The need for professionals to have a quick response to anaphylactic reactions

Anaphylaxis awareness week took place from October 1st to October 7th, serving as a dedicated occasion to heighten awareness surrounding anaphylaxis. This year’s events focussed on empowering individuals with the right knowledge and building confidence to help assist to manage serious allergies (Anaphylaxis UK 2023). Anaphylaxis-type reactions occur in approximately 1 in 1333 of the general population (NICE 2021).

Anaphylaxis is an acute life-threatening hypersensitivity allergic reaction characterised by compromise of the airways, breathing and/or circulation (Shaker et al 2020). Alarmingly, the prevalence of anaphylaxis is increasing, particularly within developed countries (Gonzalez-Diaz et al 2021). The leading triggers for adults are medication and stinging insect whereas the leading triggers for children are foods and stinging insects (Wood 2014). The most common food triggers of anaphylaxis, accounting for 35% of hospital admissions, are peanuts, tree nuts and cow’s milk (Baseggio Conrado et al 2021).

During an anaphylactic reaction ordinarily, the immune system reacts to an antigen (allergen), which the body has previously experienced. Antigen presenting cells phagocytise the allergen and present it on the cell surface meaning T-helper cells engage with this and communicate to the immune system that there is a problem triggering B-cell involvement (Curry 2021). The T helper-cells communicate to the B cells via the chemical messenger cytokines to commence producing Ig E antibodies. These attach to mast and basophil cells to produce histamine and various proteases causing the physiological effects of anaphylaxis (Reber et al 2017).

Anaphylactic reactions can be fatal within minutes therefore it is essential health professionals are able to recognise the signs and symptoms to implement the correct course of treatment immediately (Resuscitation council 2021). The symptoms of anaphylaxis occur quickly post contact with an allergen and can include;

-swelling to the throat and tongue

-difficulty in breathing/ breathing rapidly

-difficulty in swallowing

-tightness in the throat or a hoarse voice

-wheezing, coughing or noisy breathing

-exhaustion

-confusion

-feeling faint

-coldness to the peripheral limbs

-paling to the skin

(NHS 2023)

The best manner of manging an allergy is avoidance of the allergen, if future exposure can be prevented. Education is required in relation to this, with prompt and correct treatment if an emergency occurs. Individuals should be advised on the potential of hidden allergens, cross-reactions to various allergens and unforeseen risks.

Immunotherapy is also being used as a treatment option for individuals who experience food allergies. This aims to desensitise the immune system in relation to the allergic food meaning an individual is less likely to experience an anaphylactic reaction (Anaphylaxis UK 2023).

If an anaphylactic reaction was to occur the first line treatment is Adrenaline. This should be administered immediately via the intramuscular route in the anterolateral thigh. Autoinjectors are self-injectable devices which contain one dose of adrenaline (Roy et al 2021). These can be prescribed preventatively and be self-administered or administered by a trained individual in the community if required.

Health visitors need to undertake regular training in the management of anaphylaxis reactions. Given its high prevalence Health Visitors need to be aware of the signs and symptoms of anaphylaxis, in addition to the administration of adrenaline, as the quicker treatment is provided the greater chance of recovery.

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