

# Rapid Response Teams Slowly Gain Acceptance

BY ALICIA AULT

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PITTSBURGH — As more hospitals attempt to establish rapid response teams, they often encounter entrenched cultures that may prevent the teams from proving their utility, several speakers said at a meeting on emergency response systems sponsored by the University of Pittsburgh Medical Center.

The teams go by different names: medical emergency teams (METs), rapid response teams, or critical care outreach teams. They are charged chiefly with trying to prevent cardiac arrest by intervening as early as possible. Typically, they are called when a patient is in respiratory distress, is hypotensive, has tachycardia, or has a change in consciousness (INTERNAL MEDICINE NEWS, June 1, 2006, p. 1).

However, the teams frequently are seen as a challenge to the established order, and they may be met with resistance, said Dr. Michael Buist, director of intensive care at Dandenong Hospital in Melbourne, Australia. If a nurse calls in a team, the nurse may be perceived as going over the head of the attending surgeon or resident, Dr. Buist said at the meeting. Several other speakers described incidents in which nurses were left in tears by angry physicians, even though the patient was better off for the intervention.

At Dandenong, a study showed that even when criteria existed for calling a rapid response team, nurses did not make the calls in 17% of the episodes.

Rapid response teams are set up to prevent codes, but many physicians and hospital staff enjoy the drama of a code, said Dr. Geoff Lighthall, an assistant professor of anesthesiology and critical care at Stanford (Calif.) University School of Medicine. He noted that incoming residents in particular might savor those opportunities. "There's a machismo that goes with answering codes," he said.

At the University of California, San Francisco, Medical Center, the formation of a rapid response system was met with little enthusiasm, said Dr. Sumant Ranji, a professor of medicine. The hospital began a small rapid response program in mid-2005, rolling it out slowly by talking about

it at monthly ward nurses' staff meetings and through e-mails to physicians and announcements at house staff conferences.

Most of the coverage was during the day, by a team comprising a hospitalist, a second-year resident, and a clinical nurse-specialist. At night, coverage was by an on-call resident from the ICU. Usage was low initially—about 1-2 calls per week, which amounted to 2-3 calls per 1,000 patients. This can be compared with the 25 calls per 1,000 patients seen with long-established programs at the University of Pittsburgh Medical Center hospitals, Dr. Ranji said.

He and his colleagues set out to determine why no one was taking advantage of the rapid response team. One finding was that there was a misperception about when the teams would arrive. During the education process, nurses and physicians were told to call the primary team first and then the rapid response team if there was no response or an inadequate response within an hour. What they heard was that the team would not come at all until an hour had elapsed and that if they called the team, the patient would definitely be taken to the ICU, he said.

Nurses were reluctant to break the chain of command, especially on surgical wards, he said. "This is not a culture that can change by one intervention," Dr. Ranji said. He also discovered that nurses and residents weren't calling the rapid response team because they made ample use of "curbside consults"—pulling ICU nurses or fellows aside in the hallway to get an informal opinion.

There has been no change in the number of codes called or in the rate of in-hospital cardiac arrest or mortality, even though the response teams are now available 24 hours a day, 7 days a week, Dr. Ranji said. As a result, the San Francisco university is questioning whether it is using the right model. The hospital is considering using an ICU clinical nurse-specialist or a nurse-practitioner as the point person for the teams in the hopes that ward nurses will be more likely to call on these colleagues for help—as opposed to having to call physicians who aren't the primary ones on the patient team, he said.

It's been smoother sailing at Allegheny General Hospital, a tertiary care facility for

## Teams Can Bolster Hospital Revenues

Hospitals that employ rapid response teams are finding that it can be quite profitable—as long as they bill correctly for the services, Dawn Moody, R.N., a senior medical auditor, said at the meeting.

The care delivered by rapid response teams is considered critical care, which requires very different documentation than that provided for traditional evaluation and management, said Ms. Moody, who is in the division of general internal medicine at the University of Pittsburgh Medical Center.

First, it must meet the definition of critical care—the patient must have an illness or injury that impairs one or more vital organ systems to the point where there is a high probability of imminent or life-threatening deterioration of the patient's condition, she said.

The care does not necessarily have to be given in a critical care area, but the physician has to be completely devoted to that patient and not seeing any other patient during the time billed.

Time spent with the patient must be documented very specifically. A good way to do that is to include a note at the end of a patient's file stating that the physician spent 3 hours and 10 minutes managing the case. Physicians can include the time they spend away from the bedside if it is directly related to the patient's care. For instance, dictating or writing notes can be billed, as can time with families, if it is to get a medical history, review a condition, or

deliver a prognosis, Ms. Moody said.

There are two current procedural terminology codes used for critical care Evaluation & Management: 99291, which is used for the first 30-74 minutes, and 99292, which is used for each additional 30-minute increment. In western Pennsylvania, the local Medicare carrier reimburses the first 30 minutes of critical care at \$201.38, Ms. Moody said. That compares with a level V consult, which is reimbursed at \$189. The second unit of critical care and each unit thereafter is reimbursed at \$101, she said.

However, certain services can't be billed separately, including the interpretation of cardiac output measurements, chest x-rays, pulse oximetry, blood gases, gastric intubation, temporary transcutaneous pacing, ventilatory management, and vascular access procedures, Ms. Moody said.

There are also fairly strict criteria for critical care delivered in the academic setting. Critical care time can only be reimbursed when the resident and teaching physician both managed the patient together, or if the teaching physician was alone with the patient. Any time the resident spends alone with the patient—without the teaching physician around—can't be billed, she said.

Most insurers will pay for only one physician's services per critical care episode, but the hospital can bill separately for a rapid response team or ICU response, she added.

Drexel University, Philadelphia. In spring 2006, the hospital added MET coverage to its code team. The MET has a hospitalist, ICU nurse, bed nurse, respiratory therapist, and intravenous team. The code team has a senior resident, ICU nurse, respiratory therapist, nurse-anesthetist or anesthesiologist, and senior surgical resident.

To facilitate use of the MET, ward staff are given laminated cards describing the teams—essentially who's on them and

guidelines for when to call them—Dr. Sharon Kiely, an internist at Allegheny, said at the meeting.

In March, there were 12 calls, 11 of which truly needed a MET; 46% of the nursing units had made calls. By April, there were 30 calls, 28 of which needed a MET. The MET concept appeared to be well received: Almost all of the house staff agreed that it made sense, and there were no complaints from nurses, Dr. Kiely added. ■

# Education Campaign Launched to Combat Medication Errors

BY HEIDI SPLETE

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WASHINGTON — The Food and Drug Administration and the Institute for Safe Medication Practices have launched a national education campaign aimed at health care professionals and pharmaceutical companies with the goal of reducing the number of medical mistakes caused by confusing medical abbreviations.

Each year, more than 7,000 deaths occur in the United States as a result of medication errors, and many of these are caused by

the misinterpretation of medical abbreviations, Carol Holquist, director of the Division of Medication Errors and Technical Support at the FDA's Center for Drug Evaluation and Research, said at a press conference.

When a "U" looks like a zero, a patient may receive a 10-fold overdose—40 units of insulin rather than 4 units, for example. Dosage designations represent another danger zone: A misplaced or deleted decimal point can turn 1.0 mg into 10 mg, or 0.1 mg into 1 mg.

Yet the ongoing use of error-

prone abbreviations, symbols, and dosage designations has not been addressed as the systemic problem that it is, said Michael Cohen, Sc.D., president of the Institute for Safe Medication Practices (ISMP).

The use of electronic prescribing information doesn't solve the problem, Dr. Cohen noted. "Depending on the screen fonts, a U can still look like a zero," he said. The ISMP has seen cases of misinterpreted abbreviations that have been typed in addition to those that were handwritten, he added.

Additionally, some abbreviations for vastly different drugs are similar. For example, morphine sulfate (MS04) has been mistaken as magnesium sulfate (MgS04).

The campaign strategy involves working with publishers to change style manuals and journals, making materials available to medical schools and pharmaceutical companies, and encouraging anyone who uses these abbreviations to stop using the most dangerous ones, Dr. Cohen said.

An online package includes a

slide presentation, reference guide, pocket card, abbreviation list, and patient safety video. Additional strategies include the distribution of brochures to health professionals and the pharmaceutical industry, and the use of public service announcements and posters for medical associations and organizations. ■

To obtain a complete list of potentially dangerous abbreviations and more educational materials, visit [www.fda.gov/cder/drug/mederrors](http://www.fda.gov/cder/drug/mederrors) and [www.ismp.org/tools/abbreviations](http://www.ismp.org/tools/abbreviations).