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Improvements in quality of life and work productivity make omalizumab cost-effective for the treatment of chronic spontaneous urticaria

DOI: 10.1111/bjd.16820

Linked Article: Kanters et al. *Br J Dermatol* 2018; **179**:702–708.

This issue of the *BJD* includes an interesting study showing that omalizumab as an add-on to standard of care (up to fourfold the licensed dose of H₁-antihistamines) is a cost-effective treatment for chronic spontaneous urticaria (CSU) in the Netherlands.¹ This has previously been shown in the U.K., and in other countries, even considering local particularities of health systems and local recommendations for using omalizumab for CSU.² These cost-utility studies further strengthen the position of omalizumab as the third-line therapy for CSU in the 2017 revised and updated EAACI/GA²LEN/EDF/WAO guideline.³

CSU has a significant impact on quality of life and this represents a very high burden for patients with the condition, as evaluated in the ASSURE-CSU studies.⁴ Patients with moderate-to-severe CSU and angioedema have a high consumption of health resources, significant disturbances of sleep, a significant loss of working days (absenteeism) and, of particular note, of productivity while at work (presenteeism).⁴ The efficacy and safety of omalizumab is associated with a significant improvement in quality of life and a significant reduction in absenteeism and presenteeism. Including these factors within a more

societal perspective of pharmacoeconomics is instrumental in reducing, to an acceptable value, the incremental cost-effectiveness ratio of omalizumab per quality-adjusted life year. These societal benefits of omalizumab therapy could, therefore, outweigh its higher cost and the need for in-hospital administration when compared with standard of care,^{1,2} even taking into consideration the frequent relapse rate with omalizumab discontinuation and need for long-term treatment.

Although already demonstrated in Kanters et al. and other studies,^{1,2} real-life data could further increase the cost-effectiveness of omalizumab in CSU. With a very good safety profile, the response rate to omalizumab in real-life studies seems slightly superior (> 80%) to the clinical trials GLACIAL and ASTERIA that were used for incremental cost-effectiveness ratio calculations.⁵ About 60% of 'good responders' discontinue H₁-antihistamines,^{5,6} therefore, omalizumab cost in complete responders could be calculated as a single therapy.

Moreover, as omalizumab is advocated for H₁-antihistamine-refractory CSU, it should be compared with alternative drugs used for the same subgroup of patients. Ciclosporin has been used off-label and recommended in national and international guidelines based mostly on retrospective studies with a limited number of patients and a few randomized controlled trials.⁷ There are no head-to-head studies comparing ciclosporin and omalizumab, which makes cost-effectiveness comparative studies difficult. Nevertheless, considering its lower efficacy, a worse safety profile,⁷ with the need for regular laboratory controls, and its relatively high price, the studies on cost-effectiveness would very probably favour omalizumab. This is in agreement with the recent decision to downgrade ciclosporin to a fourth-line therapy for CSU and keep omalizumab as the third-line therapy in H₁-antihistamine-refractory CSU.³

In addition to cost-effectiveness, biomarkers recently shown to predict fast and complete response to omalizumab in CSU (high serum IgE and high FcεRI basophil expression)^{8,9} or better response to ciclosporin (low serum IgE) (L. Santiago and M. Gonçalves, personal communication) might also influence future treatment decisions in severe CSU.

Acknowledgments

Thanks to Professor Dr Ana Giménez-Arnau (Department of Dermatology, Hospital del Mar – Institut Mar d'Investigacions Mèdiques, Universitat Autònoma de Barcelona, Barcelona, Spain) for her critical review of this commentary.

Conflicts of interest

M.G. has participated in advisory boards and educational activities promoted by AbbVie, Novartis and Sanofi-Genzyme.

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Are adolescents with atopic eczema really undertreated in real life?

DOI: 10.1111/bjd.16886

Linked Article: Lundin et al. *Br J Dermatol* 2018; **179**:709–716.

Atopic eczema (AE) is the most common chronic inflammatory skin disease.¹ Topical steroids and emollients remain the mainstay of treatment but there are many barriers to medication adherence, including topical steroid phobia and the daily burden of complex topical treatments. Thus, there is a need to gain more knowledge about the real-life health behaviour of patients with AE, especially in adolescents.² Understanding barriers to medication adherence in adolescents is essential for both healthcare providers and policy makers. Population-based longitudinal cohorts are a good setting in which to carry out this type of study, as they use a nonselected population.

In this issue of the *BJD*, Lundin et al. performed an interesting and robust cross-sectional study in a Swedish population-based birth cohort (BAMSE) on a sample of 3108

adolescents.³ The authors used different sources of data from patient and/or parent questionnaires on diagnosis and severity assessments and clinical examination by a trained nurse. Information on dispensed topical steroids was obtained from the Swedish Prescribed Drug Register. The authors then looked at the association between AE severity and the likelihood to use emollients and/or topical steroids in this sample. However, the questions used to define AE in the questionnaires have been used in previous reported studies by the same team⁴ but have not yet been validated and may lead to a small degree of misclassification.

In total, 10% of the adolescents ($n = 297$) reported having AE in the past 12 months on the questionnaires and at the clinical evaluation step. Only 122 adolescents (4.6%) of those who participated in the clinical examination ($n = 2605$) were reported to have current AE as defined by visible lesions at examination. This prevalence rate is entirely consistent with recent studies assessing AE prevalence in adults, with a prevalence of 4.4% in European Union countries.⁵

A large majority of adolescents with reported AE said they used emollients (96%) but only 55% reported using topical steroids during the past 12 months. Moreover, only 25% had been prescribed topical steroids in the previous 12 months, according to the Swedish drug register. Similarly, only 38% of individuals with current moderate-to-severe AE had been prescribed topical steroids in the previous 12 months. The authors concluded that AE is generally undertreated or sometimes completely untreated in adolescents. However, when we look carefully at the data, we should not be so pessimistic: among all adolescents with reported AE, the majority (84%) with moderate-to-severe AE declared using topical steroids, which is not so bad. Furthermore, a high proportion of adolescents with a doctor's diagnosis of AE reported using topical steroids compared with those without a doctor's diagnosis (70% vs. 36%). Again this could be interpreted as a relatively good outcome for patients with moderate-to-severe AE in real life. Data on prescribed topical steroids drawn from the Swedish drug register should be interpreted with caution: as the authors acknowledged, someone else in the family might have a dispensed topical steroid and might have shared it; alternatively, some individuals may have obtained an over-the-counter mild topical steroid.

It is difficult to interpret this type of study in an unequivocal way; however, the authors deserve credit and acknowledgement for exploring this research gap. After all, this study may also give some evidence that adolescents with AE may not be so badly treated in real life.

Conflicts of interest

None to declare.

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