

Fatal asthma: Learning from tragedies

Over the last year we have seen how tragedies can be used by a collaboration of healthcare professionals and patients groups to successfully advocate for improved labelling legislation for patients with food allergy.^{1,2} We need a similar partnership with asthma where there are continued deaths as we have seen with the well publicised coroner's narrative verdict on a recent tragic case (https://www.judiciary.uk/wp-content/uploads/2019/05/Sophie-Holman-2019-0035_Redacted.pdf [accessed 9th June 2019]). This is despite the 2014 National Review of Asthma Deaths (NRAD) report³ which listed five simple measures to reduce deaths: (a) using risk algorithms to identify patients with high reliever/ low preventer use and recent exacerbation; (b) new models of care focusing on ambulatory care, guided self-management and targeting triggers to close the void between hospital and general practice; (c) provision of asthma training for interested GPs and specialist nurses; (d) provision of personal asthma plans to empower patients with the knowledge to successfully self-manage; and (e) a national audit – while this is being implemented it currently focuses on acute admissions when we should be focused on prevention. The coroner rightly calls for the NRAD recommendations to be revisited. They obviously need implementing urgently on a national basis. We need a collaboration of healthcare professionals and patients groups to take this forward.

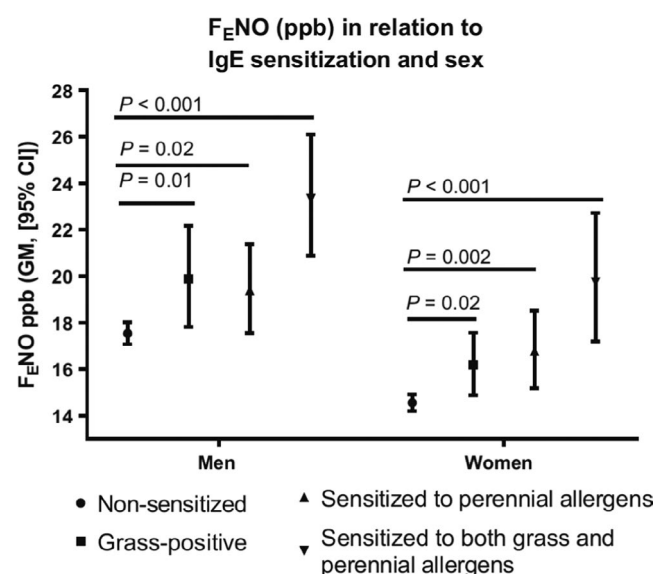


FIGURE 1 Levels of exhaled nitric oxide in healthy individuals vary by sex and allergic sensitisation. For more details, see figure 3, Nerpin et al (pages 969 to 979)

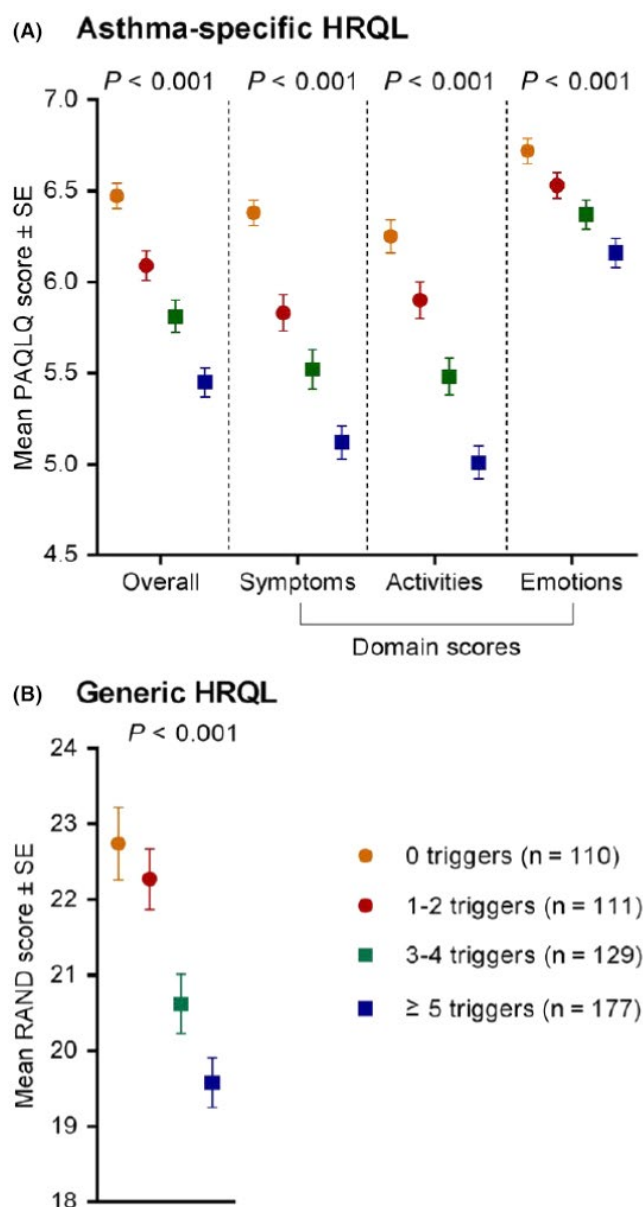


FIGURE 2 Asthma health related quality of life (HRQL) decreases with increasing triggers. All triggers included allergic triggers (dust, pollen and pets) and non-allergic triggers (physical exercise, the weather, cold or the flu, (cigarette) smoke, emotions, food or drinks, detergent, wool clothing). PAQLQ, Pediatric Asthma Quality of Life; RAND, RAND general health-rating index. For more details, see figure 3, Kansen et al (pages 980 to 989)

Exhaled nitric oxide measurements is creeping in as part of the routine care in the asthma clinic.^{4,5} It is therefore important to understand the factors that can change levels, outside of asthma. In this issue, Nerpin et al have looked at fractional exhaled nitric oxide in healthy men and women from the European Community Respiratory Health Survey III.⁶ Measurements were taken from 3881 healthy individuals. These were higher in men and in older, taller and polysensitized subjects (Figure 1). These effects were similar in both men and women except that exhaled nitric oxide started to increase at a lower age in women. These factors need to be taken into consideration when interpreting exhaled nitric oxide levels in the clinic.

Kansen et al have looked at the impact of triggers on quality of life in childhood asthma.⁷ A total of 527 children aged 7 to 18 years were included, they were treated in secondary or tertiary care. Both asthma specific and generic health related quality of life decreased with increasing number of perceived triggers in a dose dependent manner (Figure 2). Non allergic triggers, such as exercise, the weather, cigarette smoke and emotions, were particularly important. This demonstrates the importance of helping patients to avoid their triggers.

Lastly, Knibb et al have looked at the impact of anaphylaxis on health related quality of life in adults.⁸ Interviews were undertaken with 13 adults with a new diagnosis of anaphylaxis to drugs, food, venom or an unknown trigger. A thematic analysis generated four themes; "the journey from fear to frustration"; "the need to maintain a healthy identity"; "control over uncertainty"; and "the supportive role of others". Key words were "frightening", "uncertainty", "anxiety" and "frustration". This is perhaps not unexpected given what we know about fatal anaphylaxis.^{9,10} This patient perspective is important as healthcare professionals need to understand the impact of anaphylaxis on patients to optimize management. In this way the impact can be minimized and quality of life optimized.

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