“The journey of care for the frail older people”

Key Points

1. It is important to recognise the frail elderly in order to ensure appropriate planning of healthcare interventions which take into account their wishes and best interests.
2. The four main domains of healthcare in the frail elderly include – health promotion at population level, long term conditions management, urgent care and end of life issues.
3. The role of a Comprehensive Geriatric Assessment is crucial in recognising the underlying clinical condition and defining the multiple factors which impact on health.
4. Care provided closer to home is both cost effective and satisfying to the patient.
5. The Interface between primary and secondary care in geriatrics is crucial to the continuity of care provision.
6. End of life issues and palliative care in this group need further attention.
7. The complex needs of this vulnerable section of the society can only be met by a multi-disciplinary team, which is flexible in composition and function.

Main Headings

Short Introduction

Main Introduction

Understanding frailty

Elements of Healthcare provision

1. Primary care
2. Urgent or sub acute care
3. Acute care
4. Long term conditions and frailty management
5. End of life and palliative care
6. Health promotion

Model of comprehensive healthcare for the frail elderly

1. Elements of Healthcare
2. Team members
3. Care setting
4. Quality control

Special problems in the frail elderly

Challenges faced in the provision of model comprehensive care

1. Wide geographical areas
2. Multiple team-members
3. Leadership role unclear
4. Tension between primary and secondary care

Solution to these challenges

1. GP practice as core link
2. Clear objectives and responsibilities for various teams
3. Clear leadership – role for the community geriatrician
4. Robust communication

Conclusions

Short Introduction

The elderly are a heterogeneous group with diverse healthcare needs. The diverse healthcare needs take them through a journey between their homes, community, primary care teams, and secondary care facilities - a path that can be sometimes tortuous and lengthy. The frail elderly amongst this heterogeneous group carry a significant high mortality, because of the associated co -morbid conditions during this journey of care. We also know that the services currently existing and catered for single pathology is actually used by these elderly frail people with multiple pathologies. However, with adequate planning and co-ordination between various teams and by providing an ideal interface, the frail elderly can be assured of a smooth, safe flow in their journey of care.

Main Introduction

As the demographics of the society shift towards an ageing population, the healthcare needs of the section of society above 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 85s) 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 23% of the total population and that over 85 years will more than double to over 5% of the total population (National Statistics Office, 2009). It is well known that this population group is the largest user of emergency services. It also accounts for a large proportion of the long hospital stays and high dependency levels. It is estimated that the prevalence of physical dependency, disability and chronic conditions will rise proportionately in these groups.

This above scenario coupled with the fact that NHS funding is not likely to rise proportionately (Appleby et al, 2009) will mean that there will be a widening gap between the income into NHS and the expenditure. This gap will have to be covered by more efficient working if we are to ensure that the growing healthcare needs of the over 65 are met adequately. This will be particularly true for the frail older people and will mean restructuring the way we manage their healthcare needs.

In this review, we attempt to analyse the various aspects of health and social care that are routinely accessed by this group and come up with a model of healthcare provision that is both efficient and cost effective.

Frailty and Frail Older People

Frail old people turn out to be complex patients with complicated needs and care. It is a challenge for the social care and health care to identify the frail older people in community and in hospitals to meet their challenging and complex needs. This will be paramount in keeping older people cared in their own houses, delay their needless and sometimes inappropriate journey to acute and long term care.

Understanding Frailty

The term frailty is used in literature to describe older people who are vulnerable and is usually associated with high health risks. Hence the importance of recognising and managing frailty adequately cannot be emphasised enough. The definition of frailty is complex and its true meaning and measurements has long eluded the clinicians and researchers. Recently, Pel-Littel et al (2009) have attempted to define and describe the concept of frailty. They found that deterioration in activities of daily living, mobility, nutritional status, cognition and endurance were the key manifestations.

The validity of any tools to measure frailty is yet to be established and the only interventions shown to improve the situation are measures to improve muscle strength and nutrition coupled with targeted therapy based on extensive geriatric assessment.

Several attempts have also been made to find 'biomarkers' which would help us define frailty. Although several mediators of inflammatory response, hormones, free radicals, anti-oxidants, macro and micro nutrients have been postulated, none have been shown to be specific or consistent (Ferruci L et al, 2009).

Andrew and Rockwood (2007) found that in community-dwelling elderly people without dementia, frailty and psychiatric illness were closely related and presence of either one of these conditions increased the odds of the other being present. Similarly, a close association between frailty and presence of cardiovascular disease (Afilalo et al, 2009) is established and redefining the 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 to varying degrees of the following components – poor nutrition, reduced mobility, deterioration in activities of daily living, cognitive impairment and reduced immune competence (Box 1). The presence of frailty predisposes to increased morbidity, mortality and institutionalisation. Hence recognition and management of frailty in association with acute care and chronic disease management is integral to the healthcare of this population subgroup. (Figure 1)

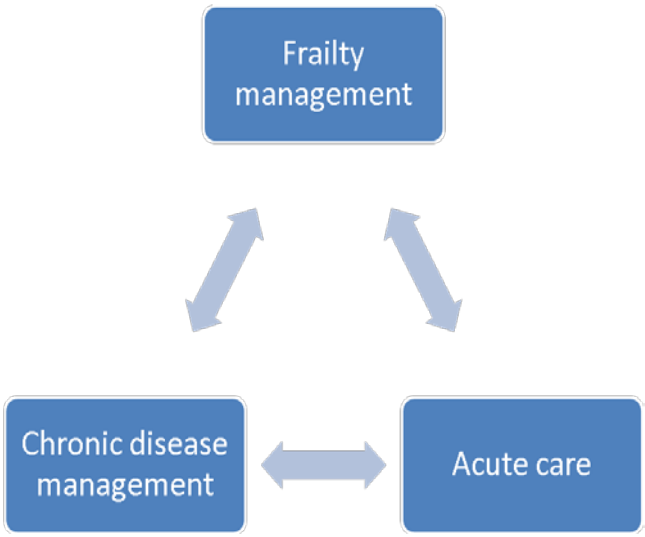
Why do we all need to understand frailty?

It is not just the Primary care physician's or geriatrician's prerogative to identify and understand frail and frailty, but also the duty of multi disciplinary team members and other health care professional Et al have stressed the need for early identification in their paper in ….

Frailty is inevitable with ageing process. Frailty is often equated with functional dependence in the activities of daily living, although frail older people are sometimes described in predominant medical terms. Frailty, which may be merely a state to which many elderly people pass towards the end of life, is often clinically apparent to primary care and geriatricians only in its end stages.

The frail elderly are heterogeneous in their need for health and social care services. Whilst trying to understand the "Brocklehurst" model of breakdown, which defines frail elderly persons as those in whom the assets of maintaining health and deficits threatening are in precarious balance, it is evident that a pragmatic, integrated approach is needed from the health and social care, in maintaining that balance.

Figure 1: Relationship between Frailty and Healthcare



Box 1: Components and Markers of Frailty

Elements/Components	Markers/Determinants
Malnutrition	Weight loss, reduction in muscle mass and loss of bone density.
Reduced mobility	Decreased activities.
Deterioration in Activities of Daily Living (ADLs)	Increased physical dependence.
Cognitive impairment.	Depression and other mental health problems.
Reduced immuno-competence	Susceptibility to infections.

Journey of Care of the Frail Elderly

It is a continuous process for frail older people which usually start from home or some times from care homes. The journey which starts from community usually ends back in the community. (Fig 2)

The journey may involve, various services, that are available in the community, mainly from, GP's, District nurses, Pharmacies, Active case managers and Geriatricians and other specialists, in various locations e.g. at homes, care homes or Intermediate care or Urgent care, provided by Health and or Social care.

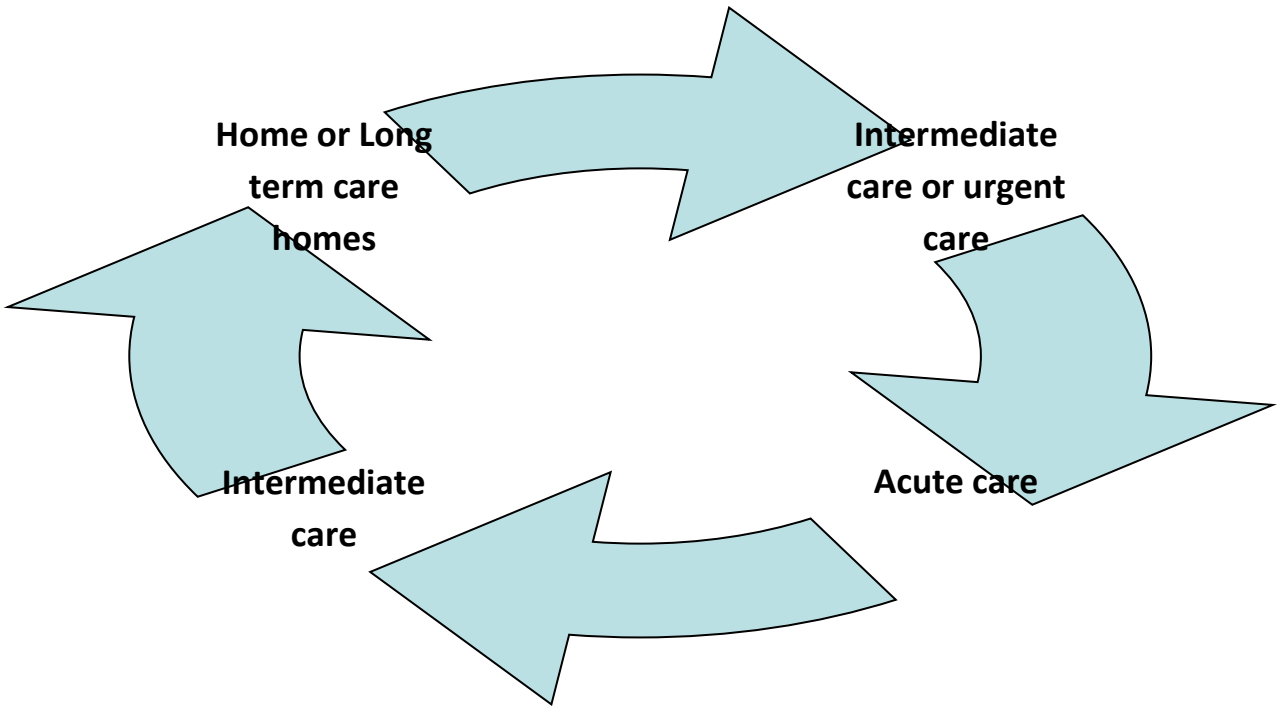
Multiple care pathways involved are some times juxtaposed and crossed, and therefore can become burdensome and tortuous for the frail older people stakeholders.

Elements of Healthcare for Frail Older People

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

i) Primary care
ii) Urgent or sub acute care
iii) Acute care including rehabilitation.
iv) Long term conditions and frailty management.
v) End of life and palliative care.
vi) Health promotion.

Fig 2: Frail elderly journey of care



Primary care

Primary care always plays a central role in the community care of these frail people and it includes General practitioners, pharmacists and dentists. These providers are usually the first point of contact for many of these elderly patients in their journey. They also follow the frail elderly patient throughout their care pathway. The primary

care physicians play a huge role in Health promotion, Disease prevention and identification by adapting a patient choice and centered approach. An early and prompt assessment by the primary care physicians is vital at the start of the frail older people journey of care from home.

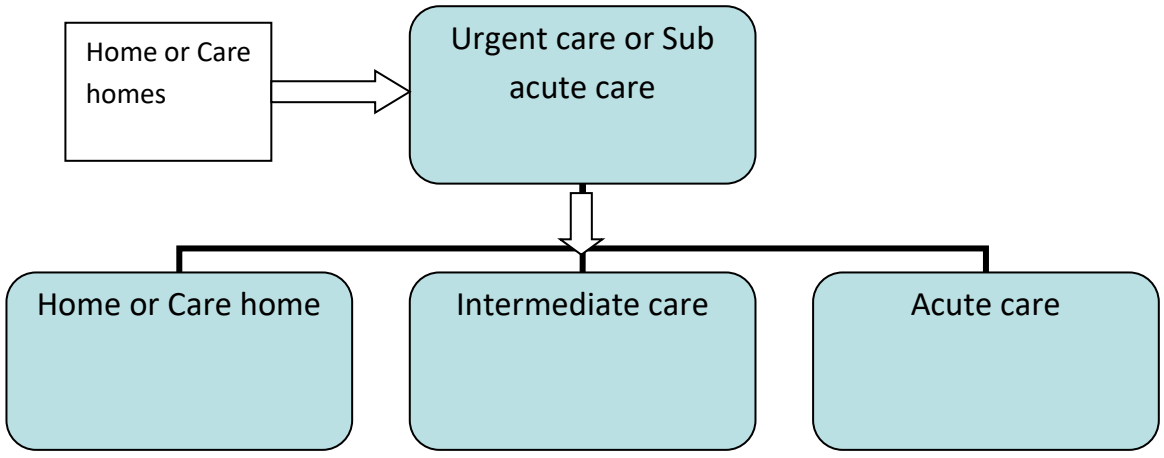
Et al have found that the early use of an early comprehensive Geriatric assessment (CGA) at home or in care homes, on these, GP identified frail older peoples, is beneficial in identifying the complex needs and appropriate inititaion of care pathways for these people. This initiative in the community has also found to be effective in improving patient and carer's satisfaction, reduce care home placement and also avoid or delay inappropriate or needless hospital admission

Sub-acute or 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 room. (Fig 3)

It is well known that patients and carers prefer home treatment where possible. Depending on the acute or sub-acute nature of the problems as identified by the GP or other healthcare professionals at home or in Urgent care units, the frail patient is managed either at home with carer support, district nurses, rapid response team or in Intermediate care for therapy needs which include assessment of future care needs. This journey may also involve referrals to specialist in acute care as appropriate or transfer to acute care.

Fig 3: Journey from home or care home



Intermediate care

Intermediate Care is a generic term that covers a wide range of services that help prevent unnecessary admission to hospital, or help facilitate early discharge from acute care. As such, the term refers to a very important journey in frail patients care by offering range of services that can help reduce hospital admissions and reduce delayed discharges.These services will also improve the patient experience, either by helping and assisting them 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. (Fig 4)

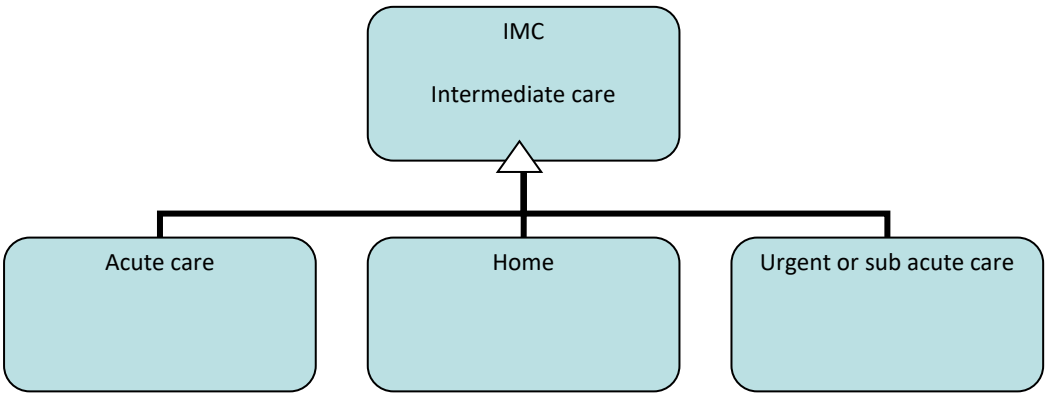
Definition of Intermediate Care

Intermediate Care services enable people to improve their independence and aim to provide a range of enabling, rehabilitative and treatment services in community and residential settings. The term has been defined as a "range of integrated services to promote faster recovery from illness, prevent unnecessary acute hospital admission, support timely discharge and maximise independent living". (NSF for Older People, DOH, June 2002).

A more recent generic definition has been used by the Change Agent Team which also indicates the broad range of services included is as follows:

“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” (Making Connections, 2006)

Fig 4: Journey to Intermediate care



Intermediate care services are provided by health and or social care. Different models are available; however the role of comprehensive geriatric assessment (CGA) is vital in patient's journey, making the therapy targeted, and especially when there is geriatrician involved in this journey of care. The focus will be to enhance patient's potential, reducing, or avoiding care home admissions, and therefore maximising older patients return to their own homes.

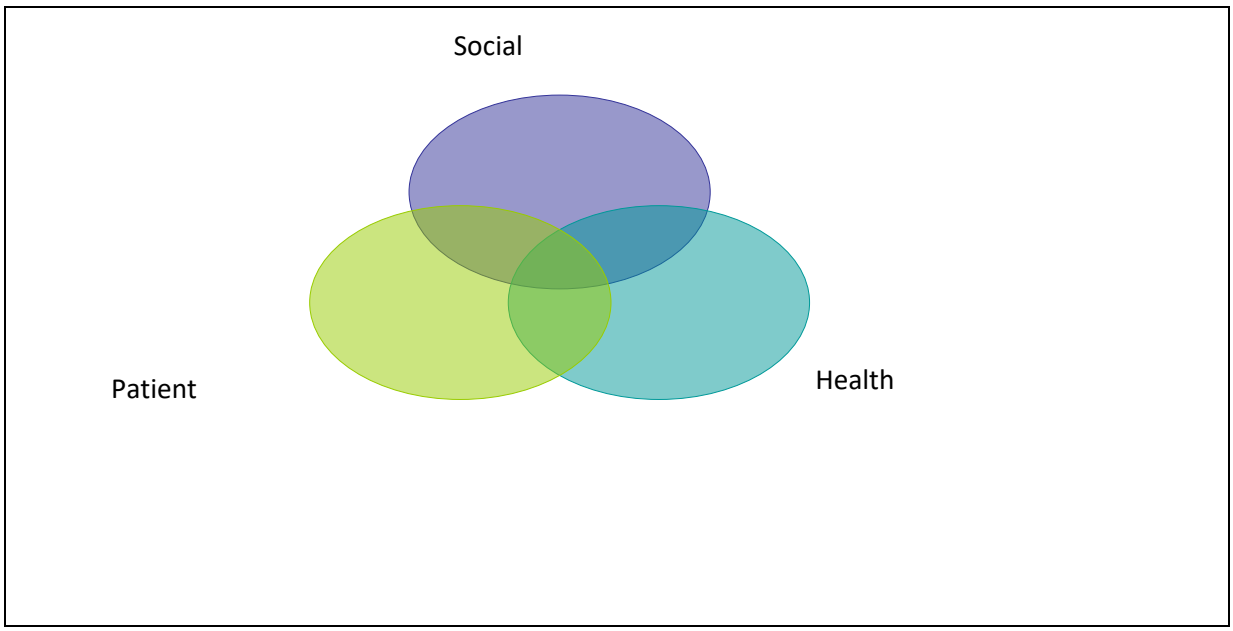
Acute care or secondary care

Secondary care is often acute healthcare (elective care or emergency care) provided by medical specialists in a hospital or other secondary care setting. Patients are referred from a primary care professional such as a GP.

Patients and carers prefer home treatment where possible. However the diversion of sub-acute care into the community increases the average level of illness severity and complexity among those admitted to hospital for acute care.

There are various models of care for this journey. The effective one would be where the frail elderly would have an early comprehensive geriatric assessment, by the Geriatrician and the multi disciplinary assessment, wherever they present in hospital. Et al describes the effectiveness of this approach in Emergency units, acute medical receiving units, pre operative or post operative wards, Geriatric and other medical wards in the hospital.

Fig 5: Integrated health and Social care



An integrated approach that links health, social care, patients, and carers is the ideal model of care, which would make the patient journey smooth. (Fig **5)**

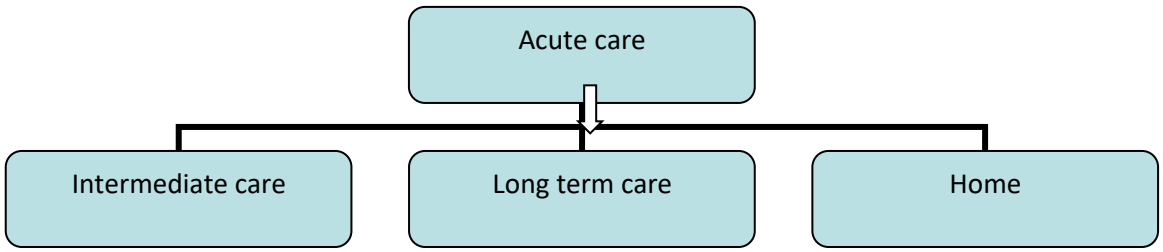
Acute Care

Patients are admitted to hospital complex acute care for further evaluation in their journey of care. In NHS England according to 2004/5 data, amongst the 2.5 million episodes of acute care 77% are emergency admissions and 63% of admitted were greater that 60 years (Reference). Amongst the majority of these older in-patients lie the frail older who are at high risks of adverse clinical outcomes.

According to et al, early CGA screening of in-patients leading to early geriatric interventions, like ward based management, appropriate transfers to geriatric wards, leading onto CGA has found to be effective in improving clinical outcomes and decreasing length of stay and mortality (Reference). The journey also involves appropriate pathway interventions and specialist referrals for further advice and management.

Once the appropriate interventions instigated, the patient journey would be back in the community trail, which once again may involve Intermediate care, Social care, and other services along with the Primary care physician. What make the journey, which looks so complex and complicated into a smooth ride, would be timely interventions, including prevention, pathways, and appropriate assessments by appropriate people, also incorporating an integrated approach from both social, and health care towards a safe and effective discharge of frail older patients back into community. (Fig 6)

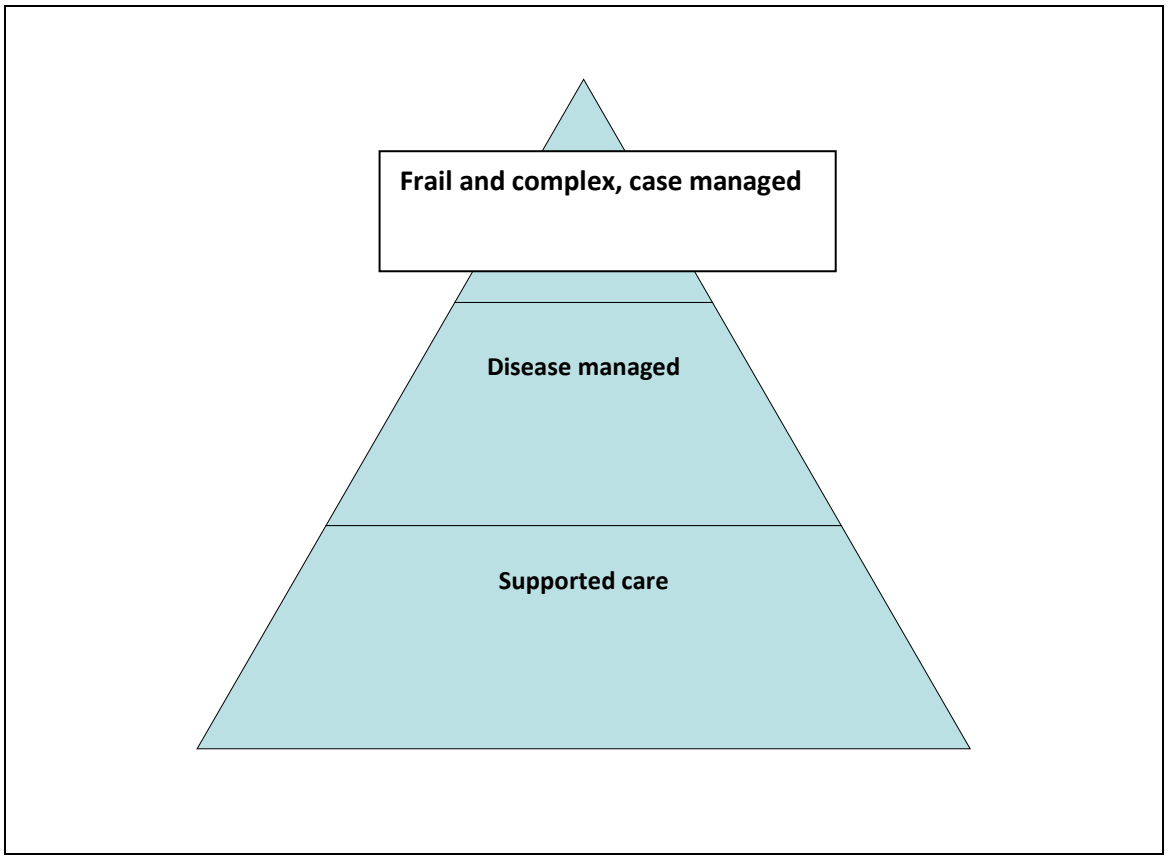
Fig 6: Journey from acute care



Long Term Conditions Management

Six out of ten adults in Great Britain have a long term condition that cannot be currently cured and people with long term illness often suffer from more than one condition making them more complex. Eighty (80%) percent of primary care consultations and 66% of emergency hospital admissions are related to long term conditions (Reference). Most of this frail older people with multiple co morbidities and long term conditions make the tip of the ice berg in the diagram below. (Fig 7)

Fig 7: Kaiser Triangle



The journey of care for frail older people with chronic conditions like cardiac failure, chronic pulmonary disease, Parkinson's disease involves a focussed model of care of integrated services with overlapping boundaries within primary, secondary, and social care.

According et al this group amongst the community dwellers are the primary users of resources in general practice and also acute emergency care.(Ref)

The next layer is the still sickly frail people with potential to go off at any time, who would need their cases actively managed by the community matrons, GP and ably supported by the Geriatrician. The role of Complex Geriatric assessment is valuable in management of Long term conditions in community, thereby; patients or frail people journey is actively and appropriately managed, with patient choice in focus, by offering a patient centred care.

Primary prevention, self care and patient education are paramount in this management of frail people with long term conditions, thereby by being actively case managed, these older people could be treated and managed closer to their homes, delaying or avoiding inappropriate hospital admission and avoiding care home placements. (ref)

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 recognise this fact 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 the team members, patients and the families. Treatment of reversible complications and symptom control go in parallel with rehabilitation and frailty management. Discussions and decisions regarding Advanced Care Planning and appropriateness of Cardio-Pulmonary Resuscitation are integral part of this process, as are considerations of grief and bereavement support and ethical and legal issues. (Box 2)

It has been shown that the patterns of functional decline at the end of life are quite variable and differentiating between expected trajectories helps to adapt specific needs-related approach for an individual patient (Lunney et al, 2003).

A recent review by the British Geriatric Society (Feb 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 with complex co-morbidity and access to specialist palliative care teams where appropriate. There is an emphasis on the role of the geriatrician in coordinating this care whilst different aspects of care are dealt with by several healthcare professionals in various settings.

Box 2 Palliative Care Provision for the Older People

Components of Palliative Care	Healthcare Professionals
Comprehensive assessment prognostication. Symptom control. Frailty management. Rehabilitation. Advance Care Planning. Grief & bereavement support. Psychological & spiritual support. Ethical & legal issues.	General Practitioner Geriatrician Nursing team Social Workers Therapists Specialist Palliative Care Teams

Health Promotion

As a person grows older, there is a small decline in their functional ability every year. This decline is accelerated by illness and sedentary lifestyle as well as social isolation. The more dependent a person gets, the less he or she is inclined to be physically active, thus potentiating the dependency state further. Health promotion in the older people is an integral part of their healthcare if we are to slow down this downward spiral. Promoting active lifestyle, healthy diet, physical exercises and self-dependency goes a long way in achieving this goal. Physical fitness in turn ensures mental health benefits and psychological health. Promotion of health should be practised at every opportunity through advice, referrals to fitness teams and addressing the issues that prevent a person from adapting an active lifestyle (BGS 2005).

The other aspect of health promotion in older people is to ensure various disease prevention guidelines are practised at the population and individual level. Cardiovascular risk reduction, stroke prevention, falls and osteoporosis prevention

are but some examples of how such measures can improve the health of this group. Once again these should be initiated and reinforced at all possible opportunities in both primary and secondary care settings.

Special Problems in the Elderly

Due to the very nature of the ageing process and the added effect of the co-morbidities, healthcare problems in the older people tend to be different from the younger population. The "Geriatric Giants" cannot be unknown to any healthcare professional involved in the care provision for this group, namely – Immobility (as a result of cerebro-vascular disease, Parkinson's disease and other neurological conditions), Instability (leading to Falls), Incontinence (both as a cause and result of several problems) and Incapacity of mind (with dementia, delirium and depression leading the list).

Each of these problems is in turn caused by several illnesses and impacts on the physical, psychological and social well being of an older person.

[To add something about specific conditions]

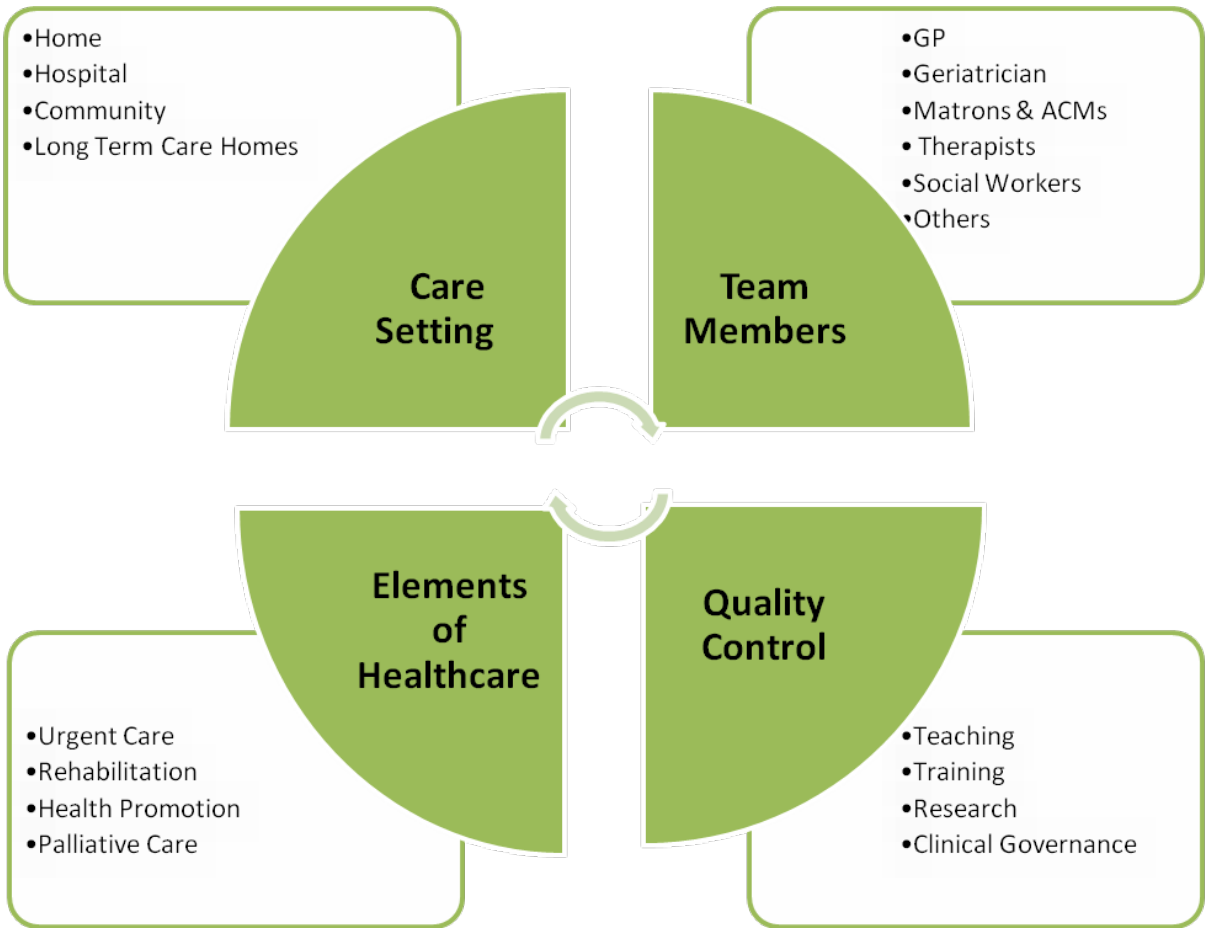
Model of Comprehensive Healthcare for the Frail Elderly

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

A diagram representing this complex care model is shown in Figure 8. The four components of this model include:-

- Elements of healthcare.
- Team members.
- Care setting.
- Quality control.

Figure 8: Model of Comprehensive Healthcare



- **Elements of Healthcare:** Any healthcare 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 helps in providing the most appropriate interventions in the best possible setting. These interventions can be numerous as seen in the preceding discussion and include – acute care of a new illness or 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/professionals:** 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. The care is orchestrated by the General Practitioners with help from community nursing teams, matrons and active case managers. At the secondary care level, the Geriatrician steps in for the more complex problems. Increasingly the Geriatricians are also taking up roles in the community and the interface between primary and secondary care. There are several other team members – the therapists, social workers, dietician, pharmacists and others who work in both primary and secondary care settings. It is evident that healthcare of a frail older person involves a close working between several team members and calls for integration and cooperation between teams.

- **Care Setting**: Depending on what is provided, the care setting can range from person's own home to acute hospitals, day hospitals, intermediate care facilities and community hospitals. Until recently acute or urgent care was traditionally provided in the hospitals with the community settings focussing on rehabilitation and health promotion aspects. Increasingly, these rigid boundaries are being broken down. Acute care can now be provided in patient's own home or in community settings. Rehabilitation team and health promotion are continuous processes that can be applied to any point in the care pathway. Long term care homes are being encouraged to provide more rehabilitation and end of life care with guidance from appropriate professionals. With the growing role of Geriatricians in the interface and community, it can be postulated that these boundaries will become further blurred and healthcare provision will become a continuous process.

- **Quality Control:** Any process or system only functions well if adequate quality checks are built into the structure. Robust clinical governance is of prime importance 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 members 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.

Challenges faced in the provision of this model of healthcare and their solutions

Conclusions

Currently, the journey of care for frail older people with complex needs is complicated. Where, we like a straight line approach for early and safe assessment of these frail people, it is obvious the complexity of services available make it a tortuous one. The UK population is ageing and in 2020 the ageing population will make 30% of the whole population. NHS has to start addressing these challenges ahead and start planning for a smooth, safe journey for this older, frail people.

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