

Developing a Geriatric Emergency Department

People, Processes, and Place

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KEYWORDS

- Geriatric emergency department • Processes • Structures • Interdisciplinary team
- Physical environment

KEY POINTS

- Creating a Geriatric Emergency Department (GED) involves changes in the people, processes, and physical place of a general ED.
- A GED can produce improvements in clinical outcomes, patient and carer experience, financial status of the ED, and staff morale and retention.
- People are at the core of a GED: doctors and nurses with enhanced education and practice; geriatric nurse care coordinator; access to physical and occupational therapy, social workers, and pharmacists. Any one of these interdisciplinary collaborators enhances care.
- GED processes include changing general approaches to care; screening for high-risk conditions; enhanced assessment; workflow alterations; and transitions of care.
- In the GED place, minimal low-cost additions and changes in the physical space (eg, extra chairs, a clock, walkers) can make a large improvement.

INTRODUCTION

Consider the last year in any emergency department (ED) in the world—urban or rural, large or small. More older people were seen there that year than in any previous year due to sustained global population aging. If concrete proof is need, send a simple data request for the number of patients with ED age 65 and older for the past 5 years. If you

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are like most EDs you will learn you are seeing increasing numbers of older people each year. In fact, the most recent national ED data in the US shows a 30% increase in the number of age 65+ patients with ED between 2015 and 2019.^{1,2} Older people now make nearly 28 million ED visits annually representing an all-time high of 18.4% of all U.S. ED visits.¹ Your staff can also report their experience of treating older people: listen for challenges they face. With your information in mind, ask yourself: How is your ED responding to these changes in the number and complexity of older patients with ED? Continuing with business as usual is probably not an option for you or your organization.

This article provides a brief overview of key concepts in the current literature that describes models for geriatric care in the ED. The umbrella term “Geriatric Emergency Department (GED)” is used in this article to refer to the emerging models and individual practices implemented in EDs that are consistent with and informed by principles of geriatric medicine. Our use of the term GED refers to any general ED that “has made the decision to intentionally implement changes in its people, processes, and place in order to improve the quality of care it provides to older people—regardless of physical space or resources.”³

This article highlights key points from the co-authors’ recent book “Creating A Geriatric Emergency Department: A Practical Guide” published by Cambridge University Press.³ For a more in-depth treatment of the GED concepts briefly introduced in this article, we refer you to this highly accessible and readable book.

Brief History of Geriatric Emergency Medicine

Surprising to many, there is a more than a 30-year history of research on geriatric emergency medicine and models of care.^{3–7} The first reported dedicated geriatric emergency departments were opened at Holy Cross Hospital in Maryland (2008)³ and St. Joseph’s Medical Center in New Jersey (2009).³ Internationally, early geriatric emergency medicine efforts developed simultaneously in Canada, Australia, and the United Kingdom.^{8–10}

Key milestones in GEDs’ development included Sanders’ (1996) book *Elder Care in the Emergency Department*, Hwang and Morrison’s¹¹ description of the geriatric emergency department and Hogan’s¹² articulation of geriatric emergency medicine competencies for emergency medicine residents. On these foundations were built the 2013 Geriatric Emergency Department (GED) Guidelines¹³ endorsed by four major professional associations: the American Geriatrics Society, American College of Emergency Physicians, Society for Academic Emergency Medicine, and the Emergency Nurses Association. Building on the GED guidelines, the Geriatric Emergency Department Accreditation program was launched by the American College of Emergency Physicians in 2018.¹⁴

Approaches to Implementing a Geriatric Emergency Department

The general concept of a GED goes by numerous names: Geriatric Emergency Department, Senior Emergency Center, Geriatric Observation Unit, Frailty Unit, Age-Friendly Emergency Department among others. Common to this concept and its implementation is the decision regarding the physical space of the GED. An early decision regarding creating a GED is whether your ED takes (1) an integrated space approach; or (2) a separate space approach.³ The more common GED approach is the integrated space approach where geriatric services are available wherever the older person is in the general ED—triage, acute, trauma bay, boarding. In contrast, the separate space GED approach creates a dedicated, purpose-built physical space

where older ED people are treated apart from the general ED population which could include a hospital's observation unit.¹⁵

Essential Elements of a Geriatric Emergency Department: the 3 Ps

While GEDs vary widely, most are characterized by three core elements which we identify as the "3 Ps": People, Processes, and Place.³ The People of the GED include the champions, physicians, nurses, advance practice nurses, social workers, pharmacists, physical and occupational therapists, clinical assistants, and administrators. The Processes of the GED include processes tailored to the care of older people including intake, assessment, screenings, delirium assessment, prevention, and treatment, falls assessment and prevention, medications, nutrition, disposition planning and follow-up. Finally, the Place of the GED includes the ED's physical space, way-finding, access to hard material such as walkers and canes, lighting, sound, bedding, and room features. The 3Ps represent a holistic approach to developing a GED. Each will be described in detail in the sections later in discussion.

Geriatric Emergency Department: People

The first P—People—focuses on identifying the needed changes in human resources. These people include: (1) GED Champions; and (2) GED Clinicians. Organizationally, the GED Champions are the influential people who will advocate for the creation and maintenance of your GED and usually include a triad of an emergency physician champion, an emergency nurse champion, and a hospital executive champion. Together these champions advance the GED project and build the organizational momentum to implementation and continuation.

Complementing the triad of GED champions, the People also refers to the clinical staff who will be the workforce providing the GED care. These core roles include: (1) GED medical director, (2) GED nurse care coordinator, (3) GED physical and/or occupational therapist, (4) GED social worker, and (5) GED pharmacist. These roles may vary in terms of full-time/part-time; background and experience; and educational qualifications/certifications. Typically, the GED medical director and GED nurse care coordinator collaborate to design and implement the mission of the GED. The GED nurse care coordinator is a linchpin role that is divided between providing frontline clinical care/consultation and GED capacity development. These coordinators ensure the delivery of specialized GED nursing services, care coordination, as well as building capacity through staff education and advocacy within the larger hospital. Beyond the GED medical director, the composition of the GED workforce is heterogeneous depending on the ED goals, culture, existing staff, and resources. For example, while many organizations commonly have a GED nurse care coordinator, some organizations may designate a GED social worker in a leadership GED coordinator role serving to bring together the clinical and social services that make up a GED.

Geriatric Emergency Department Staff Education and Training

Developing and implementing a sustainable GED education and training program for the unit's ongoing workforce is a critical planning consideration. Successful education programs build on and extend the existing skills, knowledge, and attitudes staff possess. Integrating geriatric content into existing in-service and self-study is a proven strategy. Educational resources for GEDs are rapidly expanding and include articles, textbooks, websites, webinars, online education programs, dedicated in-service programming, and bootcamp style training. **Box 1** provides a summary of key resources.

Box 1**Key Geriatric Emergency Department educational resources**

Hogan, T. et. al. Competences Development of Geriatric Competencies for Emergency Medicine Residents Using an Expert Consensus Process. *Academic Emergency Medicine*. 2010; 17:316 to 32

<https://onlinelibrary.wiley.com/doi/10.1111/j.1553-2712.2010.00684.x>¹²

Carpenter C. et al. Optimal older adult emergency care: introducing multidisciplinary geriatric emergency department guidelines from the American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association, and Society for Academic Emergency Medicine. *Acad Emerg Med*. 2014 Jul;21(7):806 to 9. doi: 10.1111/acem.12415. Epub 2014 Aug 12. PMID: 2,117,158.¹³

Geriatric Emergency Department Collaborative.<https://gedcollaborative.com/>¹⁶

Emergency Nurses Association. Geriatric Emergency Department Readiness Toolkit.

<https://www.ena.org/shop/catalog/education/toolkits/geriatric-emergency-department-readiness-toolkit/c-23/c-94/p-361>

Geriatric Emergency Department Intervention Tool Kit. <https://clinicalexcellence.qld.gov.au/resources/gedi-toolkit>

A Practical Guide to Implementing a Geriatric Emergency Department by West Health and UC San Diego Health. <https://www.westhealth.org/resource/ged-implementation-guide/>

Geriatric Emergency Medicine Textbooks and Volumes

Conroy, S. et al. (2021). The Silver Book II: Quality care for older people with urgent and emergency care needs. British Geriatrics Society.

Chapter 6 <https://www.bgs.org.uk/resources/silver-book-ii-training-and-development>

Malone, M. and Biese, K. (2018). Care for the Older Adult in the Emergency Department. *Clinics in Geriatric Medicine*. Elsevier, Philadelphia, PA.¹⁷

Mattu, A., Grossman, S. and Rosen, P. (2016). Geriatric Emergencies. A Discussion-Based Review. Wiley-Blackwell. West Sussex, UK.¹⁸

Kahn, J. et al. (2016). Current Trends in Geriatric Emergency Medicine. *Emergency Medicine Clinics*, Volume 34.¹⁹

Meldon, S., Ma, O., Woolard, R. (2004). Geriatric Emergency Medicine. American College of Emergency Physicians. McGraw-Hill.⁵

Sanders, A. (1996). Emergency Care of the Elder Person. Beverly-Cracom Publications. St. Louis, MO.⁴

On-Line Geriatric Emergency Medicine Education Resources

The Geriatric Emergency Department Collaborative (GEDC) hosts a growing set of online education module and resources. It is an open-access non-fee-paying site with interactive modules, which are accredited for both nursing and medical continuing education credits. The topics include: cognitive Impairment; atypical presentations; medication management; frailty; falls assessment and management; major trauma resuscitation; functional assessment and discharge planning; elder mistreatment; and end of life issues and symptom management. <https://gedcollaborative.com/online-learning/>

GEMCast is a geriatric emergency medicine podcast on clinical topics. Each episode includes references, show notes, and downloadable resources. <https://gedcollaborative.com/resources/gemcast/>

The Emergency Nurses Association (ENA) created the Geriatric Emergency Nursing Education program delivered as an online program <https://www.ena.org/shop/catalog/>

[education/online-learning/the-geriatric-emergency-nursing-education-\(gene\)/c-23/c-100/p-200](#). It focuses on recognizing the presentation of illness and effective nursing intervention and care strategies. Completion of this fee-paying program provides Continuing Nursing Education (CNE) credit and a certificate.

Geriatric Emergency Department: Processes

The GED's second "P" is for processes. The care processes represent all the activities and actions which happen within the structure of an ED and carried out by its staff. Collectively the care processes represent an important area for change or addition that moves a general ED toward being a GED. In this section, we present 25 different care processes that could be implemented in a general ED. Any one of them will improve care. Implementing all of them would transform a general ED into a world-class GED.

We segment these care processes into five thematic groupings outlined in **Box 2**. They are consistent with the 2013 GED Guidelines and the 2018 GED Accreditation criteria: (1) General approaches to care; (2) Screening for high-risk conditions; (3) Enhanced assessment; (4) Workflow alterations; and (5) Transitions of care.

We have placed general approaches to care in the first position with the belief that these components, which could reasonably be thought of as fundamental to

Box 2

Geriatric Emergency Department Processes

1. General approaches to care
 - Access to food and drink
 - Pain management
 - Mobility promotion
 - Physical restraints
 - Volunteer engagement
2. Screening for high-risk conditions
 - Cognitive impairment/Delirium
 - Cognitive impairment/Dementia
 - Polypharmacy
 - Fall risk
 - Frailty and functional decline
 - Elder abuse
 - Unmet palliative care needs
3. Enhanced assessments
 - Delirium assessment
 - Fall assessment
 - Standardized assessment of common geriatric presentations
4. Workflow alterations
 - Assessment by geriatric nurse care coordinator
 - Assessment by physical and occupational therapist
 - Assessment by pharmacist
 - Assessment by specialist consultants: Geriatric Psychiatry; Palliative Medicine; Wound Care
5. Managing transitions of care
 - Protocol for discharge instructions
 - Protocol for transfers from residential care facilities
 - Direct access to palliative care and acute rehabilitation beds
 - Patient transportation
 - Access to telehealth interventions and/or hospital-at-home
 - Links to community paramedicine

providing good care and therefore “routine,” are sometimes overlooked despite their impact on the quality of care provided to and experienced by older people. To become a GED, every ED should have easy access to food and drink for all patients but definitely for those who are most at risk for hunger and thirst during the often-prolonged stays while undergoing multiple tests, investigations, and assessments; or while waiting for a disposition plan or bed. Every ED should have processes that ensure early, proactive, and effective management of pain that may include strategies for assessing pain in people with cognitive impairment²⁰; or innovations that prioritize older patient issues such as nerve blocks for hips fractures. Since mobility is such an important component of well-being for older people—and essential for preventing delirium and slowing functional decline—every ED should have processes that permit, promote, and enhance mobility. They can include simple interventions such as: having ready access to gait aids such as walkers and canes; minimizing the use of unnecessary continuous monitoring, avoiding urinary catheters and other tethering devices; engaging volunteers or family members to actively mobilize patients; and even having a chair in the room where she can be “up for meals” or while waiting for investigations. These changes have an impact during short ED stays (eg, having a walker to assess safe ambulation for discharge) and long ones produced by ED boarding where physical de-conditioning is a real risk. A final example of enhancements to routine care would be the addition of a volunteer program.²¹ A cohort of specially trained non-clinical supporters can provide additional care—providing warm blankets, setting up for eating, distractions, mobility—that enhance care, avoid bad outcomes, and unload duties from the RN and MD staff.

Older people in an ED often have serious conditions that are not easily detected unless routine screening for high-risk conditions is implemented. These would include screening for.

- Cognitive impairment (both dementia and delirium);
- Frailty and functional decline;
- Polypharmacy;
- Increased risk of falls;
- Elder abuse; and
- Unmet palliative care needs.

For each of these conditions, there are ample tools, validated for ED use highlighted here.

Older people have a high incidence of *dementia* with roughly a quarter of all the population over 80 having some cognitive impairment. Chronic brain failure is often not identified or diagnosed before the ED visit which offers an opportunity for screening for a condition that has an impact on all other ED processes (such as informed consent, communication, participation in care, and disposition planning.) Dementia screening tools used in the ED can include the Mini Cog and the AMT-4.^{22,23}

All older people, particularly frail or polymorbid ones, have an increased risk of acute brain failure or *delirium*—an important and consequential syndrome that is a serious medical condition. However, since its components can be subtle (eg, a bit drowsier) or difficult for a clinician to identify (eg, more confused than usual in a person with dementia at baseline), a process of standardized screening for all the at-risk population (which means basically everyone over 65 in an emergency department) will help to identify people with delirium.²⁴

There is an increasing body of evidence that identifying functional status or *level of frailty* can lead to multiple other helpful ED interventions—enhanced assessments,

linking with community services, establishing prognosis, and durable disposition planning.^{25–27} The GED should have some screening process to establish baseline function or frailty level and changes. Multiple tools to do so—the Clinical Frailty Score,²⁸ the Identifying Seniors at Risk²⁹ tool, among others—are available.

Older people often take many different *medications* to manage their multiple chronic conditions—with an impact on presenting symptoms, adverse interactions, withdrawal, or toxicity. A GED should have a well-established process for gathering accurate information about a patient's medication use and for ensuring that information informs assessments and planning. Ideally there would be a process to involve a pharmacist to assist in screening the medication list of each older person or of those with pre-established cut-offs (age, or number or medications, or presence of falls, or re-visits.) Tools used in the ED include STOPP and START³⁰ as well as the EQUIPPed program.³¹

Some older people are in the ED as a result of a fall. Others are there for non-fall related problems but are still at high risk of falls. Both groups can benefit from screening for their *risk of recurrent falls*, among the most consequential of the geriatric syndromes.³² Such a process may include in-ED assessment of mobility, strength, and gait. It may involve the possibility of an assessment by a physical therapist. It should permit a referral for post-ED, community-based strategies for fall risk mitigation (home assessment, fall clinic, exercise program.) Anything less would be analogous to identifying someone as high-risk for severe coronary artery disease. . . and then doing nothing to modify that risk!

Unseen *elder abuse and neglect* is a reality for many older people visiting EDs. There are no ED-specific tools for identifying those at risk for or experiencing the various kinds of abuse or neglect. However, one tool, the EASI, developed for primary care may help inform ED care.³³ A GED will have some strategies (standardized screening for all patients, targeted questions by social work colleagues, heightened awareness by staff through education) to help see the problem and strategies for follow up and support.

EDs see older people at many points along the trajectory of serious illness, chronic organ failure, and frailty. All those people likely have *unmet palliative care* needs—symptom management, improving function, establishing goals of care.³⁴ The GED should have a process for identifying those people and facilitating access to palliative care expertise.

If there are processes in place for screening, then there needs to be processes in place for extended or enhanced assessment and management of the outcomes of that screening.³⁵ The GED will have strategies in place (eg, an order set, a best practice guide) for standardized investigation of the cause of delirium once it has been identified as well as strategies for reducing the severity of the symptoms of delirium. Similarly, there should be a process for assessment in the ED by appropriate members of an interdisciplinary team (see next section “People”) who can target some or all of the conditions that are going to impact the quality of care and promote a durable discharge plan. This recognizes the reality that older people are rarely in the ED with a single isolated problem: their complex web of interconnected medical, psychological, social, and functional conditions is usually too much for a single practitioner to fully assess. To this end, a GED may choose to establish locally appropriate standardized approaches to the investigation and management of common presentations in the form of order sets, or best practice guides, or pick menus—that encourage good practices and avoid common pitfalls. Examples would include the management of geriatric sepsis, hip fracture, or the imminently dying patient.

Adding or changing some of these approaches leads inevitably to workflow alterations which will need to be clarified in the GED.³⁶ It will be valuable to implement some protocols that clarify the role of the various professionals involved. For example, if a geriatric nurse care coordinator is added to the team, it will be essential to establish how this clinician is involved in the ED workflow: At what point do they see the patient? Which patients? Using what criteria? What is their scope of practice? To whom do they report? How is that information communicated? A similar approach will be required for all the interdisciplinary team—physical therapist, occupational therapist, pharmacist, and any specialized consultants such as geriatrician, geriatric psychiatrist, palliative care team, or wound care practitioner.

Because older people are so complex and typically have multiple care providers and sites of care involved, one of the core competencies of Geriatric Emergency Medicine is the management of transitions of care.³⁷ And yet, it is remarkable that many patients, including high-functioning cognitively intact patients, leave an ED and report little understanding of what has happened, what is going to happen next, what they are expected to do. The GED will have clear policies about this most important point of care transition. Many departments have pre-established texts to explain and provide advice about common ED presentations—lacerations, fractures, head injuries, viral illnesses. It will probably be necessary to go much further to ensure that a frail older person understands the complexities of post-ED care. Discharge instructions should certainly involve printed-in-large-font, clear-language explanation—which are placed directly into the hands of the patient. Caregivers should be involved in this exchange of information so that all the people who need to know about next steps are aware. This will include primary care providers, community-based services that the patient may access, specialist consultants, and specialized geriatric referrals. Other transitions that are fraught with complexity are those to and from residential long-term-care homes, palliative care hospices, or in-patient rehabilitation facilities. A carefully considered protocol should exist for all of them, including a strategy for transportation.

Geriatric Emergency Department: Place

The GED’s third “P” is for Place. This is the physical space where the GED services are delivered. This could use, as noted above, an integrated space approach where services are provided through the general ED; or a separate space approach, where a separate, dedicated, purpose-built GED space is created. Regardless of the space decision, the concept of the GED Place focuses on the design features of the ED

Box 3 Equipment and supplies				
Equipment	Furniture	Safety Enhancements	Visual Orientation	Acoustic Enhancements
Hearing amplifiers	Beds at safe transfer level	Doors with levers	Soft lighting	Noise reducing drapes
Walkers, canes, nonslip socks	Chairs with arms	Enhanced signage	Matte colors	Music availability
Commode	Reclining exam chairs		Minimize patterns	Reducing alarm volume
Nonslip fall mats	Pressure reducing mattresses		Clocks	
Blanket Warmers			Communication boards	

room and ED unit that are “age-friendly.” A good starting question is: “What is your desired ED patient experience like?”³⁸ or more specifically “How do you want to make your patients with GED feel?” Briefly answering these questions for a specific ED setting and culture will provide guidance on specific design decisions regarding Place in a GED.

The GED Place involves the specific items in the GED that relate to an older ED person’s sensory experience, mobility, and overall comfort. Two resources that inform decisions regarding GED Place include the: (1) GED Guidelines¹³; and (2) Geriatric Emergency Department Accreditation Standards.¹⁴ Specific equipment and supplies are listed in [Box 3](#).

Geriatric Focused Observation Unit

ED Observation Units with 23-h monitoring are emerging in some hospitals that are consistent with Medicare billing guidelines before triggering an inpatient billing code.¹⁵ The design of these observation units can incorporate elements of GED Place to provide a flexible and supportive space for older people who need enhanced assessment while the appropriate disposition plan is established.

SUMMARY

The decision to create a GED model of care is a significant one that requires a clear and convincing answer to the question: Why do it? There are at least two themes to our response: it is good for older patients and it’s good for health care systems.

People around the world, especially in wealthy nations, are living longer with complications of chronic diseases, and with a concomitant increase in rates of dementia and often-fraying social support networks. Just about everywhere in the world, growing numbers of older people are visiting EDs with ever-increasing frequency. Once they are at an ED, they use more resources per visit, are more likely to get expensive tests with advanced imaging, are more likely to be admitted, and are more likely to suffer healthcare-related harms.³⁹ Adopting and accelerating⁴⁰ a new approach to their care—using this People, Processes, and Place model³ or another one—can have a big impact in terms of improved outcomes for patients while saving money.⁴¹ As the demographic Silver Boom continues over the next two decades, the changes presented in this article are essential both on moral and clinical grounds and to achieve financial sustainability and ongoing quality of care in your ED.

By enhancing the structures and processes of your ED to better assess and manage older patients, there is ever more emphasis on providing increased value. A team approach and standardized protocols give the patient what she needs. She gets not just a splint for a broken wrist and a pat on the back as she leaves. She also gets an assessment of her fall that considers her medication list; that provides PT assessment for strength conditioning to prevent the next fall; and coordinated links to necessary social services. By providing alternatives to hospital admission through enhanced assessments and improved transitions of care, a GED may also contribute to decrease the boarding of medical patients in EDs, a population which is disproportionately older. The hospital thus avoids an unnecessary admission of this frail older person who might otherwise be admitted “for further assessment” just because she is not “safe for discharge” and the emergency doctor has no alternatives available. This approach ensures both that she does well at home and that the hospital is not financially penalized for an avoidable ED re-visit. Fortunately, based on a recent large study, there is strong evidence that creating a GED is associated with cost savings to the health system of up to US\$3000 per patient.⁴²

This article provides options for making changes in an ED's people, processes, and place that can lead to enhancements in the ED experience of older people and the quality of their outcomes. Our recent book³ expands on these 3 Ps and gives ample guidance to their implementation—including making the financial case and overcoming resistance to change. Whatever your ED chooses to do, these will provide starting points to preparing for improved care of the most rapidly expanding demographic in our society and our EDs.

DISCLOSURE

D.L. Melady receives an annual stipend from the Geriatric ED Collaborative. One of his job requirements in that role is to promote the dissemination and implementation of Geriatric ED models of care. He also sits, on a voluntary basis, on the Board of Governors of the Geriatric ED Accreditation Program which is not-for-profit offering of the American College of Emergency Physicians. J.G. Schumacher has no disclosures.

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