WHAT YOU NEED TO KNOW ABOUT: FRAILTY ON THE ACUTE MEDICAL UNIT

INTRODUCTION

The number of patients aged 65 and over admitted to emergency departments (ED) is increasing rapidly and this population is also at high risk of hospital admission following an ED attendance. In 2015, patients aged over 65 years old represented over 23% of total attendance to EDs across the UK, of whom 47% were admitted (Hospital Episode Statistics, 2015).

Older patients are at increased risk of poor outcomes such as in-patient mortality, intensive health and social service use post-admission (Buurman et al, 2011). These outcomes depend both on the severity of the acute illness (intensity of the stressor) and the patient's underlying vulnerability towards adverse outcomes (frailty) (Romero-Ortuno et al 2016).

In the 2014-2015 NHS benchmarking report on urgent care for older people, less than half of hospitals surveyed offered some form of specific frailty care to older people in the first 72 hours of their stay (NHS Benchmarking, 2016). Older patients with frailty are likely to have atypical and potentially misleading symptoms (Limpawattana et al, 2016), as well as multiple comorbidities. This leads to variability in the quality of care provided in acute settings and possibly has an impact on the high rates of admission of this age group following ED attendance.

Acute Medical Units (AMU) are key to improving urgent care for older people with complex needs, as they offer a favourable environment, conducive to a more standardised approach to the management of acute frailty and help reduce variation.

THE ACUTE MEDICAL UNIT

Older patients with frailty are highly prevalent in AMUs; 29% patients over 70 years were classified as moderately to severely frail (Conroy and Dowsing, 2013). Because of complex needs and high incidence of comorbidities, these patients tend to have poor outcomes when discharged from AMUs (Edmans et al, 2013). Half of frail older people discharged home within 72 hours are readmitted and one-third die within a year (Woodard et al, 2010). The complexity of assessment often leads to admission by default option, however AMUs should not be considered merely as a transition point for older patients 'waiting for geriatric base ward admission'. Rather, they represent an excellent setting for delivering efficient holistic care to older people and prevent complications related to unnecessarily prolonged hospital stays (Soong et al, 2016).

The Royal College of Physicians (2007) emphasises that AMUs should 'tailor their operations to meet the needs and expectations of an ageing population with more complex illness'. This could be done by focusing resources and efforts on AMUs to embed processes and competencies relevant to the needs of older people. One response has been to develop 'acute frailty units'. These units usually include physicians and nurses, followed by physical therapists, social workers, and occupational therapists, that meet regularly to plan patient care (Fox et al, 2012).

Supplementary efforts should also be made on the improvement of transitional care 'at the interface' for patients being discharged home from AMU. Indeed, the hospital-to-home transition is a critical period that requires important efforts in communication and coordination with community teams to allow for the planned actions to take place effectively.

Geriatricians only make for 3.6% of total consultant workforce in hospital (NHS Benchmarking, 2016). Considering the demographics and the average age of in-hospital population, it is critical that all professionals improve their skills in the management of frail

1 older people. This is now well recognised, and geriatric medicine now takes an increasing part
2 of the teaching of medical trainees in acute care (Gordon et al, 2014).

3 Finally, the AMU is a time sensitive area, because of pressure on flow, which can also
4 impact on the attitude of the staff towards older patients. However, rapid assessment alone
5 does not improve flow. Rather, investing time and resources at the AMU to make the
6 assessment more accurate, holistic, and patient-centred will improve outcomes and also help
7 to create flow.

8 9 **IDENTIFYING FRAILTY**

10 In a pragmatic way, the issue is to be able to identify patients who are most at risk of
11 adverse outcomes after admission, and might benefit from a more personalised and holistic
12 approach of care (Soong et al, 2016). Of note, these patients may not necessarily be aged, as
13 frailty features may sometimes occur in younger adults and would require the same
14 management principles, but the prevalence and the importance of the risk in terms of harms
15 and service use in the older population justify a systematic screening approach.

16 Frailty can be defined by a state of increased vulnerability towards adverse outcomes
17 when exposed to a stressor event (Clegg et al, 2013). Frail older patients can have multi-
18 faceted presentations, which can be clinically recognised in the form of 'frailty syndromes',
19 such as falls, delirium and cognitive impairment, incontinence, functional disability or social
20 vulnerability (Clegg et al, 2013).

21 In busy care settings, frailty identification tools should be rapid and easy to use (Soong
22 et al, 2016). Different clinical frailty identification tools have been developed for acute care,
23 most of which are of limited use on their own for risk stratifying patients, although they
24 perform better than age alone or a subjective evaluation (Conroy and Dowsing, 2013; Edmans

et al, 2013; Wou et al, 2013). Although no tool currently outperforms others for risk-stratifying patients, it is critical to search for consistency across settings so that professionals to help effective communication and reduce variation. Rockwood et al (2005) have validated a Clinical Frailty Scale (CFS), which is the most recognised and widely spread tool across the UK. It is based on clinical judgement and uses pictograms to assign a frailty level from 1 (very fit) to 9 (terminally ill, life expectancy < 6 month)(Figure 1). This tool is simple to use by any professional involved in care for older patients in acute care settings (Elliott et al, 2017). It may also help predict in-patient mortality and target the need for comprehensive geriatric assessment (Wallis et al, 2015).

Figure 1 – The Clinical Frailty Scale. Canadian Study of health and Aging (Rockwood et al, 2005). This revised 9-point version is accessible from http://geriatricresearch.medicine.dal.ca/clinical_frailty_scale.htm. Reproduced with permission.

As ambulance services records will provide useful information for completing most tools, the ED or AMU nurse receiving handover from them will be able to populate a “frailty box” on the entry proforma, which may also be added to electronic hospital records. The final step will be to check that frailty identification effectively leads to an action (i.e. triggers a process such as Comprehensive Geriatric Assessment), in a “plan-do-check-act” cycle. (Acute Frailty Network 2016).

MANAGING FRAIL OLDER PATIENTS

The Silver Book (Banerjee et al, 2012) and the Royal College of Physicians’ acute care toolkit (2015) provide guidelines for the management of older people in acute care.

Comprehensive Geriatric Assessment

Whilst the predominant model of care in urgent care tends to be focussed on solving an acute medical problem, frail older people have complex needs that require to 'look at the bigger picture' and consider the patient as a whole, in his or her usual environment (Figure 2).

Comprehensive Geriatric Assessment (CGA) is defined as a 'multi-dimensional, interdisciplinary diagnostic process to determine the medical, psychological, and functional capabilities of an older person in order to develop a coordinated and integrated plan for treatment and follow-up' (Rubenstein and Rubenstein, 1991). CGA assesses medical issues (acute condition and comorbidities), functional status, environment and social support network.

Figure 1- CGA: the patient in his environment

CGA is more effective than usual care for improving outcomes of older people admitted to hospital (Ellis et al, 2011). This includes mortality, functionality, quality of life, institutionalisation, cognition, length of stay and costs. There is strong evidence that CGA is effective for improving patient outcomes in the acute care context (Ellis et al, 2011; Fox et al, 2012). This is also supported by a recent quality improvement program in the UK (Silvester et al, 2014) and is advised in national guidance (Banerjee et al, 2012; Royal College of Physicians, 2015).

Identifying 'frailty syndromes'

Awareness on frailty syndromes and the atypical presentations of medical conditions in frail older people is of paramount importance (Limpawattana et al., 2016). Table 1 illustrates the domains which should be covered during CGA and examples of specific competencies required.

Frailty Syndromes	Key issues
Cognition	<p>Recognising (risk of) Delirium.</p> <p>Collateral history is key to detect recent change in cognition. Diagnosis relies on the four core criteria of the CAM (Inouye et al, 1990): rapid onset or worsening with fluctuating course, Inattention, disorganised speech and alteration of level of consciousness (hypo- or hyper-activity). Avoid overuse of psychotropic drugs and constraints</p> <p>Screening for dementia and organising follow-up.</p> <p>Capacity assessment: can the patient decide?</p>
Mood	Masked depression can present as confusion or irritability
Nutrition and hydration	<p>Weight loss, undernutrition, Swallowing (also risk of aspiration)</p> <p>Risk of dehydration</p>
Falls Functionality/mobility	<p>Falls and 'off-legs' sometimes only symptom of many acute conditions. Recognising context of multiple falls. Assessment of risk of major trauma (osteoporosis, anticoagulants, isolation, and immobility), screening for reversible causes (especially medications). Rehabilitation, adapting level of care to needs, adapting environment (e.g. frame, bars at home, commode, etc.)</p>
Continence	<p>Risk of retention and faecal impaction, reduce overuse and over-reliance in urine dips for diagnosis of UTI, reduce unnecessary catheterisation, new onset incontinence can reveal UTI, improving symptoms and quality of life</p>
Polypharmacy	<p>Medicine reconciliation to reduce risk of iatrogenic complications, reduce psychotropic drugs, question risk-benefit balance of treatments. Tools such as STOPP-START (Gallagher et al, 2008) or Polypharmacy smartphone App (NHS Scotland) may be useful.</p>
Skin integrity	Evaluation of skin condition is especially important in patients with limited mobility
Sensory loss	Hearing or visual impairment affects strongly affects communication, activities of daily living and risk of confusion
Pain	Older patients are often undertreated for pain. Withdrawn or confused patients could be in pain

End of life care	Advanced care planning should be considered depending upon prognosis (ascertained using the Clinical Frailty Score)(i.e. resuscitation decisions, ceiling of care, preferred place of death). Patient should be associated with decisions
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Table 1- Medical assessment of frail older people. CAM: confusion assessment method. UTI: urinary tract infection. CAM: confusion assessment method, UTI: urinary tract infection, DNAR: do not attempt resuscitation

Inter-disciplinary coordination

The evidence to support CGA is stronger for trials of wards designated for CGA than for trials evaluating other approaches such as in-reach or liaison services (Ellis et al, 2011).

This implies that inter-disciplinary coordination is key to the success of the process.

Inter-disciplinarity requires team work, and important efforts of communication and coordination, both in and outside hospital. Scheduled MDT meetings between professionals are essential for agreeing on a management plan as well as defining who will deliver the actions, and by when. Communication to the GP and community services as well as follow-up of actions are also essential and should lead to possible adaptations of the management plan, in a dynamic process (Figure 3). Therefore, it is important that the staffing levels in the AMU are built to allow this multi-professional partnership.

Discharge Planning

Guidelines emphasise on the importance of early discharge planning (Banerjee et al, 2012). Older people should only be discharged from hospital with adequate support and with respect for their preferences. However, the estimated date of discharge should be anticipated early, in order to mobilise all professionals on the common objective of a prompt but 'successful' discharge, in which maximum efforts would have been made to avoid re-admission and minimise the risk of poor outcomes (Banerjee et al, 2012). This can include the intensity of package of care needed at home, adaptations to the environment or funding issues. It is also important that the patient and family are associated to all the decisions.

1 Where possible, detailed patient-centred discharge instructions should be presented and
2 explained to the patient.

3 *Figure 3- Who might be involved? Inter-disciplinarity and coordination*

4 5 6 7 8 **CONCLUSION** 9

10 Despite clear evidence that early assertive care can make a difference, there remain gaps
11 across the UK with regards to the acute management of frail older people. Although CGA is
12 often thought to be a complex process, it can be operationalised effectively with standard
13 procedures and multi-professional coordination. In urgent care settings, time pressures make
14 it difficult to embed fully integrated CGA, but the initial assessment process can start, bringing
15 benefits further on in the patient journey (at home or in hospital). Future directions for
16 making the general medical workforce more “frailty-ready” would include embedding frailty
17 teaching from undergraduate through to postgraduate levels, mandatory assessments (e.g.
18 at final and professional exams), and training for established staff such as consultants.

19 20 21 22 **KEY POINTS**

- 23 - More and more older patients with frailty are admitted in urgent care settings
- 24 - Acute Medical Units are a key cross-point of care for older patients with frailty and
25 should be the priority target for improvement
- 26 - Frail older people have complex needs which cannot be met by focussing only on the
27 acute medical problem

- There is clear evidence that a holistic approach in the form of CGA can improve patient outcomes
- This requires multi-domain and inter-disciplinary assessment, coordination, communication and follow-up of actions

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