

Avoiding hospital admission for older people: the evidence

(Prepared as part of the one-to-one support for Dorset)

1. Evidence from research

Reviews of the effectiveness of various preventative interventions with older people show generally significant impact on mortality but the link between those and hospital admissions are more complicated.

1.1 Effectiveness of home based support for older people: systematic review and meta-analysis

A systematic review on the **effectiveness of home based support** (Elkan and others, 2001) examined 15 studies and showed significant reduction in mortality and admission to long term institutional care but **no significant reduction in admissions to hospitals**. The authors comment that

The lack of any significant effect in reducing admission to hospital may also have been the result of two opposing effects: on the one hand home visiting may have resulted in increased admission of older people whose need for hospital care might otherwise have been neglected; on the other hand, some admissions might have been averted through home visits (Elkan and others 2001).

Therefore, this study does not necessarily show NO impact for individual users; as the authors suggest, **individual users might have avoided hospital admission as a result of home visits but others at risk might have been admitted that otherwise would have been neglected.**

1.2 Outcomes for patients with dementia from the Cleveland Alzheimer's Managed Care Demonstration

An American qualitative study carried out in 2003 (Clark P and others 2003) with patients with dementia on the other hand shows that the use of 'care consultation'¹ had

¹ A multi-component telephone intervention in which staff work with patients and carers to identify personal strengths and resources within the family, health plan and psychosocial outcomes (Clark and others 2003)

a **significant impact on the emergency hospital admission** and helped people to be more satisfied with the care services in general.

The explanation given is that

Care consultants monitor care and help patients and family members **proactively plan for changes in symptoms and needs**. For example, care consultants monitor work with patients and family members to develop plans if symptoms worsen and additional supervision is needed (Clark P and others 2003).

Comment: *One explanation of the difference in the findings of the above two studies (1.1 and 1.2) could be that while the first one looked at **population studies**, the second one was a single randomised control trial with a patient group.*

1.3 Avoiding hospital admission through provision of hospital care at home: a systematic review and meta-analysis of individual patient data

One Canadian systematic review looks at avoiding hospital admission through provision of hospital care at home² (Shepperd and others 2009). The systematic review included 10 randomised trials and found out that **avoiding admission through provision of hospital care at home yielded similar outcomes (as hospital care) at similar or lower cost**.

Another interesting finding was related to **carers' outcomes**

Caregivers reported that although admission to hospital would potentially have relieved them of the burden associated with caring for the patient, the upheaval of visiting the patient in hospital and the accompanying anxiety made this a less satisfactory option (Shepperd and others 2009).

1.4 Effect of social factors on winter hospital admission for respiratory diseases: a case-control study of older people in the UK

Looking specifically at hospital admission of older people with reason of **respiratory diseases**, Jordan and others (2008) explore the role of the socio-economic factors. They conclude that

Socioeconomic factors [e.g. material deprivation] had little relative effect compared to medical and functional factors. The most important was the presence of long-term medical conditions, being housebound... (Jordan and others 2008)

However, the authors find a link between *social isolation* and hospital admission although not as strong as with the medical factors. A word of caution is needed here because this is a study focusing exclusively on hospital admission for **respiratory disease** (thus ignoring other major reasons for hospital admission, like falls).

² Hospital care at home is a scheme whereby health care professionals provide active treatment in the patient's home for a condition that would otherwise require inpatient treatment in an acute care hospital (Shepperd and others 2009).

1.5 Comment

Google Scholar, CSA Illumina and Social Care Online were searched for 'hospital admission' and 'prevention', and the four key texts were cited above (also attached with the current report for further information). Two of those are systematic evidence reviews looking at 15 and respectively 10 studies.

It is important to acknowledge that there is vast amount of evidence in areas like falls prevention and POPPs evaluation, including evidence reviews that were referred to in our previous report. These are not included here as not focusing specifically on *avoiding hospital admission* but they showed the complexity of making a case for cost effectiveness (how costs are calculated, etc.; please see **ripfa's** report on Cost effectiveness of prevention and early intervention for older people).

In a similar way here, although the evidence shows high impact on prevention programmes on mortality, the evidence for the impact on hospital admission is not so straightforward, especially when population outcomes are concerned.

Another point of concern is raised in a randomised controlled study from 2005 on the effect of home-based medication review for older people on hospital (re)admission (Holland and others 2005). The authors found out that contrary to the expected, the **intervention was associated with significantly higher rate of hospital admission.**

They conclude that further study was needed by raise the hypothesis that

...by visiting our patients at home and spending reasonably long periods of time there, we may simply have added to the complexity of their care. This may have increased anxiety and confusion or dependence on health services. The intervention group's scores on the visual analogue health scale fell more markedly than those of the control group. This suggests that they viewed their overall health as having worsened and may support a view that our intervention **made patients focus more on their problems** (Holland and others 2005).

2. Practice models

2.1 Milton Keynes

In 2007, Milton Keynes PCT and Milton Keynes Community Alarm Service have teamed up with Tunstall to launch a pioneering telehealth initiative to reduce avoidable hospital admissions, and enable people to better manage long-term conditions such as Chronic Obstructive Pulmonary Disease (COPD) at home. Milton Keynes has a high prevalence of COPD in its local population, costing the PCT over £450,000 a year to treat emergency admissions. **Since launching the telehealth service, 26 hospital admissions have been prevented in just four months**, reducing the burden on acute, primary and community sectors.

Genesis monitors from Tunstall were provided to patients with COPD to support a more proactive and preventative model of care. The monitor lets patients measure their own vital signs such as heart rate, weight, blood pressure and oxygen levels, and also asks a range of clinical questions to further determine a patient's condition.

As a result, if patients with COPD experience a change in their health status, proactive medical intervention can be taken at an early stage. Clinical results are monitored by Milton Keynes Community Alarm Service's telecare team and nursing staff are notified if assistance is required, ensuring early intervention and avoiding hospital admission.

A key benefit of the initiative is educating users to be more aware of their own symptom's and to proactively manage them, helping to reduce some of the burden on healthcare providers.

http://www.ukprwire.com/Detailed/Technology/Milton_Keynes_Launches_Advanced_Telehealth_Service_to_Improve_Care_for_People_with_COPD_7466.shtml

More about Tunstall's telehealth solutions could be found here

<http://www.tunstall.co.uk/Our-products/Telehealth-solutions>

2.2 Examples from the CSIP network

Here are some evidence examples from the CSIP network (<http://cat.csip.org.uk/index.cfm?pid=6>)

Successful prevention of unnecessary admissions

Location: Gloucestershire

Issue:

Prevention of unnecessary admissions to hospital or residential/nursing homes, for older people with mental health problems. Facilitating discharges where admission had been essential.

Action:

Two year project (March 2004-March 2006) funded by a Local Public Service Agreement to increase the number of people receiving intensive domiciliary care. Two Community Mental Health Nurses and six Rehabilitation Assistants were appointed to provide 365 day cover from 0700-2100. **Assessments were carried out by the CMHNs and rehabilitation care plans created which focussed on working intensively with people who were heading towards admission or placement.** Referrals were open to all. The project's evaluation would provide evidence to support mainstream funding and the expansion of the model across the county of Gloucestershire.

Outcome:

More than 40 admissions have been prevented during the last 12 months. Two people have returned home from nursing homes. Main areas of work have been engagement, medication compliance, diet, safety and overcoming physical illnesses all of which have impacted on people's ability to live independently. Feedback has been very positive from carers, patient's staff and referrers.

Evaluation:

Outcomes are currently being evaluated. Quantitative data has been collected and is being independently evaluated.

Organisations Involved: Cheltenham and Tewkesbury Social Services in partnership with Cheltenham and Tewkesbury PCT and Gloucestershire Partnership Mental health Trust.

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Private beds provide rehab to prepare for return home

Location: Bedfordshire³

Issue:

³ Bedford Borough / Central Bedfordshire at present

To reduce hospital admissions, or delayed discharge, for older people who need a period of rehabilitation.

Action:

Social services has agreed a block contract for a unit of six single rooms in a private residential home for people over 65 who are either medically fit to be discharged from hospital, but need rehabilitation, or who not ill enough to need to go to hospital, but need rehabilitation in a residential setting before they can return home.

These beds are supported by social workers, the intermediate care team, occupational therapists and physiotherapists, and care home staff. There are areas where patients can practice their self-care, kitchen and mobility skills. A key worker is assigned to each case to ensure continuity of care and single assessment paperwork is used, including patient-held records.

Outcome:

Hospital admissions have been avoided because patients are admitted to the rehab beds direct from the community, via their GP, or by social work/therapy assessments in A&E. Delayed discharges have been prevented by timely identification of suitable and willing candidates for the rehab beds.

Organisations Involved: Bedfordshire County Council social services

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Intermediate care offered in sheltered housing

Location: Durham

Issue:

To develop more options in providing intermediate care services that can help **defer hospital admission for older people**, or expedite their discharge.

Action:

A one-bedroomed flat in a sheltered housing complex has been made available for patients whose care needs can be met by the local GP practice and district nurses and whose condition should be stabilised within 14 days.

Outcome:

Each user is assessed and an individual care plan developed for them, stipulating the level of therapy and intervention needed. The flat is equipped with basic assistive equipment and domestic services are provided. The only cost to the client is for food and personal items.

Organisations Involved: Durham and Chester-le-Street PCT, Durham County Council social services, Chester-le-Street District Council housing department

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Housing unit offers short-term care to independent older people

Location: Newcastle upon Tyne

Issue:

To avoid hospital admissions by delivering more flexible programmes of care to older people, and their carers, to help them live independently.

Action:

The NHS trust and local authority community and housing department arranged for four sheltered housing units to be offered as a resource to deliver health services to older people. The aim was to identify their bio-psycho-social needs so that they could continue to maintain a high quality of independent living, supported by intermediate care within the community.

Outcome:

The response from patients has been very positive. A typical comment was: "I had this awful virus and I wasn't too fit. It was better than staying at home with nobody to look after me, even better than in hospital."

An evaluation of the initial project showed a high level of satisfaction with the process and outcomes among both patients and nurses, although there were some concerns about staffing and lack of therapy time.

Organisations Involved: Newcastle PCT, Newcastle upon Tyne City Council

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2.3 South Yorkshire

We followed on the request to identify good preventative practice from South Yorkshire. Since South Yorkshire does not exist any longer as a single local authority, we looked at Rotherham, Sheffield, Doncaster and Barnsley. What follows is what we found for Sheffield and Doncaster.

In January 2009 the NHS launched in Sheffield a new falls prevention service that claimed to reduce the visits to the A&E

<http://www.sheffield.nhs.uk/news/falls260109.php>

The service has reduced the number of people re-attending A&E in the six months after receiving the service by 74 per cent and has helped to **reduce elderly admissions to hospital for those who used the service as a result of a fall by 38 per cent.**

The Therapy Falls Prevention Service was set-up in partnership with Sheffield Teaching Hospitals and Sheffield Health and Social Care Trust following a three month pilot programme at the end of 2006.

Following an initial assessment by a Therapist in A&E / MIU, patients who may benefit from the service are referred to a Falls Specialist Therapy Assistant, who work across the city as part of the Physiotherapy service.

A range of support can be provided from home visits to the provision of equipment and walking aids. Balance and strengthening exercises can also be provided either in the patients own home or with others in a group setting.

Patients who received support have also been offered the opportunity to comment on how useful they had found the service. Of those patients surveyed 97 per cent rated the Therapy Falls Prevention Service as either Excellent or Good and over half felt their risk of future falls had been reduced.

For more information about the Therapy Falls Prevention Service please contact Mandy **Higginbottom, Clinical Manager, Physiotherapy Services, 0114 2319820**

In Doncaster a team was set up to help older people to rapidly access specialist mental health services <http://www.nursingtimes.net/nursing-practice-clinical-research/rapid-access-for-older-people-to-specialist-mental-health-services/1999309.article>

This was done through the establishment of a care home liaison service

The care home liaison service (CHLS) was established in August 2006 following a successful six-month pilot, conducted in response to national best-practice guidance.

The service is now seen as an integral part of the community mental health team for older people. **It consists of a consultant psychiatrist, and five mental health nurses who provide rapid access to specialist mental health services for patients living in registered care homes in the Doncaster area.** The aim is to keep residents in their current setting and reduce hospital admissions. The service also aims to develop, deliver and sustain learning through educational packages and advice to care home staff, based on best practice and person-centred care, for people presenting with mental health problems.

The authors of the article claim that

The value and quality of the service provided by the CHLS can be seen in the **marked reduction in hospital admissions from care homes in the area. In the 12 months before the service was developed, there were 24 admissions to older people's mental health wards from care homes, compared with only six during the first year of the service.**

The outcomes were mainly related to older people with dementia living in care homes.

References

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