

The journey of care for the frail older person

The elderly have diverse health-care needs and the frail elderly, because of associated co-morbidities, carry a significantly high mortality during their journey of care. Adequate planning and coordination between teams and an accessible and flexible interface between services will help ensure a safe, smooth journey for these people.

As the demographics of society shift towards an ageing population, the health-care needs of the population over 65 years of age will undergo an enormous change. In 2008, 16% of the UK population was over 65 years of age, with the very elderly (over 85 years) accounting for around 2% of the total population. It is projected that by 2033 the percentage of the population over 65 years will rise by 50% to 22% of the total population and that over 85 years will more than double to 4% of the total population (National Statistics Office, 2009). It is estimated that the prevalence of physical dependency, disability and chronic conditions will rise proportionately in these groups. This population group is the largest user of emergency services, and it also accounts for a large proportion of the long hospital stays and high dependency levels.

This, coupled with the fact that NHS funding is not likely to rise proportionately (Appleby et al, 2009), means that there will be a widening gap between the income into the NHS and the expenditure. This gap will have to be covered by more efficient working if we are to ensure that the growing health-care needs of over-65-year-olds, in particular the frail elderly, are met adequately.

This article analyses the various aspects of health and social care that are routinely accessed by this group and provides a model of health-care provision that is both efficient and cost effective.

Understanding frailty

Frailty is inevitable with ageing. Frailty is often equated with functional dependence in the activities of daily living. The term frailty is used to describe older people who are vulnerable and is usually associated with high health risks. The definition of frailty is complex and its true meaning and measurements have long eluded cli-

nicians and researchers. Pel-Littel et al (2009) attempted to define frailty and found that deterioration in activities of daily living, mobility, nutritional status, cognition and endurance were the key manifestations.

Attempts have also been made to find 'biomarkers' which would help define frailty. Although several mediators of inflammatory response, hormones, free radicals, antioxidants, macro- and micronutrients have been postulated, none have been shown to be specific or consistent (Ferruci et al, 2002).

Andrew and Rockwood (2007) found that in community-dwelling elderly people without dementia, frailty and psychiatric illness were closely related and the presence of either one of these conditions increased the odds of the other being present. Similarly, there is a close association between frailty and presence of cardiovascular disease (Afilalo et al, 2009) and redefining estimates of cardiovascular risk may improve assessment of frailty.

Based on all available research and information frailty is best defined as a condition or state manifested by a combination of the following components to varying degrees – poor nutrition, reduced mobility, deterioration in activities of daily living, cognitive impairment and reduced immune competence (Table 1). The presence of frailty predisposes to increased morbidity, mortality and institutionalization, so recognition and management of frailty along with acute care and chronic disease management is integral to the health care of this population subgroup.

Table 1. Components and markers of frailty

Components	Markers or determinants
Malnutrition	Weight loss, reduction in muscle mass and loss of bone density
Reduced mobility	Decreased activities
Deterioration in activities of daily living	Increased physical dependence
Cognitive impairment	Depression and other mental health problems
Reduced immuno-competence	Susceptibility to infections

Dr Anita Ayyar is Consultant Geriatrician and **Dr Surendra Varman** is Consultant Geriatrician, Bolton Primary Care Trust, **Dr Sorcha De Bhaldrath** is Specialty Registrar in Geriatric Medicine, East Lancashire Hospitals NHS Trust and **Professor Iqbal Singh** is Consultant Geriatrician, NHS East Lancashire

Correspondence to: Dr A Ayyar, Minerva Day Hospital, Royal Bolton Hospital Foundation Trust, Bolton BL4 0JR

Elements of health care for frail older people

The journey of care for the frail elderly is a continuous process which usually starts in the home or care home and usually ends back in the community.

The journey may involve various services (GPs, district nurses, pharmacies, active case managers, geriatricians and other specialists), may happen in various locations (own homes, care homes, intermediate care or acute hospitals) and may be provided by health and/or social care. The multiple care pathways involved are often juxtaposed and crossed, and can become burdensome for frail older people and their carers.

The six basic elements of health-care provision for this group are:

1. Primary care
2. Urgent or sub-acute care
3. Acute care including rehabilitation
4. Intermediate care
5. Chronic disease and frailty management
6. End of life and palliative care.

These elements of care are mutually dependent and overlap in the care process. The journey is like a continuous process and an individual may, at any given point of time, be accessing more than one service.

Primary care

Primary care always plays a central role in the community care of these frail people and it includes GPs, pharmacists, dentists, community nurses and social care workers. These providers are usually the first point of contact for many of these elderly patients in their journey and also follow the frail elderly patient throughout his/her care pathway. Primary care physicians play a huge role in health promotion, disease prevention and management of long-term conditions. Patients and their families are usually known to the providers and this enables a patient-centred approach.

Luk et al (2000) found that an early comprehensive geriatric assessment of these GP-identified frail older people is beneficial in identifying complex needs and allowing appropriate initiation of further care pathways for these people. In the community this improves patient satisfaction, reduces care home placement and avoids inappropriate hospital admissions (Challis et al, 2004).

Urgent care

Urgent care treats patients who have an injury or illness that requires immediate care but is not usually serious enough to require a visit to an emergency department.

Patients and carers prefer home treatment where possible. Depending on the nature of the problems identified by the GP or other health-care professionals at home or in urgent care units, the frail patient is managed either at home with carer support, district nurses and rapid response teams or in intermediate care for therapy needs

which include assessment of future care needs. This may also involve referrals to specialists in acute care as appropriate or transfer to acute care.

Intermediate care

Intermediate care covers a wide range of services that help prevent unnecessary admission to hospital, or help facilitate early discharge from acute care and aim to provide a range of enabling, rehabilitative and treatment services in community and residential settings. These services also improve the patient experience, either by helping the patient to remain at home in situations that might previously have led to admission to hospital or care, or by enabling a supported transition back into the community following a stay in hospital.

A generic definition, used by the Change Agent Team, describes intermediate care as 'A service provided on a short term basis at home or in a residential setting (usually about 6 weeks) for people who need some degree of rehabilitation and recuperation. Its aims are to prevent unnecessary admission to hospital, facilitate early hospital discharge, and prevent premature admission to residential care' (Department of Health, 2005).

Intermediate care services are provided by health and/or social care. Different models are available, but comprehensive geriatric assessment is vital in this part of the patient's journey, allowing the therapy to be targeted and specific.

Acute care (secondary care)

Secondary care is often acute health care (elective or emergency) provided by medical specialists in hospitals. The diversion of sub-acute care into the community has resulted in an increase in the level of illness severity and complexity among those admitted to hospital for acute care (Parker et al, 2006).

Older people are increasingly frequent users of accident and emergency departments and often have complex medical and social needs over and above the clinical cause of attendance (Bentley and Meyer, 2004). Accurate history taking may be impeded by cognitive and sensory impairments and presentation may be with classic geriatric syndromes such as delirium, falls, incontinence and decreased self care as a result of underlying acute illness. Reduced functional reserve in older people may result in significant impairment of daily living activities following relatively trivial illness or injury. These types of attendance result in a significantly larger proportion of older people being admitted to hospital from accident and emergency compared with younger patients.

According to Harari et al (2007), early comprehensive geriatric assessment screening of inpatients leading to early geriatric interventions improves clinical outcomes and decreases length of stay and mortality.

Once the appropriate interventions are instigated, patient care would return to the community, which once again may involve intermediate care, social care, and

other services along with the GP. Timely interventions and an integrated approach from both social and health care will help a smooth transition. The boundaries between urgent, acute and intermediate care are overlapping (*Figure 1*).

Chronic disease management

Six out of ten adults in Great Britain have a long-term condition that cannot be currently cured, and 80% of primary care consultations and 66% of emergency hospital admissions relate to long-term conditions (Department of Health, 2004).

The journey of care for frail older people with chronic conditions such as cardiac failure, chronic pulmonary disease, Parkinson’s disease, cerebrovascular disease or complicated diabetes involves a three-tiered model of care as shown in *Figure 2* (Department of Health, 2004). At the bottom are the majority of cases that can be managed primarily by GPs in the community with infrequent emergency interventions. The middle strata covers more complex or severe disease which needs regular specialist or secondary care input. These patients will benefit from coordinated care provided by a geriatrician. The top group, although not large in number, present a challenge to services as they are extremely severe, complex and brit-

tle. This group is best managed on an individual basis with regular interventions from primary care, active case managers and specialists.

Primary prevention, self care and patient education are paramount in the management of frail people with long-term conditions. By judicious use of resources, a large majority of these older people can be treated and managed closer to their homes, delaying or avoiding inappropriate hospital admission and avoiding care home placements.

End-of-life and palliative care

Many illnesses affecting the older age group can be incurable with progressive deterioration and distressing symptoms. It is important to recognize this and provide timely and adequate end-of-life care as this can have a tremendous impact on the quality of life of these patients. Provision of palliative care requires a holistic, problem-oriented approach with equal emphasis on dealing with physical symptoms, psychological distress, spiritual needs and social issues.

Palliative care for older people requires a comprehensive geriatric assessment, honest prognostication and open discussions between team members, patients and families. Treatment of reversible complications and symptom control go in parallel with rehabilitation and frailty management. Discussions and decisions about advanced care planning and appropriateness of cardio-pulmonary resuscitation are integral to this process, as are considerations of grief and bereavement support, and ethical and legal issues.

A review by the British Geriatric Society (2009) highlighted the fact that end-of-life care for older people is often suboptimal. Its recommendations included comprehensive geriatric assessment especially for the frailest patients with complex co-morbidities and access to specialist palliative care teams where appropriate. There is an emphasis on the role of the geriatrician in coordinating this care while different aspects of care are dealt with by several health-care professionals in various settings.

Figure 1. Urgent, acute and intermediate care.

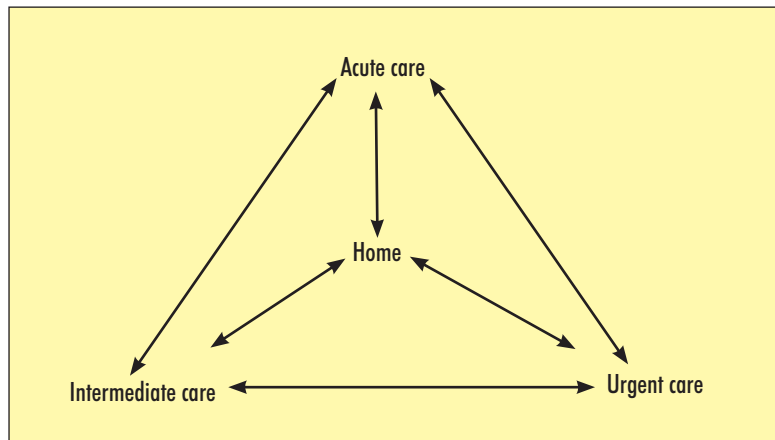
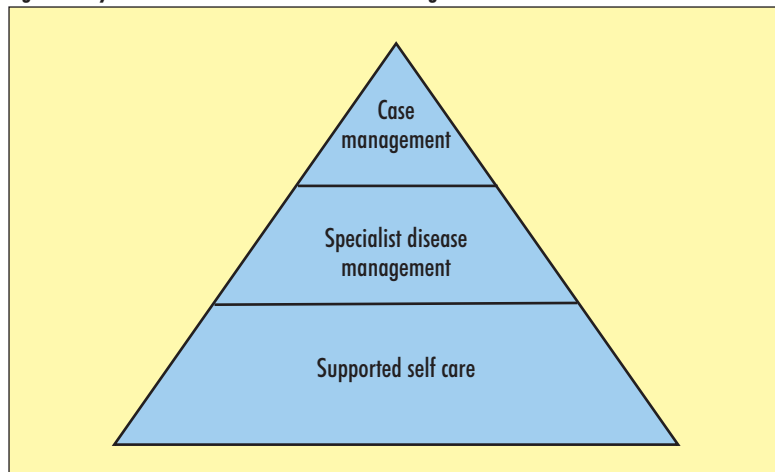


Figure 2. Pyramid of care in chronic disease management.



Special problems in the elderly

Owing to the nature of the ageing process and the added effect of co-morbidities, health-care problems in older people tend to be different from those in the younger population. Each of these problems can be caused by several illnesses and impacts on the physical, psychological and social wellbeing of an older person.

Nutrition

Malnutrition in older people is common but under-recognized. The low awareness of malnutrition among health-care providers and workers has been highlighted (Age Concern England, 2006; Healthcare Commission, 2007). Screening for malnutrition is mandatory for all older people admitted to hospitals and care homes.

Regular reviews of a patient's nutritional status must be performed through multidisciplinary evaluation, with the involvement of the patient and relatives. The use of personalized dietary care plans, with an emphasis on patient choice, helps to address the problem of under-nutrition in this group. People with dementia and those with severe disabilities from a physical illness such as a stroke may require extra help with feeding – managing this needs awareness training, education and time for ward staff.

Stroke

Stroke affects 120 000 people per year in the UK, with an average age of 75 years, and a further 40 000 have transient ischaemic attacks (Giles and Rothwell, 2007). Most stroke care in the UK is provided by geriatricians. Acute care and early rehabilitation in stroke units reduces death, disability and institutionalization compared to management on general hospital wards and is therefore the recommended model of care for stroke patients. Early discharge to the care of a dedicated multidisciplinary team, led by consultant community geriatricians, is an effective alternative to prolonged hospital care (Royal College of Physicians, 2004). Collaboration and communication between primary and secondary health care, both in the community and in hospitals, and social services, is essential to ensure that patients' potential is maximized and risk factors are adequately modified.

Model of comprehensive health care for the frail elderly

In view of the multiple co-morbidities, functional problems and psychological problems experienced by older people in addition to the effects of frailty, the provision of health care becomes multi-dimensional and very complex. The key is to remind ourselves that not all problems have a complete solution. Management of an individual person needs to be based on his/her specific requirements and should be the result of an open dialogue between the health-care team and the person concerned. Outlining all the problems, performing early comprehensive geriatric assessment and setting short- and long-term goals goes a long way to ensuring optimal care.

This complex care model is represented in *Figure 3*. The four components of this model include:

Elements of health care

Any health-care provision for the elderly begins with an early comprehensive geriatric assessment at the point of contact. This gives a clear direction to the team as well as helping to provide the most appropriate interventions in the best possible setting. These interventions can be numerous and include acute care of a new illness or an exacerbation of a pre-existing condition, management of chronic conditions and their complications, rehabilitation, management of frailty, end-of-life care and health promotion.

Team members

Given the complex nature of problems in the frail elderly, it is inevitable that their care provision involves a number of health and social care professionals. Care is orchestrated by the GP with help from community nursing teams, matrons and active case managers. In secondary care, the geriatrician steps in for more complex problems. Increasingly geriatricians are also taking up roles in the community and the interface between primary and secondary care. Other team members include therapists, social workers, dietician, pharmacists and others who work in both primary and secondary care.

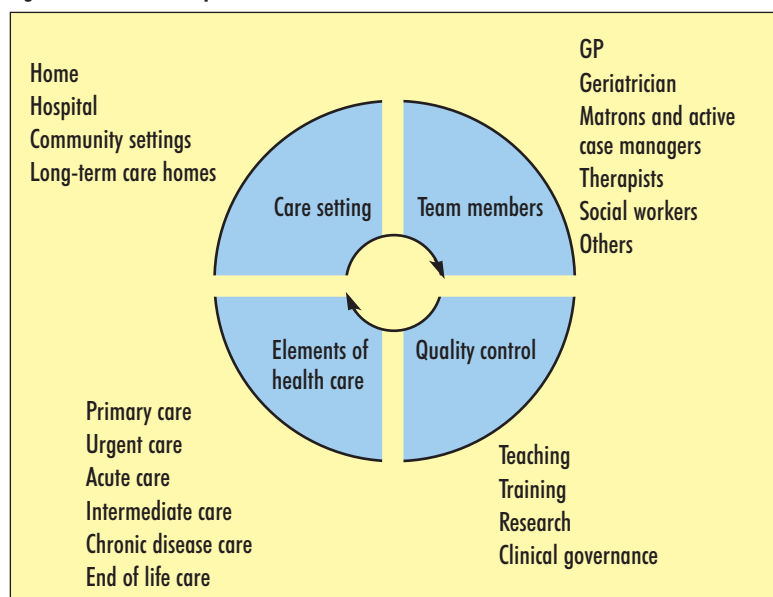
Care setting

Depending on what is provided, the care setting can range from the person's own home to acute hospitals, day hospitals, intermediate care facilities or community hospitals. Until recently acute or urgent care was traditionally provided in hospitals with the community settings focusing on rehabilitation and health promotion aspects, but these rigid boundaries are being broken down. Urgent care can now be provided in the patient's own home or in community settings. Rehabilitation and health promotion are continuous processes that can be applied to any point in the care pathway. With the growing role of geriatricians in the interface and community, these boundaries are likely to become further blurred and health-care provision will become a continuous process.

Quality control

Any process or system only functions well if adequate quality checks are built in. Robust clinical governance is vital for this model to be safe and effective, especially as the settings and care teams are so widely distributed. Similarly, providing adequate training for all team mem-

Figure 3. Model of comprehensive health care.



bers and monitoring this through audits and appraisals will ensure that problems and weak links in the system are rectified at an early stage. Finally, more research in this area needs to be encouraged to identify potential pitfalls and find newer solutions.

Conclusions

The UK population is ageing and by 2033 the percentage of the population over 65 years will rise to 23% and that over 85 years will more than double to over 5% of the total population, so the health-care demands of this sector will rise. Health and social care providers have to start addressing these challenges. The elements of care provided in various settings have to be coordinated and easily transferable. The key lies in the evolution of an active interface (most likely a geriatrician) that can ensure smooth running of the various parts while ensuring a holistic patient experience. Only then will a safe, smooth journey of care for the frail elderly patient become a reality. **BJHM**

KEY POINTS

- It is important to recognize the frail elderly in order to appropriately plan health-care interventions which take into account their wishes and best interests.
- Health care in frail elderly people should include the six main domains of primary care, urgent care, intermediate care, acute care, long-term conditions management and end-of-life care.
- Comprehensive geriatric assessment is crucial in recognizing the underlying clinical condition and defining the multiple factors which impact on health. It should be performed at the earliest opportunity to have maximum benefit.
- The complex needs of this vulnerable section of society can only be met by a multidisciplinary team, with specialist input, which is flexible in composition and function.
- The interface between primary and secondary care in geriatrics and seamless transfer of information and care are crucial to high quality, safe care provision.
- An integrated model of health care for frail elderly people should incorporate multidisciplinary teams providing care in various settings with provision for cross-linking and smooth transfers between different teams and settings.

Conflict of interest: none.

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