What is the Greatest Challenge that Modern Medicine will Face in our Lifetime?

Modern medicine brings immense opportunities in the developed world particularly for elderly people who often have multiple medical problems. Advances in medical treatments has enabled better management of chronic diseases. However, difficult decisions need to be made as to how limited resources are allocated to provide care to all. In an NHS that is frequently reported to be in crisis, the care of the elderly is the greatest challenge that modern medicine will face in our lifetime.

The NHS was created in 1948 as a service to provide free health care to all. Since that time life expectancy has significantly increased resulting in more elderly people needing medical care. This essay will explore the specific challenges of managing the elderly in the NHS today - the scale of the problem, how clinical teams can manage people with multimorbidity and frailty, how the elderly access care and how hospital admissions can be limited to those that genuinely need it.

The NHS has recognised the need for change. In October 2014, NHS England published the NHS five year forward view (1) which set out a positive vision for the future. This highlighted seven models of care that needed to be considered. Several of these models directly relate to the care that elderly.

The Scale of the Problem

People are living longer and in 2015 it was estimated that 16.1% of the population in Europe were over the age of 65 with the expectation that this will rise to 22% by 2031 (2). The greatest increase is in those over the age of 80 and in the UK this equates to approximately 3 million people. Those over the age of 65 consume a huge proportion of the health resource accounting for 40% of all bed days and 65% of the NHS spend (3). Elderly people commonly have more than one health related problem, they have functional dependence, often have poor quality of life, are frequently socially isolated and frail. Managing these complex problems means significantly higher health care costs (4). Identifying patients that are frail and proactively managing frailty may allow these patients to receive better quality of care that is also more cost effective. The large number of elderly patients means this is a serious problem.

Frailty

This is often defined as a clinical state in which there is an increase in an individual's vulnerability for adverse events and harm when exposed to a stressor (5). Currently however, there is no universal agreement for the definition of frailty (6). It is distinct but related to disability and comorbidity (7). Phenotypic models describe frailty as specific clinical syndromes that encompass a cluster of characteristics including unintentional weight loss, exhaustion, weakness, slowness and low physical activity (8). The ability to identify those that have these features with a comprehensive geriatric assessment (CGA) is essential for high quality care. CGA is defined as:

'A multidimensional interdisciplinary diagnostic process focused on determining a frail older person's medical, psychological and functional capability in order to develop a coordinated and integrated plan for treatment and long term follow up'

When patients are admitted to hospital and a CGA is performed it has been shown to increase the patients' likelihood of being alive and being able to be discharged to their own home after an emergency admission to hospital (9). This has the potential to reduce cost and has the benefit of preventing institutionalisation of elderly patients.

Identifying patients in the community that are frail and undertaking individual care plans can allow elderly patients to plan the care that they receive in the event of a sudden change in their health. These plans allow patients choice as to where they want their care provided and can detail specific wishes such as being resuscitated in the event of a cardiac arrest or wanting to be cared for in hospital if needed. These measures allow many elderly patients, particularly those with extreme frailty or terminal diagnoses, to choose to die with dignity at home. The complexity of medical problems in the elderly is significant and adds to the challenge of providing care.

<u>Caring for Elderly Patients in the Community</u>

Elderly patients are often not just frail but frequently experience multimorbidity (the co-existence of two more chronic conditions within an individual). General practitioners (GPs) and primary care teams have a key role in managing patients with multimorbidity, using a patient centred approach. In addition, elderly patients benefit from continuity of care. This is an important part of the management of patients with complex health conditions (10). Furthermore, patients value seeing the same doctor (11) but continuity of care is in decline in the UK (12). It has become more difficult with primary care reforms in the UK (13). Continuity of care is particularly valued in the 62-82 age group who experience more admissions than the general population for ambulatory care sensitive conditions in the UK (14). Unplanned admissions for ambulatory care conditions such as asthma accounted for £1.42bn in England in 2009/10 (14). Elderly patients when admitted to hospital have increased risk of medical complications such as hospital acquired pneumonia and therefore increases the risk of death, morbidity and institutionalisation.

The complexity of the problems that elderly care patients have also means that the multimorbidity problem cannot be easily managed in a routine 10min appointment in general practice. Having longer consultations for patients that have complex needs has been shown to improve compliance with treatment and reduce stress on GPs (15). Stress on GPs and perceived intensity of work is having a detrimental impact on the recruitment and retention of GPs. Many are now unwilling to work fulltime in a patient facing roll. The number of GPs has not kept pace with groups most likely to use primary care (over 65s and over 85s) (16). Despite a government pledge to increase the number of doctors working in general practice by 5,000 by 2020/21, the number of full-time equivalent (FTE) GPs fell by 0.3 per cent in 2016 (17). Significant investment is promised through The General Practice Forward View (GPFV) to support and develop the GP workforce (18). A well-resourced primary care workforce that can provide robust, high quality holistic care is essential to meet the medical needs of the elderly. Workforce problems are a major obstacle to providing care for elderly people.

How do they Access Care when an Emergency Strikes?

Elderly patients need to have ready access to health care advice when they need it. During the normal working day this is usually provided by the primary care team in the UK. When the practice is closed this care can be provided through a myriad of services such as NHS 111, urgent care centres, minor injury units, walk in centres and in an emergency via 999 or Accident and Emergency (A+E) departments. Confusion regards the range of services available and the fragmented nature of them was highlighted by Sir Bruce Keogh in the Urgent and Emergency Care Review in 2013 (19) The development of urgent and emergency care networks is a key theme in the NHS five year forward view and aims to simplify the system to allow better integration of care between services. Elderly people require coordinated care. Currently, the clinical records that detail the medical problems and the medications are held by the primary care team and are not routinely shared with other services. This can result in duplication of care with elderly patients often attending A+E unnecessarily. Attending A+E when it is not an emergency can lead to frail elderly patients being admitted to hospital and this in turn can lead to prolonged care as an inpatient that could have been prevented. In many cases this can lead to confusion, worsening of their baseline function and risk of institutionalisation and lack of independent living. Providing elderly patients the care that they need when their usual medical practitioner is unavailable is a significant challenge going forwards.

Is it Achievable?

Modern medicine holds many opportunities for frail elderly people but for this potential to be maximised, it is critical that the demands of this group are seriously considered by health leaders. The NHS is trying to address this through the Five Year Forward View, but this will not be enough. The implementation of modern medicine needs to be linked with social care to ensure that all patients are treated in their own homes whenever possible, and not admitted to hospital unless care cannot be implemented in the community. This will be a huge challenge as it requires there to be coordinated, appropriately resourced primary care teams that can plan and provide continuity of care. Failure to implement high quality coordinated modern medical care will mean that many elderly patients will not live the end of their lives with dignity and will die prematurely in settings such as hospital that are against their wishes. The resultant effect means that cost of care will rise for all, and modern medicine will be failing this large patient group.

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Author: Harry Geddes

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