



Summary

What we did and why



We worked with an academic researcher to do a rapid review of published evidence to find out what interventions may reduce unplanned admission to hospital for adults with long-term conditions. We did this to inform some upcoming improvement work on people with long term conditions. We did not include reviews with a focus on frailty, older people, dementia, learning disability, or mental health because these are covered by previous or other planned work.

We wanted to answer the following questions:

- What interventions have been tested or evaluated for reducing unplanned admission to hospital of community dwelling adults?
- Which populations have interventions been tested on?
- What is the effectiveness of any interventions?
- What is the evidence for the cost of any interventions?
- Which interventions are most relevant to the Scottish context?

To answer these questions we searched for existing reviews of research evidence that had been published in five key health and care databases since 2000.

What we found



29 relevant reviews covering various conditions, **21** published in the **last 5 years**.
Encompassing at least **770 randomised control trials**. **These include:**



5 reviews on **COPD**



1 review on **haemophilia**



5 reviews on **heart failure**



1 review on **rural populations**



1 review on **frequent users of health services**



1 review on **haemodialysis**

Interventions and their effectiveness (in relation to reducing unplanned admission to hospital)

In general our review assessed the evidence of effectiveness across the review as lower quality. Many review authors reported that the original trials did not describe intervention components in enough detail, or that there were many differences in the interventions such as who was being supported, what the intervention was and how and where it was delivered or accessed. Reviewing the trials and reviews of these kind of complex interventions is challenging. It is not possible to draw firm conclusions or recommend implementation of specific interventions for NHSScotland based on this review, but there was at least some moderate evidence of effectiveness relating to broad groups of interventions.



Hospital in the home

Hospital in the home may be effective for reducing unplanned hospital admissions in people with different chronic or long term conditions, according to low to moderate quality evidence contained within some well conducted reviews.



Telephone support

Telephone support did not have enough good quality evidence available to make a clear judgement about its effectiveness. Further robust research is needed.



Transitional care

Transitional care (including enhanced discharge planning) may reduce within-90 day readmissions and hospital length of stay for mixed patient populations, according to moderate grade evidence. There was consistent but low grade evidence which found transitional care interventions reduced readmission related to congestive heart failure and general medical populations.



Advanced care planning

Advanced care planning may reduce hospitalisation in heart failure patients to some extent, though the evidence was low quality. There was limited or very low quality evidence relating to the effectiveness of care plans for patients with COPD or advanced care planning in haemodialysis.



Care co-ordination/care strategy

Findings included that health education for people with COPD may reduce all cause readmission at 3 months and that home visits may reduce COPD-specific readmissions but not all cause readmissions (based on moderate evidence from a good quality review); that hospital-initiated nurse co-ordinated care management may reduce readmission in heart failure patients (though the primary data was considered low to very low quality); and that hospital readmissions may be reduced by case management interventions (though there were some different results across studies).



Integrated care

Integrated care may reduce the risk of hospitalisation for people with chronic health problems: in evidence relating to specific conditions it appeared it may be effective in reducing readmissions for heart failure, but for people with haemophilia is less conclusive (though in one review the data ranged from low to very low quality, and was most likely low quality in the other review).



Various interventions

No conclusions could be drawn from the two reviews found

Cost of interventions



Cost was rarely reported and where it was considered the information was limited to one specific type of intervention or had limited relevance to a UK context. Only one example is given in the final report where cost evidence for a UK setting is provided.

Interventions most relevant to Scotland



This was a rapid review and little evidence was found directly linking reviews or their studies to Scotland or the UK. We would encourage readers to consider the full review evidence in more detail to inform judgements as to whether or not any findings are relevant to current and future design and delivery of interventions in the Scottish context.