The effectiveness of interventions for reducing ambulatory sensitive hospitalisations: a systematic review

Basu A, Brinson D

Record Status
This is a bibliographic record of an ongoing health technology assessment being undertaken by a member of INAHTA. Links to the published report and any other relevant documentation will be added when available.

Citation

Authors' conclusions
ASH rates have been used as indicators of access to primary care. Since health care delivery system in New Zealand emphasises universal access to primary care for all its citizens, a system-wide reduction in ASH is deemed an important achievable milestone. This review was undertaken primarily to summarise available evidence on interventions that have reduced ASH worldwide. The review has been conducted in the context of health care delivery systems that are comparable to New Zealand. The databases were systematically searched.

The effectiveness of interventions for reducing ambulatory sensitive hospitalisations: a systematic review and appraised to identify quality controlled, peer reviewed studies on the effectiveness of different intervention aimed at reduction of ASH.

Overall, five care processes emerged as beneficial in reducing ASH. These were:

1. Comprehensive, multidisciplinary, team based, collaborative, and patient-centric programmes,
2. Education based comprehensive care programmes,
3. Interventions that aimed at increasing access, or providing a wider coverage of healthcare delivery services for all patients in the system, in particular for children, the poor and underserved,
4. Observation units for diseases that are amenable to home based pharmacological management, and
5. Telemedicine and computer based programmes where patients and health care providers interacted with each other.

Considering the total body of evidence, it appears that the essential value of most or all ‘disease management’ and ‘educational’ type programmes lies in their ability to bring together enthusiastic people, with common ideas and goals. The results of this review need to be interpreted in the light of its several limitations. First, being a systematic review, the overall quality of the review and its recommendations are based on the quality of information of the individual studies. In order to base conclusions on the best available evidence, studies that were peer reviewed were selected, and studies that fulfilled class I and II of National Health and Medical Research Council (Australia) were allotted higher weights than other studies. Several studies were identified that had low sample size and therefore had low power, or had short duration. However, since the idea of this review was to summarise the most available information, these studies were included in the review as well. It may be argued that inclusion of these studies resulted in somewhat conservative estimates of the effectiveness of several interventions. Third, the outcome of this review was avoidance of hospitalisation due to one or more diseases that are sensitive to primary care based interventions. It may be argued that while this outcome makes good sense from the perspective of policy making and health services research, the majority of clinical research (from which data for this review came) considered health outcomes other than avoidance of hospitalisations. For instance, for diseases like diabetes, the changes in the levels of glycosylated haemoglobin levels (HbA1c) are deemed to be a more practically monitored marker than change in the hospitalisation, from the perspective of clinical management. Similarly, for diseases such as pneumonia, resolution of opacities in specific areas of lungs might be deemed as a more sensitive marker of effectiveness of interventions than overall how many hospitalisations might have been avoided. These considerations limited the number of studies that could be considered for this review.

These limitations make the results reported in this review largely conservative. In addition, a few potential interventions
were found not to have beneficial effects, or had uncertain effects. These included discharge planning, written action plans and system-wide reforms aimed at influencing or modification of physician behaviour (by inducing changes in physician payment processes, or structured physician behaviour modification programmes).

Despite these limitations, three possible recommendations for reduction of ASH in New Zealand might be apparent from the results of this review. These are:

1. Expansion of access to care for children, poor and the underserved may well reduce the burden of ASH due to multiple conditions or for all-ASH,
2. Multidisciplinary, comprehensive disease management programmes may reduce ASH due to chronic heart failure among the elderly, and
3. Asthma related educational interventions for children and adults, for instance use of peak expiratory flow rate monitoring may eventually reduce asthma-related ASH in children and adults.

More New Zealand specific studies are needed to assimilate and integrate relevant information for reducing hospitalisations due to ASH across the range of conditions in New Zealand. This review may serve as a first step in that direction.

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Address for correspondence
University of Canterbury, Private Bag 4800, Christchurch 8140, New Zealand Email: hsac@canterbury.ac.nz

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