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Editorial

Is This Really an Emergency? Reducing Potentially Preventable Emergency Department Visits Among Nursing Home Residents

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Think about a common clinical scenario that is handled differently in 2 different nursing homes (NHs).

Scenario One

Mrs Smith, a 92-year-old woman with moderately advanced Alzheimer disease is found in her NH room on the floor by a certified nursing assistant. The registered nurse is called and finds her vital signs to be normal, her mental status to be at her baseline, and no evidence of injury. Based on the NH's policy, the nurse calls 911 and Mrs Smith is transported to the local hospital's Emergency Department (ED) for further evaluation. In the ED, Mrs Smith's vital signs are normal, and the ED physician finds no evidence of injury or focal neurological signs. But, because the ED physician does not have a clear picture of Mrs Smith's baseline mental status from the documentation sent from the NH, he chooses to place her under observation status. Within a couple of hours, Mrs Smith becomes agitated and is given a dose of lorazepam and is catheterized to obtain a urine specimen for culture. That next day, she remains agitated and has a fever of 101°F. She is treated for a presumed urinary tract infection, and given an additional dose of lorazepam. Four hours later she climbs out of her hospital bed, falls on the floor, and fractures her hip, resulting in surgical repair and a 6-day hospital stay. She is discharged back to the NH under the Medicare Part A skilled benefit, but never regains her previous ambulatory status.

Scenario Two

Mrs Jones, a 92-year-old woman with moderately advanced Alzheimer disease, is found in her NH room on the floor by a certified nursing assistant. The registered nurse is called and finds her vital signs to be normal, her mental status to be at her baseline, and no evidence of injury. Based on the NH's policy, the nurse carefully records her findings on a structured progress note, and initiates the NH's post–fall protocol for such occurrences that includes checking vital signs, mental status, and an examination for evidence of injury every shift for 72 hours, and notifies the covering nurse practitioner. The nurse practitioner examines Mrs Jones the next morning and again documents normal vital signs, stable mental status, and no evidence of injury. She reviews Mrs Jones' risk factors for falls, and confirms that she is on a regular toileting assistance program for urinary incontinence. Mrs Jones remains stable in the NH while resuming her usual activities, demonstrating no adverse consequences from the fall.

Was Mrs Smith's fall in Scenario One really an emergency that required an ED visit? The study by Burke and colleagues in this issue of JAMDA provides new and compelling insights into the frequency, causes, characteristics, potential complications, and costs of ED visits by NH residents in the United States,[1] and why providers of long-term, post-acute, and ED care must develop strategies to reduce these visits and the acute hospitalizations related to them. The investigators analyzed data from the National Hospital Ambulatory Medical Care Survey, an annual national probability sample survey of ED visits to general and short-stay hospitals conducted by the National Center for Health Statistics. The 3857 ED visits of NH residents age 65 and older they studied represent close to 14 million ED visits over the 2005 to 2010 study period; equivalent to 1.8 ED visits annually per NH resident in the United States. More than half of these visits (53.5%) did not result in hospital admission or an observation stay, and of those admitted, the median length of stay was 7.1 days. Among those who were not admitted, 63% had no abnormalities in vital signs (compared with 42% of those admitted), and 19% had no diagnostic tests performed (compared with fewer than 4% of those admitted). However, two-thirds of those not admitted had at least

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one imaging test in the ED, and 20% had a computed tomography (CT) scan of the head (compared with 21% of those admitted). A substantial proportion of the NH residents who were not admitted to the hospital were exposed to potential iatrogenic adverse events: 9% had a bladder catheterization, almost 15% received a drug that affects the central nervous system (anxiolytics/sedatives, narcotic analgesics, or antipsychotics), and just more than 9% left the ED with a prescription for one or more of these drugs.

The most common diagnoses for the ED visits that did not result in admission included injury (44.8%; including superficial injuries and contusions in 10.5% and open wounds in 5.0%) and infections (11.1%). We suggest that just because a NH resident falls or develops symptoms or signs of infection, policies, procedures, and common practices do not have to dictate that these conditions are emergencies requiring an ED visit. We understand the concerns of the NH described in Scenario One. These concerns likely revolve around the possibility that Mrs. Smith might have an occult injury and if they do not send her to the ED and the injury then becomes apparent, they will receive regulatory sanctions and/or incur legal liability for the injury. In addition, we understand that some NHs do not have ready access to clinically indicated diagnostic studies and send residents to the ED for this purpose.

But, as illustrated by the case of Mrs Smith, these ED visits can result in adverse events and considerable morbidity. The data presented by Burke et al suggest that that ED visits of NH residents are not only frequent, but, using very conservative estimates for the cost of an ED visit, may cost our federal government hundreds of millions of dollars annually. For example, if each of 1.6 million NH residents visits the ED an average of 1.8 times in a year, and the average Medicare reimbursement for an ED visit is $1000, this amounts to $1 billion in expenditures, not counting the costs of caring for any morbidity or unnecessary hospitalizations that occur related to these visits.

Unlike definitions of “avoidable” or “potentially preventable” hospitalizations, which are generally based on a series of diagnoses and are of questionable validity given the complexity of decisions to admit older patients to the hospital,[2] Burke et al suggest that most clinicians would agree that an ED visit of an NH resident with normal vital signs who is judged not to need any diagnostic testing in the ED is likely potentially preventable. We certainly agree.

So, how can these visits be reduced in a safe and feasible manner? Falls with obvious or suspected injury are difficult to prevent among NH residents. Data from randomized trials of fall interventions programs in NHs demonstrate modest to no reductions in falls.[3] Similarly, despite the efforts of the Centers for Disease Control and Prevention (CDC) to work with the NH community to track and reduce the incidence of infections in this setting,[4] NH residents have numerous risk factors for infections, and substantial reductions of infections in this patient population remain challenging. But, as Scenario Two suggests, NHs can develop policies and procedures that do not automatically trigger an ED visit after a fall. Explicit criteria for when a resident can be monitored in the facility, careful monitoring and documentation, and an evaluation of fall risk factors by a clinician (physician, nurse practitioner, or physician assistant), are all consistent with clinical practice guidelines,[5,6] and a publicly available fall management program that includes these strategies, which has been tested in a project funded by the Agency for Healthcare Research and Quality.[7–9] Following such a policy and procedure with careful documentation should be viewed as high-quality care by NH surveyors, and an acceptable standard of practice in lawsuits. If the resident subsequently manifests a fall-related injury, it will be identified promptly and evaluated and managed as clinically indicated. After all, this is what would be done if such a resident is admitted to the hospital or to an observation stay. This approach is within the scope of practice of NH professional staff. Similarly, not all NH residents who manifest early signs of infection require evaluation and treatment in an ED or acute hospital care.[10] Research demonstrates that many patients with respiratory infections can be effectively managed in the NH setting.[11,12] The American Medical Directors' Association Society for Post-Acute and Long-Term Care (AMDA) has developed a clinical practice guideline on common infections,[13] and the CDC offers guidance and excellent resources on preventing and managing infections in long-term care.[4]

There are several programs and resources designed to improve care transitions and manage acute changes in condition without hospital transfer when safe and feasible that have relevance to reducing potentially preventable ED visits of NH residents. AMDA has developed a free, publicly available comprehensive clinical practice guideline on care transitions and related resources.[14] The Institute for Healthcare Improvement's State Action on Avoidable Readmissions program also provides a wide variety of relevant resources.[15] The INTERACT (Interventions to Reduce Acute Care Transfers) quality improvement program includes tools and strategies to manage acute changes in condition in post-acute and long-term care settings and is free for clinical use.[16,17] Strategies embedded in the INTERACT program include identifying and managing acute changes in condition early before they become serious enough to warrant hospital transfer, managing some acute changes in condition without transfer based on explicit criteria included in INTERACT decision support tools, and improving advance care planning and implementing palliative or hospice care when it is an appropriate and preferred alternative to what are often burdensome care transitions in NH residents with end-stage dementia and other terminal illnesses.[18] In addition to the paper-and-pencil tools available on the INTERACT Web site, key elements of the program are now available within the PointClickCare electronic health record, and several other software providers have license agreements to include INTERACT in their products. Recently, an expert advisory group made recommendations on standard order sets that are compatible with the 10 INTERACT care paths that address common reasons for hospital transfer of NH residents. These order sets, if properly implemented, may serve as additional tools for clinicians in post-acute and long-term care to provide evidence and expert-recommended care that may reduce the incidence of potentially preventable ED visits.[19] Collaborative practice between physicians and nurse practitioners or physician assistants is one of the most effective strategies to reduce hospitalizations,[20] and such practices will be enhanced by facilitating the implementation of the guidelines and tools now available to them.

Burke et al suggest that we have a lot more to learn to reduce potentially preventable ED visits, including developing evidence-based approaches to identifying NH residents at risk of occult significant injury after a fall. Other approaches will inform these efforts. Many care transitions programs include a quality improvement component that focuses on root cause analyses of transfers. In an ongoing implementation trial of the INTERACT Quality Improvement Program, root cause analyses from more than 4900 hospital transfers of residents of 71 participating NHs are providing useful insights. For example, of the transfers analyzed by these NHs, 23% were rated as potentially preventable in retrospect by NH staff; 19% resulted in an ED visit without hospitalization; and 11% occurred within 2 days of NH admission from the hospital, and another 11% occurred between 3 and 6 days of NH admission.[21] Further detailed analyses of these transfers will provide data on factors associated with transfers rated as preventable and the clinical presentation of changes in condition that resulted in an ED visit without hospital admission. They also will help identify NH residents at high risk for early readmission to the ED and/or hospital, among whom more intensive proactive risk management protocols might be instituted. In

another ongoing project supported by the Centers for Medicare and Medicaid Services (CMS) Innovations Center, we are performing root cause analyses of hospital readmissions from the perspective of both the acute care and post-acute care providers. We have learned that these perspectives differ and complement each other in terms of understanding strategies to prevent rapid return to the hospital. Such collaborative root cause analyses are occurring in several locations across the country, and we strongly encourage using this strategy. Some common themes have emerged. For example, some patients have been transferred back to the ED for abnormal laboratory values that may require further evaluation but not necessarily hospitalization. Proactive and clear communication should occur when the purpose of the ED visit is for specific diagnostic studies unavailable in the NH to prevent unnecessary tests and procedures. The latter could result in an unnecessary hospital admission by clinicians who are not familiar with the NH resident or the NH. We also have learned about the critical importance of not only improving advance care planning, but communicating more than the basic advance directives (such as a so-not-resuscitate order) during care transitions. Without documentation of the nature of the conversations that take place, clinicians may make false assumptions about NH resident and family preferences and/or attempt to redo difficult conversations that have already taken place.

Like hospitalizations and hospital readmissions, not all ED visits that may be considered "potentially preventable" are in fact feasible to prevent.[22] But, there are strategies that can prevent these ED visits from turning into unnecessary hospital admissions. First, as already alluded to, better communication in a succinct manner of critical clinical information, what has already been done to evaluate the NH resident, and resident and family preferences will help ED staff to more effectively target their evaluation. Research has demonstrated that communication between NHs and hospitals often does not include such critical information.[23] Both the AMDA care transitions guideline and the INTERACT program include key elements of data that should be communicated to the hospital, and provide tools that can be used for this purpose. Many forms recommended by state organizations and used by NHs do not contain these critical data elements. Second, most EDs are under time pressure to move patients in and out of the ED quickly. For example, when driving in south Florida on Interstate 95, you can see billboards of competing hospitals that display current ED waiting times as a marketing tool. Such time pressure limits the time ED health care providers spend with patients and may result in poor quality of care for complex NH residents who have multiple medical conditions, multiple medications, dementia, delirium, functional impairments, and behavioral symptoms. Recognition of the need for more appropriate care of such patients in the ED has resulted in development of geriatric EDs in which clinical processes and physical environment (ie, minimizing noise distractors, bedside commodes, and so forth) are targeted at the unique needs of geriatric patients.[24,25] Geriatric EDs typically have clinical staff who are knowledgeable about geriatric patient care, use evidence-based protocols dealing with geriatric syndromes, and provide care coordination. Geriatric EDs also can serve as a site for clinical observation and thoughtful consultation by a geriatrics interdisciplinary team if needed. To standardize this new model of care, geriatric ED guidelines were recently published.[26]

There are barriers to implementing the strategies outlined in this editorial. Most notably, there is a high turnover of staff at all levels in NHs, and many NHs appear to be understaffed, as discussed in a recent editorial in this journal.[27] It is extremely difficult to implement any quality improvement initiative in such environments, and it is possible that better decisions about transfers to the ED will not be made until it is clear what the capacity of NHs are to use guidelines, tools, and other resources effectively to reduce these transfers.

Another major barrier is financial incentives. NHs in a predominantly Medicare fee-for-service environment, as opposed to locations in which a large proportion of patients are in Medicare managed care, bundled payment demonstrations, or accountable care organizations, do not have strong financial incentives to reduce transfers to the ED and hospital admission, and in fact may have incentives in the opposite direction. In recognition of this issue, new CMS policy initiatives are being planned to monitor and publish NH 30-day hospital readmission rates as a quality measure and to provide financial incentives to NHs for reducing readmissions or meeting specific benchmarks. The quality measure is being reviewed by the National Quality Forum at the present time.[28] These initiatives might motivate NHs to increase staffing capabilities and to implement programs to ensure a more stable staff, as staff stability is a key ingredient of successful educational and quality improvement programs in the NH setting. Partnerships in bundled payment demonstrations and Accountable Care Organizations are beginning to foster collaborations between NHs and hospitals to bolster staffing levels and capabilities; and CMS is supporting a multisite project involving more than 140 NHs that provides enhanced professional capabilities in NHs to implement INTERACT and other interventions to reduce unnecessary hospitalizations.[29,30]

Despite the challenges, we must intensify our efforts to improve post-acute and long-term care, and to reduce unnecessary ED visits, hospitalizations, and hospital readmissions. Doing so will go a long way toward achieving the triple aim of improving care, improving health, and making care more affordable. It is a golden opportunity for AMDA as well as all of the health care professionals who work in these settings.[31]

References

1. Burke RE, Rooks SP, Levy C, et al. Identifying potentially preventable emergency department visits by nursing home residents in the United States. J Am Med Dir Assoc 2015;16:395–399.
2. Ouslander JG, Maslow K. Geriatrics and the Triple Aim: Defining preventable hospitalizations in the long term care population. J Am Geriatr Soc 2012;60:2313–2318.
3. Choi M, Hector M. Effectiveness of intervention programs in preventing falls: A systematic review of recent 10 years and meta-analysis. J Am Med Dir Assoc 2012;13:188.e13–188.e21.
4. Centers for Disease Control and Prevention. Nursing homes and assisted living (long-term care facilities [LTCF]). Available at: http://www.cdc.gov/longtermcare. Accessed January 18, 2015.
5. American Medical Directors Association. Falls and Fall Risk Clinical Practice Guideline. Columbia, MD: AMDA; 2011.
6. Panel on Prevention of Falls in Older Persons. American Geriatrics Society and British Geriatrics Society. Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older People. J Am Geriatr Soc 2011;59:148–157.
7. Jo A. Taylor Consulting. Resources. Available at: http://joataylor.com/resources. Accessed January 18, 2015.
8. Rask K, Parmelee P, Taylor JA, et al. Implementation and evaluation of a fall management program. J Am Geriatr Soc 2007;55:342–349.
9. Taylor JA, Parmelee P, Brown H, et al. A model quality improvement program for the management of falls in nursing homes. J Am Med Dir Assoc 2007;8:S26–S36.
10. Ouslander JG, Berenson RA. Reducing unnecessary hospitalizations of nursing home residents. N Engl J Med 2011;365:1165–1167.
11. Loeb M, Carusone SC, Goeree R, et al. Effect of a clinical pathway to reduce hospitalizations in nursing home residents with pneumonia. JAMA 2006;295:2503–2510.
12. Dosa D. Should I hospitalize my resident with nursing home-acquired pneumonia? J Am Med Dir Assoc 2005;6:327–333.
13. American Medical Directors Association. Common Infections in the Long-Term Care Setting Clinical Practice Guideline. Columbia, MD: AMDA; 2011.
14. AMDA. Transitions of care in the long-term care continuum. Available at: https://www.amda.com/members/flashpapers/papers/TOC. Accessed January 18, 2015.
15. Institute for Healthcare Improvement. STate Action on Avoidable Rehospitalizations. Available at: http://www.ihi.org/engage/Initiatives/completed/STAAR/Pages/default.aspx. Accessed January 18, 2015.

16. INTERACT. Interventions to Reduce Acute Care Transfers. Available at: http://interact.fau.edu. Accessed January 18, 2015.
17. Ouslander JG, Bonner A, Herndon L, Shutes J. The INTERACT quality improvement program: An overview for medical directors and primary care clinicians in long-term care. J Am Med Dir Assoc 2014;15:162–170.
18. Gozalo P, Teno JM, Mitchell SL, et al. End-of-life transitions among nursing home residents with cognitive issues. N Engl J Med 2011;365:1212–1221.
19. Think Research. Home page. Available at: http://www.thinkresearchgroup.com. Accessed January 18, 2015.
20. Konetzka RT, Spector W, Limcangco MR. Reducing hospitalizations from LTC settings. Med Care Res Rev 2008;65:40–66.
21. Ouslander JG, Tappen R. Preliminary date on the implementation of the INTERACT quality improvement program. Symposium presented at the annual meeting of the Gerontological Society of America; Washington, DC; November 7, 2014.
22. Walsh EG, Wiener JM, Haber S, et al. Potentially avoidable hospitalizations of dually eligible Medicare/Medicaid Beneficiaries from nursing facility and home and community-based services waiver programs. J Am Geriatr Soc 2012;60:821–829.
23. King BD, Gilmore-Bykovskyi A, Roiland R, et al. The consequences of poor communication during hospital-to-skilled nursing facility transitions: A qualitative study. J Am Geriatr Soc 2013;61:1095–1102.
24. Mount Sinai Hospital. Geriatric emergency medicine. Available at: http://www.mountsinai.org/patient-care/service-areas/emergency-medicine/geriatric-emergency-department. Accessed January 18, 2015.
25. Hwang U, Morrison RS. The geriatric emergency department. J Am Geriatr Soc 2007;55:1873–1876.
26. American College of Emergency Physicians. Geriatric emergency department guidelines. Available at: http://www.acep.org/geriEDguidelines. Accessed January 18, 2015.
27. Schnelle JF, Karuza J, Katz PR. Staffing, quality, and productivity in the nursing home. J Am Med Dir Assoc 2013;14:784–786.
28. National Quality Forum. Home page. Available at: www.qualityforum.org/qps/2510. Accessed January 18, 2015.
29. CMS.gov. Initiative to reduce avoidable hospitalizations among nursing facility residents. Available at: http://innovation.cms.gov/initiatives/rahnfr. Accessed January 18, 2015.
30. 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;63:165–169.
31. Ouslander JG. The Triple Aim: A golden opportunity for geriatrics. J Am Geriatr Soc 2013;61:1808–1809.