Systems-Based Practice to Improve Care Within and Beyond the Emergency Department



Marsha Vollbrecht, MS, CSW^a,*, Kevin Biese, MD, MAT^{b,c}, Susan Nicole Hastings, MD, MHS^d, Kelly J. Ko, PhD^e, Laura Ann Previll, MD, MPH^f

KEYWORDS

- Emergency department Care transitions Geriatric Culture change
- Implementation science Leadership buy-in Alternative approaches

KEY POINTS

- There is abundant evidence that an emergency department (ED) visit signifies a period of vulnerability for older adults, especially as they transition back to the community.
- There are essential elements for improved transition of older adults from the ED back to the community.
- Starting a new program for ED transition requires buy-in from leaders, the clinical team, and the community.
- Following implementation science and frameworks will increase the success of program implementation and dissemination across a health system.
- There are many examples of successful alternative approaches to older adult transitions within health systems.

CARE TRANSITIONS PERILS

There is abundant evidence that an ED visit signifies a period of vulnerability for older adults, and the transition between the ED and community care can be fraught with

Disclosure Statement: The authors have nothing to disclose.

E-mail address: marsha.vollbrecht@aurora.org

Clin Geriatr Med 34 (2018) 399–413 https://doi.org/10.1016/j.cger.2018.04.005 0749-0690/18/© 2018 Elsevier Inc. All rights reserved.

geriatric.theclinics.com

^a Senior Services, Aurora Health Care, 1020 North 12th Street, Milwaukee, WI 53233, USA;
^b Academic Affairs, Internal Medicine, Division of Geriatrics, 170 Manning Drive, CB#7594, Chapel Hill, NC 27599, USA;
^c Division of Geriatric Medicine, 170 Manning Drive, CB#7594, Chapel Hill, NC 27599, USA;
^d Center for Health Services Research, Durham VA Health Care System, Duke University School of Medicine, Center for the Study of Aging and Human Development, Duke University, Duke Box 3003, Durham, NC 27710, USA;
^e West Health Institute, 10350 North Torrey Pines Road, La Jolla, CA 92037, USA;
^f Department of Medicine, Division of Geriatrics, Duke University, DUMC 3003, Durham, NC 27710, USA

^{*} Corresponding author.

challenges. 1-4 In particular, providing information to patients who are acutely ill or injured and their families is difficult in a busy ED. Many older adults have cognitive, vision, or hearing impairments and/or low health literacy, making it even more difficult to receive, process, and retain sometimes complicated discharge instructions. Patients with preexisting chronic illnesses, suboptimal medication therapy, and poor understanding of ED discharge information are at higher risk of return visits, underscoring the need to improve ED care transitions. 5-7 This article describes some challenges of care transitions, reviews best practice strategies, provides an example of systems-based improvements at a health care system in Wisconsin, and outlines some lessons learned.

Insuring smooth care transitions for older adults from the ED carries many challenges. Particular emphasis has been on patient safety, preventing unscheduled return visits, and strengthening community partnerships that lie at the core of optimal transitions of care for older adults in both hospital and ED settings. ^{8,9} During care transitions, "clinicians, including those in the ED, are responsible for ensuring that clinical information is shared across settings and when necessary, direct clinician-to-clinician communication occurs to address time-sensitive questions and transfer accountability of patient care."^{10,11}

BEST PRACTICES

For an older adult, an ED visit is generally imbedded in a web of other interactions of the patient with the health care system. The care delivered in this setting has the potential for wide ranging outcomes, leaving much room for improvement (Figs. 1 and 2). Essential elements to improving ED transitions of care for older adults include verifying existence of a primary care physician or medical home, engaging with a patient's support system, 12 addressing palliative care needs, 13 completing medication reconciliation, and accessing accurate patient information across care settings. 14 Three areas of transitions of care best practice for older adults receiving emergency room care are discussed.

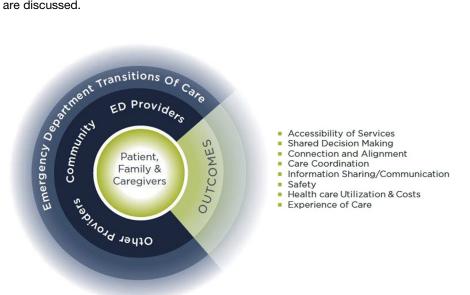


Fig. 1. Dimensions of care.

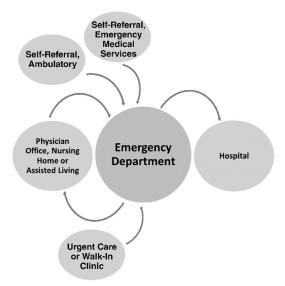


Fig. 2. Transitions In and Out of the Emergency Department.

Information Exchange Across Care Venues

Medicare demonstration projects related to a skilled nursing facility (SNF) care coordination, such as Interventions to Reduce Acute Care Transfers and Optimizing Patient Transfers, Impacting Medical Quality, and Improving Symptoms: Transforming Institutional Care, provide management guidelines for patient episodes of care aimed at reducing hospitalizations and improving communication. Key improvement areas include enhanced care coordination, augmentation of team roles, and communication strategies between EDs and the patients' SNF. 4.11,15–20 Streamlined health information technology and remote data access through structured data sharing between health care systems, hospitals, clinics, and the SNFs is also an emerging systems-based priority for information sharing.

Communication and Awareness of Geriatrics Principles

ED providers should take into account common barriers to communication with their older patients during care transitions. These barriers are caused by hearing impairment, low vision, and cognitive impairment. Addressing communication needs and other geriatrics principles is a fundamental consideration in the care of older patients. Turning next to communications that occur between two health care providers, structured handoffs are best practice methods. This practice should be a part of basic training of ED providers and staff.²¹

Patient and Family Education

Older adults often rely on caregivers and family support when they receive medical care. Discharge instructions at the time when a patient is ready to return home is a critical time when family members can help in understanding the plan of care. A few key points are important. First, a family member should be available during this interaction. Next, the patient must agree to the family member involvement. Finally, the information should be communicated in a concise way, using proved education methods, such as the teach-back method.²² Two-way communication helps patients and caregivers navigate the health system and allows for follow through of the medical plan of care.²³

THE AURORA HEALTH CARE EXPERIENCE—A CASE STUDY

Aurora Health Care is a private, nonprofit, integrated health system serving Eastern Wisconsin and Northern Illinois. The Aurora system has 15 hospitals, more than 150 clinics, 70 retail pharmacies, and the largest homecare organization in the state. The health care system provides care to more than 1 million patients each year. Older adults account for approximately 30,000 visits annually to Aurora Health Care emergency departments (EDs). Shortly after the publication of the "Geriatric Emergency Department Guidelines" in 2014,²⁴ the first geriatric ED (GED) boot camp (interdisciplinary training for geriatric emergency care) in the nation was held at Aurora. The purpose of the session was to implement a key component of the guideline. The following is a brief description of the 3 original sites participating in the GED boot camp and the quality-improvement (QI) project, which was the focus of their efforts.

Aurora West Allis Medical Center is located just west of the Metro Milwaukee area, in a community with a high population of seniors. The hospital has approximately 200 beds and a busy ED. Aurora St. Luke's South Shore is located just south of the Metro Milwaukee. It has approximately 100 beds and a history of providing standard medical-surgical care as well as behavioral health services. Aurora Sheboygan Memorial Medical Center has approximately 75 beds and is located approximately 50 miles north of Metro Milwaukee.

Before the boot camp, several QI strategies were implemented. Aurora leaders identified site champions to work with a team of national GED experts to plan the boot camp. Team members from each site were surveyed, asking about geriatric training, resources, needs, struggles, and priorities. The teams identified a method to screen for vulnerable older patients called the Identification of Seniors at Risk (ISAR)²⁵ tool.

The boot camp trained a group of 39 clinicians from multiple disciplines from the 3 sites. All 3 Aurora teams identified the same priority issue for their QI project: improving transitions of older adults from the ED back to the community. The teams each planned a strategy for working on their QI project after the boot camp.

The teams discussed the culture of "treat 'em and street 'em" in the ED—the pressure to assess, treat quickly, and discharge. In the in-patient hospital setting, case managers, social workers, transition nurses, and others assist with discharge planning and connecting patients to services and resources in the community. This is not the case in the ED, where providers are often treating older adults who are discharged back to the community, knowing they are at risk for ED revisits or poor outcomes, but feeling powerless to help. In response to their new culture, teams were trained on the ISAR tool. The teams further integrated this screening tool into their electronic health record. They used the Plan, Do, Study, Act (PDSA) approach for their QI project (Fig. 3). Next, they targeted further assessment of needs for those who scored positive on the ISAR and developed processes to connect patients with resources.

Each of the 3 EDs designated a site champion and a local team. Additionally, each team was mentored over the following moths with one of the national experts who had facilitated the boot camp. After the QI program was active at each site, a follow-up booster session was scheduled to review progress.

Critical elements of the Aurora Health Care experience were identified:

- A tool to screen for high-risk patients
- A champion in the ED, such as a case manager (registered nurse or social worker) to evaluate high-risk patients
- Links to community resources (established referral process)
- Project champions to review outcomes and teach geriatrics principles

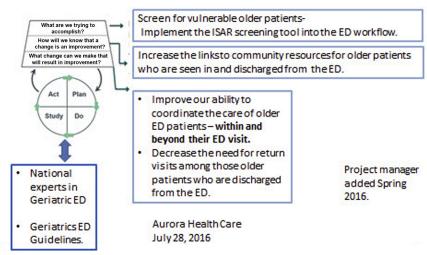


Fig. 3. Aurora geriatric department PDSA cycle.

- Automated electronic health record reports to demonstrate outcomes of ED patients ages greater than or equal to 65
- A regular review of outcomes to address challenges and identify areas of improvement

Through the QI project, the team quickly identified the need for enhanced connection to community resources. The teams prioritized coordination of care beyond the ED to the primary care provider, skilled home care, palliative care programs, and the county's Aging and Disability Resource Centers. The case manager at each site developed a resource binder with community program information with appropriate contacts. This was made available for staff when the case manager was not on duty. Other lessons learned are outlined in Table 1.

Early results from Aurora are positive. Aurora has experienced a culture change and all sites experienced an improvement in patient satisfaction scores after implementation. One if the sites demonstrated a 9% absolute risk reduction for 30-day revisits to the ED within 6 months of program implementation (Fig. 4).

GETTING BUY-IN

Building new processes of care in the ED is challenging. This is especially true when new processes, such as a more comprehensive approach to caring for older adults in the ED, are likely time consuming and even contrary to the usual rapid, chief complaint–driven care of the ED.²⁶ Furthermore, taking extra time with older adults may be antithetical to the current revenue generating metrics of care in a fee-forservice system. Thus, to change processes, buy-in from health system leadership, clinical colleagues, and the community is needed.

Buy-in from Leadership

Health care system leaders are charged with multiple responsibilities with many competing demands on their time and focus. Given this reality, it may be challenging to get good ideas heard.

Here are a few fundamental tips for approaching health care system leadership:

- II 4	
Table 1 Lessons learned	
Challenges	Mitigation Strategies
Need buy-in from executive/administrative leadership and ED physician leaders	 Geriatric program leaders start meet with to focus on need of multiple disciplines and share Site data on volume of older adult visits Revisit rates Patient satisfaction data Program goals and approaches to improve care and processes
Need champion/ED case manager at each site	Leaders to share study data from lead site showing Improvement in patient satisfaction Reduced revisit rates after implementation of full-time ED case manager Encourage site administration to implement ED case manager position to address need.
Need to gain ED staff buy-in	 Learn their struggles in caring for older adults. Show data on volume and need. Lead with the why. Show how program can address their struggles. Share outcome data and patient stories.
Need to develop links with community resources	 Identify priority resources to link with Using go and see approach to cultivate relationships Developing referral process Developing automated tracking mechanism
Completion of ISAR screening during off hours when ED case manager not on duty	 ED case manager to train nursing staff How to complete ISAR during assessment Proper documentation process
Referral to community resources off hours when ED case nanager not on duty	 Develop resource binder/list with information: programs, eligibility, contact information. Develop referral process to ED case manager for follow-up with patients as needed.
Need to link interventions to outcomes Need to collect and share data	Work with information technology to develop automated reports • Showing referrals by resource • Revisit rates • Patient satisfaction • Share improvements or before and after data to link interventions to outcomes. • Share patient stories.
Promote culture change	Empower staff by Providing high-risk screening tool Building tool into electronic health record and workflow Providing resources for patients and a referral process to follow
	(continued on next page)

Table 1 (continued)		
Challenges	Mitigation Strategies	
	 Sharing outcome data and patient stories on a regular basis—as the interdisciplinary team meets regularly Providing on-going geriatric leadership/ clinical support to site teams 	
Maintain program momentum	 Provide ongoing geriatric education and support from geriatric leaders to site teams Host GED booster sessions twice per year with at least 1 national expert to review progress. Identify ongoing or new challenges through PDSA cycles—continually reassessing and improving the program. Provide time to work on these issues with teams and experts. 	

First, learn what challenges the health system leaders are facing. Are they concerned about readmissions, bed availability, market share, patient safety, and so forth? The improvements advocate for should address the problems hospital leadership is facing.

To give an example of the kinds of issues health system leader are facing, the American College of Healthcare Executives reports the top issues confronting hospitals are

- Financial challenges, governmental mandates, patient safety and quality, personnel shortages, patient satisfaction, access to care, physician-hospital relations, population health management, technology, and reorganization (mergers, acquisitions, restructuring, and partnerships). For more information: https://www.ache.org/pubs/research/ceoissues.cfm.
- 2. Ensure having at least some sense of cost and potential return on investment (ROI). Most clinical champions are well aware of the clinical benefits of the projects they are proposing but often less aware of the financial implications, including not only dollar amounts but also staff time. Another factor to consider are ways in which the program can be sustained, whether through downstream impact or opportunities to apply for state/federal grants. Demonstrating a

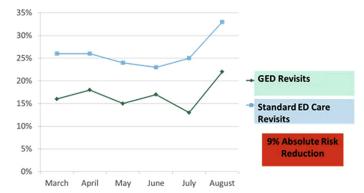


Fig. 4. GED versus standard care at an Aurora site 2016.

- sustainability plan helps distinguish a program from the many others that get presented.
- 3. Have an elevator speech ready to go. Be ready to explain the proposal, including model, goal, target population, source of hospital ROI, and source of societal ROI in 30 seconds. Prepare present ideas in a quick and simple format that highlights expected ROI directly linked to top priorities for the hospital. Create a pitch or business case to first address the top priorities facing the C-suite rather than highlighting your personal priorities for the project.

For an example of how to making a case to hospital leadership, see **Table 2**. The following are key elements to include as a business case is organized:

- Brief, executive summary describing the key points of the project
- Introduction and rationale describing the objectives and predicted outcomes
- Methods and measurements approach describing how outcomes will be measured, captured, analyzed, and reported
- A cost section should provide details related to the cost of standing-up, assessing, maintaining, and ultimately sustaining the program. This section should also describe the expected financial ROI of the program.
- A timeline and a list of resources for implementing the program

Buy-in from the Clinical Team

Change is hard. This is especially true when asking overstretched ED colleagues to do more. It takes time and energy to take more comprehensive care of older adults.

Table 2 How to make the case for improving emergency department care for seniors to a C-suite		
Component	Emergency Department	Hospital
Model	Establish a geriatric ED.	Establish an acute care at home option from the ED.
Goal	Provide senior-focused emergency care to prevent avoidable hospitalizations; improve patient outcomes and satisfaction and reduce iatrogenic complications.	Prevent hospital admissions when are where appropriate.
Target population	Seniors experiencing a medical emergency	Seniors with conditions and circumstances where needed treatment at home is desired or better for seniors and their families
Source of hospital ROI	Reduce ED revisits and readmissions; reduce penalties for preventable errors; increase satisfaction scores.	Reduce readmission penalties; backfill beds with high-margin admissions; increase patient satisfaction scores; reduce the cost to treat, reduce low or negative margin Medicare admissions.
Source of societal ROI	Reduce overtime, ED crowding, and time on divert status; improve patient outcomes and reduce iatrogenic complications.	Improve patient outcomes and reduce iatrogenic complications; reduce the cost of care; allow seniors to receive care where they prefer to be treated.

Adapted from Siu AL, Spragens LH, Inouye SK, et al. The ironic case for chronic care in the acute care setting. Health Aff 2009;28(1):119; with permission.

Colleagues who have held GED boot camps at multiple health care systems have identified key elements of successful change management:

- Ensure the leadership team is multidisciplinary. Geriatric emergency medicine is a team sport, so have nurses, case management, physical therapists, physicians, and other disciplines (as applicable in the ED) represented on the leadership team.
- Demonstrate how this will benefit not only patients but also providers. Recognizing the need for coordinated care and proactively addressing the needs of seniors will make everyone's job easier, especially complex cases that require multiple perspectives, as is often the case with geriatric patients.
- Pick an area that addresses a need in the ED and where there already are resources. For example, if an ED is aware that medication management is a challenge and pharmacists are available to help in the ED, medication reconciliation for older adult ED patients may be a great place to start. If on the other hand, medications are not a recognized challenge or there is not access to pharmacists, this is likely not an ideal starting place.
- Do not duplicate existing efforts. Before launching any geriatric initiatives or improvement projects, do some background research to understand what resources already exist. If an institution has tried similar efforts, understand why they were or were not successful. For example, if a department is looking to implement a screening tool for delirium, check with colleagues in the ICU to see what they are using so an entirely different tool is not implemented without good reason. Also, if implementing a screening tool has been before and failed, figure out why and make sure the program does things differently.
- Make systems change an iterative process. For the first project, identify a project with a short-term goal (eg, 3–6 months). For example, if choosing medication reconciliation, do not state within 3 months all older adult ED patients will have complete medication reconciliation; this often is not possible. Rather, state that within 3 months medication reconciliation will be implemented for a limited number of patients (eg, 10%) and the team will meet to review what has worked and what parts of the process need refinement.
- Share success stories: clinical teams need to know they are helping their patients.
 Share at least 1 success story a month with the whole clinical team about how the new process helped a patient. Share this story in a Health Insurance Portability and Accountability Act-compliant manner, but share patients' stories—they are the best evidence. Examples of ways to share success stories include all staff meetings, departmental newsletters or local conferences, and any publications.
- Start with 1 project at a time. Launching multiple new initiatives simultaneously to improve ED care for older adults may lead to confusion and suboptimal implementation. Pick 1 project with a defined, obtainable goal, and learn from that implementation. Then obth growing that first project and launching the next improvement initiative will be prepared for.

Community Buy-in

The ED serves the community. In doing so, it is the place where any member of the community should feel confident coming when needing emergent medical care. As such, members of the community may be some of the best partners in advocating for improved senior care in the ED. Places allies can be sought include

- The Area Agency on Aging
- Local senior centers

- Local AARP
- Churches
- Other community leaders
- Current patients

Share with community stakeholders the plans for making the ED better for older adults and listen to the needs of community organizations regarding what would help make their jobs easier. Barring hospital admission, older patients will be discharged home. Once there, it is likely they will need resources from their family and or from one of the organizations listed previously.

In addition to community-based organizations, older patients already in the ED are some of the best advocates for helping get community buy-in. If they have a good experience, they are more likely to share that news with friends and family who will remember the ED when the need arises.

Finally, consider having the ED accredited by the American College of Emergency Physicians.²⁷ Being accredited may help the community become aware of the great care the ED is delivering and provide the ED an opportunity to distinguish itself as a recognized leader in geriatric emergency care.

IMPLEMENTATION SCIENCE TO ACCELERATE CHANGE

Although many innovative and promising practices to improve the quality of ED transitions have been identified, ²⁸ there has not been widespread adoption of these programs. An important but often overlooked barrier to spreading programs is failure to systematically adapt programs for different contexts. Implementation science is defined as "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices in routine practice, and hence, improve the quality and effectiveness of health services." This area of health care delivery has emerged as a field that offers many important processes and tools highly relevant for clinicians and health systems seeking to improve care transitions.

There are also several existing frameworks to help successfully implement programs. Peplicating Effective Programs (REP) is 1 example that has been empirically tested and shown effective in promoting uptake and fidelity of clinical interventions in various health care organizations. PEP consists of a series of activities to implement the core elements of a program while allowing space for stakeholder input and flexibility to modify the program to site specific resources and patient needs. REP is designed for new programs through 4 phases: precondition, preimplementation, implementation, and maintenance. The focus in REP is the creation of user-friendly clinical implementation packages that can be used for large scale rollouts with relatively low need for additional resources (distinct from clinical resources), an important consideration for any large health system.

An important element of an 1 framework like REP is its explicit emphasis on tailoring clinical programs to achieve balance between fidelity and adaptation for local conditions. A 1-size fits all approach is rarely effective when introducing new programs in environments as complex as EDs and health care systems. Health systems that use the principles and methods of implementation science are well positioned to rapidly implement evidence-based practices and continually improve care for older adults.

ALTERNATIVE APPROACHES

Although there are well-known transitional care models that have been successfully implemented from the ED (eg, Coleman model, Naylor model, Project RED, and so

forth), clinical implications as well as cost implications associated with poor transitions of care warrants continued exploration and testing. Some approaches are entirely new ways of addressing care transitions based on role (ie, social worker, community health worker [CHW], or pharmacist) or stakeholder involvement (local government, payers, or health plans), whereas others modify existing models to meet local needs. A few examples of different or hybrid approaches to care transitions from the ED are discussed.

Social Worker

Although many care transition models rely on a nurse coach as the transitional care lead, social workers have emerged as a key role in transitioning older patients home. In a social worker-led approach, the unique skillset of a social worker is featured, notably linking patients with community and home-based services and addressing the psychosocial needs of the patient. In cases of older patients, this is critically important given their equally complex medical and social circumstances.

Perhaps the most common social worker–led approach is the Bridge Model, which is a person-centered, social work–led approach in assisting geriatric patients, typically those with multiple comorbidities and prior hospitalization, transition back to their home and/or community.^{27,32} In this model, a social worker provides increased focus on social, logistical, and coping strategies based on a patient's needs, including psychotherapeutic support, linkage to community resources, and coordination among clinical and nonclinical services. In the Bridge Model, social workers conduct assessments at 3 key time points: first, via predischarge face-to-face meeting; second, at a telephone follow-up within 2 days of discharge; and, finally, at an additional telephone follow-up 30 days after discharge.³³

Recent research suggests social worker-led approaches, such as the Bridge Model, have been effective, particularly in reducing 30-day readmissions for elderly patients. The Bridge Model may be an effective approach in care transitions, especially for at-risk entities with a large population of older patients.

Community Health Worker

Another approach includes CHWs playing a key role in transitional care. CHWs are frontline public health workers with an intimate understanding of the local community. Given their reputation in the local community, they are often well known and trusted by older adults. CHWs have been effectively deployed in many instances to help navigate home and community resources, including provider communication, insurance support, accessing follow-up care, durable medical equipment, and medications to name a few. Furthermore, CHWs are also an effective way to address the shortage of health workers, particularly in low-income or rural communities. CHWs, however, are not licensed clinical care providers, thus are limited in their scope of services.

Pharmacist

In a pharmacist-led approach, a community-based pharmacist plays a central role in transitioning patients from the hospital to a patient's home or community. In this model, the primary focus is on helping patients better understand prescribed medications and remain adherent to medication regimens. The focus on medication adherence remains a salient issue among older patients discharged from the hospital, because poor medication adherence is often a major case of morbidity, ED return visits, or hospital readmission.³⁴

Additionally, a pharmacist-led approach highlights the unique role of the community pharmacy. Specifically, community pharmacies are not only widely accessible but also generally well known and trusted providers in the community. Pharmacists are

often ranked among the most trusted health care providers behind nurses, even ahead of physicians. Pharmacy-based postdischarge transition programs are associated with increased medication adherence, reduced readmission rates, and health care utilization compared with usual care. 35,36

Multi-Stakeholder Approach

In addition to approaches that focus on an individual provider, other approaches focus more on the collective impact of multiple stakeholders involved in care transitions. There has been recent growth in models where providers, health systems, SNFs, and even payers come together to develop a multistakeholder approach to transitional care. In these models, a risk-sharing agreement often exists to incentivize coordinated care across venues and encourage information exchange.

Low-Cost Approaches

In addition to transition models that focus on specific roles and/or multiple stake-holders, other approaches that require substantially fewer resources also exist. Typically, these approaches focus less on individuals or organizations and instead emphasize communication. The focus is on communication to maintain continuity of care, a critical component of care transitions. This is especially important when older patients transition to and from the ED and postacute care facilities. These are low-resource and lower-cost approaches to transitional care that help increase implementation where resource constraints may be a limiting factor.

For example, the Coordinated-Transitional Care program^{31,37} uses existing nursing staff to conduct telephone-based follow-up for patients and caregivers with high-risk conditions. Early results from telephonic-based approaches, such as Coordinated-Transitional Care, seem promising, because they have been associated with fewer hospital readmissions and cost savings.

Another lower cost approach is the Blue Transfer Envelope Process, out of the University of Wisconsin Hospital and Clinics.³⁸ The goal is to standardize information exchange between inpatient and postacute care facilities (ie, SNFs). In this approach, facilities complete a standardized transfer document for the receiving clinician in a recognizable blue envelope to provide appropriate context for the transfer. Inversely, when a patient is discharged, the receiving organization (eg, SNF) receives an aftervisit summary along with relevant clinical information in the blue envelope. In this model, both the transfer and receiving facilities rely on the blue envelope for consistent information exchange.

Other Approaches

In addition to specific models tested and implemented around the country, there are several initiatives both at the state and national levels supporting development of new or hybrid approaches to transitional care for older patients. For example, the Aging and Disability Resource Center launched an initiative in 2010 supporting evidence-based care transition programs, which include implementation of a variety of well known models (eg, BOOST [Better Outcomes for Older adults through Safe Transitions], Bridge model, Care Transitions Intervention, GRACE [Geriatric Resources for And Care of Elders], Guided Care, and Transitional Care Model) with technology to expand adoption.

Lessons Learned

Based on the approaches highlighted previously, a few key themes emerge. Lessons learned as well as opportunities to continue evolving existing models are identified.

First, although there are certainly models that have proved effective in safely transitioning older individuals home, the ability to widely adopt of these approaches remains a barrier for some. Specifically, models that rely on dedicated transition coaches or home visits, although effective, are costly and may not be feasible for many institutions. In this regard, a multistakeholder approach where health systems and payers are integrated into the transitional care model helps offset the cost of these programs.

Next, although physicians, nurses, and, more recently, social workers are often considered ideal transitional care leads, there is an opportunity to increase the role of other providers. Pharmacists and community social workers can be instrumental in improving care for older patients who transition from an ED to home. Given the lower cost associated with CHWs or increased accessibility of pharmacists compared with more traditional transitional care leads (ie, nurses), there is opportunity to expand personnel typically involved in transitional care.

Finally, although many transitional care models focus on specific roles or organizations, the importance of communication cannot be understated. Rather than focusing on who manages the transitional care plan, increased emphasis on how information is exchanged may be equally important. Specifically, standardized documentation to ensure consistent communication across care venues or even structured telephonic follow-up represent low-cost, low-resource approaches that have been found effective and can be implemented broadly. These approaches may be especially relevant in rural or low-income areas where clinical staff and resources are limited.

SUMMARY

Transitioning a patient from 1 venue of care to another is both one of the most common activities in the US health care system and among the most critical. This is especially the case for older patients. This population visits the ED at a higher rate than ever before and are more vulnerable compared with younger patients during transitional care for clinical (eg, frailty, cognitive impairment, and chronic illness) as well as social factors (eg, food insecurity and transportation). Thus, there is a need to continue testing and enhancing existing models and exploring new approaches to safely transition older patients from the ED.

REFERENCES

- 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.
- Dharmarajan K, Qin L, Bierlein M, et al. Outcomes after observation stays among older adult Medicare beneficiaries in the USA: retrospective cohort study. BMJ 2017;357:j2616.
- 3. Friedmann PD, Jin L, Karrison TG, et al. Early revisit, hospitalization, or death among older persons discharged from the ED. Am J Emerg Med 2001;19(2):125–9.
- Gabayan GZ, Asch SM, Hsia RY, et al. Factors associated with short-term bounce-back admissions after emergency department discharge. Ann Emerg Med 2013;62(2):136–44.e1.
- Hastings SN, Barrett A, Weinberger M, et al. Older patients' understanding of emergency department discharge information and its relationship with adverse outcomes. J Patient Saf 2011;7(1):19–25.
- 6. Hastings SN, Schmader KE, Sloane RJ, et al. Quality of pharmacotherapy and outcomes for older veterans discharged from the emergency department. J Am Geriatr Soc 2008;56(5):875–80.

- 7. Hastings SN, Whitson HE, Sloane R, et al. Using the past to predict the future: latent class analysis of patterns of health service use of older adults in the emergency department. J Am Geriatr Soc 2014;62(4):711–5.
- Limpahan LP, Baier RR, Gravenstein S, et al. Closing the loop: best practices for cross-setting communication at ED discharge. Am J Emerg Med 2013;31(9): 1297–301.
- Norman J. Americans rate healthcare providers high on honesty, ethics. GALLUP News 2016;2016.
- Kelly JA, Somlai AM, DiFranceisco WJ, et al. Bridging the gap between the science and service of HIV prevention: transferring effective research-based HIV prevention interventions to community AIDS service providers. Am J Public Health 2000;90(7):1082.
- 11. Snow V, Beck D, Budnitz T, et al. Transitions of care consensus policy statement: American college of physicians, society of general internal medicine, society of hospital medicine, american geriatrics society, american college of emergency physicians, and society for academic emergency medicine. J Hosp Med 2009; 4(6):364–70.
- Schumacher JR, Lutz BJ, Hall AG, et al. Feasibility of an ED-to-home intervention to engage patients: a mixed-methods investigation. West J Emerg Med 2017; 18(4):743.
- 13. Wang DH. Beyond code status: palliative care begins in the emergency department. Ann Emerg Med 2017;69(4):437–43.
- 14. Forum NQ. Emergency department transitions of care: a quality measurement framework. 2017; Available at: http://www.qualityforum.org/Publications/2017/08/Emergency_Department_Transitions_of_Care_-_A_Quality_Measurement_Framework_Final_Report.aspx. Accessed October 25, 2017.
- Gillespie SM, Gleason LJ, Karuza J, et al. Health care providers' opinions on communication between nursing homes and emergency departments. J Am Med Dir Assoc 2010;11(3):204–10.
- **16.** Hastings SNMD, Oddone EZMDMHS, Fillenbaum GP, et al. Frequency and predictors of adverse health outcomes in older medicare beneficiaries discharged from the emergency department. Med Care 2008;46(8):771–7.
- 17. Hullick C, Conway J, Higgins I, et al. Emergency department transfers and hospital admissions from residential aged care facilities: a controlled pre-post design study. BMC Geriatr 2016;16(1):102.
- 18. Office BMN. The bridge model. 2017. Available at: http://www.transitionalcare.org/the-bridge-model/. Accessed October 25, 2017.
- Ouslander JG, Bonner A, Herndon L, et al. The Interventions to Reduce Acute Care Transfers (INTERACT) quality improvement program: an overview for medical directors and primary care clinicians in long term care. J Am Med Dir Assoc 2014;15(3):162–70.
- 20. Unroe KT, Nazir A, Holtz LR, et al. The optimizing patient transfers, impacting medical quality, and improving symptoms: transforming institutional care approach: preliminary data from the implementation of a centers for Medicare and Medicaid services nursing facility demonstration project. J Am Geriatr Soc 2015;63(1):165–9.
- 21. Kessler C, Williams MC, Moustoukas JN, et al. Transitions of care for the geriatric patient in the emergency department. Clin Geriatr Med 2013;29(1):49–69.
- 22. Samuels-Kalow M, Hardy E, Rhodes K, et al. "Like a dialogue": teach-back in the emergency department. Patient Educ Couns 2016;99(4):549–54.

- 23. Jeffs L, Saragosa M, Law MP, et al. The role of caregivers in interfacility care transitions: a qualitative study. Patient Prefer Adherence 2017;11:1443.
- 24. 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.
- McCusker J, Verdon J, Vadeboncoeur A, et al. The elder-friendly emergency department assessment tool: development of a quality assessment tool for emergency department-based geriatric care. J Am Geriatr Soc 2012;60(8):1534–9.
- 26. Lo AX, Biese K, Carpenter CR. Defining quality and outcome in geriatric emergency care. Ann Emerg Med 2017;70(1):107–9.
- 27. ACEP Accredits geriatric emergency care for emergency departments. Available at: www.acep.org/geriatrics.
- 28. Eccles MP, Mittman BS. Welcome to implementation science. Implement Sci 2006;1(1):1.
- 29. Bauer MS, Damschroder L, Hagedorn H, et al. An introduction to implementation science for the non-specialist. BMC Psychol 2015;3(1):32.
- 30. Kilbourne AM, Abraham KM, Goodrich DE, et al. Cluster randomized adaptive implementation trial comparing a standard versus enhanced implementation intervention to improve uptake of an effective re-engagement program for patients with serious mental illness. Implement Sci 2013;8(1):136.
- 31. Kilbourne AM, Neumann MS, Pincus HA, et al. Implementing evidence-based interventions in health care: application of the replicating effective programs framework. Implement Sci 2007;2(1):42.
- 32. Richardson JL, Milam J, McCutchan A, et al. Effect of brief safer-sex counseling by medical providers to HIV-1 seropositive patients: a multi-clinic assessment. Aids 2004;18(8):1179–86.
- 33. Alvarez R, Ginsburg J, Grabowski J, et al. The social work role in reducing 30-day readmissions: the effectiveness of the bridge model of transitional care. J Gerontol Soc Work 2016;59(3):222–7.
- 34. Yap AF, Thirumoorthy T, Kwan YH. Medication adherence in the elderly. Journal of Clinical Gerontology and Geriatrics 2016;7(2):64–7.
- 35. Koehler BE, Richter KM, Youngblood L, et al. Reduction of 30-day postdischarge hospital readmission or emergency department (ED) visit rates in high-risk elderly medical patients through delivery of a targeted care bundle. J Hosp Med 2009; 4(4):211–8.
- 36. Weiyi N, Colayco D, Hashimoto J, et al. Impact of a pharmacy-based transitional care program on hospital readmissions. Am J Manag Care 2017;23(3):170–6.
- 37. Kind AJ, Jensen L, Barczi S, et al. Low-cost transitional care with nurse managers making mostly phone contact with patients cut rehospitalization at a VA hospital. Health Aff (Millwood) 2012;31(12):2659–68.
- 38. Coalition ALFAC. ED/post-acute care blue envelope project. 2017. Available at: https://www.uwhealth.org/files/uwhealth/docs/transitional_care/blue-transfer-process.pdf. Accessed October 25, 2017.