

Title	Strategies to Reduce Emergency Department Overcrowding
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Aim

To identify strategies for reducing emergency department (ED) overcrowding and to assess their efficacy/effectiveness based on published and unpublished evidence.

Conclusions and results

Two systematic reviews and 23 primary studies met the inclusion criteria. The 2 systematic reviews suggested that interventions such as the presence of a social worker in the ED, cost sharing/co-payment, or primary gatekeeping might be effective in reducing unnecessary ED attendance. Both reviews found that patient education was not effective in reducing ED attendance. In the 23 primary studies, most strategies addressed contributory factors in the ED rather than external factors. The better quality studies found that effective strategies for reducing ED overcrowding included:

Decrease ED demand by:

- Pre-emptive ambulance distribution based on real-time information on ED occupancy.

Increase throughput by, eg:

- Reorganizing the staff and structure of the ED
- Changing provider staffing based on a queuing analysis
- Establishing a multidisciplinary care coordination team
- Including faculty members in ED triage.

Promote timely access to inpatient beds (alleviate access block) by:

- Increasing the number of intensive care unit beds
- Improving bed management.

Increase system-wide efficiency by:

- Increasing emergency physician coverage
- Designating physician coordinators
- Introducing new hospital policies on ED procedures
- Sharing process differences among hospitals in a large multihospital system.

Recommendations

This report serves as a benchmark for published research and identifies areas for improvement. The lack of standard definitions for outcome measures made it difficult to compare results across studies. The generally poor methodological quality of the studies precluded formulating

any definitive conclusions on the effectiveness of the strategies examined. Each ED has its own primary problem associated with overcrowding and needs to prioritize the issues faced.

Methods

Original studies published in English and German were identified by systematically searching PubMed, EMBASE, HealthSTAR, the Cochrane Library, CINAHL, Dissertation Abstracts, Web of Science, library collections, and the websites of evidence based resources, health technology assessment agencies, research registers, and guidelines sites from January 1993 to December 2005. Internet search engines were used to locate grey literature.

Further research/reviews required

Research is needed on input and output components and on throughput. Standardized definitions of ED overcrowding are essential for meaningful research, as is development of valid, reliable, and sensitive outcome measures. Adoption of standardized measures by all provincial regional health authorities would enable comparison of strategies and adoption of the most effective and efficient.

Written by

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