There has never been a more important time to implement treating-in-place for skilled nursing facility residents than the ongoing COVID-19 pandemic. With emergency department (ED) and hospital beds filling with potentially contagious patients and health care staff stretched to respond to a demanding infection, managing residents within the SNF has become a priority.

ED visits and hospitalizations are common among SNF residents, with nearly a quarter of residents returning to the hospital each year (Medicare, “Nursing Home Compare,” https://www.medicare.gov/nursinghomecompare). Hospitalizing SNF residents is costly for the health care system and risky for the individual, causing disruption, disorientation, and potential for medication errors, complications, and hospital-acquired infections as well as a likelihood of reduced functioning on return to the nursing home (J Am Geriatr Soc 2010;58:627–635). Many of these hospitalizations are potentially avoidable (Centers for Medicare & Medicaid Services, “Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents [NFI],” https://go.cms.gov/39ozyYs). But beyond having a system in place, educating long-term care residents and families that care can be provided right where they are is critical: far too many believe the ED and hospital are safer, better places for care, which can be far from the truth.

Regulatory Guidance to Reduce Rehospitalizations

Legislative and regulatory changes over the past decade have addressed the need to reduce potentially avoidable hospital admissions. The Affordable Care Act of 2010 established the Hospital Readmissions Reduction Program in 2013, designed to reduce payments to hospitals that had excessive 30-day readmissions for specific indications. In 2019, the 21st Century Cures Act required the Centers for Medicare & Medicaid Services to assess a hospital’s performance relative to other hospitals with a similar proportion of patients who are dually eligible for Medicare and Medicaid. The hospital payment reduction is capped at 3% (CMS, “Hospital Readmissions Reduction Program [HRRP],” https://go.cms.gov/2vZEh9). Medicare’s Nursing Home Compare uses these current unplanned readmission measures for hospitals:

- Acute myocardial infarction
- Chronic obstructive pulmonary disease (COPD)
- Heart failure
- Pneumonia
- Coronary artery bypass graft surgery
- Elective primary total hip arthroplasty and/or total knee arthroplasty
- The Protecting Access to Medicare Act
- Repeal and Replace the Affordable Care Act
- In 2012, CMS began implementing the Initiative to Reduce Avoidable Hospitalizations Among Nursing Facility Residents (NFI). This voluntary program includes clinical and education components and a payment model that offers special Medicare billing codes to participating SNFs and practitioners (physicians, advanced practice registered nurses, and physician assistants). The billing codes act as a financial incentive for providing care in-house to eligible residents enrolled in Medicare fee-for-service (FFS), rather than transferring them to hospitals for treatment. To receive the financial incentive, facility staff and practitioners assess, diagnose, certify, and treat higher acuity, long-stay residents who may have one of six qualifying conditions (RTI International, “Evaluation of the Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents—Payment Reform,” Third Annual Report, December 2019; https://bit.ly/3bGCc7e).

Six conditions are evaluated in the NFI:

- Chronic obstructive pulmonary disease or asthma
- Congestive heart failure
- Fluid/electrolyte disorder or dehydration
- Pneumonia
- Skin infection
- Urinary tract infection

The conditions that make up the HRRP and the NFI differ slightly. The HRRP conditions reflect potentially avoidable hospital readmissions in the ambulatory adult population. The NHI conditions reflect those that are more common among SNF residents.

Interdisciplinary Approach to Reducing SNF Rehospitalizations

The most common quality improvement opportunities for SNFs to reduce avoidable hospitalization (Innov Aging 2019;2:ig017) include:

- Having appropriate resources available (a factor cited in 45% of transfers associated with any of the six diagnoses)
- Improving communication among stakeholders (a factor cited in 48% of transfers)
- Detecting changes in status earlier
- Reducing patient preferences or a palliative care plan better

In addition to improving on these opportunities, SNFs should also seek to optimize the management of the six conditions likely to result in hospitalizations. To do this, an interdisciplinary team (IDT), including at minimum all the members of the pharmacy and therapeutics committee, should review nationally accepted guidelines for common conditions that often require a visit to the ED and/or hospital admission. Using the conditions identified in the NFI is a good place to start.

The IDT should customize treatment protocols based on national guidelines adjusted to fit the clinical staff, equipment, and resources available in the SNF setting. Once a treatment protocol is approved, the IDT must develop a process to educate prescribers, clinical care staff, and direct resident-care staff on the specific steps for day-to-day management as well as exacerbation management for each targeted condition. Input from hospitalists or specialists may be valuable to ensure the SNF treatment protocols complement the hospital discharge strategies in your area.

It is also important that the IDT work with the LTC pharmacy provider to verify access to the most cost-effective treatment options required for the protocol. Once implemented, the SNF treatment protocols should be reviewed annually and updated as necessary to reflect current treatment guidelines.

The guidelines themselves contain complete information, but selected highlights of the treatment protocols are presented here. (Note: The guidelines provided here are examples. Other guidelines exist that may be considered. These treatment guidelines should be reviewed annually with the LTC pharmacy provider to verify access to the most cost-effective treatment options required for the protocol. Once implemented, the SNF treatment protocols should be reviewed annually and updated as necessary to reflect current treatment guidelines.

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CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Guidelines:

- Key Management Concepts: Treatment should be tailored based on the level of symptoms and risk for exacerbation, inhaled technique should be evaluated, and if resident is unable to comply with required inspiratory capacity and inhaler activation, consider changing the inhalation device. Nebulization may be appropriate for residents who have physical or cognitive deficits. Long-acting bronchodilators are preferred over maintenance therapy with short-acting agents. Inhaled bronchodilators are preferred over oral bronchodilators. Theophylline is not recommended unless other long-term treatment bronchodilators are not available. Long-term monotherapy with an oral or inhaled corticosteroid (ICS) is not recommended unless there is a history of exacerbations. Long-term oxygen therapy is indicated when PaO2 <7.3 kPa or SaO2 ≤88% twice over a three-week period.

Key Exacerbation Management Concepts: For residents who have an exacerbation, short-acting beta-agonist bronchodilators (SABA) are recommended. If the exacerbation occurs while the patient is receiving long-acting bronchodilator monotherapy, consider escalating to combination therapy with a long-acting beta-agonist (LABA) and long-acting antimuscarinic (LAMA) or LABA/ICS combination. Reevaluate the patient’s ability to effectively use an inhalation device, and switch to a nebulizer if necessary.

Heart Failure Guidelines:

- American College of Cardiology/American Heart Association (“J Am Coll Cardiol 2017;70:776–803)

Key Management Concepts: Systolic and diastolic blood pressure should be controlled. The use of beta-blocking agents may be required. Despite advances in treatment of heart failure, hospitalization rates continue to be high. Medication management is crucial, and patients should receive education about the medications they are taking, including their purpose and side effects. Medications can be prescribed to optimize heart function and reduce the risk of additional hospitalizations. It is important to monitor for adverse effects and adjust dosages as needed.
agents, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin receptor blockers (ARBs) in patients with hypertension is reasonable to control blood pressure. Diuretics should be used for relief of symptoms due to volume overload; ACE inhibitors reduce morbidity and mortality in heart failure with reduced ejection fraction. ARBs were developed with the rationale that angiotensin II production continues in the presence of ACE inhibition, driven through alternative enzyme pathways. ARBs do not inhibit kininase and are associated with a much lower incidence of cough and angioedema than ACE inhibitors; however, like ACE inhibitors, ARBs should be given with caution to patients with low systemic blood pressure, renal insufficiency, or elevated serum potassium.

Long-term therapy with ARBs has been shown to reduce morbidity and mortality, especially in ACE inhibitor–intolerant patients. An ARNI — an ARB combined with a neprilysin-inhibitor, an enzyme that degrades natriuretic peptides, bradykinin, adrenomedullin, and other vasoactive peptides — reduced the composite end point of cardiovascular death or SNF hospitalization significantly by 20% (Circulation 2016;133(11):1115–1124).

Fluid/Electrolyte Disorder and Dehydration


Key Management Concepts: In the elderly, most fluid/electrolyte imbalances present initially with nonspecific symptoms such as lethargy, confusion, or a decline in function that may be abrupt. Adverse drug reactions, acute illnesses, and medical complications may cause or exacerbate the same nonspecific symptoms. The appearance of more specific physical symptoms suggestive of advanced dehydration (e.g., dry mucous membranes, sunken eyes, hypotension) may be delayed.

- Identify possible treatments for the conditions that may be affecting fluid/electrolyte balance or causing dehydration, such as pneumonia or heart failure causing symptoms of lethargy and confusion that have resulted in decreased fluid.
- Stop or reduce the dosage of the antibiotics that has caused diarrhea, which has led to excessive fluid loss.
- Stop or reduce the dosage of diuretics that has caused excessive diuresis and/or the ACE inhibitors that may have worsened the patient’s sodium imbalance after the diuretics caused excessive sodium loss.

Pneumonia

Guidelines:

- American Thoracic Society/Infectious Disease Society of America (ATS/IDSA) (Am J Respir Crit Care Med 2019;200:e45–e67)
- Nursing Home – Associated Pneumonia, Part I: Diagnosis (J Am Med Dir Assoc 2020;21(3):308–314)

Key Management Concepts: The most common cause of pneumonia in adults older than 30 is a bacterial infection, and the different types of pneumonia include:

- Community acquired
- Hospital acquired
- Ventilator associated
- Pneumonia in immunocompromised patients (i.e., HIV)

For suspected community-acquired pneumonia (CAP), sputum cultures and blood cultures are only recommended for patients with severe disease and inpatients empirically treated for methicillin-resistant Staphylococcus aureus or Pseudomonas aeruginosa. CAP can usually be treated empirically with antibiotics. A macrolide antibiotic is conditionally recommended based on resistance levels. A beta-lactam/macrolide combination has stronger evidence. Corticosteroids are not recommended unless the patient develops refractory septic shock.

Aspiration pneumonitis and pneumonia are common in LTC residents, especially those with a swallowing disorder. Supportive care and oxygen may be necessary, and the treatment protocol should include reassessment of the patient after two to three days to determine whether the antibiotics are appropriate (per sputum culture) or need to be changed to a more effective agent.

Skin Infections

Guidelines: Infectious Diseases Society of America (Clin Infect Dis 2014;59:e10–e52)


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Packaged oral rehydration solutions are effective for stable residents who can drink. To accommodate absorption characteristics, replace approximately half of a fluid deficit within the first 24 hours. Replace the remaining deficit within the next 48 to 72 hours. Residents who are unstable due to dehydration will generally require intravenous hydration.
Two months ago, we were eagerly planning another Annual Conference of AMDA — The Society for Post-Acute and Long-Term Care Medicine. We were anticipating how we would renew old Society friendships, learn how to be better clinicians, and have therapeutic conversations with the only people on the planet who know exactly what our world is like. What a difference a pandemic makes, huh?

These same past few months I have been involved in a labor of love that I have mentioned in previous columns. I have a treasure trove of more than 400 letters written by my father to his mother during his service in World War II. I have been transcribing them, and it has been a moving experience. Reading them is like visiting a foreign country that looks strangely familiar at every turn.

What I have learned thus far is that these young, mostly small-town and rural boys had a vision. It was nothing less than that they wanted to change and shape America and the world. They weren’t sure just exactly what it would look like, but it would be for the better. As I’ve also mentioned previously, the word “stewardship” came to mind for me as I read. The Oxford Dictionary defines stewardship as “the job of supervising or taking care of something.” History shows us that those dreamers did indeed take care of something as part of the Greatest Generation, as Tom Brokaw so aptly named them.

Getting to know these kids — and they were kids — through my father’s letters has been transformational. Seeing the manner in which they changed the world through their stewardship has prompted a challenge to me: What is my personal stewardship mission? After a great deal of thought my answer is to make the post-acute and long-term care space safer, more compassionate, more evidence based, and more attuned to the needs of the PALTC population. Like those young dreamers, I’m not sure precisely what the result will look like, but I’ll know it when I get there — and it will be better. I choose to do this with stewardship through the Society and the Foundation for PALTC Medicine.

In my March column I extended that same challenge to you: Where will your personal stewardship mission take you? Since I first asked that of you, an answer has emerged from Wuhan, China, in the form of COVID-19. As it spreads across the globe, it has selectively sought out for...