

## **Rate of carrying epinephrine devices in children with food induced anaphylaxis**

Chanonart Ratanaprug<sup>1</sup>, Witchaya Srisuwatchari<sup>1</sup>, Nualanong Visitsunthorn<sup>1</sup>, Orathai Jirapongsananuruk<sup>1</sup>, Punchama Pacharn<sup>1\*</sup>

**Background:** Epinephrine is a drug of choice for patients with anaphylaxis. Type of epinephrine devices may affect the rate of carrying epinephrine. Pre-filled syringe epinephrine is commonly used in Thailand. No study had been investigated the rate of carrying epinephrine in Thai children with history of food-induced anaphylaxis.

**Objective:** To determine the rate of carrying epinephrine devices in children with history of food-induced anaphylaxis and factors influencing the decision to use the epinephrine devices.

**Methods:** Children with history of food-induced anaphylaxis were identified. Parents of these patients were contacted and interviewed.

**Results:** Ninety-nine subjects (male 50.5%) were included in this study. The median current age was 11 years old (range 9 months-18 years). The most common allergenic food was wheat (n=52) followed by seafood (n=38). All of them were prescribed the epinephrine devices. Rate of carrying epinephrine device was 84.7% (always 57.5%, some occasions 27.2%) in our subjects. The most common reason they decided not to carry epinephrine was they thought they can avoid allergens (24%) and fear of losing the device (12%). Only 48.9% had first aid room at school. Rate of carrying epinephrine tended to be lesser in subjects who did not have the first aid room at school, but no statistical significant (p 0.053). Forty-one patients had relapsing episodes. Among these subjects, 34 of them carrying the epinephrine devices, and 20 of them (58.8%) injected the epinephrine. The most common reason they did not use epinephrine devices were fear to use epinephrine (27.3%).

**Conclusion:** Rate of carrying epinephrine devices in children with history of food-induced anaphylaxis was 84.7%. More than half of them use it during the anaphylaxis episodes. Most common reason for not using the epinephrine devices was fear to use it.