

UK paediatric allergy services: A glass half full?

In this issue of *Clinical and Experimental Allergy*, Wells et al report results from a comprehensive assessment of paediatric allergy services in the UK, undertaken between February 2019 and May 2020.¹ The authors took advantage of freedom-of-information provisions in UK legislation to undertake a detailed survey of allergy service provision across all 450 hospitals in the UK. While this approach placed a significant short-term burden on already-stretched clinical services and hospital administrations, it did enable the collection of an extensive national dataset that has not previously been possible to achieve.

Compared with a 2006 report on allergy services in the UK,² the 2020 data indicates that great progress has been made, particularly in the delivery of paediatric allergy services, with a 4-fold increase in allergy clinics and a 7-fold increase in the number of appointments. The estimated 85,600 appointments for "new" referrals is equivalent to one appointment for every 98 children in the UK. It is noteworthy that 40% of these appointments are provided within secondary care settings, and half of the senior medical staff seeing patients in tertiary services are non-specialists, highlighting the important role played by general paediatricians in allergy service provision and the unmet demand for allergy specialists. While it is possible that allergy nurses or dietitians may have been included in the non-specialist category, these data underscore the very significant need to increase the specialist training of healthcare professionals in the UK (such as the Royal College of Paediatric and Child Health's SPIN programme which provides specialist Allergy training to General Paediatricians). This is especially pertinent given that half of the senior specialists are allocated less than 1 programmed activity (4 h) per week to allergy care delivery. Allergy care provision may be better delivered through increased specialist education to both medical and non-medical healthcare professionals.³

Progress was also evident in relation to the availability of multi-disciplinary care with dietetic support available in the majority (92%) of services, albeit often requiring an additional visit, the provision of allergy management plans (97% of services, the majority using the British Society for Allergy and Clinical Immunology [BSACI] Allergy Action Plans) and patient education in adrenaline autoinjector use.

Nevertheless, major gaps remain in key areas, including limited access to specialized adolescent care (<10% of centres) and adult allergy care (30% of centres). Only 8% of centres offer a structure to transition children/young people from paediatric to adult services, which is concerning given that young adults are at the greatest risk of severe and fatal outcomes from food allergy.⁴ For many young adults, this transition period also coincides with moving away from the parental home – clearly a vulnerable period in terms of allergen

exposure and lack of parental oversight.⁵ The very significant gap in the provision of transitioning arrangements must be addressed as NHS services embrace young people to age 26 in paediatric health-care delivery.

The limited provision of allergen immunotherapy (fewer than 40% of centres) is also revealing. The authors estimate that 34,000 children, representing 0.4% of the paediatric population, are eligible for allergen immunotherapy to manage allergic rhinitis, yet current service provision would only accommodate initiation of immunotherapy in 2.6% of these children each year. Although this is a marked increase from the previous decade, additional resources are clearly needed in this area.

Another gap flagged by the authors is with respect to food challenges. Nearly, 50% of centres performed ≤ 2 food challenges per week, and intramuscular adrenaline was rarely administered. The authors suggest that the infrequent use of adrenaline might indicate reduced confidence in managing food-induced reactions and anaphylaxis; however, given the low rate of positive challenges (~20%), an alternate explanation may be that centres are largely performing challenges in subjects who are likely to have outgrown allergy and/or applying early stopping criteria. Given the well-documented benefits food challenges can provide to both children/young people and their families in terms of quality-of-life measures and self-efficacy,⁶ this is an area which demands urgent attention.

The increased adoption of active interventions for food allergy management is encouraging, although there are significant variations in practice: for example, divergence in recommendations regarding the home-introduction of baked egg and cow's milk in children with IgE-mediated food allergy, something which remains controversial due to a lack of robust safety and outcome data. The lack of evidence supporting this approach was highlighted in the latest BSACI guideline on the management of egg allergy,⁷ yet given the widespread adoption of this approach, this knowledge gap could be readily addressed by collecting the relevant anonymised patient data from clinics. This flags an urgent need to collect routine data from allergy practice, to better inform practice standards – there is precedent for this in Australia where all anaphylaxis events presented to hospital emergency departments in the state of Victoria must be reported to the State health authority. The Australasian Society of Clinical Immunology and Allergy (ASCIA) recently received funding to expand this mandatory reporting nationally. In another example, three Sydney-based allergy clinics recently collaborated to publish diagnostic cut-offs for IgE-sensitisation (skin prick testing, serum IgE measurements) for the local peanut allergic clinic population.⁸ Active data collection is an important strategy that the BSACI (and

equivalent organizations, elsewhere) should consider, to ensure future allergy provision is both evidence-based and consistent. It is no longer sufficient to simply flag gaps in research when these can now be rectified.

With the field of allergy increasingly moving towards active treatment rather than passive management, there is an imperative to consider how services can continue to deliver excellent care to those who need it and not just the minority; to address the increasing disparities in access and delivery that can be seen in the NHS and other healthcare systems. At first sight, the distribution of allergy services in the UK seems to match well with the UK population density (Figure 1). However, the data from Wells et al clearly show significant regional differences in allergy services, with a relatively poor provision in South East England outside London, the South West, Yorkshire/Humberside and Northern Ireland, suggesting that disparities in service provision are exacerbated by socioeconomic factors. In this respect, the roll-out of immunotherapy, not just for food allergy but increasingly for other atopic diseases too, presents

a challenge: should care to be focused on fewer patients with potentially more effective interventions, or should the emphasis be on maintaining and improving "basic" care for the majority of patients?⁹ Or do we need to adopt a future strategy that would allow us to do both?

The BSACI and the Royal College of Paediatrics and Child Health (RCPCH) are jointly embarking on a two-year journey to update and disseminate care standards for paediatric allergy services. This should address some of the root causes of variability in care provision, but there is a need to better understand reasons for the sub-optimal implementation of current guidelines and standards from the National Institute for Health and Care Excellence (NICE), NHS England, BSACI and RCPCH. The findings of Wells et al are encouraging in that provision of allergy services across the UK has improved substantially since 2006; nevertheless, major deficits remain in key areas. These need to be urgently addressed to ensure that paediatric allergy services are well-positioned to deliver the best equitable care in the future.

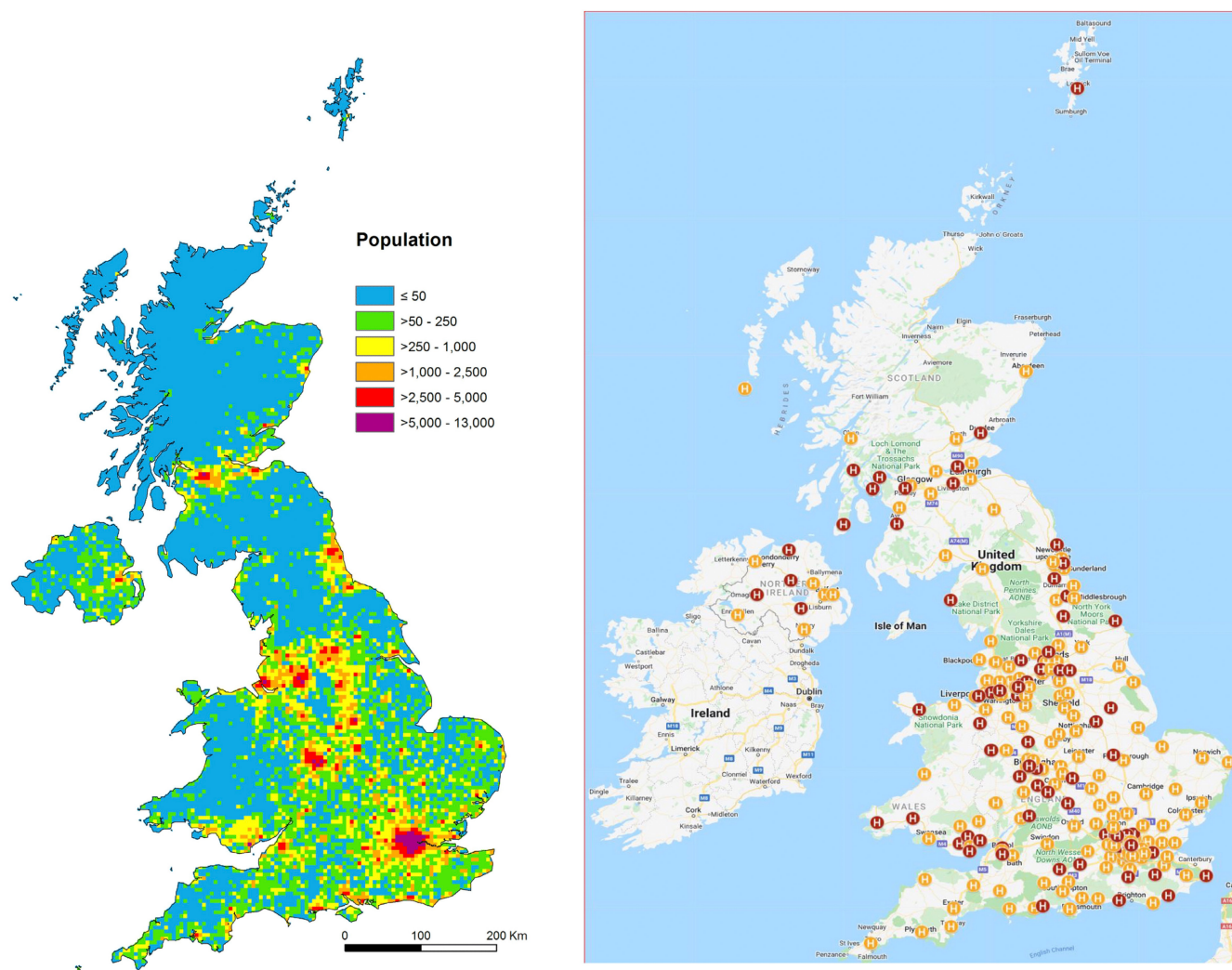


FIGURE 1 Population density in the United Kingdom (2011 census data, LEFT panel) compared to the distribution of paediatric allergy services in the UK (RIGHT panel) as evaluated by Wells et al.¹ Left panel reproduced from Vieno et al, doi:10.5194/acpd-15-20,881-2015 under CC-BY Attribution 3.0 Licence.

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