

doi:10.1111/imj.14181

Anaphylaxis presentations to the emergency department: impending Victorian reporting legislation

In Victoria, anaphylaxis presentations to hospitals will be subject to mandatory reporting to the Department of Health and Human Services from 1 November 2018. This follows coronial recommendations arising from the death from food-related anaphylaxis of a child due to ingestion of an incorrectly labelled food product.¹ This legislation seeks to detect breaches of food allergen declaration, trigger urgent investigation and terminate ongoing risk to the public. It is unclear how often anaphylaxis is specifically attributable to undeclared food allergens, although it certainly occurs.^{2,3} Causes of anaphylaxis other than food will be reported under this legislation. Currently in Australia anaphylaxis fatalities are not subject to mandatory coronial notification.

In our adult tertiary institution in Melbourne, Australia, an audit of emergency department (ED) anaphylaxis presentations was undertaken at two time points 8 years apart. Using hospital diagnostic-related groups coding, charts were reviewed for case ascertainment and key clinical variables. We acknowledge that variability in coding of these episodes may result in some omitted cases. Our data have implications for clinical practice in light of the approaching legislation.

Between 1 March 2006 and 28 February 2007 we identified 48 episodes of anaphylaxis occurring in 41 individuals and between 1 January and 30 June 2015 we identified 56 episodes in 50 individuals. Demographics across time periods were similar; 63% and 70% of patients were female; age ranges were 15–77 years and 8–68 years. At both time periods epinephrine was administered for the majority of episodes (73% and 79%), either self-administered prior to arrival or given in ED.

The suspected causes of anaphylaxis were similar, with food allergy in 42% and 43%, and drug allergy in 29% at both time points. Other aetiologies included insect venom, exercise and idiopathic. Whether the food allergy was previously known, or if the food allergen was undeclared, was not systematically assessed in either group.

The majority of individuals were then referred for allergy specialist review (85% and 64%). Importantly, the final diagnosis in the 2007 cohort was altered in 10 individuals following comprehensive allergy clinic review, highlighting that the initial diagnosis of the culprit allergen is often incorrect. Specifically, in five of these cases, the suspected food allergy diagnosis was completely revoked.

Food was the trigger for less than 50% of anaphylaxis episodes presenting to our adult ED. This contrasts with paediatric presentations, where the vast majority (82%) is attributable to food.⁴ Furthermore, from Australian coronial data, anaphylaxis fatalities were predominantly due to drug allergy rather than food.⁵

The impending mandatory reporting of anaphylaxis presents an opportunity to derive insights into anaphylaxis in our community beyond food-labelling safety. Ideally, the accuracy of initial diagnosis will need to be verified, and drug allergy data should be maximally utilised. Appropriate referral for specialist allergy review will ensure correct identification of culprit allergens in order to optimise management strategies and to minimise unwarranted food avoidances. Systematic follow up of this process must be undertaken and will determine the extent to which it achieves its stated aim of early identification and removal of inappropriately labelled foods.

Received 1 September 2018; accepted 6 October 2018.

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