

NICE Pharmedgen for treatment of venom allergy RCPCH statement on technology appraisal

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The College notes that, from the paediatric perspective, bee and wasp envenomation is likely to be a first experience as opposed to a subsequent one as in adults. Prevention of death due to such a first experience presupposes pre-treatment of at-risk children with Pharmedgen, which is unlikely. More likely is the treatment of children who have had previous envenomation.

Cost per life-year gained: with a maximum of nine reported deaths per year in the UK, a large number of at-risk children would need to be treated to achieve cost-effectiveness by this measure (and some may have died before Pharmedgen treatment can be instigated).

Cost per QALY: a greater likelihood of cost-effectiveness is achieved by prevention of the future need for adrenaline and hospitalisation.

For children, avoidance measures are difficult, high-dose antihistamines are not acceptable for prolonged periods of time and there may not be timely availability of an adrenaline auto-injector. Therefore, Pharmedgen has a particular benefit to children. Few children are likely to be bee-keepers; more likely they are exposed at picnics, in the garden and when interfering with nests. Children stand to benefit equally from the treatment, except those with contraindications such as those with severe asthma.

Children are likely to be treated in specialist immunology/allergy clinics within the NHS although some private clinics offer it. Of importance is access to resuscitation equipment. Any increase in the general use of Pharmedgen would mandate: (i) continued access to such equipment and (ii) alertness to the possibility that there could be rare serious side-effects from the treatment itself.

The emerging availability of screening tests to detect those at-risk of severe effects from bee and wasp envenomation may result in children with these markers pre-emptively being treated with Pharmedgen. The two main markers are: (i) angiotensin AGT M235T MM variant (thought to be responsible for the severe anaphylactic reactions) and (ii) baseline serum tryptase concentration (which identifies high-risk patients). Future Pharmedgen trials could incorporate testing for these markers into the protocol.