The gaps in anaphylaxis diagnosis and management by French physicians

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Background: Anaphylaxis is still under-recognized and the treatment is often inadequate with underutilization of adrenaline even by medical personnel.

Aims: To assess physician’s knowledge regarding diagnosis and management of anaphylaxis in children and to identify the reasons for the gaps.

Methods: Physicians were asked to respond a two-part questionnaire during continuing medical education:
1. A clinical scenario-based questionnaire involving a child experiencing a food-induced anaphylaxis with 5 of 9 true/false questions considered as key questions for an optimal management
2. Demographic data and questions exploring determinants of an appropriate management.

Results: 318 physicians (GPs, 28%; pediatricians, 23%; allergists, 10%; school-mother and child care doctors, 19%; and junior doctors, 20%) were enrolled. They had private (29%), hospital (31%), or both practice (7%) or others (33%).

Part 1: 70% of participants agreed that the scenario was consistent with anaphylaxis but 24% refused because hemodynamic or respiratory disorders were missing; 31% chose to administer first adrenaline intramuscularly and 30% agreed with both diagnosis and treatment with adrenaline; 74% chose to administer first antihistamine and bronchodilators. Only 50% chose to call immediately the emergency number. Nearly a third estimated that a one-hour observation period was enough. Only 19% had all 5 key responses correct.

Part 2: A correct diagnosis was associated with pediatric specialty (p<10^-4) and hospital practice (p=0.02); the use of adrenaline in the scenario with a correct diagnosis (p<10^-4), pediatric specialty (p<10^-4), a recent continuing medical education on food allergy (p=0.005) and experience of adrenaline injection in real life (p=0.02); all the 5 key responses correct with pediatric specialty (p<10^-4) and a recent continuing medical education (p=0.04). In case of anaphylaxis in a child, 59% of physicians would immediately inject intramuscularly adrenaline, 22% only after calling an emergency physician, 18% only in case of vital disorders, 3% only in the presence of an emergency physician; 5% would refuse to inject adrenaline themselves (never done or feared side effects).

Conclusion: A large proportion of doctors seem to be unaware of the diagnosis criteria and the recent updated EAACI recommendations on anaphylaxis management. Medical specialty and continuing medical education improve anaphylaxis management.