HYPOGLYCEMIA TIED TO CAP MORTALITY, PAGE 14

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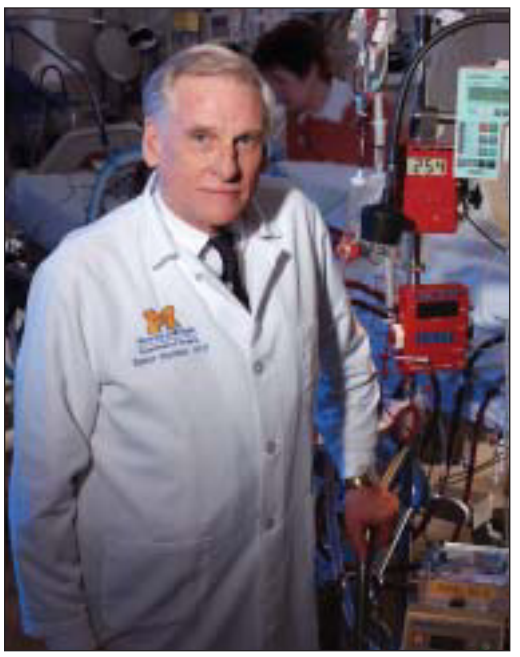

**The 70-80 U.S. hospitals that offer ECMO could be swamped by patients with 2009 H1N1, Dr. Robert H. Bartlett said.**

## Flu Pandemic Boosts Demand for ECMO

BY SHERRY BOSCHERT

The anticipated demand for extracorporeal membrane oxygenation in the wake of pandemic influenza A(H1N1) threatens to overwhelm facilities equipped with the technology.

"In 5 or 10 years, every ICU will have this capability," said Dr. Robert H. Bartlett, the first clinician to successfully use extracorporeal membrane oxygenation (ECMO) for adults with severe respiratory failure in 1975. But the 70-80 U.S. hospitals with ECMO capability could be swamped by patients with 2009 H1N1, he said.

Even if only a tiny portion of H1N1 patients get sick enough to need ECMO, "if 10 million patients get it, which is likely to happen, that's more patients than all the existing ECMO centers could cope with," said Dr. Bartlett, professor of surgery (emeritus), University of Michigan, Ann Arbor. He has been an adviser or consultant to at least 17 companies, many of which developed or market ECMO components.

Initially developed to treat neonatal respiratory failure, ECMO uses cardiopulmonary bypass technology similar to that used for cardiac surgery, but can be used for weeks rather than just a few hours. The gas exchange allows ventilator settings to be reduced and provides time for recovery or treatment of the underlying problem. The Extracorporeal Life Support Organization keeps a registry on about 40,000 U.S. patients of all ages who have received ECMO, Dr. Bartlett said.

ECMO should be considered when an adult with respiratory failure has a 50% chance of dying, and it is indicated if there is an 80% chance of dying based

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INSIDE





## Two Boards Will Offer Hospitalist Certification Path

*First exam scheduled for October 2010.*

BY JOYCE FRIEDEN

With the first board certification exam in hospital medicine less than a year away, the long-awaited program has grown in scope following the decision by the American Board of Family Medicine to allow family physicians to join internists in pursuing the new credential.

Starting in May 2010, internists and family physicians can sign up with their respective boards to take the exam that will be one of the requirements for certification with a Recognition of Focused Practice in Hospital Medicine. The first exam will take place on Oct. 25, 2010.

In the meantime, internists seeking hospitalist certification can start working on the required self-evaluation and practice improvement modules developed by the American Board of Internal Medicine (ABIM). The American Board of Family Medicine hopes to make its modules available in January, said Robert Catoi, a spokesperson for the ABFM.

The new credential will be offered through the maintenance of certification (MOC) framework, noted Dr. Jeffrey Wiese, president-elect of the Society for Hospital Medicine and chair of the ABIM internal medicine question-writing committee.

The new certification process is "really a separate pathway,"

*See* **Two Boards** *page 2*

## Initiative Led to Better VTE Prophylaxis

BY SUSAN BIRK

ROSEMONT, ILL. — A multifaceted intervention enabled a large health system to increase compliance with evidence-based guidelines for venous thromboembolism prophylaxis, according to Dr. Valerie Allusson, director of inpatient medicine services at Atlantic Health, Morristown, N.J.

Although the health system has not yet reached all of its quality benchmarks, compliance has risen substantially as the result of measures such as the creation of a physician order set and daily monitoring of compliance, Dr. Allusson reported at the Joint Commission national conference on quality and patient safety.

Atlantic Health's 504-bed Overlook Hospital was one of 41 hospitals that completed a 6-month pilot study of VTE quality measures sponsored by the Joint Commission in 2006-2007. Since then, Atlantic Health has spent 2 years focusing on improving VTE prophylaxis for medical and surgical patients at Overlook Hospital and the 629-bed Morristown Memorial Hospital.

In a baseline study of 100 randomly selected charts in one of Atlantic Health's medical units, only 39% of patients received VTE prophylaxis. The system implemented a quality improvement initiative based on recommendations from the American College of Chest Physicians (Chest 2004;126: 338S-400S) and the National Consensus Standards for the Prevention and Care of Deep Vein Thrombosis developed by

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# Program Improved Care but Didn't Cut Mortality

BY DAVID MONAGAN

After 9 years and tens of millions of dollars, Get With the Guidelines—the American Heart Association's push for new standards of excellence for follow-up treatment of acute cardiovascular events—appears to have yielded murky gains at best in terms of saving lives, according to a new analysis.

A total of 3,909 medical centers participated in the Get With the Guidelines (GWTG) program. Of these, 355 hospitals (9%) received a nonmonetary achievement award for either heart failure or acute myocardial infarction (AMI) follow-up care. The report compared the risk-adjusted 30-day mortality figures for the top 355 hospitals with those of the remaining participating centers, and found no statistically significant difference in heart failure mortality. A modest 0.19% superiority in the top hospitals' survival rates following AMI was reduced by 43% after the data were adjusted for confounding factors (Am. Heart J. 2009;158:546-53).

Dr. Paul A. Heidenreich of the Veterans Affairs Palo Alto (Calif.) Health Care System and his coauthors, all from the GWTG steering committee, acknowledged that the best-performing hospitals tended to be ones that were exceptionally well funded before the program began. Overall, "it is unclear if outcomes are better in those hospitals recognized by the GWTG program for their processes of care," they wrote.

Further, differentials in the 30-day mortality for the third component of GWTG—follow-up-care for stroke—were unclear. Recognition on all three measures of excellence, the core aim of the GWTG program, was achieved by 15 of the 3,909 participating hospitals.

The program now costs as much as $12 million per year. At the AHA scientific sessions in 2005, Dr. Gray Ellrodt, lead author of an interim review of the initiative, said the program was the start of a new era of systematic excellence in cardiovascular care. "Men and women, young and old, showed dramatic improvements in care," said Dr. Ellrodt, an internist at Berkshire Medical Center, Pittsfield, Mass.

In an interview, Dr. Heidenreich called this claim "an accurate statement. The improvements in process of care were dramatic given that many quality interventions have no improvement."

Yet despite dramatic changes in care—including greater assessment of left ventricular function, use of ACE inhibitors, and rigorous discharge counseling for heart failure patients; rapid onset of thrombolytics for MI patients and emergency percutaneous coronary intervention where necessary; and more consistent use of aspirin and beta-blockers at every stage—the benefits in terms of improved mortality remained small.

But Dr. Heidenreich defended the program's worth, particularly citing evidence that it encouraged hospitals to more widely prescribe ACE inhibitors.

"Hospitals enrolled in the GWTG program have demonstrated steady improvement in their process of care," Dr. Heidenreich and his colleagues wrote. "These results are consistent with prior studies indicating better survival at hospitals with better processes of care for acute myocardial infarction and heart failure."

The authors noted that even marginal reductions in 30-day risk-adjusted mortality of 0.1%-0.2% as achieved by the top hospitals in this comparative, nonrandomized analysis could potentially save 1,800-3,500 lives if optimum standards were made the rule nationwide. ■

# Statewide Initiative Reduces Time to Reperfusion Treatment

BY HEIDI SPLETE

BOSTON — A statewide program to get patients with severe heart attacks to hospitals faster significantly reduced disparities in reperfusion treatment times for women and elderly patients, based on a study of more than 900 patients in North Carolina.

The impact of regionalization on ST-segment elevation myocardial infarction (STEMI) care for hospitals that don't provide percutaneous coronary intervention (PCI) is unknown, but studies have shown that middle-aged white patients are more likely to benefit than other demographic groups, Dr. Seth Glickman said at the annual meeting of the American College of Emergency Physicians.

Dr. Glickman of the University of North Carolina, Chapel Hill and his colleagues reviewed data from 923 patients treated at 55 hospitals without PCI services during the Reperfusion of Acute Myocardial Infarction of North Carolina Emergency Departments (RACE) initiative from 2005 to 2007. The RACE program divided the state of North Carolina into five regions, with at least one PCI-capable hospital in each region. The investigators compared 518 patients treated prior to the RACE initiative and 405 patients treated after the initiative. The patients ranged in age from 51 to 73 years, and the baseline characteristics were similar in patients seen before and after implementation of RACE.

After implementation of the program, median door-to-ECG times dropped from 10 minutes to 8 minutes in men, and from 15 minutes to 8 minutes in women.

The median door in/door out times for men dropped from 85 minutes to 55 minutes, and times for women dropped from 124 minutes to 65 minutes. Median door-to-needle times decreased from 33 minutes to 29 minutes in men, and from 42 minutes to 30 minutes for women. Before the intervention, women's times were significantly longer than men's. After the intervention, however, the times for both genders were nearly identical, Dr. Glickman noted.

**After North Carolina implemented the RACE program, median door-to-ECG times dropped from 10 minutes to 8 minutes in men, and from 15 minutes to 8 minutes in women.**

The median door-to-ECG time for patients younger than 70 years dropped from 10 minutes to 7 minutes before and after RACE, and the time for patients 70 and older dropped from 18 to 9 minutes.

Median door in/door out times for patients younger than 70 years dropped from 81 minutes to 48 minutes, and the times for patients 70 years and older dropped from 117 minutes to 76 minutes. Median door-to-needle times for patients younger than 70 years dropped from 32 minutes to 28 minutes, and from 48 minutes to 36 minutes for patients aged 70 years and older.

The study results were limited by a lack of regional comparators during the study period, but the findings showed a reduction in baseline care disparities between men and women, Dr. Glickman said. Disparities persist in the elderly, despite improvements after the RACE initiative, he noted.

The research was supported by the American Heart Association, the Robert Wood Johnson Foundation, and Blue Cross Blue Shield of North Carolina. For more details on RACE, visit www.nccacc.org/race.html. ■

*To watch a related video, go to www.youtube.com/HospitalistNews and search for 69603.*

# Prioritizing Prophylaxis

**VTE** *from page 1*

the National Quality Forum and the Joint Commission.

Areas of particular focus were VTE risk assessment/prophylaxis within 24 hours of hospital admission and VTE written discharge instructions for patients on warfarin addressing follow-up monitoring, compliance issues, dietary restrictions, and potential drug reactions or interactions.

The system set a 6-month goal to conduct a VTE risk assessment and provide appropriate prophylaxis within 24 hours of hospital admission or surgery end time for 95% of all patients. A second 6-month goal was to reach 95% of patients who had "fallen through the cracks" and had been admitted without prophylaxis.

A multidisciplinary steering committee developed a VTE prophylaxis order set addressing risk assessment, contraindications, and management options. A prototype daily VTE prophylaxis outlier list tracked patients who were and were not receiving acceptable medications (including argatroban, fondaparinux, heparin, and low-molecular-weight heparin, and warfarin). A sticker at the front of outlier charts alerted physicians about patients not receiving prophylaxis.

As of June 2009, the system had surpassed its target of 75% for prophylaxis in ICU patients (90%) and overlap therapy (82%), and was continuing to work on the remaining target of 95% for prophylaxis in medical/surgical patients (68%) and discharge instructions (79%).

In an interview, Dr. Allusson called the 95% target for prophylaxis in medical/surgical patients ambitious, considering the 39% baseline rate. Reaching 68% within 6 months represented significant progress, she said.

The system also achieved a 5%-7.5% reduction in in-hospital mortality due to VTE during this time, but whether the decline was due to the VTE quality improvement project is not known.

Dr. Allusson attributed the progress to date in part to the frequent and routine sharing of data at every level of the organization, and to the multidisciplinary collaboration. Efforts to systematize and streamline procedures related to VTE prophylaxis also helped. The new VTE prophylaxis order set, for example, allows physicians to document medications administered simply by checking the appropriate box. In addition, collaboration with information technology helped reduce the likelihood of human error.

VTE is 100 times more common in hospitalized patients than in the general population (Mayo Clin. Proc. 2001;76:1102), Dr. Allusson noted. Up to 2 million Americans experience VTE each year, and of these, 800,000 develop pulmonary thromboembolic syndrome (PTS), 600,000 develop pulmonary embolism (PE), and 300,000 die from PE (Lancet 1999;353:1386-9).

In the future, the health system aims to develop a business plan for inpatient and outpatient anticoagulation management, include pharmacists in rounds to discuss anticoagulation and discharge instructions, create a unit performance tracking system, and establish mandatory prophylaxis order forms for all admissions. ■