Age and Hospital Length of Stay Found to Predict One-Year Mortality in COPD Patients

A predictive model with just two simple variables that can be easily applied to patient care to aid clinicians in predicting mortality at one year for patients hospitalized with chronic obstructive pulmonary disease (COPD) has been validated by a team of researchers from the Mayo Clinic in Rochester, NY.

“Our study found that a simple model using age and hospital length of stay had good ability to inform clinicians about predicting one-year mortality rate for patients with COPD admitted to the intensive care unit (ICU) with an acute exacerbation,” write the authors in their report published in the Mayo Clinic Proceedings.

Predicting one-year survival “may facilitate timely referral to palliative care, a well-reported deficit in our current COPD care,” state the authors. Although patients with COPD experience symptom severity equal to or higher than that found among those with malignancy, they are less likely to be offered palliative care services or end-of-life care discussions, due in part to the unpredictability of the disease course.

Most predictive models are relatively complex, incorporate subjective indices, or are designed to predict in-hospital or short-term mortality rather than mortality at one year, the authors point out. “One of the strengths of our work is its simplicity and use of objective factors that are easily accessible,” they write. “The proposed easy-to-use model can add to the physician’s intuition about the advent of end of life.”

Investigators analyzed data on 591 patients (mean age, 70 years; male, 51%) admitted to a medical ICU for acute exacerbation of COPD from 1995 to 2009. Median ICU length of stay was 2 days (range, 1 to 3 days); median hospital length of stay was 5 days (range, 3 to 9 days). At one-year follow up, 295 (49.9%) patients had died; 14.7% died prior to discharge and 6.9% died while in ICU.

FINDINGS
• In univariate analysis, variables associated with one-year mortality were age, ICU and hospital length of stay, use of noninvasive ventilation, as well as SOFA (Sequential Organ Failure Assessment) and APACHE III (Acute Physiology and Chronic Health Evaluation III) scores on admission.
• However, multivariate analysis showed only age and hospital length of stay to be independently associated with one-year mortality.
• There was no statistically significant association between one-year mortality and race, sex, or the use of invasive mechanical ventilation.

“The lack of relation between APACHE III and SOFA scores and one-year mortality is not surprising, because these scores are related to short-term mortality end points primarily,” note the authors. Their model is designed for longer-term prediction, to “help guide the timing of critical end-of-life care discussions and involvement of palliative care services.”

Source: “Predicting One-Year Mortality Rate for Patients Admitted with an Acute Exacerbation of Chronic Obstructive Pulmonary Disease to an Intensive Care Unit: An Opportunity for Palliative Care,” Mayo Clinic Proceedings; May 2014; 89(5):638-643. Batzlaff CM, et al; Department of Internal Medicine, Mayo Clinic, Rochester, Minnesota.
Decision Aids for Advance Care Planning: Potentially Powerful Tools in Need of Validation and Expansion

Patient-targeted decision aids can support the advance care planning (ACP) process by helping patients begin to prioritize their values and care goals, consider their choices, and communicate their preferences. But although decision aids are fairly widely available, few have been formally evaluated for effectiveness in the empirical literature.

That is according to the authors of a review of the evidence on decision aids, which was commissioned by the federal Agency for Healthcare Research and Quality (AHRQ) Effective Health Care Program, led by Mary Butler, PhD, MBA, of the University of Minnesota School of Public Health in Minneapolis, and published in *Annals of Internal Medicine*.

“Ultimately, decision aids can help patients to thoughtfully consider and document their preferences and assess important relationships,” write the authors. “A well-considered and well-communicated preference helps physicians feel comfortable about the ethics of providing or withholding treatments that affect survival.”

**KEY COMPONENTS OF A HELPFUL ACP DECISION AID INCLUDE:**

1. Education about anticipated conditions and care options
2. A structured approach to clarifying choices
3. A behavioral prompt for communicating preferences

Investigators assessed the “state of the science” on decision aids by searching the empirical literature from January 1990 to May 2014 and by interviewing “key informants”: clinicians, advocates, and experts in the field. They identified only 16 published studies that tested decision aids, most of which were found to be proprietary or not publicly available.

General decision aids — those aimed at predominantly healthy older adults — are more likely to be publicly available than are condition-specific aids, but are usually less helpful. “One notable exception is PREPARE, an interactive online resource that helps patients deliberate and communicate their decisions while providing considerable information and video examples for each decision,” note the authors.

New decision aids should be designed to be “responsive to diverse philosophical perspectives and flexible enough to change as patients gain experience with their personal illness courses,” suggest the authors. “Better interactive or patient-specific tools are needed to help patients and clinicians estimate probabilities of intervention benefits in various circumstances near the end of life.”

**ONLINE ‘PREPARE’ DECISION AID GETS HIGH RATING**

Subsequent to the review by Butler et al, the developers of the PREPARE decision aid reported their findings from a pilot study of the online ACP tool. “PREPARE significantly increased engagement in ACP behavior change within one week,” write Rebecca L. Sudore, MD, of the Department of Medicine, University of California, San Francisco, and colleagues.

“PREPARE also was rated easy to use and acceptable to older adults from ethnically and racially diverse backgrounds, many of whom had limited health and computer literacy,” the authors report in the *Journal of Pain and Symptom Management*.

The online tool guides people through an easy-to-follow, five-step process focused on building skills in communication and being prepared for future, in-the-moment decision making, rather than requiring individuals to make potentially uninformed hypothetical decisions about specific medical procedures. The interactive program then summarizes the completed steps and asks the participant to make an action plan.

**‘PREPARE’ STEPS INCLUDE:**

1. Choosing a medical decision maker and asking that person to accept the role
2. Deciding what matters most in life and for medical care
3. Choosing flexibility for the surrogate decision maker (i.e., giving permission for decision-making leeway, based on the patient’s best interest)
4. Communicating one’s wishes to others
5. Asking physicians the right questions

For the pilot test of the website, investigators assessed the behavior changes after one week for the multiple steps along the ACP process among 43 participants (mean age, 68.4 years; nonwhite, 65.1%). Although many had never before used a computer and one-third had limited health literacy, all participants viewed the entire interactive program.

**STUDY FINDINGS**

1. Mean behavior change scores increased significantly after one week (from 3.1 [±0.9] to 3.7 [±0.7] on a five-point scale; *P* < 0.001).
2. All scores in behavior change subscales (knowledge, contemplation, self-efficacy, readiness) also increased significantly (*P* < 0.001 for all).
3. User ease-of-use rating was 9 (±1.9) on a 10-point scale.

“This study demonstrates that it is possible to engage people not just in the signing of advance directive forms, but also in a full range of ACP behaviors, such as identifying one’s goals for medical care and communicating with surrogate decision makers and clinicians,” write the authors. “Therefore, PREPARE may help individuals move along the behavior change pathway, begin to engage in ACP on their own, and prompt outpatient discussions with clinicians.”

A clinical trial of the patient-centered website tool is currently underway, note the authors. In addition, because evidence shows that “ACP requires a system-level approach,” the developers plan...
Feeding Tubes Should Be Withheld or Withdrawn in Advanced Dementia Patients, Professional Society Advises

The placement of feeding tubes — gastrostomy tubes (G-tubes) or other long-term enteral access devices — is not recommended in patients with advanced dementia or other near end-of-life conditions, according to a special report from the International Clinical Ethics Section of the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.).

“Current scientific evidence suggests that the potential benefits of tube feeding do not outweigh the associated burdens of treatment in persons with advanced dementia,” write the authors of the report, which was published in Nutrition in Clinical Practice, the official journal of A.S.P.E.N. “Studies consistently demonstrate a very high mortality rate in older adults with advanced dementia who have feeding tubes.”

Although dementia is a leading cause of death in the U.S., it is under-recognized as a terminal illness, the authors note. Because clinicians frequently care for patients for whom feeding tubes are considered, the report offers strategies for addressing the “practice gap” between evidence-based medicine and G-tube use in patients with advanced dementia and others nearing the end of life.

“This paper recommends a change in clinical practice and care strategy based on the results of a thorough literature review,” write the authors. “Clinical practice needs to address risks, burdens, benefits, and expected short-term and long-term outcomes in order to clarify practice changes.”

The report offers a recommended approach for patients with advanced dementia or other near end-of-life conditions who are being considered for G-tube placement. It also includes tools for clinicians, such as an algorithm for the collaborative process of decision making prior to G-tube placement, and a checklist for determining whether a patient is an appropriate candidate for the intervention. There is also a table comparing the known risks and burdens of tube feeding with the potential benefits.

Studies have found that two-thirds of all feeding tubes are inserted during an acute care hospitalization, note the authors. The most common primary diagnoses associated with tube insertion are aspiration pneumonia, dehydration, dysphagia, urinary tract infection, malnutrition, and pneumonia, “although no evidence exists that feeding tubes reduce the risk of any of these problems.”

### INCREASING USE OF FEEDING TUBES

There is increasing use of endoscopically placed tubes for long-term feeding, due to:
- The aging population
- Advances in medicine and technology
- Inadequate communication and advance care planning

“The decision for or against tube feeding must always be a personal decision for each patient, made together with caregivers, legal custodians, family, health care providers, and therapists,” the authors state. They recommend that clinicians carefully educate the family about the terminal nature of dementia, and address emotional issues concerning the perception of “starving” a loved one.

“Meanings, beliefs, and values related to food should be acknowledged and incorporated into the decision-making processes for artificial nutrition and hydration through a G-tube,” they write. “The decision to place a feeding tube in a patient with advanced dementia is one of the sentinel decisions that family members and healthcare professionals confront.”

Other national health care organizations have issued recent position statements discouraging the use of feeding tubes in patients with advanced dementia. These include the American Medical Association, the American College of Physicians, the American Geriatrics Society, the Academy of Nutrition and Dietetics, and the American Academy of Hospice and Palliative Medicine.

While their special report focuses on patients with advanced dementia or other end-of-life conditions, the authors believe the concepts and tools provided in the paper may be applicable to other patient populations when used in conjunction with the pertinent scientific information.

Source: “Gastrostomy Tube Placement in Patients with Advanced Dementia or Near End of Life,” Nutrition in Clinical Practice; Epub ahead of print, October 7, 2014; DOI: 10.1177/0884533614546890. Schwartz DB, et al; Providence Saint Joseph Medical Center, Burbank, California; Atlanta Medical Center, Atlanta; Division of Pediatric Surgery, Ann & Robert H. Lurie Children’s Hospital, Chicago; Clinical Nutrition Service and Nutrition Support Unit, Astral University Hospital, Buenos Aires, Argentina; Christus University School of Medicine, Fortaleza, Ceara, Brazil Baxter Healthcare, Singapore; Intestinal Failure Unit, Sanvite, Zapopan, Mexico; Martin Health System, Stuart, Florida; West Chester University of Pennsylvania, West Chester; Veterans Affairs Boston Healthcare System-West Roxbury Campus, Boston.
Dr. Kate Granger, a UK physician in her final year of training in elderly medicine with a subspecialty in palliative medicine, asks all health care professionals to pledge to introduce themselves to every patient they meet.

Granger was diagnosed with terminal cancer three years ago. During a hospitalization for post-operative sepsis in 2013, she made a “stark observation” about the patient experience: many members of the health care team did not introduce themselves before delivering care. Being the patient instead of the physician brought home to her how one-sided the balance of power is between health care professionals and patients.

When a staff member did offer an introduction, Granger found it had a positive influence on how she felt about herself. She notes that it “began a relationship, relieving my anxieties and humanizing what can in many circumstances be an extremely dehumanizing experience.” When there was no introduction, she was left feeling that she was “just another body with a disease in a hospital bed.”

Thus began her campaign to remind health care staff of the importance of the introduction, the first step in making a human connection, beginning a therapeutic relationship, and building trust — what Granger calls “the first rung on the ladder to providing compassionate care.”

Her insight prompted her to initiate a social media campaign on Twitter with the hashtag #hellomynameis, which has expanded into a popular movement among health care professionals in the UK, Canada, and Australia. There is also a website with resources to support and encourage participation and the sharing of the message among peers and within organizations.

Resources with the copyright-free hashtag logo include name badges, lanyards, posters, pins, and comment cards. Granger provides her own example on her blog site: “Hello. My name is Dr. Kate Granger. I’m one of the senior doctors who will be looking after you on the ward while you’re with us. How are you feeling today?”

With her survival now predicted in months, Granger points out that introducing oneself costs nothing and takes just seconds, but can greatly improve patient experience, by putting the patient’s concerns at the center of care.

For more information, visit the campaign’s page at hellomynameis.org.uk.