

Chronic urticaria: an internet survey of health behaviours, symptom patterns and treatment needs in European adult patients

M. Maurer, J.-P. Ortonne* and T. Zuberbier

Allergie-Centrum-Charité, Department of Dermatology and Allergy, Charité – Universitätsmedizin Berlin, Charitéplatz 1, D-10117 Berlin, Germany

*Department of Dermatology, Hôpital de L'Archet 2, Nice, France

Summary

Correspondence

Marcus Maurer.

E-mail: marcus.maurer@charite.de

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Background Chronic urticaria (CU) is a common skin disorder characterized by spontaneous outbreaks of itchy wheals and/or angio-oedema over a period of 6 weeks or longer. Very little is known about the health behaviour, symptom patterns or unmet treatment needs of patients with CU.

Objectives To determine how patients with CU manage their condition, when and where their symptom outbreaks occur and what their greatest unmet treatment needs are.

Methods An internet survey was conducted with 321 randomly selected, representative adults in Germany and France diagnosed with CU. The survey covered patient health behaviour, when and where symptoms occur and which effects of CU remain unaddressed.

Results The survey found that 78% of the respondents were taking prescription or over-the-counter medication, yet only 33% of those taking medication did so preventively always or often. For 58% of respondents, CU outbreaks lasted 6–10 weeks, while 12% of patients had CU continuously for 52 weeks year⁻¹. The body parts most frequently reported as most affected by CU were the arms (55% of women and 57% of men; not significant) and the legs (42% of women and 32% of men; $P = 0.043$). More respondents were bothered by symptoms in the evening (34%) than during the night (23%), morning (23%) or afternoon (20%), and the mode of the frequency for sleep being affected was three nights per week. Itching and physical discomfort remained inadequately addressed for 68% of the respondents, and sleep disturbances from CU remained inadequately addressed for 48% of respondents.

Conclusions A better understanding of health behaviour, symptom pattern and unmet needs of patients with CU will enable physicians and patients to manage this disabling condition more effectively.

Chronic urticaria (CU) is a common skin disorder, characterized by spontaneously arising itchy wheals, and/or angio-oedema, present on a regular basis for longer than 6 weeks.^{1–5} In the majority of cases, the cause remains unknown.^{4,5} Although second-generation H₁ antihistamines are recommended as first-line symptomatic treatment,^{1–3} not all patients respond and less than half report sufficient symptom control when using these medications as recommended.^{4,5} Consequently, many patients with CU remain afflicted by the condition, which often results in a marked reduction of quality of life (QoL).

It is important to recognize that CU remains primarily under the management of the patients themselves. The condi-

tion often lasts for years, and treatment is almost always provided on an outpatient basis. Yet during this time period, how often will a patient visit his or her physician after the initial consultation for diagnosis—perhaps once a month at most, for 10–20 min per visit? The rest of the time, the management of CU is entirely up to the patients: which remedies do they use when? Which behavioural measures do they take to prevent, alleviate or cope with the symptoms? Most importantly, what is it exactly that drives the patients to see their doctors again, above and beyond the symptoms, which of course are there continuously at many times when the patient does not come back to see their doctor again? To date, almost nothing is known about all this patient behaviour. Yet if a

Table 1 Sociodemographics of the survey respondents

Characteristic	
Sex, n (%)	
Female	186 (58.1)
Male	134 (41.9)
Age (years)	
25th Quartile	29.5
Median	37.0
75th Quartile	47.0
Education, n (%)	
Elementary school or middle school	53 (16.6)
High school	58 (18.1)
Vocational/technical school	72 (22.4)
University	108 (33.7)
Graduate school	29 (9.2)
Employment status, n (%)	
Full-time (≥ 32 h week ⁻¹)	186 (58.0)
Part-time (< 32 h week ⁻¹)	49 (15.3)
Homemaker/caregiver	22 (6.8)
Not working/retired	38 (11.7)
Full-time student	18 (5.7)
Unemployed, looking for work	8 (2.5)

Slight numerical discrepancies are due to rounding-off of fractions in the data weighting.

physician had more detailed understanding of what exactly a patient is doing on a day-to-day basis to manage his or her symptoms, it would be possible to customize the treatment and health advice to the precise needs of each patient.

Because CU is a long-term condition, we were interested to know how the patients attempt to manage their condition, when and where exactly their symptom outbreaks occur and what their greatest unmet treatment needs are. A survey was conducted in France and Germany with subjects who reported being diagnosed with CU by a physician. The survey covered, among other topics, their health outlooks, timing of medication use, anatomical distribution of symptoms, timing of outbreaks, sleep disturbances and treatment sought. Our hope is that a better understanding of the behaviours, experiences and

expectations of the actual patients themselves will enable physicians to craft more effective, custom-tailored, symptom management plans together with their individual patients.

Methods

Survey

This internet survey⁶ was conducted in France and Germany, from mid-October to mid-November, 2006. The survey was written in English and translated into French and German by a native speaker of each target language living in the respective country. The translations were checked for equivalence to the English by separate native-speaking translators of the target language in each of the countries. The translated survey was piloted as a paper version administered in person with three respondents in each country, and a brief interview was conducted afterwards to check for difficulties in the survey.

The survey began with a brief screening section covering some sociodemographics and verifying the respondent's urticaria. The main part of the survey contained about 110 questions, depending on the respondent's answers, mostly involving Likert-scale ratings, quantitative questions, yes/no lists and multiple-choice questions. The content items of the survey covered topics such as: their general health attitudes; CU duration, frequency and timing; previous and present treatments; how the initial diagnosis occurred; the role of their treating physician; the impact on QoL; the impact on sleep; and sociodemographics. In a previous paper we reported on the subset of data relating to patient QoL, treatment satisfaction and relation to their physician.⁷ Here, we focus on the data relating to patient health behaviour, symptom patterns and remaining problems such as sleep disturbances.

Subjects

Survey respondents were drawn from an established pool of survey 'panellists' in France and Germany. 'Panellists' were initially recruited either by telephone from random dialing

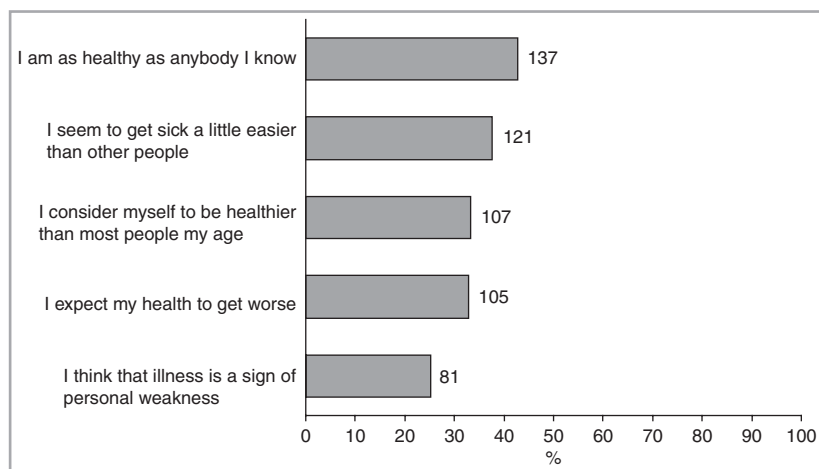


Fig 1. Overall health perceptions. Respondents were asked to rate each of the statements as 'definitely true', 'mostly true', 'don't know/not sure', 'mostly false' or 'definitely false'. The bars represent the percentage of respondents who replied 'definitely true' or 'mostly true'. The numbers at the end of the bars are the weighted numbers of respondents.

Fig 2. Perceived behavioural management of chronic urticaria. Respondents were asked to rate each of the statements as 'definitely true', 'mostly true', 'don't know/not sure', 'mostly false' or 'definitely false'. The bars represent the percentage of respondents who replied 'definitely true' or 'mostly true'. The numbers at the end of the bars are the weighted numbers of respondents.

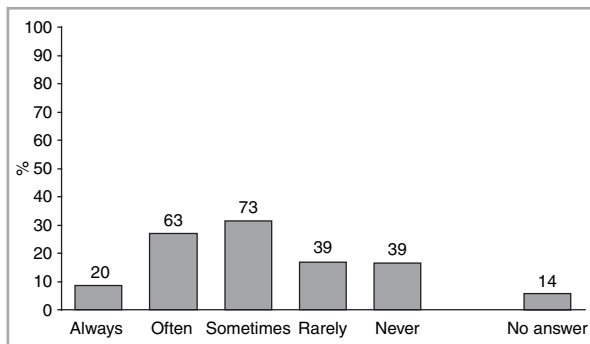
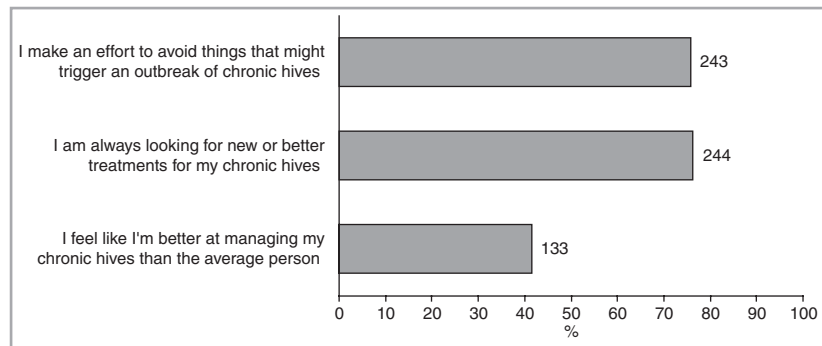


Fig 3. Taking medication preventively. Subjects who had reported taking prescription or over-the-counter medication ($n = 249$) were asked, 'How often do you take your medication before experiencing symptoms in order to prevent the symptoms from starting?' The numbers on top of the bars are the weighted numbers of respondents.

lists or online from a variety of website advertisements, and they were invited to join the panel to participate in online surveys. Panellist behaviour is monitored by quality assurance teams who deregister panellists whose responses are of ques-

tionable validity. The exclusion criteria were: occupation of the respondent or any immediate family member in marketing, market research, advertising, healthcare products, pharmaceuticals or healthcare professions (doctor, nurse or pharmacist); and age under 18 or over 99 years. Maximum quotas were set for age and sex to keep the sample of participants fairly representative of the adult population demographics of the countries, and respondents were excluded when the maximum quotas were filled. The inclusion criteria were: a 'yes' response to the question, 'Have you ever suffered from a spontaneous outbreak of hives that lasts for 6 weeks or longer (also known as chronic hives or chronic urticaria)?'; and a response of 'one' or greater to the question, 'Approximately how many spontaneous outbreaks of hives lasting more than 6 weeks (chronic urticaria) have you experienced within the past 12 months?'.

Data analysis

The pool of respondents of the individual countries was weighted^{8,9} by sex and age to reflect the demographics of

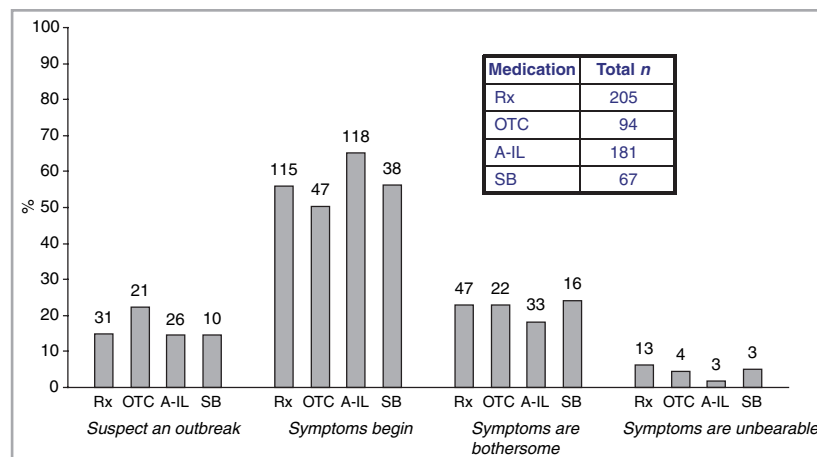


Fig 4. Timing of treatment. Subjects had been asked, 'What do you typically do when you experience an outbreak?' Four of the possible replies were: 'take prescription hives medication' (Rx), 'take over-the-counter hives medication' (OTC), 'use anti-itch lotion' (A-IL) and 'take soothing bath' (SB). Then subjects were asked, 'At which point do you typically start using each of the chronic hives remedies you mentioned?' and they were shown only all those remedies that they had previously checked. Thus the total n for each of the four remedies was: Rx = 205, OTC = 94, A-IL = 181, SB = 67. The graph shows the percentage of respondents who start using each of the four types of remedies at each of four stages in the outbreak. The numbers on top of the bars are the weighted numbers of respondents.

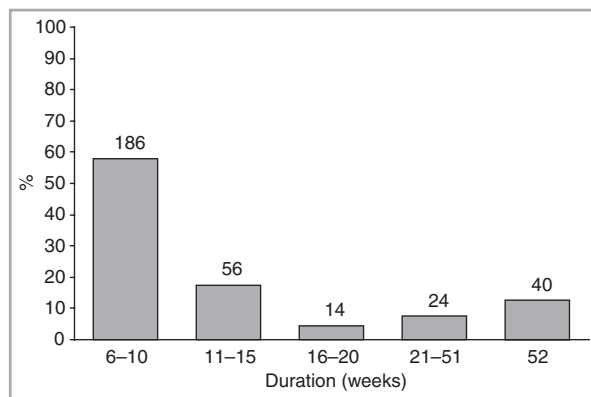


Fig 5. Duration of chronic hives outbreaks. Subjects were asked, 'Now thinking specifically about your outbreaks of chronic hives (i.e. spontaneous outbreaks where symptoms last for 6 weeks or longer), approximately how many weeks, on average, do these outbreaks last?' Respondents were allowed to give any number of weeks. They were explicitly asked to reply '52' if they suffered constantly. Thus the rightmost column presents the respondents who suffer continuous chronic urticaria. If a respondent tried to give an answer of less than 6, then they were reminded that the survey refers to chronic hives, i.e. outbreaks lasting 6 or more weeks. If they checked the extra box that they never suffered for 6 or more weeks, then they were removed from the study. The numbers on top of the bars are the weighted numbers of respondents.

each country, based on national census data. After applying the exclusion criteria, this weighting was applied to all respondents, so that the initial pool of respondents was representative by sex and age for the total adult population of the respective countries. The regional distribution of respondents was also compared with census data. It was found to be adequately representative, so no weighting was applied for geographic region. In addition, the data for the total sample were weighted to reflect accurately the relative sizes of the two countries' adult populations. After this weighting, the screening questions for the inclusion criteria were applied to this pool of respondents. Descriptive statistics were used for reporting the results. (Slight numerical discrepancies in the report are due to rounding-off of fractions in the data weighting.)

Results

After applying the exclusion criteria, there were 8036 subjects in the initial pool of respondents (4035 in Germany and 4001 in France). The data weighting for sex and age was applied to this initial pool of respondents, so that this initial pool of people questioned would be representative for the respective populations. After applying the inclusion criteria, 405 adults with CU in Germany (208) and France (197) were eligible to complete the main survey, and they all did so. During the survey, respondents were asked if they had ever been diagnosed by a medical professional with chronic hives/CU. Respondents who replied 'No' were removed from the dataset of this paper, leaving a total physician-diagnosed survey

population of 321 weighted respondents (169 German, 150 French). The basic sociodemographics of the survey participants are presented in Table 1. The respondents who were in a physician's care for their CU ($n = 268$) were distributed roughly evenly between dermatologists ($n = 111$), general practitioners ($n = 81$) and allergists ($n = 74$); (others: $n = 3$).

Firstly, the survey looked at respondents' overall health perceptions and treatment behaviour. It found that 43% of the respondents felt that they were as healthy as other people (Fig. 1), and 76% of respondents felt they were making efforts to avoid factors that might trigger an outbreak (Fig. 2). Seventy-eight per cent of the respondents were taking prescription or over-the-counter medication, but among them, only 33% reported taking medication preventively always or often (Fig. 3), and the majority of respondents said they started taking their various remedies when symptoms began (Fig. 4).

Next the survey looked at the patterns of symptom manifestation. It found that outbreaks lasted 6–10 weeks in 58% of the respondents (Fig. 5). Symptoms occurred most often on the arms and legs, yet there were several statistically significant differences between men and women regarding which body parts they reported being most affected during a typical

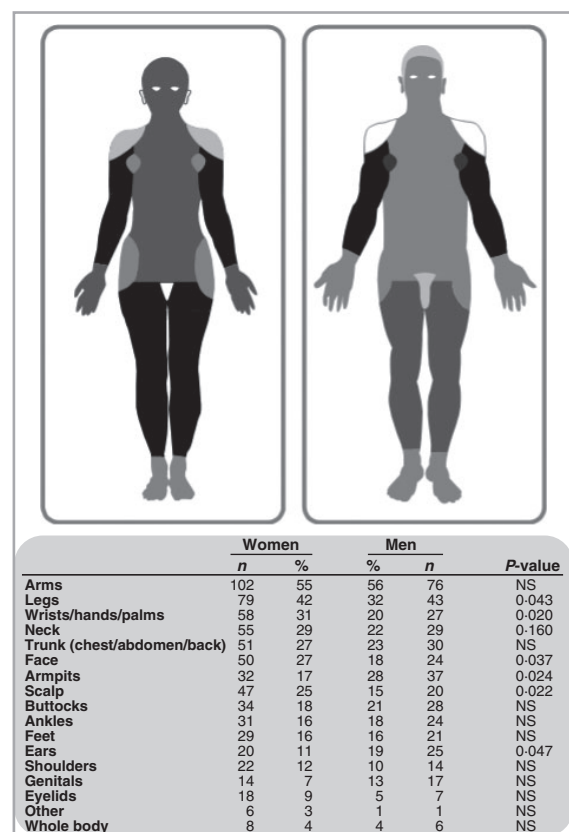


Fig 6. Map of affected parts of the body. Subjects were asked 'Which body parts are most affected during a typical outbreak?' They were then presented with a checklist with the parts of the body listed in the Figure's table. Statistical significance was determined by ANOVA. NS indicates $P > 0.2$.

outbreak; legs, wrists/hands/palms, face and scalp were more often affected in women than men, and armpits and ears were more often affected in men than women (Fig. 6). Outbreaks increased in the warmer months, occurring in the summer for 61% of respondents, and 42% of respondents found summer to be the most bothersome season (Fig. 7). Outbreaks were also worst in the evening, affecting 34% of all respondents, and being most bothersome in the evening for 21% of respondents (Fig. 8).

Finally, the survey looked at the impact of CU on patient's sleep and aspects they were not able to manage themselves. The sleep of most respondents was somewhat affected (mode three nights per week) (Fig. 9), and when their sleep was affected, 58% of respondents reported taking prescription medication and 57% reported using anti-itch lotion (Fig. 10). Eighty-three per cent of respondents reported being under a physician's care for their CU and, among them, 44% discussed their CU with their physician every time they had an outbreak

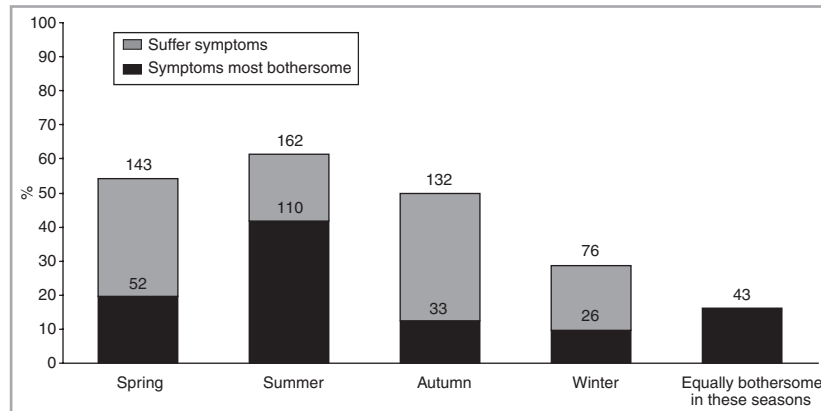


Fig 7. Seasons of the year for symptoms. Subjects were asked, 'When during the year do you suffer chronic hives outbreaks?' They were provided with a list of the four seasons and allowed to check all that applied. Subjects who gave more than one answer were then asked, 'Which season are your symptoms most bothersome?' They were provided with a list of only the seasons they had previously affirmed, as well as an 'equally bothersome in these seasons' answer. Here, we have added the response of single-season sufferers into the 'most bothersome' total. Earlier in the survey, subjects had been asked, 'How long have you suffered from chronic hives?' and were provided with several answer possibilities. Those who replied 'less than 1 year' ($n = 20$) have been excluded from this data presentation, because they would not have had CU long enough to judge adequately its seasonal variation. Subjects were also asked, 'Now, thinking specifically about your outbreaks of chronic hives (i.e. spontaneous outbreaks where symptoms last for 6 weeks or longer), approximately how many weeks, on average, do these episodes last?' Subjects who responded '52' ($n = 40$, of whom six had also said they had had CU for less than 1 year) were intentionally skipped over for the question about which seasons they suffer, because obviously they suffer in all seasons. Due to a programming error, they were also skipped over for the question about which season is most bothersome. The numbers on top of the bars are the weighted numbers of respondents.

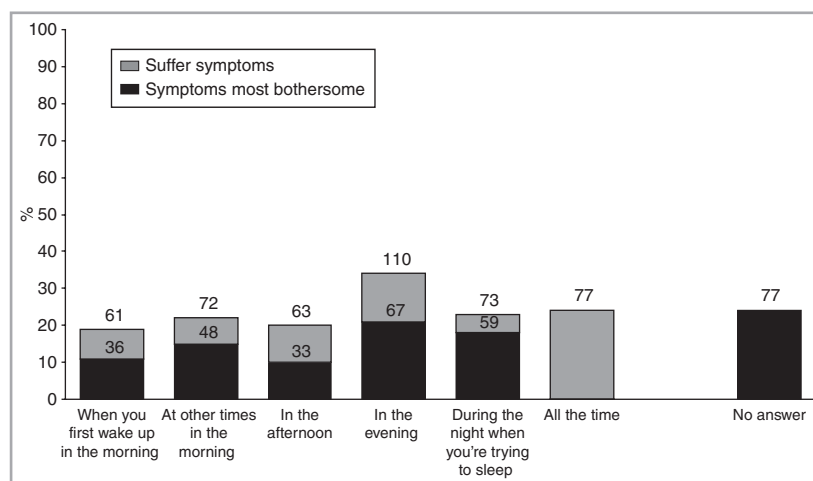


Fig 8. Time of day for symptoms. Subjects were asked 'When do you suffer symptoms during a typical outbreak of chronic hives?' They were allowed to check all answers that applied. Next they were asked, 'When suffering an outbreak, at what point during a 24-h period are your symptoms most bothersome?' Only the first five replies below the x-axis were presented, the answer 'all the time' was not available and they were only allowed to choose one answer. This presumably explains why the exact same number of respondents (77) provided no answer and skipped on to the next question. The numbers on top of the bars are the weighted numbers of respondents.

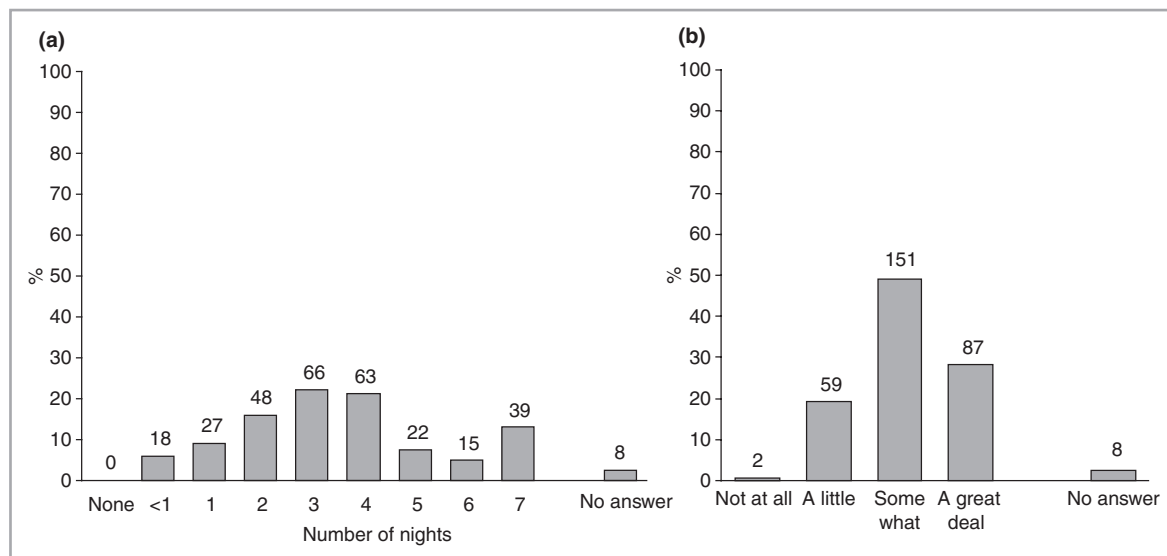


Fig 9. Effect of chronic urticaria on sleep. Subjects were presented with the statement, 'My hives affect how well I sleep' and asked to choose their reply: 'always', 'often', 'sometimes', 'rarely' or 'never'. There were 14 of 321 subjects (4.3%) who chose 'never', and they were not asked the next two questions on sleep. (a) The remaining subjects ($n = 307$) were asked, 'Of the days in a week you suffer a typical outbreak, how many nights would you say your sleep is affected?' (b) Subjects were asked, 'To what extent do your hives outbreaks affect how well you sleep?' For both graphs, the numbers on top of the bars are the weighted numbers of respondents.

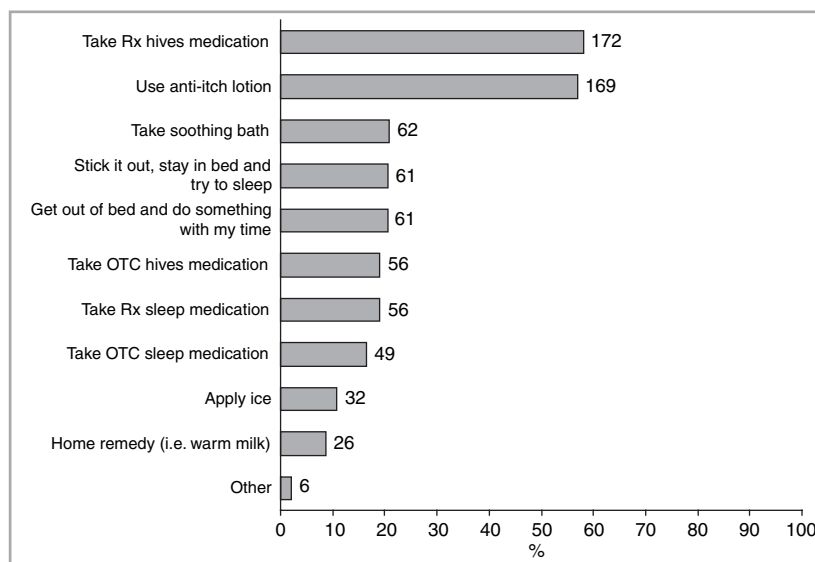


Fig 10. Health behaviour responses when sleep is disrupted by chronic urticaria. All subjects ($n = 297$) who had responded 'a great deal', 'somewhat' or 'a little' to the question 'To what extent do your hives outbreaks affect how well you sleep?' (cf. Fig. 9b) were then asked 'When your sleep is affected, which, if any, of the following do you do?' The numbers at the end of the bars are the weighted numbers of respondents.

and when symptoms did not respond to treatment (Fig. 11). Itching or physical discomfort remained an unresolved problem for 69% of the respondents, and sleep disturbances remained unresolved for 48% (Fig. 12).

Discussion

The underlying causes of CU are not yet adequately understood, and so far there is no known cure for the majority of patients. Beneficial symptomatic medication exists, but treatment remains entirely on an outpatient basis and largely at the discretion of the patients. Therefore, in order to help patients

adequately manage their symptoms, physicians need to have a solid understanding of the patients themselves—their health behaviours, their symptoms patterns and their treatment needs. Unfortunately, very little scientific information on these subjects is available. The present survey should begin to shed light on these important dimensions of treating CU.

Firstly, our survey looked at health attitudes and health behaviours. To our knowledge, there has been no research at all about health attitudes of patients with CU—how they think about illness and their own role in staying healthy. Our findings on health attitudes were not so surprising, but they do begin to raise questions about how some patients with CU

Fig 11. Frequency of discussion with physician. Respondents who had reported being under a physician's care for their chronic hives ($n = 268$) were asked, 'How often do you discuss your chronic hives condition with the doctor you visit most often for treatment of your chronic hives?' The numbers at the end of the bars are the numbers of weighted respondents.

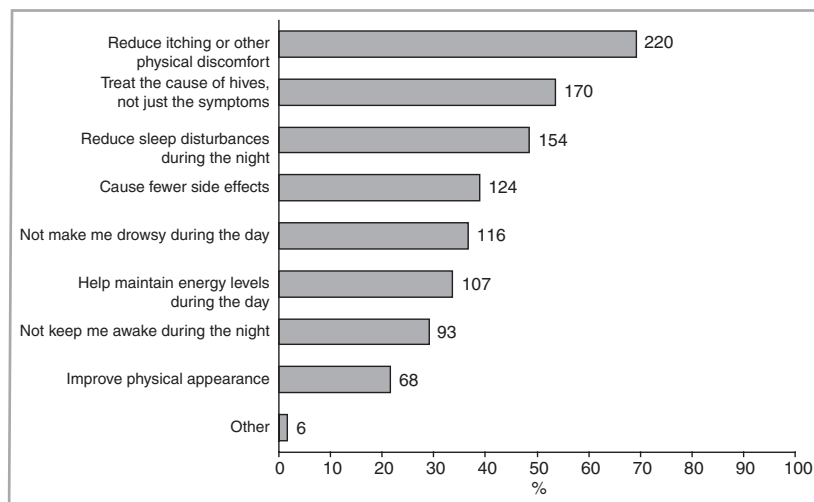
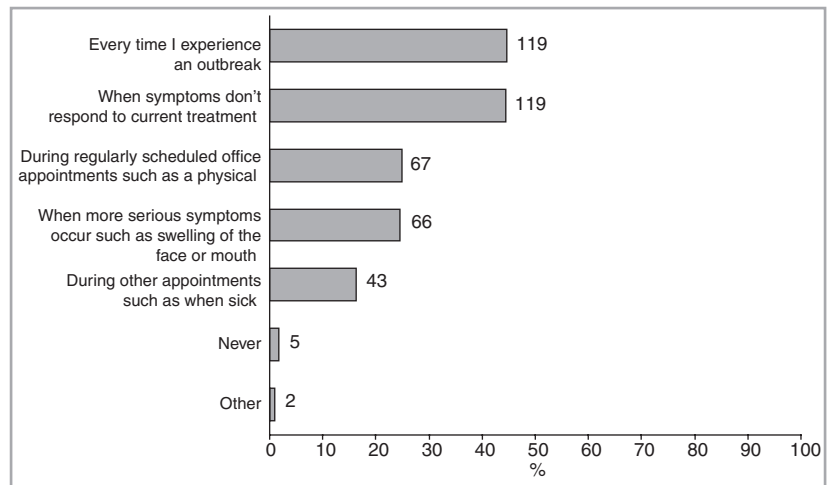


Fig 12. Unaddressed treatment needs. Respondents were asked, 'If a new treatment for chronic hives became available, how likely would you be to try it?' They were given five possible responses. All respondents ($n = 318$) who gave an answer other than 'not at all likely' were then asked, 'What, if anything, would you hope this new treatment would do better than treatments currently available to you?' Respondents were allowed to check all answers that applied. Although this question was formulated as a question about a hypothetical new medication, it can also be seen as reflecting the mismatches of currently available treatments to specific patient needs, i.e. it shows the proportion of patients who probably need to be switched among the currently available treatments. The numbers at the end of the bars are the weighted numbers of respondents.

think about their condition and what this thinking implies for their treatment. For example, one in four patients 'think that illness is a sign of personal weakness' (Fig. 1). What might be the ramifications of this view for their approach to treating their CU? Are they less likely to see their doctor or take medication, as this might acknowledge they are sick and therefore 'personally weak'? Similarly, only three in four patients 'make an effort to avoid things that might trigger an outbreak of CU' (Fig. 2). Might this suggest that the remaining respondents have fatalistically resigned themselves to having CU and no longer try to reduce its occurrence? Our survey only begins to scratch the surface of the health attitudes of patients with CU; further in-depth interviews with the patients would go a long way toward understanding how they think about their health and therefore what they do to treat their CU.

To our knowledge, there are also no studies clearly dealing with patient health behaviours—their usage patterns of various medications or behavioural symptom management. We found that the majority of patients could be taking a more preventive approach to managing their CU (Fig. 3). Most patients wait until symptoms begin before starting treatment, and a substantial portion of them even wait until they start suffering from the symptoms (Fig. 4). It should also be noted that a third of the respondents do not typically use prescription medication (Fig. 4, legend), even though recent guidelines^{1–3} recommend second-generation antihistamines as the first-line treatment. It should also be noted that a little over half the respondents use anti-itch lotion, which again is a reactive, symptom-suppression approach to management rather than a preventive approach. In a previous paper,⁷ we discussed how

physicians can create a stronger doctor–patient relationship in order to get the patients to treat their CU according to the guidelines.

Secondly, this survey looked at the anatomical and temporal patterns of symptom outbreaks. There are a few other studies that have reported on sex differences in CU. Most notably, Asero conducted an autologous serum skin test and thyroid function assessments in 188 women and 69 men with CU, and on this basis he concluded that CU is probably autoimmune in the majority of female patients and idiopathic in the majority of male patients.¹⁰ A Swedish study of 209 women and 121 men with CU found that only 50 of each sex (i.e. 24% vs. 41%) had only urticaria without angio-oedema.¹¹ This same study found clearly different age distribution curves between women and men: most women were aged 24–38 years with a clear peak at age 29, while most of the men were aged 18–54 years with no peak in the age distribution at all.¹¹ Another report on 94 women and 41 men with CU appears to suggest a somewhat later age of onset in men.¹² The present study found a clear set of statistically significant differences between men and women for the parts of the body where CU outbreaks occur (Fig. 6). Altogether these findings suggest that sex differences may be a fruitful avenue for more systematic research, not only in regards to patient health behaviour but even in the aetiology and pathogenesis of CU.

There have also been a few reports on when CU outbreaks occur. A study of 330 patients seen in Sweden from 1972 to 1978 found seasonal variations in 25% of the patients but reported that the period when urticaria worsened was evenly distributed over the year.¹¹ In contrast, our survey found that CU occurs more often in the warmer months and is even more likely to be at its worst then (Fig. 7). The same Swedish study also found diurnal variation in 53% of the patients; the evening and night were worse for more patients than the morning and day (44% and 26% vs. 23% and 7%).¹¹ Similarly, Sabroe *et al.* found a preponderance for maximal suffering in the evening/night rather than the morning/afternoon (31%/49% vs. 15%/4%).¹³ Thus these two earlier studies appear to be consistent with one another; however, although the present survey also confirms the finding that evening/night is worse than morning/day (Fig. 8), the difference was not as pronounced as previously reported. This is probably due in part to different definitions of the four time periods, different ways of constructing the survey questions and differences in the study samples and contexts.

Thirdly, this survey looked at patients' sleep disturbances and other treatment needs. There are many reports on the related topic of the impact of CU on QoL, which includes sleep. However, no study on CU sufficiently differentiates sleep from other dimensions of QoL to be of use to a clinician confronted specifically with the sleep disturbances of a patient with CU; and none of these QoL studies considers how patients respond to sleep disturbances. The present survey found that virtually all patients with CU experience at least some sleep disturbance and the sleep of CU patients is affected

'somewhat' three nights per week (mode) (Fig. 9). Thus, although sleep disturbances are not a CU symptom *per se* like pruritus, they are a standard part of the condition experienced by patients with CU.

There are also no papers on other unmet treatment needs of patients with CU, except for our recent report which touches on other aspects of these topics with the same survey sample presented here.⁷ In our previous paper, we found that many patients with CU could be seeing their physician more often and having more discussion about their condition than they currently are. The present survey data reinforce this point (Fig. 11). In particular, many patients complained about a variety of problems with treatment that could probably be resolved, in part or whole, simply by switching their medication (Fig. 12). For example, many patients hoped for a new medication that would 'not make me drowsy during the day', 'help maintain energy levels during the day' or 'not keep me awake at night'. But second-generation antihistamines are generally nonsedative, and loratadine, fexofenadine and desloratadine are completely nonsedative and even approved for use by airplane pilots.¹⁴ Thus, these survey respondents appear to be having inadequate discussions with their physicians about their treatment needs and the currently available remedies. Given the rarity of reports on all these topics, the field of research on health behaviour and treatment needs of patients with CU is still a wide-open frontier for further studies.

This survey has several strengths and weaknesses. Its main strength is that it provides valuable information on patient health behaviour, symptoms and treatment needs that is otherwise scarcely available anywhere else in the literature. A second strength is that the sample's geographic distribution reflects the distribution of France's and Germany's overall populations, rather than being drawn from only one or a few clinics. Moreover, the sample has been weighted to reflect accurately the sex and age demographics of these countries, and thus can be considered representative of the general population. Also, by surveying the patients themselves directly, this study better captures the lived subjective experience of CU, thus enabling a more patient-centred approach to further healthcare delivery. Nonetheless, the study also has a few limitations that should be kept in mind. Firstly, the survey did not control for other urticarias, allergies or other health problems, and it cannot be assumed that all respondents were always clearly referring only to their CU and not to other similar concurrent conditions. Secondly, the study relies entirely on subjective patient reports without any objective clinical verification and may therefore reflect the biases and misperceptions of CU sufferers. Thirdly, the statistical analysis remains almost entirely descriptive, so the study cannot determine if certain answers are largely attributable to specific sociodemographic or clinical subgroups of respondents.

The broader understanding of health behaviour, symptom patterns and unmet treatment needs of patients with CU presented in this article should help to guide physicians in treating their patients. There are at least three main lessons that can be learned from this patient survey. Firstly, most patients could

be taking a more proactive and preventive approach to managing their CU, rather than waiting for symptom outbreaks to develop before treating them reactively; however, physicians will need to discuss this with each individual patient, in order to re-educate them to take a more preventive approach. Secondly, patients with CU have symptom outbreaks at different times of the day and year, for different durations and on different parts of the body, and these differences probably reflect differences in the underlying pathogenesis and/or patient activities. Clinicians should become attuned to these differences and customize their treatment approaches to meet the varied needs of different patients. Thirdly, sleep disturbances are commonplace among patients with CU and surely play a major role in patient suffering and loss of QoL. If clinicians can squarely address these sleep disturbances, patients may consider this a substantial improvement in their overall condition. For example, clinicians may choose to increase the dose of second-generation antihistamines, the first-line treatment for CU,¹⁵ so that patients are better relieved from evening and night-time pruritus—the main reason for their substantial sleep disturbances. Alternatively, clinicians may wish to discuss various behavioural strategies by which patients could improve their sleep quality, such as choosing a designated place and hours for sleeping, reducing alcohol consumption or testing various approaches to resolving sleep disruptions and keeping a written record of their effectiveness.

Thus there are six essential questions about health behaviours that physicians will want to ask each and every CU patient. (i) Which treatments do you rely on most? (ii) Do you take medication to prevent an outbreak before it occurs? (iii) What time of day are the outbreaks most bothersome? (iv) How often does the urticaria keep you from sleeping well? (v) What do you do when you can't sleep? (vi) What is the one thing about the urticaria that you most want me to help you deal with? Physicians should also ask how CU is affecting a patient's everyday life and feelings,⁷ but these six questions about health behaviours should enable the physician to identify ways that the patient could be better managing the physical symptoms.

At present, the underlying cause(s) of CU remains unidentified for the vast majority of patients,^{1–5} and the condition often lasts for many years. A better understanding of each individual patient's health behaviours, symptom patterns and unmet needs will enable physicians and patients to manage this bothersome and disabling condition more effectively.

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