



Acute care toolkit 3

Acute medical care for frail older people March 2012

All staff working in acute medical units (AMUs) will be familiar with the increasing number of frail older people requiring access to acute care. The AMU provides a key role in identifying the urgent and important issues which, if addressed accurately and comprehensively, will improve patient outcomes. Accordingly, acute medical teams need to possess the knowledge and skills, and demonstrate the appropriate behaviours, for managing frail older people.

One of the challenges is that of non-specific presentations, such as delirium, that can mask serious underlying pathology. Delivering a holistic assessment in the AMU is difficult for acute teams, with large numbers of patients to see quickly. Geriatric liaison teams, which have the skills and time to focus on frail older people, can be helpful. Better integration between primary care, emergency departments, AMUs and geriatric services, all working towards achieving high standards of urgent care,¹ should reduce duplication and improve outcomes.

Background

Older people (aged 65+) comprise a relatively small proportion of all patients attending the emergency department (ED), but form a much higher proportion of patients in the AMU, and a substantial proportion (60–70%) of overall hospital inpatients. Most patients will be admitted through AMUs, making this a key area in which care for older people can be influenced.

The oldest patients attending hospitals are often physically, cognitively or socially frail (ie prone to significant deterioration – decompensation after apparently minor stressors). Frailty* contributes to the oldest patients having the longest lengths of stay, highest readmission rates, and highest rate of use of long-term care after discharge.² Admission to hospital also adds the specific hazards of cross-infection, noise, disorientation etc. Thus, if effective medical treatment and care can be provided at home, these additional burdens may be avoided. For selected patients, hospital at home can be safe and effective,³ and has the potential to avoid functional decompensation, reducing the need for rehabilitation and long-term care. But selecting the correct patients who can be safely treated at home is not easy.

Getting the assessment of older people right in the AMU has the potential to improve outcomes, reduce inappropriate hospitalisation, and potentially reduce the need for long-term care. This article focuses on acute hospital care; broader aspects of urgent care for older people are covered in the *Silver book*, due to be published in early 2012.⁴

Getting the assessment of older people right in the AMU has the potential to improve outcomes, reduce inappropriate hospitalisation, and potentially reduce the need for long-term care...

* From a clinical perspective, frailty may be defined as a person requiring help in activities of daily living. There are many other definitions, discussion of which is beyond the scope of this toolkit.

Challenges

Assessment

The clinical assessment of frail older people is challenging, as they often present non-specifically (for example with falls, immobility or delirium), which can make the immediate diagnosis obscure. History-taking may be challenging because of sensory impairment, dementia or delirium. Often, additional information and collateral history are needed, which may not be readily accessible in the acute setting. Time pressures may prevent staff from focusing on anything other than immediate problem.

Recommendations:

- > Do not delay, defer or delegate the collateral history – a 10-minute conversation with a carer can rapidly reveal the diagnosis and direct ongoing management.
- > Ensure that staff working in the AMU can readily distinguish delirium from dementia, for example through using the delirium toolkit⁵ or RCP guidelines.⁶
- > Ensure that aids to communication are readily available (eg hearing aid batteries, visual aids).
- > Pain can be difficult to assess in older people who have communication barriers – consider using a structured pain scale.⁷

The presence of one or more frailty syndromes (see Box 1) should prompt consideration of the need for a fuller assessment. In addition to the medical assessment, many older people will require assessment and support from professionals within other disciplines (physiotherapy, occupational therapy, nursing, social care and others) in order to deliver a holistic

overview and arrange ongoing treatment, either in hospital or in the community. Delivering such a holistic assessment in a pressured acute environment is not easy; it requires staff, time, coordination and high-quality communication. The conflict between these needs and the pressure of flow is self-evident.

Recommendations:

- > Multidisciplinary assessments will take time, but this is time well spent early on in the admission, for example facilitating early discharge. Clinicians should make provision for multidisciplinary assessments in the AMU so that they are expected, planned and orderly.

While the assessment and initial management may be started in the acute setting, it does not follow that all ongoing management needs to be in hospital. There is a growing array of community services that can provide ongoing care. But navigating these services can be difficult, especially for staff who are rotating through the AMU. Dedicated liaison services or lead nurses for discharge in the AMU can be effective.

Recommendations:

- > Configure services such that they can deliver early comprehensive geriatric assessment (CGA) for frail older people (see Table 1).
- > Consider rotating staff through community services or having 'staff swaps' to promote a better understanding of the role of each sector and its pressures.

The decision to discharge (or indeed admit) is always a balance of risks. Risk assessment is especially complicated in the case

Box 1 Frailty syndromes – a 30-second guide

Falls

Distinguish between syncopal (eg cardiac, polypharmacy), or non-syncopal (strength, balance, vision, proprioception, vestibular and environmental hazards all to be assessed).^{17,18}

Delirium and dementia

These are closely interrelated but each requires clinically distinct management. Collateral history is key to detect a recent change in cognition; it is common for delirium to be superimposed on pre-existing dementia. Delirium can be hyperactive, hypoactive or mixed. Delirium in the AMU is usually caused by sepsis, metabolic disturbance or polypharmacy; by contrast dementia is a long-term condition.^{5,19}

Polypharmacy

Adverse drug events lead to increased hospital stay, morbidity and mortality.²⁰ Consider a medication review focusing on identifying inappropriate prescribing, as well as drug omissions (eg STOPP/START).²¹ Medicines reconciliation should also be considered.²²

Incontinence

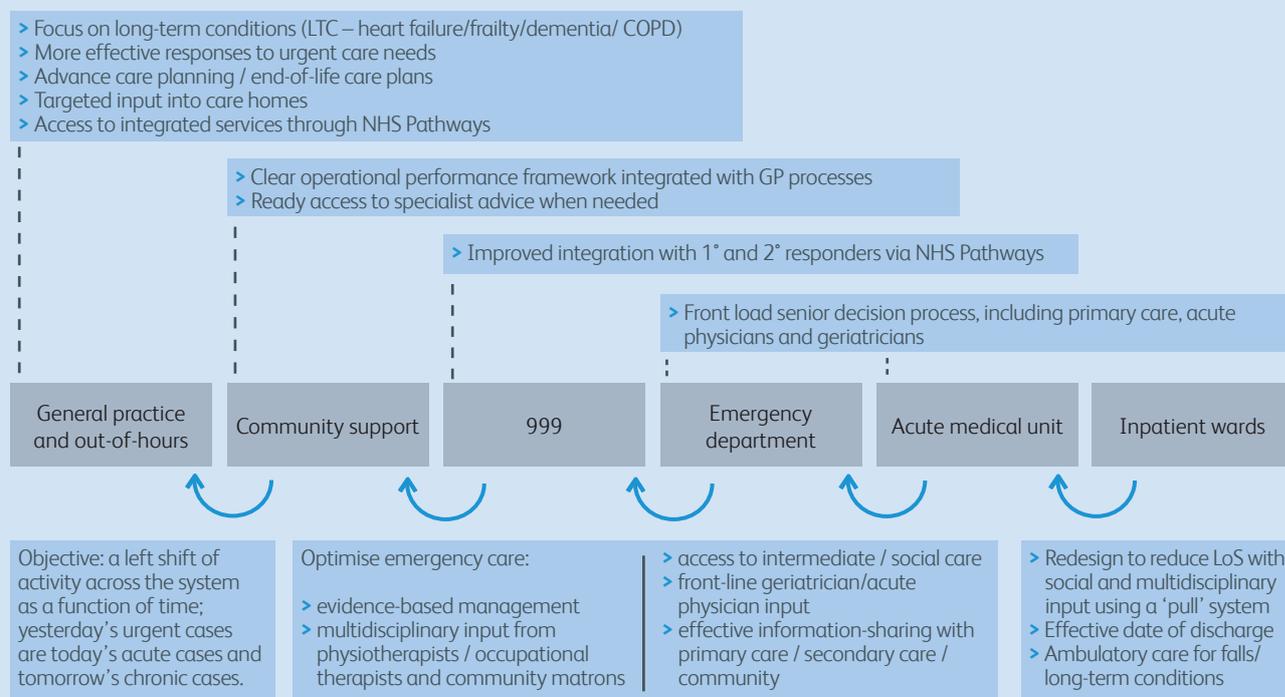
This is an unusual acute presentation, but a marker of frailty and a risk factor for adverse outcomes. More common is the misuse of urine dipstick testing, leading to erroneous diagnosis of infection, inappropriate antibiotics and increased risk of complications such as clostridial diarrhoea. Dipstick tests are frequently positive for leucocytes due to the high prevalence of asymptomatic bacteriuria. A dipstick positive for leucocytes and nitrites has a disappointingly low positive predictive value for infection – only 44% – and should only be considered in a patient with unexplained systemic sepsis.²³

Immobility

'Off legs' can hide many diagnoses ranging from cord compression to end-stage dementia. A comprehensive assessment is needed to focus on the urgent and important issues to be addressed.

End-of-life care

Mortality rates for frail older people in the year following discharge from AMUs are high (26% in one series);²⁴ attendance at the AMU is therefore an ideal opportunity to consider advance care planning.²⁵

Fig 1 Urgent care axis – points for intervention (courtesy of Jay Banerjee, the *Silver book*)⁴

of older people, as there are usually multiple competing priorities. Treatment goals may be different; for some, a more palliative rather than curative approach may be required. For example, patients at high risk of falls are sometimes admitted to hospital as a 'place of safety', although being in hospital actually *increases* the risk of falling (owing to an unfamiliar environment, increased risk of delirium, lines and tubes that get in the way, high beds etc). Care at home is often a safer alternative.

Communication between professionals, and with patients and their carers (either formal or informal) when planning for transfer or discharge is important.

Recommendations:

- > Do not assume that hospitals are safe places for older people.
- > Consider carefully what needs to be done in hospital and what might better be achieved in the community setting.

Whole systems approach

Multidimensional assessment and multiagency management of older people leads to better outcomes.⁸ For such services to be effective, they must be delivered in an integrated manner across primary and secondary care, and health and social care interfaces. Joined-up working between emergency departments, acute medical units and geriatric services can help to facilitate better, less duplicative and more coordinated care for older people in the acute setting (see Fig 1).

The challenge for services is to design a system that facilitates the early identification of those people who can safely be managed outside acute hospitals, but also provide community support to continue ongoing care which reflects the established evidence base for CGA⁹ (see Box 2).

Domains for comprehensive geriatric assessment

Areas of assessment required for CGA are detailed in broad terms in Table 1; the precise nature of the assessment will vary between individuals.

All members of the acute care team will make contributions to CGA; for example, the acute physician will address the acute medical problems, nursing and therapy staff can assess home circumstances and physical abilities. But it requires an individual to bring together the information in an overview and advise on next steps. This will typically be a geriatrician or a nurse specialist in geriatric care.

Recommendations:

- > Engage with GP commissioners about whole systems initiatives to tackle urgent care; for frail older people, social care and community services will be key partners.
- > Align emergency, acute medical and geriatric services to deliver high-quality care for older people at the earliest possible time following contact with the acute sector.

- > Ambulatory emergency pathways with access to multidisciplinary teams should be available, with a response time of less than four hours (14 hours overnight) for older people who do not require admission but need ongoing treatment.

Models of care

There are various models of service provision for older people: needs-related, age-defined and integrated. All these share the same strategic aim, which is to ensure that older people have access to CGA. Thus, an acutely ill older patient has immediate access to investigations and treatment by appropriately trained medical, nursing and allied health professionals.

Age-related models

The Royal College of Physicians does not support age-separated services, which risk discrimination. Instead, integrated units that cater for adults of all ages are the norm. These have the advantage of avoiding systematic ageism, but can create challenges in delivering CGA, the evidence base for which advocates discrete units with a dedicated team catering for older people.¹³

There are examples of successful age-related models that deliver high-quality care for older people, but these require a clear understanding of the purpose of the service, and equitable access to support and investigations.

Recommendations:

- > Older people coming into contact with any healthcare provider or services following a fall – with or without a fragility fracture – should be assessed for immediately reversible causes and subsequently referred for a falls and bone health assessment using locally agreed pathways.
- > An acute crisis in a frail older person should prompt a structured medication review.
- > When suspecting lower urinary tract infections in patients with communication barriers, urine dipstick testing should only be considered in patients with unexplained systemic sepsis (which may manifest as delirium) as it adds little to managing patients with lower urinary tract symptoms, and can be misleading in other patient groups.
- > Older people should not be routinely catheterised unless there is evidence of urinary retention.
- > Acute medical units should have ready access to time-critical medication used commonly by older people, such as L-Dopa.
- > Intra- and inter-hospital transfers of older people at night should be minimised. They can increase the risk of delirium.
- > All older people who self-harm should be offered a psychosocial assessment to determine ongoing risk of self-harm, and to detect and initiate management for any mental health problems.

Table 1 Main domains of comprehensive geriatric assessment¹⁶

Medical	<ul style="list-style-type: none"> > comorbid conditions and disease severity > medication review > nutritional status > problem list
Mental health	<ul style="list-style-type: none"> > cognition > mood and anxiety > fears
Functional capacity	<ul style="list-style-type: none"> > basic activities of daily living > gait and balance > activity/exercise status > instrumental activities of daily living
Social circumstances	<ul style="list-style-type: none"> > informal support available from family or friends > social network such a visitors or daytime activities > eligibility for being offered care resources
Environment	<ul style="list-style-type: none"> > home comfort, facilities and safety > use or potential use of telehealth technology etc > transport facilities > accessibility to local resources

Box 2 Comprehensive geriatric assessment

Evidence: CGA leads to better outcomes, including reduced readmissions, reduced long-term care, greater patient satisfaction and lower costs.^{9–14}

Definition: ‘a multidimensional, interdisciplinary diagnostic process to determine the medical, psychological, and functional capabilities of a frail older person in order to develop a coordinated and integrated plan for treatment and long-term follow-up’.¹⁵

What is different about it? While integrating standard medical diagnostic evaluation, CGA emphasises quality of life and functional status, prognosis, and outcome; team and standardised assessment tools are commonly used.

A typical CGA team comprises geriatrician, nurse specialist, occupational therapist, physiotherapist, pharmacist and others as needed (speech and language therapist, dietitian).

- > Crises beget crises – consider whether advance care planning might be appropriate to prevent future unwanted admissions.

Integrated models

Integrated models are commonplace and have the advantage of equitable access to resources, including therapists. These models need to ensure that patients are assessed by physicians who are trained in management of the specific problems faced by older people. Many existing acute physicians have undergone specialty training in geriatric medicine, and the 2009 training programme for acute internal medicine requires that all trainees undertake a minimum of four months of training in geriatric medicine.

Needs-related models

These models operate similarly to age-related services, by identifying a focused population who may benefit from a separate acute geriatric service. The challenges are the same as for age-related services, with the added complication of trying to identify the right patients for the right service, compounded by high bed occupancy rates.

Geriatric liaison services in the AMU

Most AMUs now operate integrated services; an increasing number are being supported by geriatric liaison services, which can improve patient outcomes and reduce length of stay.²⁶ While this inevitably leads to some duplication, there are synergies. The AMU team provides consistent, non-discriminatory, high-quality acute medical care, and the liaison team provides value-added input, especially in identifying those older people who may safely be managed in the community.

Key to the success of such co-working is a clear understanding of roles, responsibilities and purpose, clear referral pathways (eg use of frailty syndromes to invoke liaison) and a liaison service that can respond rapidly, and has the time and space necessary to undertake the required holistic assessment. Strong connections across the interface between health and social care, and primary and secondary care, are critical components for success.

Recommendations:

- > Establish a model of supportive care for frail older people that can intervene within the first hours of an admission
 - what model, who, where and when will depend on local resources and culture.
- > Agree local criteria for which patients might best benefit from early CGA – examples include:
 - patients with dementia and/or delirium
 - falls and/or immobility
 - patients from care homes or people with fragility fractures

– patients with pressure sores.

- > The presence of one or more frailty syndromes should trigger a more detailed comprehensive geriatric assessment.

Education and training

Much of the training in the AMU is directed towards issues such as patient safety, team working, handover and managing acute medical conditions. These are all important, and have generic relevance. The AMU is also an ideal opportunity to augment training and education in geriatric medicine. Patients with frailty syndromes can be seen all day, every day and provide an opportunity to augment knowledge and skills in assessing frail older people. Perhaps most importantly, clinicians in the AMU can model the behaviours necessary to implement geriatric expertise. For example: not attributing immobility to age alone; not ascribing every confusional state to urosepsis; demonstrating patience and consideration when assessing older people with communication barriers (cognitive or sensory impairment, dysphasia etc); and involving carers in order to understand how recently any changes have occurred, and if they are attributable to a specific incident, rather than 'typical' behaviour. Given the prevalence of frailty issues in the AMU, there is justification for a lead clinician based in the AMU to focus solely on these issues.

Summary

Older people are major users of acute care; the AMU is a key area for initial decision-making, and education and training relevant to older people. Different models will be suited to different hospitals, but all need to be able to initiate CGA within the AMU, and have strong links with community health and social services. Geriatricians supporting the AMU will be able to help to identify older people who may be safely managed in the community, probably improving patient outcomes and reducing hospital bed-days.

References

- 1 Department of Health. 'A&E quality indicators: May 2011'. London: DH, 2011. www.dh.gov.uk/health/2011/10/quality-indicators [Accessed February 2012]
- 2 Sager MA, Franke T, Inouye SK *et al.* Functional outcomes of acute medical illness and hospitalization in older persons. *Arch Intern Med* 1996;156(6):645–52.
- 3 Shepperd S, Doll H, Angus R *et al.* Admission avoidance hospital at home. *Cochrane Database Syst Rev* 2008(4):CD007491.
- 4 University of Leicester. *The silver book*. Leicester, 2012 (in press).

- 5 Dementia Link. *Delirious about dementia: towards better services for patients with cognitive impairment by geriatricians*. Cambridge: Dementia Link Consensus Group, 2005.
- 6 Royal College of Physicians. *The prevention, diagnosis and management of delirium in older people*. London: RCP, 2006.
- 7 Royal College of Physicians. *The assessment of pain in older people*. London: RCP, 2007.
- 8 Beswick AD, Rees K, Dieppe P *et al*. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis. *Lancet* 2008;371(9614):725–35.
- 9 Ellis G, Whitehead M, O'Neill D, Robinson D, Langhorne P. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database Syst Rev* 2011(7):CD006211.
- 10 Ellis G, Whitehead MA, Robinson D, O'Neill D, Langhorne P. Comprehensive geriatric assessment for older adults admitted to hospital: meta-analysis of randomised controlled trials. *Brit Med J* 2011;343:d6553.
- 11 Stuck AE, Iliffe S. Comprehensive geriatric assessment for older adults. *Brit Med J* 2011;343:d6799.
- 12 Beswick AD, Rees K, Dieppe P *et al*. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis.[see comment]. *Lancet* 2008;371(9614):725–35.
- 13 Baztan JJ, Suarez-Garcia FM, Lopez-Arrieta J, Rodriguez-Manas L, Rodriguez-Artalejo F. Effectiveness of acute geriatric units on functional decline, living at home, and case fatality among older patients admitted to hospital for acute medical disorders: meta-analysis. *Brit Med J* 2009;338:b50.
- 14 Ali W, Rasmussen P. *What is the evidence for the effectiveness of managing the hospital / community interface for older people?* Christchurch, NZ: NZHTA, 2004.
- 15 Rubenstein LZ, Stuck AE, Siu AL, Wieland D. Impacts of geriatric evaluation and management programs on defined outcomes: overview of the evidence. *J Am Geriatr Soc* 1991;39(9 Pt 2):85–165; discussion 175–185.
- 16 British Geriatrics Society. *Comprehensive assessment of the frail older patient*. Good practice guide. London: BGS, 2010.
- 17 National Institute for Health and Clinical Excellence. *The assessment and prevention of falls in older people*. Concise Guidance no 21. London: NICE, 2004.
- 18 British Geriatrics Society. *Falls*. Best practice guide 4.5. London: BGS, 2007.
- 19 National Institute for Health and Clinical Excellence. *Dementia: supporting people with dementia and their carers in health and social care*. Concise Guidance 42. London: NICE,
- 20 Mannesse CK, Derckx FH, de Ridder MA, Man in 't Veld AJ, van der Cammen TJ. Contribution of adverse drug reactions to hospital admission of older patients. *Age Ageing* 2000;29(1):35–9.
- 21 Gallagher P, Baeyens J-P, Topinkova E *et al*. Inter-rater reliability of STOPP (Screening Tool of Older Persons' Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment) criteria amongst physicians in six European countries. *Age Ageing* 2009;38(5):603–6.
- 22 NHS National Patient Safety Agency. *Reducing harm from omitted and delayed medicines in hospital*. Rapid response report. London: NHS NPSA, 2010.
- 23 Cornican M, Murphy A, Vellinga A. Interpreting asymptomatic bacteriuria. *Brit Med J* 2011;343:d4780.
- 24 Woodard J, Gladman J, Conroy S. Frail older people at the interface. *Age Ageing* 2010;39(S1):i36.
- 25 Royal College of Physicians. *Advance care planning*. Concise Guidance to Good Practice series, no 12. London: RCP, 2009.
- 26 Harari D, Martin FC, Buttery A, O'Neill S, Hopper A. The older persons' assessment and liaison team 'OPAL': evaluation of comprehensive geriatric assessment in acute medical inpatients. *Age Ageing* 2007(6):670–5.

Royal College of Physicians
11 St Andrews Place
Regent's Park
London NW1 4LE

Tel: +44 (0)20 3075 1649
Fax: +44 (0)20 7487 5218

www.rcplondon.ac.uk



Royal College
of Physicians

© Royal College of Physicians 2012

This is the third in a series of acute care toolkits published by the RCP
> *Acute care toolkit 1: Handover* was published in May 2011.
> *Acute care toolkit 2: High-quality acute care* was published in October 2011.

You may copy or distribute this work, but you must give the author credit, you may not use it for commercial purposes, and you may not alter, transform or build upon this work.