Management of anaphylaxis: a systematic review.

To establish the effectiveness of interventions for the acute and long-term management of anaphylaxis, seven databases were searched for systematic reviews, randomized controlled trials, quasi-randomized controlled trials, controlled clinical trials, controlled before-after studies and interrupted time series and - only in relation to adrenaline - case series investigating the effectiveness of interventions in managing anaphylaxis. Fifty-five studies satisfied the inclusion criteria. We found no robust studies investigating the effectiveness of adrenaline (epinephrine), H1-antihistamines, systemic glucocorticosteroids or methylxanthines to manage anaphylaxis. There was evidence regarding the optimum route, site and dose of administration of adrenaline from trials studying people with a history of anaphylaxis. This suggested that administration of intramuscular adrenaline into the middle of vastus lateralis muscle is the optimum treatment. Furthermore, fatality register studies have suggested that a
failure or delay in administration of adrenaline may increase the risk of death. The main long-term management interventions studied were anaphylaxis management plans and allergen-specific immunotherapy. Management plans may reduce the risk of further reactions, but these studies were at high risk of bias. Venom immunotherapy may reduce the incidence of systemic reactions in those with a history of venom-triggered anaphylaxis.