ED management of pediatric anaphylaxis in different hospital settings in Ireland

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Background: Anaphylaxis is a medical emergency and professional first-line treatment is administered mainly by emergency physicians in most studies.

Aim: To compare emergency management of paediatric anaphylaxis in three different hospital settings – a joint adult and paediatric ED associated with the national referral centre for paediatric allergy versus specialized paediatric ED versus general ED.

Method: As part of the NORA European Anaphylaxis initiative, we undertook a project on the incidence of anaphylaxis in Irish children. Hospital emergency response was assessed looking at early use of i.m. adrenaline, use of second-line medication, and discharge planning/prescription of emergency drugs.

Results: 133 cases of paediatric anaphylaxis were reported to attend EDs in Ireland between August 2013 – May 2015: 51 cases (38.3%) presented to the national referral centre for paediatric allergy with a tertiary hospital general ED, 46 cases (34.6%) to a children’s hospital with a paediatric ED, and 36 (27.1%) to a regional hospital with general ED. There was no statistically significant difference in first line administration of i.m. adrenaline between centres (55.6 % of cases overall, Fisher’s Exact Test p = 0.48). All cases were prescribed AAIs in the national allergy centre, compared to 62.8% in the paediatric ED, and 77.7% in the general ED.

Conclusion: Attendance to the ED associated with an allergy centre improves AAI prescription but does not improve adrenaline use for the presenting emergency. Usage of i.m. adrenaline as first line treatment needs to be improved.