Comorbidities Found More Predictive of Hospice Eligibility than Functional Status

Among nursing home residents, specific comorbid diagnoses predict six-month mortality more accurately than traditional measurement of functional ability, report researchers in the *Journal of Palliative Medicine*. Their report validates the use of a new diagnostic tool called the Hospice Eligibility Prediction (HELP) Index.

“The HELP Index, constructed from the history of patients’ diagnoses, was more predictive of mortality in six months than the Barthel [Index of] functional ability,” write the authors. “This suggests that an index based on patients’ diagnoses may be more useful than an index that is solely based on functional ability.”

Investigators analyzed data from patient medical records across 126 medical centers from 2003 to 2012, merged with data from the federally mandated Minimum Data Set for a total of 140,699 VA nursing home residents (male, 96%; white race, 60%). Out of these, there were 365,786 hospital admissions and 3,326,486 inpatient diagnoses, as indicated by the ICD-9 diagnostic codes.

**KEY FINDINGS**

In the calculation of accuracy, the area under the curve was significantly higher for the HELP Index, compared with the Barthel Index (0.838 vs 0.692; α < 0.01). The majority of diagnoses found to be highly predictive of six-month mortality included malignancies and secondary malignant neoplasms:

- Malignant pleural effusion (likelihood ratio [LR], 11.52)
- History of cardiac arrest (LR, 9.67)
- Secondary malignant neoplasms of the brain and spinal cord (LR, 8.03); kidney (LR, 7.96); pleura (LR, 7.72); some digestive organs and spleen (LR, 7.60); and adrenal gland (LR, 7.60); as well as neoplasm-related pain (LR, 6.03)
- Cardiogenic (LR, 5.93) and septic shock (LR, 5.70)

“Although functional status is a good prognostic indicator for cancer patients, this is not the case for the vast majority of other patients, such as residents with circulatory problems, dementia, pneumonia, or cachexia,” note the authors. Further, while a number of validated prognostic indices for older adults rely on a mix of functional abilities and broad diagnostic categories, none uses individual diagnostic codes.

“In contrast, we relied on specific diagnoses (e.g., not all cancers but specific types of cancers),” the authors write. “We found that relying on specific diagnoses leads to an index that is more predictive of mortality than functional disabilities.”

Since diagnoses are readily available for hospitalized patients, the HELP Index could be used to conduct an initial screening at discharge, with patients found to be at risk of six-month mortality receiving a clinical review of functional ability to generate appropriate hospice referral.

Low Rate of Advance Directive Documentation among Heart Failure Patients Prompts ‘Call to Action’ from Researchers

Although the prevalence of advance directives (ADs) among patients hospitalized with heart failure (HF) rose significantly over time from 2008 to 2013, more than 85% of patients did not have documented ADs upon admission, and over 80% still had no ADs in their medical records at any time during this study period, according to a report published in JACC: Heart Failure.

“Our findings should represent a call to action for providers who care for patients with HF to focus on advance care planning,” write the authors. “These data underscore the significant opportunities to improve care for this vulnerable group of patients in accordance with their wishes and a call for a concentrated and systematic effort to improve on the current trends.”

The authors point out that patients with HF are at high risk for adverse events and mortality, and experience poor patient-centered outcomes, especially when hospitalized for worsening symptoms. National and professional society guidelines for HF management and palliative care stress the importance of early advance care planning and the provision of palliative and hospice care for these patients.

“Despite these facts, we observed a very low rate of AD documentation among patients with HF who were hospitalized for HF symptoms or other comorbidities,” write the authors. “We found a strikingly low rate of ADs (< 17%) in patients more than 65 years of age and an even lower rate (< 9%) in younger patients.”

Investigators analyzed the medical records of 24,291 patients (mean age, 64.8 years; female, 47.9%; white race, 46.5%) with 44,768 admissions to one of two large tertiary care hospitals over a five-year period from 2008 to 2013. All patients were discharged with HF as either the primary or secondary diagnosis. Both hospitals had inpatient HF services, with HF consultation teams and multidisciplinary inpatient palliative care services.

OVERALL

• 12.7% of patients had documented ADs upon admission.
• Median length of stay was 5 days (range, 3 to 10 days).
• Although the percentage of patients with ADs at discharge rose significantly (from 10.1% to 14.3%), it remained low over the five-year period.

PREDICTORS OF HIGHER LIKELIHOOD OF HAVING AN AD

• Having a DNR order (OR, 1.87; 95% CI, 1.65 to 2.12)
• Multiple hospitalizations over the course of the study period (2 to 3 hospitalizations: odds ratio [OR], 1.67; 95% confidence interval [CI], 1.51 to 1.83; ≥ 4 hospitalizations: OR, 2.53; 95% CI, 2.23 to 2.87)
• Age > 65 years (OR, 1.58; 95% CI, 1.41 to 1.77)
• Palliative care consultation (OR, 1.47; 95% CI, 1.28 to 1.68)
• Length of hospital stay, ≥ 5 days OR, 1.35; 95% CI, 1.23 to 1.47)
• Discharge to hospice (OR, 1.30; 95% CI, 1.11 to 1.53)

PREDICTORS OF LOWER LIKELIHOOD OF HAVING AN AD

• Black race (OR, 0.46; 95% CI, 0.42 to 0.51)
• Having a general cardiologist as attending physician (OR, 0.63; 95% CI, 0.56 to 0.72)
• Residence in a lower-income area (OR, 0.68; 95% CI, 0.59 to 0.79)
• Medicaid coverage (OR, 0.75; 95% CI, 0.61 to 0.92)

“Considering the poor prognosis and the

Advance Care Planning in Heart Failure: A Clinical Approach

1. Present information about prognosis in the setting of uncertainty.
   Acknowledging uncertainty is important, but should not derail discussion of “what-ifs” concerning the possible disease trajectory. Physicians, patients, and families may feel reluctant to discuss worst-case scenarios, but “it is well recognized that ‘difficult discussions now will simplify difficult decisions later.’”

2. Engage the patient in a discussion around values and goals.
   “[C]onversations evolve to greater relevance when they begin with a discussion of a patient’s hopes and fears” surrounding possible interventions, note the authors. Documentation of a patient’s values and what quality of life means to the patient can be used both currently and later by the medical team as a guide.

3. Review and recommend reasonable options for further care.
   Clinicians should guide and summarize the discussion, making recommendations for what is needed now and what might be needed in the future.

4. Establish timing and support for discussions.
   Since “decision making is a process, not a point,” clinicians can suggest that the patient schedule annual visits designated to review not only the status of the disease, but also the contributions of comorbidities to prognosis and quality of life.

5. Revisit and revise.
   Patients can change their preferences over time, or when experiencing changes in health status, mobility, and other indicators of quality of life. As medical options diminish, it is the clinicians, having established the “anticipatory process” of advance care planning, who “shoulder the primary responsibility for the details of medical decision making at the end of life.”

— Adapted from Stevenson and O’Donnell, JACC: Heart Failure

Continued on Page 3
Most Physicians Take Responsibility for Relieving Spiritual Suffering near the End of Life, National Study Finds

More than 8 out of 10 U.S. physicians believe that unresolved spiritual suffering tends to intensify physical pain in terminally ill patients, and that it is their responsibility to seek to relieve such suffering. Further, those physicians who believe that it is clinically important to address suffering are less likely to report having patients with refractory suffering, according to a report published in the Journal of Pain and Symptom Management.

“How physicians respond to spiritual suffering would seem to be clinically important,” the authors write, “because clinicians often observe that spiritual suffering makes patients’ pain more refractory to treatment, and patients often cite existential suffering as a reason they want to die.”

Investigators analyzed survey responses of 1156 U.S. physicians (male, 65%; white race, 66%), many of whom practiced in specialties that care for a significant number of dying patients (internal medicine, family medicine, cardiology, nephrology, hospice and palliative medicine, geriatrics, oncology specialties, and pulmonary/critical care).

OVERALL FINDINGS
- 81% of physicians agreed unresolved spiritual struggles can worsen pain.
- 88% held that physicians should seek to relieve spiritual suffering just as much as patients’ physical pain.
- 68% disagreed with the use of sedation to unconsciousness to treat refractory psychological or spiritual suffering.

PHYSICIAN OPINION AND EXPERIENCE
- Physicians who strongly believed it was important to address suffering were less likely to report failing to relieve patients’ suffering, compared with those who disagreed that spiritual suffering was clinically important (27% vs 54%).
- Oncologists were most likely to report having three or more terminally ill patients in the past year whose suffering was refractory to available treatments (odds ratio [OR], 1.9; 95% confidence interval [CI], 1.0 to 3.4).
- Specialists in family medicine (OR, 0.5; 95% CI, 0.3 to 0.8) and pulmonary/critical care (OR, 0.5; 95% CI, 0.3 to 0.9) were least likely to report refractory patient suffering.
- Specialists in geriatrics and hospice and palliative medicine were most likely to agree that physicians should seek to relieve spiritual suffering.

“That hospice and palliative care physicians were more likely to endorse physicians’ responsibility for treating spiritual suffering reflects the contemporary practice and culture of palliative care,” note the authors. “[F]rom the World Health Organization to the International Association for Hospice & Palliative Care to the [U.S.] Joint Commission, contemporary visions of quality end-of-life care include attention to the spiritual aspects of patients’ experiences.”

Source: “Limits and Responsibilities of Physicians Addressing Spiritual Suffering in Terminally Ill Patients,” Journal of Pain and Symptom Management. March 201549(3):562-569. Smyre CL, Yoon JD, Rasinski KA, et al; Pritzker School of Medicine; and Sections of Hospital Medicine and General Internal Medicine, University of Chicago, Chicago; Duke University Medical Center, Durham, North Carolina.

Heart Failure (from Page 2)

provides a “captured, unhurried opportunity,” that must not be missed, note the authors. Because hospitalization carries with it an increased risk for adverse outcomes, it is imperative that these conversations take place.

“It is crucial that primary care physicians or cardiovascular specialists understand the patient’s goals and values and participate in advance care planning by giving expert medical advice regarding the utility of interventions at the end of life to the individual patient,” the authors conclude.

CALL TO ACTION

“We echo the summons for action to address ADs in heart failure across all demographics,” write the authors of an editorial comment accompanying the report, in which they highlight “the vital need for reform of the health care system to support the advanced care planning process.”

As experts from the Cardiovascular Division of Brigham and Women’s Hospital in Boston, the editorial authors discuss the relative value of different types of ADs, and offer clinicians a step-wise approach to conducting advance care planning discussions with their HF patients. [See sidebar, page 2.]

WHEN TO REFER TO HOSPICE

Call us if your patient exhibits the following indicators:

- Physical / functional decline
- Weight Loss >10% in last 6 months
- Multiple comorbidities

When life expectancy can be measured in weeks or months, hospice is usually the best option.

For patients with heart disease or CHF, look for the following indicators:

- NYHA Class IV; discomfort with physical activity
- Symptomatic despite maximal medical management with diuretics and vasodilators
- Arrhythmias resistant to treatment
- Ejection fraction < 20%

Call us any time, any day.

Geoffrey Coleman, MD
Medical Director
Montgomery Hospice

Simple End-of-Life Care Planning Tool Helps Patients Initiate the Conversation

Introducing a discussion of treatment plans for care at the end of life can be challenging for physicians, many of whom have not been trained to hold such conversations and may feel reluctant to upset their patients. With this in mind, the Stanford Letter Project has introduced a simple tool that encourages patients to start the conversations themselves about what matters most to them at life’s end.

The letter was developed based on findings from research conducted by investigators at Stanford University’s School of Medicine in Palo Alto, CA, with input from patients and families of various cultural and racial backgrounds. It can be completed by anyone of any age or health condition.

Patients can download, print, and fill out a simple template of the letter, then give copies of the completed form to their physicians. The letter can also be completed online to be printed or emailed to physicians and loved ones.

Because its 10-item format is designed to be familiar and non-intimidating, the letter can serve as a first step in opening the conversation between patient and physician. It can also help lead to the completion of more formal documents, such as advance directives and Physician Orders for Life-Sustaining Treatment.

But, unlike the formal documents, the letter addresses preferences that may vary from culture to culture: how the patient wishes to be told bad news, how information is shared within families, and who makes the serious medical decisions. Topics also cover situations that may arise in end-of-life care, such as what to do if the family wants to do something different than what the patient wants for himself or herself.

“In order for us to give the best quality care for everyone, we need to avoid burdening and overtreating people who will not be benefited,” says lead investigator V.J. Periyakoil, MD, clinical associate professor of medicine at Stanford’s School of Medicine. “What are their hopes, wants, needs, and fears? Do they want to die at the hospital on a machine? Do they want to die at home? We can’t know unless we have a conversation.”

The letter is available in multiple languages (including Spanish, Hindi, Mandarin, and more) online at [http://med.stanford.edu/letter.html](http://med.stanford.edu/letter.html).