# Care closer to home: an evidence-based approach for straitened times

The changing demographics of the UK and other developed countries and the impact of this on health-care services are widely reported. The 2016 population projection predicts that the number of people aged 85 years and over in the UK will double from 1.2 million in 2016 to 3.2 million in 2041. In the same timescale, the old age dependency ratio will also increase from 300 people of pensionable age for every 1000 of working age to 370 per 1000 (Office for National Statistics, 2017).

There is mounting pressure on acute hospital services with yearly increases in accident and emergency attendances and admissions. Older patients who attend accident and emergency are much more likely to be admitted: 52% of over 75-year-olds compared with 25% overall. Current models may not be providing optimum care for frail older people who quickly decondition in hospital, resulting in loss of weight, functional ability and cognition (Baillie et al, 2014).

Differing models of community care aim to provide patient-centred care closer to home, but may also help relieve the pressures on hospital services. The cornerstone of many such services is comprehensive geriatric assessment, which incorporates assessment of disease severity and multimorbidity, mobility and function, cognition and mental health, and social support and care needs. Comprehensive geriatric assessment is the gold standard of geriatric care and is proven to reduce readmission rates and increase the likelihood of patients being alive and living in their own home 6 months after assessment. Designated wards providing comprehensive geriatric assessment are also associated with a cost reduction compared to general medical care (Ellis et al, 2011).

We know that services providing comprehensive geriatric assessment are likely to improve the outcomes that matter to older people and are cost effective; with straitened times is there any evidence for a particular model?

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## Intermediate care

Intermediate care exists in varying forms and goes by many names, but essentially comprises either 'step up' or 'step down' services. Step up services aim to prevent hospital admission. Step down services provide specialist care that would otherwise be delivered in hospital, allowing earlier discharge. In some places the same clinicians and services fulfil both roles.

The largest body of evidence for community care comes from a multinational meta-analysis of randomized controlled trials of complex community interventions, in total involving nearly 98 000 patients (Beswick et al, 2008). All interventions involved personalized assessment and multidisciplinary medical and social care, via both step up and step down approaches. More people stayed living at home, fewer were admitted to nursing homes, and there were fewer falls post intervention. Providing community treatment did not affect mortality or admission to hospital.

The number needed to treat for an unselected elderly population was 263, but only 40 for those with frailty, highlighting the importance of targeting interventions within the general elderly population.

Specific step up programmes have been studied showing no overall difference in health outcomes, or likelihood of subsequent hospital admission. Data suggest an increased chance of living at home at 6 months, overall slightly lower mortality, and higher patient satisfaction (Shepperd et al, 2016).

Step down interventions are likely to reduce the length of hospital stay (Gonçalves-Bradley et al, 2017). A Cochrane review showed a reduction in length of stay – particularly in those who had undergone surgery. Again patient satisfaction was higher, and there were lower rates of institutionalization. There was no difference in health outcomes or readmission to hospital (Ariss et al, 2015). Confirmation of the effectiveness of intermediate care in the UK has been demonstrated in annual national audits since 2012 (NHS Benchworking Network, 2017).

Step down interventions need to be complex to show meaningful results, in keeping with the evidence base for comprehensive geriatric assessment. A study looking at liaison geriatrician input in isolation showed no change in the number of days at home post discharge in the following 90 days (Edmans et al, 2013). Providing rehabilitation in a residential home environment, where occupational therapists trained care home staff, actually seemed to increase the number of patients requiring permanent care home placement (Fleming et al, 2004). There is also evidence that case management from single practitioners (e.g. community matrons working in isolation) has no significant impact on rates of emergency admission, bed days or mortality (Gravelle et al, 2007).

The complexity of these interventions makes their cost effectiveness difficult to assess. In many studies it is unclear whether overall financial savings were made. There are significant initial costs, but in the longer term providing comprehensive geriatric assessment to frail populations may save costs by reducing hospital readmissions and lowering the need for long-term nursing home care (Beswick et al, 2008; Ellis et al, 2011; Gonçalves-Bradley et al, 2017).

## Care home medicine

Many geriatricians now provide input to residential and nursing homes. While there are no randomized controlled trials within this area, advance care planning has been proven to be effective in several studies.

Advance care plans are more likely to be completed following dedicated intervention and patients who made advance plans were more likely to receive care in keeping with their preferences (Houben et al, 2014).

Advance care planning reduces life-sustaining treatment and increases the use of hospice and palliative care services, and more patients die in their nursing home than in hospital (Brinkman-Stoppelenburg et al, 2014; Martin et al, 2016). Two studies also showed lower overall health cost. Given the high prevalence of dementia among nursing home residents, early discussion with patients is needed to allow advance decision making to occur (Martin et al, 2016).

One perceived barrier to broaching advance care planning may be fear of causing anxiety and distress. On the contrary, studies found improved compliance with wishes, satisfaction with care and a reduction in stress and anxiety for family members (Brinkman-Stoppelenburg et al, 2014; Houben et al, 2014; Martin et al, 2016).

In addition, the Nuffield Trust examined different community initiatives which may reduce the burden on hospital services while delivering improved quality of care and population health. Some of the most positive findings in reducing hospital activity and whole system costs included additional clinical support to people in nursing homes and improved end of life care in the community (Imison et al, 2017).

## Where from here?

We know interventions are most effective in targeted populations: previous risk stratification tools have been less than effective (Beswick et al, 2008; Imison et al, 2017).

The development of the electronic frailty index, and its embedding within the new GP contract to identify those living with moderate or severe frailty, offers new opportunities to intervene within appropriate populations (NHS England, 2017). Those with severe frailty are some of the highest users of acute services, and offering full comprehensive geriatric assessment may decrease this need. The cost of undertaking such a programme would be large, involving approximately 2% of the average GP population. If, as has been suggested, even more benefit could be gained from targeting those with moderate frailty to prevent further deterioration, the financial implications would be even greater. Other strategies could involve public health campaigns to those with mild frailty, akin to 'Making Every Contact Count'.

Each of these models would require significant numbers of appropriately trained staff, far beyond the number of geriatricians available. Working within or providing leadership to community teams that may involve specialist nurses, GPs, community pharmacists, therapists and care home staff will be vital to deliver large-scale interventions. Education and training, complex medical case management and coordination of services will likely be key parts of the role of a community geriatrician, alongside direct clinical care.

## Conclusions

Increasing evidence supports the development of models of community care for frail older people. Geriatricians have much to offer but are one part of a much wider multidisciplinary team. Availability of appropriately trained staff and financial pressures will be continual barriers, but there is scope for a patient-centred, integrated way of working that not only may be financially beneficial in the long run, but may also improve outcomes that matter to older people. **BJHM**

### KEY POINTS

- Changing demographics and increasing demand on hospital services will require improved services within the community.
- There is evidence that complex community-based interventions in frail older people reduce length of stay, are cost effective and improve outcomes important to patients.
- Community geriatricians have much to offer as part of a wider multidisciplinary team in leadership, education and coordination of services along with providing direct clinical care.
- Developing holistic, integrated services that can identify, plan and react to crises for older people living with frailty can improve health and wellbeing but also reduce the need for secondary care.


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