

FOCUS ON RESEARCH

ANAPHYLAXIS MANAGEMENT PLANS (AMPs) FOR CHILDREN AND ADULTS IN THE COMMUNITY IN THE UK: A SYSTEMATIC REVIEW AND E-DELPHI STUDY

Researchers

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Aims

1. To identify existing anaphylaxis management plans (AMPs) worldwide for use in children/adults.
2. To evaluate the strength of evidence for their use.
3. To understand the similarities and differences between AMPs and develop consensus on the most useful components for the UK population.

Project outline/methodology

Phase 1: We conducted a systematic review of the published and unpublished literature and contacted a panel of international anaphylaxis experts in order to identify AMPs and related evidence on their use.

Phase 2: The findings from this systematic literature review were used to develop a questionnaire for a two-round electronic Delphi (e-Delphi) survey (a formal consensus building technique). A multidisciplinary UK expert panel on anaphylaxis (n=25) was identified and asked to score the importance of a range of statements on anaphylaxis management on a 5-point scale ranging from "very important" to "irrelevant". Consensus was achieved if 80% or more of panel members rated a statement as "important" or "very important" after round 2.

Key results

We identified 803 papers, of which 19 satisfied our inclusion criteria. A number of AMPs are currently in use but there is little agreement on the range of issues that AMPs should cover. Most studies were uncontrolled before/after studies or observational studies. Several studies suggest that AMPs are acceptable to patients and may considerably reduce risk of recurrence, but these are at substantial risk of bias.

The e-Delphi study response rate was 84% (n=21) for round 1 and 96% (n=24) for round 2. The key components of emergency care on which consensus was achieved included: awareness of trigger factors; recognition and emergency management of reactions of different severity; and ready access to adrenaline auto-injectors. Consensus on longer-term management issues included: personalised long-term plans; clear written guidelines on anaphylaxis management; and annual review of plans. There was however less agreement on other long-term management considerations, including whether AMPs can be delivered by non-specialists.

Conclusions

Policy and practice in relation to anaphylaxis management is fragmented, with considerable variation in practice. *Emergency* and *long-term* aspects of AMPs are both important, but should be considered separately. The former should be a simple, clear, generic emergency plan which is easy to implement in a crisis situation. The latter needs to be negotiated between patient/carers and professionals, and tailored to individual needs.

Consensus on the core components of *emergency* management exists and this now needs to be implemented nationally within an evaluative context. We have identified aspects of longer-term care, which will now be developed into interventions and then trialled with a view to reducing risk of recurrence and severity of future reactions.

What does this study add to the field?

This is the most comprehensive review of anaphylaxis self-management ever undertaken. We have identified the core aspects of emergency management and identified dimensions of longer-term care that can now be evaluated prospectively.

Implications for practice or policy

All those in Scotland with a confirmed diagnosis of anaphylaxis should be issued by their GP (or school nurse for children) with a standardised AMP providing advice on emergency anaphylaxis management. Implementing integrated care pathways and attaining an adequately trained workforce in primary care and school health services to address aspects of longer-term management is however challenging in Scotland in the absence of an allergy specialist service.

Where to next?

A before-after evaluation to determine the impact of introducing standardised emergency AMPs should be conducted, possibly with parallel evaluation in control areas. The effectiveness & cost-effectiveness of different approaches to long-term anaphylaxis management needs to be tested, initially in a pilot randomised controlled trial.

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