Enhanced care and support at hospital discharge for older patients

Two randomised controlled trials in Canada and the USA reported that enhanced care and support at discharge in addition to usual care did not reduce visits to the emergency department, hospital readmissions or deaths among older people compared with usual care.

Overview: An estimated 15–20% of readmissions 28–30 days after a patient has been discharged from hospital in the UK may be avoidable (RAND Corporation 2012). The emergency readmission rates for people aged over 75 years increased by 86% between 2002–03 and 2011–12 in England, considerably more than the 57% increase for people aged under 75 years (Royal Voluntary Service 2014). Readmission of patients is associated with costs for hospitals. Several initiatives have aimed to reduce readmissions among elderly patients by targeting the hospital discharge period. One approach is the ‘virtual ward’, which provides people at high risk of readmission with a period of intensive, multidisciplinary management in the community using the systems, staffing and daily routines of a hospital ward (Lewis et al. 2013). Another approach is ‘re-engineered’ discharge, where a nurse and clinical pharmacist coordinate hospital discharge, educate patients and reconcile medications (Jack et al. 2009).

Current advice: Individual hospitals generally have their own policies and arrangements for discharging patients (NHS Choices 2015). Generally, patients in hospital who are due to leave should be given a discharge assessment and a care plan outlining the ongoing health and social care support they need. Patients should also be given a letter for their GP and enough drugs for the next 7 days.

The NICE guideline on patient experience in adult NHS services recommends effective coordination and prioritisation of care for patients who use a number of different services (for example, services in both primary and secondary care). This should include clear and timely exchange of patient information between healthcare professionals (particularly at the point of any transitions in care).

The NICE guideline on medicines optimisation recommends that relevant information about medicines should be shared with patients, and their family members or carers, where appropriate, and between health and social care practitioners when a person moves from one care setting to another. This includes transfers from one organisation to another – for example, when a person is discharged from
hospital to their home or other location. Medicines reconciliation should be carried out in primary care for all people who have been discharged from hospital or another care setting.

NICE is currently preparing social care guidance on transition between inpatient hospital settings and community or care home settings for adults with social care needs (anticipated publication date November 2015).

The NICE pathways on patient experience in adult NHS services and medicines optimisation bring together all related NICE guidance and associated products in sets of interactive topic-based diagrams.

New evidence: Two randomised controlled trials investigated whether enhanced care and support for older people at hospital discharge affected the likelihood of subsequent hospital visits compared with usual discharge care.

Dhalla et al. (2014) assessed how a ‘virtual ward’ intervention affected readmissions and mortality in older people at high risk of readmission. A total of 1923 patients aged 71 years on average were recruited on discharge from a general internal medicine ward at 4 study sites in Canada. People randomised to the usual care group (n=965) received a written discharge summary, a prescription when indicated, counselling from a doctor or other healthcare professional, arrangements for home care as needed, and recommendations for appointments or follow-up care.

People randomly assigned to the virtual ward group (n=967) received usual care plus individualised post-discharge care by a team of care coordinators, pharmacists, nurses, doctors and clerical assistants. Patients received care at home and in the hospital clinic where the team was based, and had access to a telephone helpline.

No significant difference was observed between the 2 study groups in the composite primary outcome of readmission to any hospital or death within 30 days of discharge. During the first 30 days after discharge, 24.6% of patients assigned to usual care and 21.2% of patients assigned to the virtual ward had been readmitted to hospital or died (absolute difference=3.4%, 95% confidence interval [CI] −0.3% to 7.2%, p=0.09).

Limitations of this study include that many patients who met the eligibility criteria were not recruited because they were discharged on holidays, evenings or weekends. In addition, a virtual ward model of care may have different effects in a differently structured healthcare system.

Goldman et al. (2014) assessed the effects of nurse-led in-hospital discharge support with telephone follow-up, on emergency department visits and readmissions among 700 ethnically and linguistically diverse older patients. People aged 55 years or older who spoke English, Spanish or Chinese were recruited from a single US hospital that dealt with a large number of uninsured and vulnerable patients.

People randomly assigned to usual care (n=353) received discharge instructions and, if required, a medication supply and social care support after discharge. People randomly assigned to discharge support (n=347) also received visits and disease-specific education in their own language from a nurse before discharge and within 24 hours after discharge. People in the discharge support group had follow-up telephone calls on day 1–3 and day 6–10 after discharge and had access to a telephone helpline.

People in the 2 study groups had similar numbers of visits to the emergency department and hospital admissions at 30, 90 and 180 days after discharge. The number of emergency department visits or readmissions in the intervention and usual care groups were 112 versus 89 events at 30 days (hazard ratio [HR]=1.26, 95% CI 0.89 to 1.78, p=0.19), 238 versus 203 events at 90 days (HR=1.21, 95% CI 0.91 to 1.62, p=0.19), and 392 versus 370 events at 180 days (HR=1.11, 95% CI 0.86 to 1.43, p=0.44).
The authors of this study note that not all readmissions and visits to the emergency department were recorded and the rates were lower than predicted, which decreased the power of the analysis.

**Commentary:** “The NHS in England, like many health systems around the world, has been grappling with how to reduce emergency hospital readmissions for a number of years. Sadly, when it comes to developing guidance on how to do this, there is little robust evidence on what actually works. Set against this background, the Dhalla et al. (2014) and Goldman et al. (2014) studies are welcome additions to our knowledge.

“Both studies are randomised controlled trials, which provide the best way of assessing whether an intervention is effective. Neither study found evidence that the interventions they were testing worked. This suggests that the NHS should be cautious about wide-scale adoption of virtual wards or nurse-led discharge support as solutions to the problem of emergency readmissions.

“However, as the studies were undertaken in hospitals in Canada and the USA, it may be that their findings are not directly applicable to the NHS. It may be that in some circumstances, one or both of these interventions might be effective in some NHS hospitals. It may thus be reasonable for policy makers and managers to trial virtual wards or nurse-led discharge support in the context of well-designed local pilots or research studies.

“It is also important to remember that these studies tried to test if one specific intervention made a big enough difference on outcomes to be detectable in a study setting. However, the history of quality improvement in healthcare suggests that successful improvement rarely comes down to single ‘magic bullet’ interventions. It may be that combining a bundle of appropriate interventions produces results that are more than the sum of their parts. Examining the effectiveness of such bundles (in pilots or research studies) may help NHS hospitals learn how best to reduce readmissions.” – Dr Anas El Turabi, GP, Frank Knox Fellow and Doctoral Candidate in Health Policy at Harvard University

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