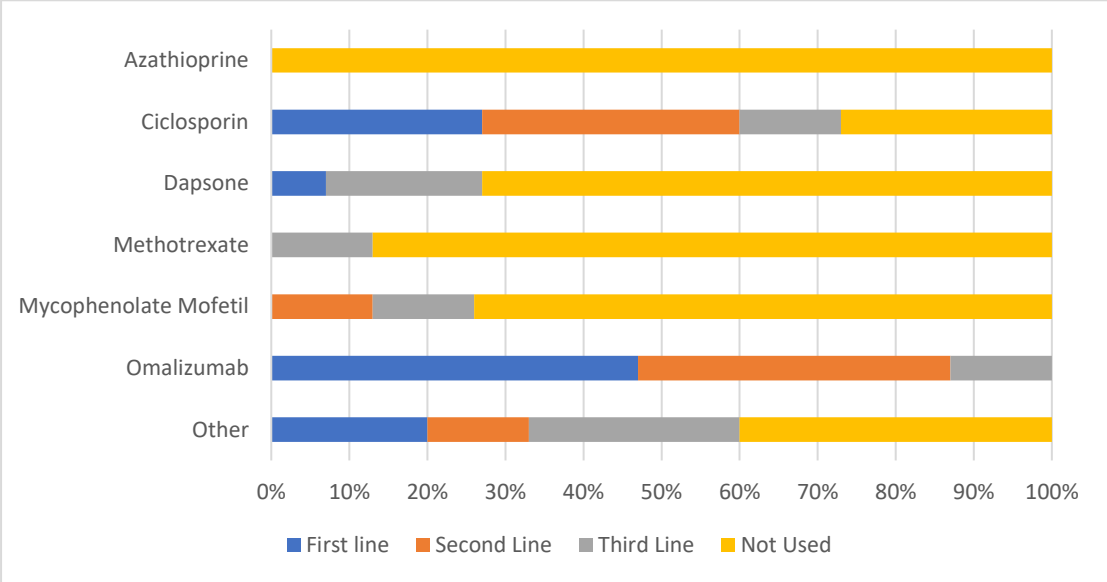

Figure 2: First-, second- and third-line systemic drug selection by specialty