Screening for child abuse at emergency departments: a systematic review
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CRD summary
This review examined the effectiveness of interventions to increase the detection rate of child abuse at emergency departments and concluded that these interventions could be effective, but the available evidence was inconclusive. The review had numerous flaws, but the authors’ cautious conclusions appeared to reflect the limited evidence presented and seem likely to be reliable.

Authors' objectives
To identify effective interventions applied at emergency departments that significantly increase the detection rate of confirmed cases of child abuse.

Searching
PubMed, EMBASE, Web of Science, The Cochrane Library and CINAHL were searched from inception to February 2008 without language restrictions. Search terms were reported. The journal Child Abuse and Neglect was reviewed from 1977 to February 2008. Reference lists of retrieved papers were reviewed.

Study selection
Peer-reviewed studies that investigated interventions applied at emergency departments to increase detection rate of confirmed cases of child abuse were eligible for inclusion. Studies aimed at specific patient groups (such as children with burns) were excluded.

The age range of included children was 0 to 18 years. Interventions consisted of checklists of indicators of risk for child abuse. Duration of study follow-up ranged from two to 40 months. The main outcomes were changes in the numbers of suspected and confirmed cases of child abuse. Three studies were conducted in Europe and one was conducted in Canada.

Two reviewers independently applied the inclusion criteria and selected studies. Disagreements were resolved by consensus.

Assessment of study quality
Trial quality was assessed and rated on study design, age range, whether all presenting symptoms were included or only cases of trauma and whether suspected cases of child abuse could be confirmed in the follow-up. When a criterion was met adequately a score of 1 was assigned, otherwise zero. The highest achievable score for a study was 4. Details of how the individual components were assessed were reported.

The reviewers jointly reached a consensus on the allocation of quality scores.

Data extraction
Pre- and post-intervention rates were extracted, but it was unclear whether the odds ratios (with 95% confidence intervals) were extracted directly from the papers or calculated by the review authors.

The authors did not report how many reviewers extracted data.

Methods of synthesis
It appeared that changes in rates of both suspected and confirmed cases were combined to produce a pooled change in detection rate. The authors reported that this was a weighted mean, but no further details were given (and no confidence intervals were provided). Individual study results were described in the text and table.
Results of the review
Four studies (n=8,987 participants) met the inclusion criteria. Two studies scored 3 by the quality criteria, one study scored 2 and another study scored 1.

The rate of detected cases of suspected child abuse increased by 180% (weighted mean in three studies). The number of confirmed cases of child abuse showed no significant increase (two studies).

Authors' conclusions
Interventions at emergency departments to increase the detection rate of cases of confirmed child abuse could be effective, but there was no conclusive evidence to confirm this.

CRD commentary
This review addressed a well-defined question in terms of participants, outcomes and study design. The search included appropriate electronic databases, but no apparent attempts were made to retrieve unpublished studies and so some relevant data may not have been included. Two or more reviewers selected studies and assessed the quality of the included studies to minimise bias and errors during the review process, but no details were provided on how data were extracted and errors could not be ruled out. Characteristics of individual studies were presented. A basic assessment of study quality was made. Data extraction and methods of synthesis were not reported adequately, and the pooling of suspected and confirmed rates together appeared questionable.

The review had numerous flaws, but the authors' cautious conclusions appeared to reflect the limited evidence presented and seem likely to be reliable.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.
Research: The authors stated that further research in large study populations that included assessments of the detection rate of child abuse before and after the implementation of an intervention was warranted to provide conclusive evidence.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.