

Canadian Association of Emergency Physicians
Position Statement:

Care of Older People in Canadian Emergency Departments

Authors:

Ellis, Brittany MBChB, MSc^{*}; Brousseau, Audrey-Anne MD, MSc[†]; Eagles, Debra MD, MSc^{‡§};
Sinclair, Douglas MD^{**}; Melady, Don MD, MSc(Ed)^{††}; CAEP Writing Group

^{*} Corresponding author. Department of Emergency Medicine, University of Saskatchewan, SK.
B.Ellis@usask.ca. 103 Hospital Drive, Saskatoon, SK. S7N 0W8

[†] Département de médecine familiale et de médecine d'urgence, Université de Sherbrooke, QC

[‡] Department of Emergency Medicine and School of Epidemiology and Public Health, University of Ottawa, ON

[§] Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario

^{**} Department of Emergency Medicine, Dalhousie University, NS

^{††} Schwartz/Reisman Emergency Medicine Institute, Faculty of Medicine, University of Toronto, ON

RECOMMENDATIONS

1.	Emergency departments have an explicit policy recognizing older people as core users of ED services and stating that excellent care of older patients is a department priority.
2.	Emergency departments establish a locally appropriate process for interdisciplinary assessment of complex older patients, particularly those likely to be discharged.
3.	Emergency departments involve family members and caregivers in the care of older people during their ED stay.
4.	Emergency departments prioritize training and education of ED staff to develop competence in the emergency care of older people.
5.	Emergency departments develop standardized approaches to common geriatric presentations.
6.	Emergency departments have equipment and modify the physical space to support the needs of older people.
7.	Emergency departments ensure high-quality transitions of care.
8.	Emergency departments identify and collect data about key quality indicators about the care of older ED patients.

INTRODUCTION

Canadian Emergency Departments (EDs) welcome more patients over the age of 65 than any other population segment – between 20% and 40% of all visits depending on the location (1). This proportion of ED visits, which is higher than the proportion of this age cohort in the general population, has increased dramatically in the past 15 years and is estimated to continue to grow (2). Yet many ED providers and users would say that departments have been slow to address specific changes that would lead to more efficient department function and better outcomes for this population. This position statement by CAEP aims to provide guidance to EDs interested in making effective changes.

Presentations by older patients are often clinically challenging; with complexity represented by overlapping and atypical symptoms, superimposed on cognitive impairment, polypharmacy, multiple comorbidities, and functional and social impairment(3). These presentations require added vigilance and awareness by ED providers during assessment and treatment, including collateral history and advanced diagnostics; challenging within the structural confines of an overcrowded ED (4). ED visits can be seen as sentinel events, with numerous studies showing functional decline, frequent repeat visits, and increased mortality in the months following discharge from an initial ED visit (5). Despite these realities, little has changed in most EDs regarding the care of older patients over the past three decades. Simply put, Canadian EDs are not designed, nor are staff adequately trained to provide optimal care of older people (6). Various models exist for satisfying these recommendations including the creation of a completely separate section of an ED dedicated to care of only older patients. For most EDs that will not be practical. There is opportunity throughout each step of their ED journey, from triage to disposition, to improve care and ultimately outcomes. CAEP reinforces that the recommendations presented here are suitable for inclusion in most Canadian EDs and will lead to an improvement in quality-of-care and safety, not just for older patients, but for all ED patients.

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

The CAEP Geriatric Emergency Medicine (GEM) Committee developed this position statement underpinned by the core philosophy of geriatric care: a team approach. It is the collaborative product of an expert panel of Canadian specialists in geriatric emergency medicine, user and advocacy groups, stakeholders, and the CAEP GEM Committee members representing rural and urban EDs in all regions of Canada.

This position statement approved by CAEP includes eight recommendations supported by evidence and expert consensus representing good care of older adults in Canadian EDs. It provides examples of possible change. It is not exhaustive as there are also many opportunities for changes to enhance the experience and outcomes of older people and their caregivers in the ED. This position statement must be interpreted with a spirit of creativity and innovation in its application to all EDs, small and large. CAEP supports implementation of all eight recommendations and recognizes that changes will contribute to improved care for older Canadians in EDs.

RECOMMENDATIONS

RECOMMENDATION 1

Emergency Departments have an explicit policy recognizing older people as core users of ED services and stating that excellent care of older people is a departmental priority.

The care of older patients represents a significant portion of Emergency Department (ED) resources. Older people account for a high proportion of ED visits relative to their percentage of the population; and their visits are associated with higher system costs, such as diagnostics and admissions (1). This high-usage population will increase the burden on an already strained system, as the number of people aged 80 and over is predicted to triple between 2015 and 2050 (2). Anticipated cost to the system has made ED usage by older people a focus of research and quality improvement initiatives. However, a pure system-level approach risks shifting the

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

focus away from the practical changes within an ED that impact daily care. EDs must recognise the importance of the older population and identify that this demographic is a core component of their service delivery, and this acknowledgment must be carried from the ED through to hospital level and leadership.

The care that EDs and entire hospitals provide and the outcomes they achieve are strongly influenced by what they say matters to them. In Canadian EDs, older people are a core population and excellent care for them should be a priority for every department. In recognition of this reality, an important and effective intervention for every Canadian ED is to formally declare that the optimal care of older people is an essential part of its mission and values. This first step, at the level of the ED or of the hospital, commits the institution to consider and adopt or adapt some or all of the recommendations that follow. It sets a clear strategic path and can be integrated into a department's five-year strategic plan, demonstrating that excellent care of older people is a priority.

Practical examples of this recommendation:

1. ED groups identify excellent care of older patients as a department priority through a mission statement or departmental strategic plan.
2. ED groups identify two recommendations from this position statement as priority quality improvement projects for implementation over the next two years.
3. ED groups establish a working group of MDs and nurses to identify opportunities for improvement in older person care.
4. ED leadership works with the hospital's executive to ensure that care of older patients is established as a priority.

RECOMMENDATION 2

Emergency departments establish a locally appropriate process for interdisciplinary assessment of complex older patients, particularly those likely to be discharged.

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

ED presentations by older adults are often a complex mix of acute and chronic medical problems; adverse drug events; and issues related to functional, social, and cognitive impairment combined with unmet care needs (7). There is a common dictum in older person care that “geriatrics is a team sport” (8) since management of interrelated problems is too complex for any one clinician. EDs are traditionally organized to focus on rapid assessment and stabilization of single medical problems by any acute care-focused physician. As a consequence, they often fail in the more comprehensive evaluation of acute and chronic problems across multiple domains – including cognition, medication, mobility, functional, and social.

A comprehensive geriatric assessment (CGA), the geriatrician’s tool, operationalizes this multi-domain approach (9,10). A CGA uses a team of clinicians rather than a single physician to address a wide-ranging list of modifiable problems that lead to improved health outcomes. Undeniably, a CGA is not feasible in most Canadian ED settings. However, an ED can develop local resources to reproduce this team-based approach. EDs may implement a focused geriatric assessment by an interdisciplinary team that complements the physician’s medical assessment. Evidence suggests that interdisciplinary care of older patients leads to: reduced ED length of stay, decreased ED revisits, decreased hospital admissions, improved functional outcomes, and increased system-level healthcare cost savings (10,11)

An interdisciplinary approach to care of older patients is possible even in smaller hospitals if there is a willingness to be creative and innovative and to utilize local resources. It requires a commitment to its importance and value. Implementing all the roles described below is not feasible in many settings, yet solutions do exist. For example, an ED could provide specialized geriatric training to a cohort of ED nurses who could function as geriatric resources or practice leaders. Similarly, a social worker already present in the ED could be supported to develop a focused geriatric skill set. Sites without access to in-hospital OT/PT services might establish a pathway for prompt outpatient follow up; or develop a liaison with community-based care

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

services that expedite in-home assessment for patients with recurrent falls or functional decline; or create a database of local community resources and referral forms. An ED might arrange for a specific number of hours of in-hospital pharmacist support to the ED for more complex medication reconciliation and safe prescribing. The activities of the interdisciplinary team may be complementary or interchangeable. As such, the size and composition of the team will be based on local resources, availability, and skill set.

The following describes the various activities that this interdisciplinary team (one or more people) can accomplish.

Care coordination: Obtaining collateral information from multiple sources; expanding the health history; performing extended (functional, cognitive, and social) assessments; coordinating transitions of care and community follow-up including with primary care provider; accessing support networks; assessing for possible elder abuse or neglect; assisting with applications for assisted living, acute rehabilitation, or long-term care (12,13). This activity can be fulfilled by a geriatric nurse or social worker or another trained clinician. The benefits of these activities have been well studied and are associated with a decrease in the rate of admissions from the ED, decrease in ED revisits as well as improving overall cost-effectiveness (14–16). An example is Ontario's nearly 20 years of experience with a network of Geriatric Emergency Management nurses in all larger EDs (17,18).

Mobility assessment: Adequate mobility assessments include evaluating for causes of pain; ability to transfer and need for specific mobility aids; mobility requirements once discharged (19–21). Another activity should be functional assessment: evaluating need for specialized equipment (ground floor commode, bathroom grab bars, transfer pole); recommending home modifications to optimize function and safety; educating the patient and caregivers about alternative methods of performing daily activities (22,23).

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

Physiotherapists and occupational therapists may perform key elements of these activities, often supported by other providers.

Medication review: identifying potentially inappropriate medications that may have contributed to the patient's visit; suggesting alternatives or appropriate deprescribing; reviewing compliance and barriers and solutions (e.g. daily medication dispensers); communicating with other primary and specialist care providers; linking with community pharmacist(s) (24,25). Pharmacists often perform this activity, however other team members (physicians and nurses) can perform them also, using ED-specific tools and scores for identifying high risk or inappropriate medications and deprescribing. Many resources exist within this area, for example through the Canadian Deprescribing Network where users can find deprescribing algorithms, educational videos and patient videos (26).

Consultant services: Access to specialist consultation services is essential for many older patients, for example geriatric medicine, geriatric psychiatry, palliative care, wound care, or addictions medicine (27). This access may be through in-department consultation or community-based follow-up depending on patient need and local resources.

Each member of the team brings unique but often overlapping or complementary areas of expertise that optimize the success of the ED visit and reduce further morbidity for the patient. If well resourced, an ED may implement this entire team and develop a workflow that integrates it into the ED. In smaller EDs significant value can come from targeted implementation of these roles. While direct, in-person assessment is preferred due to the nature of information gathering in older patients, advances in telemedicine may afford opportunities for remote assessments.

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

Individual EDs will address the goal of interdisciplinary assessment in different ways. The reality remains that adequate assessment and care of complex frail older ED patients is beyond the skillset of any single clinician. Assessment by two or more members of an interdisciplinary team will improve patient experience, enhance staff satisfaction, and reduce overall health system costs (28).

Practical examples of this recommendation:

1. EDs implement a full-time nurse-led role to focus on assessment and care coordination of older patients.
2. ED providers work with their inpatient rehab service to ensure same-day consultation by a PT and/or OT in the ED.
3. EDs collaborate with its local palliative care providers to facilitate ED consultation for patients with palliative care needs.
4. EDs develop a process to hold certain patients, even over-night, for extended assessment by an interdisciplinary team to avoid unnecessary admissions, thus adding value to both the hospital and the patient.

RECOMMENDATION 3

Emergency departments involve family members and caregivers in the care of older people during their ED stay.

Language can be complex in this area with people strongly attached to particular designations. Whatever we choose to call them – caregivers, care providers, carers, family members, “chosen family,” loved ones, neighbours, informal caregivers, paid help, neighbours, housing staff or other – care is provided to older people by many different people. For simplicity and with no intent to exclude anyone, we have chosen to use the term “caregivers.” They are an essential part of the older patient’s ED experience and the ED’s ability to provide optimal care. They

should be welcomed and included throughout the ED care episode. Their presence adds value in many ways:

Source of clinical information: Caregivers provide the ED team with essential clinical information that may not be available from any other source. For example, delirium screening; distinguishing delirium from dementia; differentiating between acute and chronic functional decline; and identifying frailty all requires knowledge of a patient's baseline. Caregivers are the only source of this and other key information. The essential collateral information supplements history taking from patients, around medication changes, functional and cognitive status (29). Finally, identifying caregiver stress, burnout, unmet needs, and potential older person abuse and neglect all rely on the clinical team's ability to observe the interaction between the patient and their caregivers (30).

Help with care: Caregivers in the ED should be invited to participate in patient care, while also respecting their individual needs as well. Caregivers can help the clinical staff to provide important bedside care. They can mobilize, feed, toilet, clean the patient, and even perform advanced tasks like insulin titration, peritoneal dialysis, wound care and dressings (which they routinely provide at home). Further, the presence of caregivers can help with orientation and stimulation, thus preventing incident delirium; and help reduce the severity of behavioural and psychological symptoms of dementia (BPSD) and the need for chemical and physical restraint (31).

Communication and advocacy: Caregivers are important advocates. They usually want to be more involved in communication during and after a hospital visit, as they often are caring for the patient when they are discharged (32). EDs can enhance that role by providing notebooks to patients and caregivers to document conversations and questions in real-time, particularly at the time of discharge to enhance understanding of diagnoses, management plans, follow-up and transitions of care (29,33).

EDs should adopt a policy about the presence of caregivers for older patients in the ED that is unique from the standard visitor policy. Even during periods of visitor restrictions accommodations must be made to allow for their presence. ED clinicians should be trained and encouraged to promote and facilitate the presence of caregivers in recognition of their essential role. Printed Information – for example, a caregivers’ charter of rights -- can be provided early in the ED visit to welcome them, as well as to facilitate their involvement. This process of welcoming them will include ensuring there is adequate space and seating for them and access to food during ED stays.

Role for volunteers: It is frequently the case that older patients do not have caregivers in the ED or in their lives. In that case volunteers can serve an important role. Extensive work has been done demonstrating the impact on clinical outcomes of trained volunteers as adjuncts to care of admitted older patients (improved functional recovery, decreased incidence and severity of delirium, decreased length of stay) (34). Volunteers can also benefit older patients in the ED, supporting the clinical team to provide care and improving the experience of the older patient during a long ED stay (35). When in place, volunteers can function as essential ED team members, and should be recognised as such through their training and development, including during times of increased departmental constraints such as infectious disease outbreaks. Roles may include social stimulation and engagement, orientation activities, supporting nutrition and hydration and comfort. Ellis et al. have described the development of a Canadian volunteer programme to engage with older adult patients in the ED (36).

Practical examples of this recommendation:

1. EDs establish a policy that caregivers of older patients are welcome in the ED at all times and ensure their comfort.
2. EDs ensure caregivers contact information is accurate and up-to-date at each clinical encounter.
3. EDs implement an initiative to use specially trained volunteers to support older ED patients.

RECOMMENDATION 4

Emergency departments prioritize training and education of ED staff to develop competence in the emergency care of older people.

It is a truism that clinicians working in EDs have generally received limited focused geriatric education during their professional training; and yet education for ED clinicians is essential to ensure quality emergency care of older patients (37,38). Educational programmes for ED clinicians have been shown to positively impact knowledge and clinical practice regarding care of older adults (39). EDs committed to improving care of older people should provide their clinicians with in-house educational opportunities. Lastly, there are longstanding concerns that geriatrics exposure and training in undergraduate and postgraduate medical education is lacking, with just 34% of Canadian emergency medicine residents in their final year of training expressing comfort with all key domains of geriatric emergency medicine (40). While the focus of this statement is on the ED itself, medical and interprofessional learners form a key part of many ED teams, and their geriatrics-focused educational needs should be addressed (41).

As highlighted in recommendation two, interdisciplinary teams are considered to be a superior model for delivering high-quality health care to older adults in a range of settings. As such, interprofessional education (IPE) is the standard in the field of geriatrics (38). ED-based interventions with demonstrated benefit involve team-based IPE, and include emergency physicians, medical trainees, nurses, physical and occupational therapists, geriatricians, social workers, prehospital providers and pharmacists (42). IPE should be the norm in ED-based geriatrics education.

Educational interventions should be preceded by a needs assessment (42,43). Each ED has unique educational barriers, which may include competing educational demands, level of enthusiasm, geographical constraints, and scheduling challenges. Successful strategies for

surmounting these challenges include matching the needs of learners (both trainees and practicing providers) to the teaching method employed, and consideration of how such interventions will be incorporated into existing ED care.(39,44)

Educational interventions should focus on the areas in which learners express or demonstrate the least confidence.(43) These often include common geriatric syndromes such as falls, delirium, dementia, as well as geriatric trauma, medications, atypical presentations, end-of-life care, and transitions of care (39). Members of the care team, including allied health professionals and nurses, often have a strong understanding of the challenges of caring for older patients in general and in their own ED. Their input on priority topics should be actively sought (45).

Effective educational modalities have included didactic presentations; online learning modules such as Geri-EM.com^{vii} and CAEP GeriEM CPD Course^{viii}; and interactive case based sessions (39,43,46). Interprofessional “bootcamps” (intensive workshops) are the best studied model of geriatric IPE generally. Cardinal features of these workshops include active learner participation, exchange between learners from different professions, providing opportunities for self-reflection, open discussion of myths and misconceptions about individual professions, and the use of clinical case studies (47,48).

Practical examples of this recommendation:

1. EDs encourage completion by MDs and RNs of recognized education about ED care of older patients. Examples of online resources: www.geri-EM.com for physicians; Geriatric Emergency Nursing Education^{ix} course for nurses.

^{vii} <https://geri-em.com>

^{viii} https://caep.ca/cpd-courses/geri_em/

^{ix} The Geriatric Emergency Nurse Education course by the American Emergency Nurses Association. For more information see: [https://www.ena.org/shop/catalog/education/online-learning/the-geriatric-emergency-nursing-education-\(gene\)-niche/c-23/c-100/p-251](https://www.ena.org/shop/catalog/education/online-learning/the-geriatric-emergency-nursing-education-(gene)-niche/c-23/c-100/p-251)

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

2. EDs include at least one geriatric-specific topic in yearly educational activities such as geriatric trauma, common medication problems, geriatric Morbidity and Mortality rounds, atypical presentations, palliative care skills, etc.
3. EDs support participation in a geriatric-focussed course or conference. Information on these can be found on <https://caep.ca/em-community/get-involved/geriatric-emergency-medicine-committee/> under Resources or Upcoming Events. Examples include the Sherbrooke Geriatric EM conference^x, the CAEP GeriEM courseⁱⁱ, or a Senior-friendly ED Course.

RECOMMENDATION 5

Emergency departments develop standardized approaches to common geriatric presentations.

While every patient in every ED is unique, it is also true that older patients commonly come to EDs with presentations that are nearly unique to this age group (49). These presentations include the common geriatric syndromes: falls, weakness, acute functional decline, frailty, and delirium. Other common presentations involve trauma and polytrauma from ground-level falls, polypharmacy, end-of-life care, atypical presentations of disease, and dementia. We recommend that individual EDs implement a standard approach to all of these presentations.

Each institution should develop its own approach based on local resources and needs; but some examples of high-yield areas for standardisation of approach could include:

- Implementing standard practices for ALL older ED patients that would ensure basic care needs are met, with a focus on mobility, hydration/nutrition, sensory optimisation, orientation, and symptom management.

^x <https://www.usherbrooke.ca/cfc/formations/offre/offre-detail/colloque-en-medecine-durgence-et-urgence-geriatrique/4255/>

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

- Developing a structured approach, using an institutionally developed order set or pathway, for older patients who have fallen. This should address identify potential causes of falls (identified by history, screen for abuse, physical examination and functional assessment), to manage the related injuries, to plan the discharge, and to prevent future falls or injury, ideally including an in-ED assessment by physiotherapy (21).
- Adding one or more standardized ED-validated screening tools to the primary assessment of all older patients such as a screen for delirium (e.g., the Delirium Triage Screen plus the b-CAM (50) or the Ottawa 3DY (51)); a screen for cognitive impairment (e.g., the Mini Cog (52) or the care provider-completed AD8 (53) or the 4AT (54), an assessment of frailty and functional status (e.g., the Clinical Frailty Scale (55) or the Identifying Seniors at Risk screen (56) or the interRAI ED Screener (57) or the PRISMA -7 (58), many of which are Canadian tools.) Using one or more of these tools will allow for standardised care and improve the detection of the geriatric syndrome in question when compared to usual practice.
- Establishing trauma protocols (59) to include geriatric issues such as expanding the criteria that trigger a trauma code (60) and including a geriatric trauma consultation service (61) changes to triage criteria to recognize the impact of normal changes of aging physiology and medication effects on vital signs and pain response; changes to medication doses; addition of goals of care discussion early in the trauma process (62).
- Developing order sets to guide standardized approaches to common conditions. These could include an approach to the investigation of causes of delirium including guidance for the physician about appropriate non-pharmacologic and pharmacologic management of the symptoms of delirium (hypoactive and hyperactive); an approach to the management of the imminently dying patient with guidance about advanced palliative-care symptom control; an approach to managing acute pain in older adults; or a protocol to guide assessment by the interdisciplinary team where available.

Practical examples of this recommendation:

1. EDs ensure basic needs of older people are provided through standardised care practices. Minimum requirements include regular mobilisation and practices to reduce pressure injuries; appropriate hydration and nutrition; removing unnecessary monitors and lines; and supporting access to functioning sensory and mobility aids.
2. EDs implement a specific pathway utilising evidence-based screening tools for the prevention, detection, investigation and management of delirium.
3. EDs implement a falls pathway which encompasses assessment, investigation and management, as well as addresses primary and secondary prevention.

RECOMMENDATION 6

Emergency departments have equipment and modify the physical space to support the needs of older people.

As a minimum standard, EDs should be safe and responsive to the needs of older patients, particularly those with cognitive and mobility impairments. Making efforts to accommodate the basic needs of older people and their caregivers through simple enhancements of the physical environment and equipment can improve the quality of care, as well as the experience of patients, caregivers, and providers.

If a department is planning a major re-design or new build, inclusion of age-friendly design elements should be a stated requirement of the architectural design (63). Simple and effective changes may include the choice of paint finishes, door handles, lighting, windows, walls and flooring (64).

However, there are also some basic low-cost modifications and equipment additions that are possible in existing EDs. Every ED should have easy access to gait aids such as walkers for patients to utilise while present in the ED and upon discharge. This permits mobility among

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

regular users of such devices (which may have been left at home during a trip to the ED). It also allows for an adequate assessment of mobility and function for people with new injuries or functional decline; may help make decisions about disposition; ensure timely discharge decision-making is possible; and may be part of a safe transition back to the community. Other simple additions to the ED's supplies include: non-slip socks (permitting mobility and decreasing in-ED falls); bedside commodes and raised toilet seats (for safe use and independence, but also to allow assessment of ability to complete activities of daily living); a large-face clock and orientation board for the date in each room; access to warm blankets and palatable food and drink (during a long period of ED investigation); and sensory aids like reading glasses, over-the-ear hearing amplifiers, earplugs and eye shields (for those held-overnight patients facing a sleepless night). Aside from being necessary improvements in comfort, each of these also decreases incident delirium. An ED can bring many of these improvements together in a mobile geriatric cart (65) with an impact on patient well-being and experience. These carts may contain items listed above, including sensory aids, personal care equipment, information and resources for patients/carers, nutritional supplements and items to assist in orientation and mental stimulation.

Additional consideration should be given to equipment that is important to older patients' assessment and stay in the ED. For example, ensuring an adequate number of appropriately sized blood pressure cuffs as well as condom catheters are available, and supporting those at high risk of pressure injuries with pressure relieving mattresses.

It is worth stating that many of these simple, low-cost additions would benefit all ED patients, regardless of age, and improve general patient experience.

- EDs provide access to gait aids such as walkers for patients to utilise while present in the ED and for use in their home upon discharge.
- EDs ensures older people have a process in place to ensure older peoples nutritional needs are met. This should include access to appropriate nutrition, including high-calorie options, texture appropriate options such as thickened fluids and pureed foods,

and regular reassessment of diet restrictions (for example, NPO orders are reviewed every 4 hours by the ED provider).

- EDs utilize basic delirium prevention techniques including verbal re-orientation, visible clocks with dates in every room, and maintenance of day-night lighting and sound restrictions where possible. These could be included a part of a delirium pathway (see Recommendation 5).

RECOMMENDATION 7

Emergency departments ensure high-quality transitions of care.

It is not adequate to merely provide high-quality care in the ED. EDs must also play a role in successful transitions of care for older patients moving into and out of the department. EDs receive older patients from many different sources and discharge to many different destinations – independent living, retirement homes, long-term care, community-based care, palliative care, rehabilitative care, and institutions such as hospices, jails, shelters, and psychiatric hospitals. Similarly, many different people are involved in even one individual older patient’s care – pre-hospital providers such as paramedics and family physicians; consultant physicians, surgeons, and psychiatrists; community-based nurses and allied health professionals; personal support workers; and the care providers highlighted in recommendation three. The ED is an important interface between all these sites and people. The ED needs to ensure that there is an excellent transition of care between it and all of them to promote safety, continuity and coherence of care (66). Any of these changes is valuable. Based on the local needs, they should be developed to facilitate and improve transitions.

Various communication tools, and strategies can be implemented in the ED to improve the continuum of care, patient safety and satisfaction (5,67–71):

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

Before the ED visit:

- EDs should have a process to allow direct contact between a referring clinician (family physician, consultant, and especially long-term care staff whether physician or nurse) and a responsible clinician in the ED, ideally the physician. This may be by direct phone conversation, telemedicine options, or electronic communication including automatic prompts or information transfer.
- EDs should work with their local care homes to develop a process to ensure complete records are sent with patients including specific concerns, complete current medication list, goals of care or personal directives, and description of baseline cognitive and functional status.

In the ED:

- Prehospital providers can provide valuable insight into the patient and their home environment. Information should be solicited and incorporated in the patient's medical record.
- Every effort should be made during the ED assessment to contact relevant other clinicians involved in the older patient's care. Each of them has an important perspective on the complex care of this person and may be involved in the follow-up plan. This is particularly important when the patient is coming from an institutional setting. This reinforces the importance of having a team or at least one other clinician available to share this essential work.

At the point of discharge:

- Simply worded, legible, and preferably typed discharge instructions should be given and explained to all patients and carers to ensure understanding of investigations completed, diagnosis, treatment plan and return to care/follow-up instructions. They should be adapted to meet the patient's and caregiver's reading and health literacy level, language,

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

and culture. Discharge templates can be adapted for ambulatory, community-dwelling patients, or care home^{xi} residents.

- A discharge summary which includes diagnosis, care needed, follow-up appointments, medication and functional status changes should be sent to the care home, the family physician, and all clinicians involved with the patient's care. If follow up is necessary, direct communication should be made - phone call, voice message, fax, email, electronic medical record.
- Information should be sent to the patient's community pharmacy to underline any changes in medication.
- Where possible, a care coordinator (for example an ED geriatric nurse coordinator or discharge coordinator) should be involved in discharge of patients. This may involve coordinating home-based care planning, referrals such as falls prevention or memory support programmes, meals-on-wheels, friendly visitor programmes, access to an intensive home care team, substance use support, and addressing social needs.
- All ED staff should have basic knowledge about resources in the community; and the role of primary care physicians and community health and social care services in follow up care. Having up to date directories is one way to aid providers regarding such evolving resources.

After the ED visit:

- EDs should develop a programme of phone follow-up to high risk or complex older patients to ensure the success of the discharge plan and to prevent early ED return visits.
- EDs should develop linkages to community-based services, such as community paramedicine, home-based primary care, or remote monitoring services (e.g. falls monitors, emergency alert buttons).

^{xi} The term 'care home' refers to the variety of congregate care facilities where older people are cared for. This includes long-term care homes, nursing homes, personal or private care homes, group homes.

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

We acknowledge these transition of care activities may seem onerous and time-consuming. Nonetheless, they are a good investment of time: an effectively planned and executed transition of care avoids ED revisits and re-hospitalisations; reduces overall ED length of stay (considering all the avoided visits); and enhances outcomes and improves patient experience for older patients (66).

RECOMMENDATION 8

Emergency departments identify and collect data about key quality indicators about the care of older ED patients.

It is essential to identify quality indicators specific to the care of older ED patients to ensure delivery of up-to-date and evidence-informed care. Quality indicators provide objective measures to help define minimum standards of care and serve as the foundation for ongoing improvement. Quality indicators allow EDs to identify areas of success and areas for improvement, to communicate needs and accomplishments to hospital administrators, and to guide future initiatives (72,73).

Health systems data, which often includes aggregate level data to describe utilisation, differs from quality indicators. However, health system data is important to understanding some basic service demands (for example ED peak presentation times). EDs should gather data specific to their older population which can be broken down by age groups (for example 65-74 years; 75-84 years; 85+ years) as there can be significant variation across age cohorts. These data can include: percentage of the entire ED census; gross number; time of day of registration; number from long-term care or other residential care settings; ED length of stay; percentage of hospital admissions; number of diagnostic imaging interventions; number of referrals; rate of return to ED at 3- and 7- and 30-day periods.

Specific quality indicators in any location will differ based on local needs and resources. However, when selecting them, a combination of structure, process and outcome measures

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

should be used. “Structure” refers to the context within which care takes place -- a department’s or a hospital’s capacity at a systems level. Examples would be the proportion of emergency physicians with geriatric-specific training, or the number of rooms appropriately equipped for older adults. “Process” refers to the interactions and activities of care -- the adherence of the workflow to evidence-based practices. Examples would be the proportion of older adults who receive medication reconciliations or delirium screening or have discharge instructions printed. “Outcome” refers to the impact of interventions on at the level of the individual patient or the health system. These outcomes should be linked to process measures earlier in the emergency management pathway^{xii}. Examples would be that appropriate screening of frailty in the ED (a process measure) leads to increased referrals to geriatric services from the ED; or assessment by a pharmacist (a process measure) leads to decrease in the number of medications for a patient; or assessment by a geriatric nurse care coordinator leads to a decrease in ED length of stay or rate of hospital admission.

Several studies have outlined quality indicators relevant to older adults in the ED (37,38,72,74). Schuster et al. identified five priority areas: screening for delirium, medication review, geriatric specific training for emergency staff, screening for patients with geriatric needs, and identification of patients with risk of falls or recurrent falls (36). Such indicators should act as a starting point for EDs as they evolve their own specific ones, matching their changing care and needs, as well as those of older adult patients. As EDs learn about the needs of older patients, how they are meeting them, and opportunities for further improvement, they should develop new and more relevant indicators.

More sophisticated quality indicators should be specific and sensitive to the care of older patients. It is important to include metrics relevant to the institution, for example, ED length of stay, rate of hospital admission from ED, rate of ED return visit. However, these metrics are not sensitive to geriatric patient needs, complexity or preferences, and may reflect health system

^{xii} Further information on this topic is available from the Institute for Healthcare Improvement: <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementEstablishingMeasures.aspx>

barriers rather than the quality of ED care. It is equally important to include some metrics that are patient-centred and consider patient preferences and priorities (for example, patient reported experience or outcome measures (PREM/PROM)). Examples might include receipt of clear discharge instructions, or a marker of patient satisfaction, percentage screened for elder abuse, or impression of quality care (75,76). Inclusion of patients in data collection through patient-reported outcome measures or experiences (76) facilitates shared-decision making and may add context when making efforts to improve patient care and satisfaction.

When selecting quality indicators, one must account for the data elements required for each indicator. To ensure consistent and reliable data, outcomes should be based on data routinely collected in the ED, or available to ED clinicians during usual care. If they require data collection outside routine processes, this should prompt a re-evaluation of collection methods to include the required data.

CONCLUSION

Through eight recommendations that utilise up-to-date evidence and expert consensus, this position statement can be used by providers and ED leaders to elevate the care of older people in EDs across Canada. Making the care of older people an ED priority acknowledges their importance and these recommendations and examples, while not exhaustive, should be used as a starting point for change. By ensuring locally appropriate processes are created to facilitate interdisciplinary care, that family members and care providers are acknowledged as core parts of the care team, and by prioritizing geriatric focused training and education, EDs can transform the care and ED experience of older people. Standardised approaches to common geriatric presentations and ensuring appropriate equipment and space in the ED exist will enable providers to meet the needs of older ED users more effectively and efficiently. Developing clear communication strategies and care coordination will enhance transitions of care. Utilising quality metrics will allow for evaluation and to promote further improvement. Improvements will not come without investment in time, personnel and financial costs. Emerging evidence

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

suggest that aside from improving the quality of care and the older person's experience in the ED, these recommendations can also lead to important cost-savings both for the ED and the health system (11).

Older people are core ED users, whose presentations are often clinically complex, and who experience unique challenges in the ED. Nearly every ED struggles to provide quality care to its older patients; but with the spirit of innovation, creativity and positive change, an ED can improve their experience of care. As highlighted through these recommendations and examples, no ED is too big or small to improve care of older people. The Canadian Association of Emergency Physicians recognises the need for change; and the opportunities that exist; and supports the implementation of all eight recommendations.

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Chabot, Julia – Division of Geriatric Medicine, McGill University, QC.

Chochinov, Aleks – Department of Emergency Medicine, University of Manitoba, MB.

Davis, Philip – Department of Emergency Medicine, University of Saskatchewan, SK.

Harris, Brian – Saskatchewan Seniors Mechanism, SK.

Landry, Shan – Saskatchewan Seniors Mechanism, SK.

Lang, Eddy – Department of Emergency Medicine, University of Calgary, AB.

Lanoue, Marie-Pier – Division of Emergency Medicine, University of Toronto, ON.

Lee, Jacques – Division of Emergency Medicine, University of Toronto, ON.

Mackenzie, Isobel – Office of Seniors Advocacy, BC.

McCusker, Jane – Division of Geriatric Medicine, McGill University, QC.

Ovens, Howard - Division of Emergency Medicine, University of Toronto, ON.

Morch, Kristen – Department of Emergency Medicine, University of British Columbia, BC.

Rourke, Josee - Patient/Family Advocate, QC.

REFERENCES

1. Latham LP, Ackroyd-Stolarz S. Emergency department utilization by older adults: a descriptive study. *Can Geriatr J.* 2014;17(4):118–25. <https://doi.org/10.5770/cgj.17.108>
2. United Nations, Department of Economic and Social Affairs, Population Division. *World Population Ageing - 2015.* 2015. https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf. Accessed 31 Mar 2021
3. Aminzadeh F, Dalziel WB. Older adults in the emergency department: a systematic review of patterns of use, adverse outcomes, and effectiveness of interventions. *Ann Emerg Med.* 2002;39(3):238–47. <https://doi.org/10.1067/mem.2002.121523>
4. Hwang U, Morrison RS. The geriatric emergency department. *J Am Geriatr Soc.* 2007 Nov;55(11):1873–6. <https://doi.org/10.1111/j.1532-5415.2007.01400.x>
5. Lowthian JA, McGinnes RA, Brand CA, Barker AL, Cameron PA. Discharging older patients from the emergency department effectively: a systematic review and meta-analysis. *Age Ageing.* 2015;44(5):761–70. <https://doi.org/10.1093/ageing/afv102>
6. Schumacher J, Melady D. *Creating a Geriatric Emergency Department.* Cambridge University Press; 2022. 153 p.
7. Schumacher JG, Hirshon JM, Magidson P, Chrisman M, Hogan T. Tracking the rise of geriatric emergency departments in the united states. *J Appl Gerontol.* 2020;39(8):871–9. <https://doi.org/10.1177/0733464818813030>
8. Flaherty E, Hyer K, and Fulmer T. Chapter 26. Team Care. In: Halter JB, Ouslander JG, Tinetti ME, Studenski S, High KP, Asthana S. eds. *Hazzard's Geriatric Medicine and Gerontology, 6e.* McGraw-Hill.
9. Ellis G, Gardner M, Tsiachristas A, Langhorne P, Burke O, Harwood RH, et al. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database Syst Rev.* 2017;12:9:CD006211. <https://doi.org/10.1002/14651858.CD006211.pub3>.
10. Hickman LD, Phillips JL, Newton PJ, Halcomb EJ, Al Abed N, Davidson PM. Multidisciplinary team interventions to optimise health outcomes for older people in acute care settings: a systematic review. *Arch Gerontol Geriatr.* 2015;61(3):322–9. <https://doi.org/10.1016/j.archger.2015.06.021>.
11. Hwang U, Dresden SM, Vargas-Torres C, Kang R, Garrido MM, Loo G, et al. Association of a geriatric emergency department innovation program with cost outcomes among Medicare beneficiaries. *JAMA Netw Open.* 2021;1;4(3):e2037334. <https://doi.org/10.1001/jamanetworkopen.2020.37334>.

12. Leah V, Adams J. Assessment of older adults in the emergency department. *Nurs Stand*. 2010;21;24(46):42–5. <https://doi.org/10.7748/ns2010.07.24.46.42.c7911>
13. Selby S, Wang D, Murray E, Lang E. Emergency departments as the health safety nets of society: a descriptive and multicenter analysis of social worker support in the emergency room. *Cureus*. 2018;10(9):e3247. <https://doi.org/10.7759/cureus.3247>.
14. Sinha SK, Bessman ES, Flomenbaum N, Leff B. A systematic review and qualitative analysis to inform the development of a new emergency department-based geriatric case management model. *Ann Emerg Med*. 2011;57(6):672–82. <https://doi.org/10.1016/j.annemergmed.2011.01.021>.
15. Aldeen AZ, Courtney DM, Lindquist LA, Dresden SM, Gravenor SJ. Geriatric emergency department innovations: preliminary data for the geriatric nurse liaison model. *J Am Geriatr Soc*. 2014;62(9):1781–5. <https://doi.org/10.1111/jgs.12979>.
16. Hwang U, Dresden SM, Rosenberg MS, Garrido MM, Loo G, Sze J, et al. Geriatric emergency department innovations: transitional care nurses and hospital use. *J Am Geriatr Soc*. 2018;66(3):459–66. <https://doi.org/10.1111/jgs.15235>.
17. Leaker H, Fox L, Holroyd-Leduc J. The impact of geriatric emergency management nurses on the care of frail older patients in the emergency Department: a Systematic Review. *Can Geriatr J*. 2020 Sep 1;23(3):250–6.
18. RGPO. Geriatric Emergency Management (GEM) Regional Geriatric Program of Eastern Ontario 2013. [Available from: <http://www.rgpeo.com/en/health-care-practitioners/rgpeo-specialized-geriatric-services/geriatric-emergency-management.aspx>.
19. Kim HS, Strickland KJ, Mullen KA, Lebec MT. Physical therapy in the emergency department: A new opportunity for collaborative care. *Am J Emerg Med*. 2018 Aug;36(8):1492–6.
20. Lesser A, Israni J, Kent T, Ko KJ. Association between physical therapy in the emergency department and emergency department revisits for older adult fallers: a nationally representative analysis. *J Am Geriatr Soc*. 2018;66(11):2205–12. <https://doi.org/10.1111/jgs.15469>.
21. Goldberg EM, Marks SJ, Ilegbusi A, Resnik L, Strauss DH, Merchant RC. GAPcare: The Geriatric Acute and Post-Acute fall prevention intervention in the emergency department: preliminary data. *J Am Geriatr Soc*. 2020;68(1):198–206. <https://doi.org/10.1111/jgs.16210>.
22. Hendriksen H, Harrison RA. Occupational therapy in accident and emergency departments: a randomized controlled trial. *J Adv Nurs*. 2001;36(6):727–32. <https://doi.org/10.1046/j.1365-2648.2001.02038.x>.

CAEP Position Statement: Care of Older People in Canadian Emergency Departments

23. Lee V, Ross B, Tracy B. Functional assessment of older adults in an emergency department. *Can J Occup Ther.* 2001;68(2):121–9. <https://doi.org/10.1177/000841740106800208>.
24. Lee JK, Slack MK, Martin J, Ehrman C, Chisholm-Burns M. Geriatric patient care by U.S. pharmacists in healthcare teams: systematic review and meta-analyses. *J Am Geriatr Soc.* 2013;61(7):1119–27. <https://doi.org/10.1111/jgs.12323>.
25. Blanda MP. Pharmacologic issues in geriatric emergency medicine. *Emerg Med Clin North Am.* 2006 May;24(2):449–65, viii. <https://doi.org/10.1016/j.emc.2006.01.007>.
26. Canadian Deprescribing Network. Do I still need this medication? Is deprescribing for you? [accessed 2021 Jul 13]. Available from: <https://www.deprescribingnetwork.ca/professionals>
27. Liberman T, Roofeh R, Sohn N, Brave M, Smith A, Willis H, et al. The GAP-ED project: improving care for elderly patients presenting to the emergency department. *J Emerg Med.* 2020;58(2):191–7. <https://doi.org/10.1016/j.jemermed.2019.10.006>.
28. Kennedy M, Ouchi K, Biese K. Geriatric emergency care reduces health care costs - what are the next steps? *JAMA Netw Open.* 2021;4(3):e210147. <https://doi.org/10.1001/jamanetworkopen.2021.0147>.
29. Goodridge D, Martyniuk S, Stempien J. At risk for emotional harm in the emergency department: older adult patients' and caregivers' experiences, strategies, and recommendations. *Gerontol Geriatr Med.* 2018;4:2333721418801373. <https://doi.org/10.1177/2333721418801373>.
30. Rosen T, Stern ME, Elman A, Mulcare MR. Identifying and initiating intervention for elder abuse and neglect in the emergency department. *Clin Geriatr Med.* 2018;34(3):435–51. <https://doi.org/10.1016/j.cger.2018.04.007>
31. Shrestha P, Fick DM. Family caregiver's experience of caring for an older adult with delirium: a systematic review. *Int J Older People Nurs.* 2020;15(4):e12321. <https://doi.org/10.1111/opn.12321>.
32. Grimmer K, Moss J. The development, validity and application of a new instrument to assess the quality of discharge planning activities from the community perspective. *Int J Qual Health Care.* 2001;13(2):109–16. <https://doi.org/10.1093/intqhc/13.2.109>
33. McCusker J, Cetin-Sahin D, Cossette S, Ducharme F, Vadeboncoeur A, Vu TTM, et al. How older adults experience an emergency department visit: development and validation of measures. *Ann Emerg Med.* 2018;71(6):755–766.e4. <https://doi.org/10.1016/j.annemergmed.2018.01.009>.
34. Inouye SK, Bogardus ST, Baker DI, Leo-Summers L, Cooney LM. The Hospital Elder Life Program: a model of care to prevent cognitive and functional decline in older hospitalized

patients. Hospital Elder Life Program. *J Am Geriatr Soc.* 2000;48(12):1697–706.
<https://doi.org/10.1111/j.1532-5415.2000.tb03885.x>

35. Sanon M, Baumlin KM, Kaplan SS, Grudzen CR. Care and respect for elders in emergencies program: a preliminary report of a volunteer approach to enhance care in the emergency department. *J Am Geriatr Soc.* 2014;62(2):365–70. <https://doi.org/10.1111/jgs.12646>.
36. Ellis B, Melady D, Foster N, Sinha S, Lau V, Saraga S, et al. Using volunteers to improve the experience of older patients in the emergency department. *CJEM.* 2020;22(4):514–8. <https://doi.org/10.1017/cem.2020.9>
37. American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association, Society for Academic Emergency Medicine, Geriatric Emergency Department Guidelines Task Force. Geriatric emergency department guidelines. *Ann Emerg Med.* 2014;63(5):e7-25. <https://doi.org/10.1016/j.annemergmed.2014.02.008>.
38. Schuster S, Singler K, Lim S, Machner M, Döbler K, Dormann H. Quality indicators for a geriatric emergency care (GeriQ-ED) - an evidence-based delphi consensus approach to improve the care of geriatric patients in the emergency department. *Scand J Trauma Resusc Emerg Med.* 2020;16;28(1):68. <https://doi.org/10.1186/s13049-020-00756-3>.
39. Hesselink G, Demirbas M, Rikkert MO, Schoon Y. Geriatric education programs for emergency department professionals: a systematic review. *J Am Geriatr Soc.* 2019;67(11):2402–9. <https://doi.org/10.1111/jgs.16067>.
40. Snider T, Melady D, Costa AP. A national survey of Canadian emergency medicine residents' comfort with geriatric emergency medicine. *CJEM.* 2017 Jan;19(1):9–17. <https://doi.org/10.1017/cem.2016.27>
41. Ringer T, Dougherty M, McQuown C, Melady D, Ouchi K, Southerland LT, et al. White paper-geriatric emergency medicine education: current state, challenges, and recommendations to enhance the emergency care of older adults. *AEM Educ Train.* 2018;2(Suppl Suppl 1):S5–16. <https://doi.org/10.1002/aet2.10205>
42. DeDonato E, Hall SE, Hogan TM, Gleason LJ. Interprofessional education of emergency department team on falls in older adults. *J Am Geriatr Soc.* 2020;68(3):E7–9. <https://doi.org/10.1111/jgs.16358>
43. Brymer C, Cavanagh P, Denomy E, Wells K, Cook C. The effect of a geriatric education program on emergency nurses. *J Emerg Nurs.* 2001;27(1):27–32. <https://doi.org/10.1067/men.2001.112282>
44. Flores-Sandoval C, Sibbald S, Ryan BL, Orange JB. Interprofessional team-based geriatric education and training: A review of interventions in Canada. *Gerontol Geriatr Educ.* 2020;13:1–18. <https://doi.org/10.1080/02701960.2020.1805320>

45. Wolf LA, Delao AM, Malsch AJ, Moon MD, Perry A, Zavotsky KE. Emergency nurses' perception of geriatric readiness in the ED setting: a mixed-methods study. *J Emerg Nurs.* 2019;45(4):374–85. <https://doi.org/10.1016/j.jen.2019.02.004>
46. Hesselink G, Sir Ö, Öztürk E, Heiwegen N, Olde Rikkert M, Schoon Y. Effects of a geriatric education program for emergency physicians: a mixed-methods study. *Health Educ Res.* 2020;35(3):216–27. <https://doi.org/10.1093/her/cyaa007>
47. Kreshak AA, Neath SX, Tolia VM, Castillo EM, Chan TC. A multidisciplinary bootcamp as an educational launch to a geriatric emergency department. *J Emerg Med.* 2018;54(6):855–60. <https://doi.org/10.1016/j.jemermed.2018.02.007>.
48. Boutcher F, Conn DK, Mroziewicz M, Sokoloff LMG. Introducing interprofessional education and care concepts in a geriatric multilevel centre: Development and introduction of a toolkit for staff and students. *Journal of Research in Interprofessional Practice and Education.* 2014;4(1). <https://doi.org/10.22230/jrip.2014v4n1a161>.
49. Rosenberg M, Rosenberg L. The geriatric emergency department. *Emerg Med Clin North Am.* 2016;34(3):629–48. <https://doi.org/10.1016/j.emc.2016.04.011>.
50. American College of Surgeons. ACS TQIP Geriatric Trauma Management Guidelines. 2013 [accessed 2021 Jul 13]. Available from: https://www.facs.org/-/media/files/quality-programs/trauma/tqip/geriatric_guidelines.ashx
51. Ringen AH, Gaski IA, Rustad H, Skaga NO, Gaarder C, Naess PA. Improvement in geriatric trauma outcomes in an evolving trauma system. *Trauma Surg Acute Care Open.* 2019;4(1):e000282. <https://doi.org/10.1136/tsaco-2018-000282>.
52. Eagles D, Godwin B, Cheng W, Moors J, Figueira S, Khoury L, et al. A systematic review and meta-analysis evaluating geriatric consultation on older trauma patients. *J Trauma Acute Care Surg.* 2020;88(3):446–53. <https://doi.org/10.1097/TA.0000000000002571>.
53. Heyland DK, Ilan R, Jiang X, You JJ, Dodek P. The prevalence of medical error related to end-of-life communication in Canadian hospitals: results of a multicentre observational study. *BMJ Qual Saf.* 2016;25(9):671–9. <https://doi.org/10.1136/bmjqs-2015-004567>.
54. Han JH, Wilson A, Vasilevskis EE, Shintani A, Schnelle JF, Dittus RS, et al. Diagnosing Delirium in Older Emergency Department Patients: Validity and Reliability of the Delirium Triage Screen and the Brief Confusion Assessment Method. *Ann Emerg Med.* 2013 Nov;62(5):457–65.
55. Eagles D, Otal D, Wilding L, Sinha S, Thiruganasambandamoorthy V, Wells GA, et al. Evaluation of the Ottawa 3DY as a screening tool for cognitive impairment in older emergency department patients. *Am J Emerg Med.* 2020;38(12):2545–51. <https://doi.org/10.1016/j.ajem.2019.12.036>

56. Wilber ST, Lofgren SD, Mager TG, Blanda M, Gerson LW. An evaluation of two screening tools for cognitive impairment in older emergency department patients. *Acad Emerg Med.* 2005;12(7):612–6. <https://10.1197/j.aem.2005.01.017>.
57. Carpenter CR, Bassett ER, Fischer GM, Shirshekan J, Galvin JE, Morris JC. Four sensitive screening tools to detect cognitive dysfunction in geriatric emergency department patients: brief Alzheimer’s Screen, Short Blessed Test, Ottawa 3DY, and the caregiver-completed AD8. *Acad Emerg Med.* 2011;18(4):374–84. <https://10.1111/j.1553-2712.2011.01040.x>
58. Gagné A-J, Voyer P, Boucher V, Nadeau A, Carmichael P-H, Pelletier M, et al. Performance of the French version of the 4AT for screening the elderly for delirium in the emergency department. *CJEM.* 2018;20(6):903–10. <https://10.1017/cem.2018.367>
59. Rockwood K, Song X, MacKnight C, Bergman H, Hogan DB, McDowell I, et al. A global clinical measure of fitness and frailty in elderly people. *CMAJ.* 2005;173(5):489–95. <https://10.1503/cmaj.050051>.
60. McCusker J, Bellavance F, Cardin S, Trépanier S, Verdon J, Ardman O. Detection of older people at increased risk of adverse health outcomes after an emergency visit: the ISAR screening tool. *J Am Geriatr Soc.* 1999;47(10):1229–37. <https://10.1111/j.1532-5415.1999.tb05204.x>
61. Costa AP, Hirdes JP, Arino-Blasco S. InterRAI emergency department (ED) assessment system manual: For use with the interRAI ED Screener (EDS) and ED Contact Assessment (ED-CA). 9.3 ed. Washington, DC: InterRAI; 2017.
62. Elliott A, Phelps K, Regen E, Conroy SP. Identifying frailty in the Emergency Department-feasibility study. *Age Ageing.* 2017;46(5):840–5. <https://10.1093/ageing/afx089>
63. Archambault PM, Rivard J, Smith PY, Sinha S, Morin M, LeBlanc A, et al. Learning Integrated Health System to Mobilize Context-Adapted Knowledge With a Wiki Platform to Improve the Transitions of Frail Seniors From Hospitals and Emergency Departments to the Community (LEARNING WISDOM): Protocol for a Mixed-Methods Implementation Study. *JMIR Res Protoc.* 2020 ;9(8):e17363. <https://10.2196/17363>
64. Design and Accessibility Best Practices for a Senior-Friendly ED [Internet]. *Geriatric-ED.com.* 2017 [cited 2021 Mar 24]. Available from: <https://geriatric-ed.com/accessibility-best-practice/>
65. Kelley ML, Parke B, Jokinen N, Stones M, Renaud D. Senior-friendly emergency department care: an environmental assessment. *J Health Serv Res Policy.* 2011 Jan;16(1):6–12. <https://doi.org/10.1258/jhsrp.2010.009132>.
66. Lichen IM, Berning MJ, Bower SM, Stanich JA, Jeffery MM, Campbell RL, et al. Non-pharmacologic interventions improve comfort and experience among older adults in the

- emergency department. *Am J Emerg Med.* 2021;39:15–20.
<https://doi.org/10.1016/j.aj7m.2020.04.089>.
67. Leppin AL, Gionfriddo MR, Kessler M, Brito JP, Mair FS, Gallacher K, et al. Preventing 30-day hospital readmissions: a systematic review and meta-analysis of randomized trials. *JAMA Intern Med.* 2014;174(7):1095–107. <https://doi.org/10.1001/jamainternmed.2014.1608>.
68. Kansagara D, Chiovaro JC, Kagen D, Jencks S, Rhyne K, O’Neil M, et al. Transitions of Care from Hospital to Home: An Overview of Systematic Reviews and Recommendations for Improving Transitional Care in the Veterans Health Administration [Internet]. Washington (DC): Department of Veterans Affairs (US); 2015. Accessed Mar 31 2021. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK311349/>
69. Hastings SN, Heflin MT. A systematic review of interventions to improve outcomes for elders discharged from the emergency department. *Acad Emerg Med.* 2005;12(10):978–86. <https://doi.org/10.1197/j.aem.2005.05.032>.
70. Coleman EA, Parry C, Chalmers S, Min S-J. The care transitions intervention: results of a randomized controlled trial. *Arch Intern Med.* 2006;166(17):1822–8. <https://doi.org/10.1001/archinte.166.17.1822>.
71. Hustey FM. Care transitions between nursing homes and emergency departments: A failure to communicate. *Ann Long-Term Care.* 2010;18:17–9.
72. Terrell KM, Hustey FM, Hwang U, Gerson LW, Wenger NS, Miller DK, et al. Quality indicators for geriatric emergency care. *Acad Emerg Med.* 2009 May;16(5):441–9. <https://doi.org/10.1111/j.1553-2712.2009.00382..>
73. Wenger NS, Roth CP, Shekelle P, ACOVE Investigators. Introduction to the assessing care of vulnerable elders-3 quality indicator measurement set. *J Am Geriatr Soc.* 2007;55 Suppl 2:S247-252. <https://doi.org/10.1111/j.1532-5415.2007.01328.x>.
74. McCusker J, Minh Vu TT, Veillette N, Cossette S, Vadeboncoeur A, Ciampi A, et al. Elder-Friendly Emergency Department: Development and Validation of a Quality Assessment Tool. *J Am Geriatr Soc.* 2018 Feb;66(2):394–400.
75. van Oppen JD, Keillor L, Mitchell Á, Coats TJ, Conroy SP. What older people want from emergency care: a systematic review. *Emerg Med J.* 2019 Dec;36(12):754–61.
76. Akpan A, Roberts C, Bandeen-Roche K, Batty B, Bausewein C, Bell D, et al. Standard set of health outcome measures for older persons. *BMC Geriatrics.* 2018 Feb 2;18(1):36.

