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Anthrax attacks are stark wake-up call for quality managers, EDs

Emergency departments seen as 'front line' for response

Everybody knew it could happen, but few believed it would. That seems to be the predominant theme as quality professionals respond to incidents of anthrax infection in the United States, predominantly along the East Coast.

At press time, no one was entirely sure if the attacks had ended or whether all of the sources of infection had been discovered. Public agencies such as the Centers for Disease Control and Prevention (CDC) in Atlanta have swung into action, providing coordination and guidelines for health care facilities across the country.

Health care facilities may not be as prepared to face this situation as once was believed. A recent survey of 30 hospitals in FEMA (the Federal Emergency Management Agency) Region III published by the Irving, TX-based American College of Emergency Physicians revealed that none of the respondents believed their sites were fully prepared to handle such an incident. **(For a closer look at the survey, see related story, p. 136.)**

This finding may not be quite as alarming as it seems at first glance, offers **James Espinosa,** MD, FACEP, FAAFP, chairman of the emergency department (ED) at Overlook Hospital in Summit, NJ. "It is the rare ED that would ever say it's fully prepared, because doctors and

Key Points

- Extensive federal network is available to provide information and support.
- Many health care professionals didn't really believe a bioterrorism attack would occur.
- Communication procedures are key to an effective response.

nurses are by nature very conservative in responding to that kind of question," he says.

Nevertheless, Espinosa concedes that the anthrax outbreak was, indeed, a "wake-up call" for hospitals across the country.

"It certainly brought to light the fact that these kinds of things would happen," adds **Patricia Gabriel**, RN, BSN, CEN, nurse manager of the ED at Overlook. "We already knew that they could."

"This also highlights a very positive thing that could be lost here," adds Espinosa. "That is, of all the branches of medicine, the American College of Emergency Physicians has been talking about this, studying it and preparing its members for years; so while the notion that it would actually happen is new, there have been interested folk speaking on this for years, and I'm proud of that.

"We do not want to lose sight of the tremendous depth of interest and experience there is available," he continues. "But we should also bear in mind that when we are asked questions concerning anthrax or bioterrorism, it's really a species of the larger question of being prepared for disaster."

How things have changed

Nevertheless, things will never be quite the same again — not for the country, and surely not for the health care professionals who must be prepared to respond to such challenges.

Have things changed much at Overlook in response to the anthrax attacks? "Really, the biggest change, and the only change here, is related to updating the matrix we have for notification," says Gabriel. "That was the thing we felt would make a difference. We felt that beyond that our disaster plans were generic enough to walk through the initial steps."

The matrix involves letting the community at large and the organization as a whole know when Overlook has a bioterrorism issue. "There are two places that information can come from," says Gabriel. "One is the ED. The second is the lab. If a patient presented with unusual symptoms, it's possible the lab could be the first group to identify whatever the agent was. This information should be shared with the ED, administration, infection control, public relations, community health departments, and federal agencies, if appropriate."

Nurses and physicians also have been flooded with educational materials, Gabriel notes.

But Espinosa is quick to point out that this is not entirely new or different for the Atlantic Health System, of which Overlook is one of four facilities. "We already had in place education planning for bioterrorism before this, and more importantly, as a system, the four facilities have been involved collaboratively in looking at adaptations in change of demand on a daily basis," he explains. "This put us in a whole different place than we otherwise would have been."

All types of staff and ancillary services in the system are involved in what Espinosa describes as "a bold new approach" called "Flow,'' which is involved with "the matching of capacity and demand on a daily basis within an ED in an attempt to reduce the amount of diversion."

Beyond the four walls

When they consider the quality issues raised by bioterrorism, it's critical for hospital quality professionals to recognize that they are not alone, that they are part of something far bigger than their own institution or system, Espinosa notes.

"Because the problem has a certain inherent unpredictability to it, the kind of things that would build for what we would call the reliability of a system require communicating a lot with each other — a lot of face-to-face discussion. But it is also very important that the larger or virtual organization is never forgotten. It's easy to think of oneself as the ED within a larger organization known as a hospital. But this is only one part of a larger reality; we are part of the state department

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of health, for example, and we are also part of a federal emergency response structure that has had years of experience with this type of situation, and has been monitoring it."

In terms of communication, then, hospital quality professionals must not only communicate laterally, but vertically as well — to local, state, and federal agencies. "It's the knowledge of those vertical links that gives you the sense of security beyond your little world," says Gabriel. "There are resources and experts out there that you could never muster yourself."

Richard Levinson, MD, DPA, associate executive director of the American Public Health Association in Washington, DC, agrees.

"I think it's critical that any hospital crisis response plan have definitive lines of communication outlined, not only with public health agencies, but with police, fire departments, and other groups that will hopefully work in full coordination," he says.

Levinson notes that to date there have only been a few anthrax deaths. "But in the future, if we have an outbreak of something like smallpox, hospitals will have to be supported by . . . some type of triage system. They will be asked to discharge their less critical patients and become a repository for the most critically ill. You have to be prepared to do this when and if it becomes necessary; you should be in close communication with specialized laboratories dealing with these types of diseases, because normal hospital labs are not able to do so.

"When a patient comes in, the hospital personnel will be on the front line; they must take appropriate specimens, ship them to the most appropriate place by the least common path, and be prepared to react very rapidly," he points out. "With something like smallpox, you have to immunize anyone who has come in contact with infected individuals."

If there is such an outbreak, "The front line health workers need to be protected," he advises. "If there is fear of smallpox, they should be the first ones vaccinated. If it's anthrax, they should have an adequate supply of antibiotic. They must be treated on a high-priority basis."

Then, they must work very closely with those organizations coordinating health-related events, Levinson says.

"There must be a constant flow of information — what has been discovered in the hospital, what has been learned epidemiologically on the outside," he says. "If the hospitals need additional supplies, they must know where they can get them, or if supplies need to be shared with other facilities, they need to know that as well. And, of course, anything unusual that has been detected must be reported."

Levinson says that it's one thing to have a disaster response plan, "but it's essential to totally [work together] with government agencies and closely correlate with public health departments and other frontline responders who might be handling agents of concern to the hospital."

Less stress, better response

"We always knew we needed to work with prehospital providers," Gabriel says. "But recent events have brought a better understanding of our role, and of how to interact within each group."

"The larger problem," says Espinosa, "is matching capacity demand and having hospitals respond as part of a cohesive organism, and having a flexible matrix through which it responds to all types of situations. It's all about communication."

It's also about developing a sense among hospitals that "we're all in this together," he declares. "There's a call to share capacity and to match up capacity demand among hospitals that was never there before," he observes.

"A lot of what has existed in the past in terms of competition based on history and insurance have to all break down when everybody's health and well-being are at stake. ED nurses and physicians should feel good about the fact that they are

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warriors in this epic battle of our time. We are on the front line; we are exposed, but we are in brotherhood with the police, the firemen, the FBI, and that has never before been so clear to the public. We should be proud," Espinosa says. ■

Survey shows disturbing lack of preparedness

Interviews with hospital personnel at 30 facilities located within the Federal Emergency Management Agency (FEMA) Region III paint a troubling picture of the state of preparedness for weapons of mass destruction (WMD) incidents.

The survey, the results of which appeared in the November 2001 *Annals of Emergency Medicine*, found the following:

- No respondents believed their sites were fully prepared to handle a biologic incident.
- Seventy-three percent believed they were not prepared to manage a chemical weapons incident.
- Seventy-three percent believed they were unprepared to handle a nuclear event.

Further, the researchers found, "If a WMD incident were to occur, 73% of respondents stated a single-room decontamination process would be set up.

"Four of the hospitals [all rural] reported no decontamination plans. WMD preparedness had been incorporated into hospital disaster plans by 27% of facilities. Only one facility had stockpiled any medications for WMD treatment."[1]

Will the EDs be ready to respond?

In additional responses, 87% believed their emergency department could manage 10 to 50 casualties at once; nearly one-fourth said their hospital staff had some training in WMD event management; 77% had a facility security plan in place; and half were able to perform a hospital-wide lockdown.

While the manuscript was first submitted in early 2001, "The current situation [lack of hospital preparedness] is a sign of changing times," notes **Janet M. Williams**, MD, director of the Center for Rural Emergency Medicine, co-investigator of the Virtual Medical Campus at West Virginia University in Morgantown and one of the article's co-authors.

"Until 9/11, many did not believe that such terrorism would or could occur. Hospital preparedness was not on our radar screen as a need worthy of billions of dollars in our society — especially when there are so many other competing public health needs," he says.

What it means

The most important finding of the study, Williams asserts, is that the vast majority of hospital personnel surveyed believed that their facility would have difficulty managing a mass casualty incident involving a weapon of mass destruction.

"Before Sept. 11, in my opinion, most medical and hospital personnel did not perceive a threat from terrorism using weapons of mass destruction," she says.

"There was little federal funding specifically for hospital preparedness for training about weapons of mass destruction. Furthermore, prior to 9/11, there were few WMD-specific preparedness standards or requirements for hospitals."

Williams anticipates that the publication of this study will change things. "We are hoping that our study will help persuade policy-makers that funds are needed to support hospital preparedness planning," she says.

"Our study describes specific preparedness topics that will be important to pursue, such as awareness training, developing the capability to perform mass decontamination, assuring facility security, protecting health care workers, as well as communication protocols," she adds. Hospital personnel are already aware of the issue, and at this time, I believe they would welcome initiatives related to WMD preparedness."

Williams is quick to point out that hospitals in no way bear the entire burden for disaster preparedness. "The hospital is only one spoke in the wheel of those who would be called upon to respond to a WMD event.

"Critical to the response are law enforcement,

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the military, public health agencies and many other groups," she notes. "Some suggest that the other groups may be facing similar challenges related to WMD preparedness.

"[Nevertheless], the recent reports of anthrax as well as the multitude of false anthrax scares underscore the need for the medical community to be aware of how to handle these incidents," Williams adds.

"The outbreaks only confirm the need for federal resources to be directed at improving the health care system's capability to improve awareness, [and] detect, respond, and manage victims of possible bio/chemical terrorism," she says.

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Consortium addresses hip fracture care standards

Proponents call for longer lengths of stay

Question: When is a shorter length of stay not an indicator of quality? Answer: When it diminishes the quality of care.

Length of stay is one of many issues being tackled by a consortium begun by 11 national organizations to seek solutions to the morbidity, mortality, and loss of independence faced by patients with hip fracture. A total of more than 40 organizations attended the Hip Fracture Conference sponsored by the group in May 2001.

"Hip fractures are one of the most common, costly, and devastating injuries suffered by Americans," notes **Joseph Zuckerman,** MD, professor and chair of the NYU-Hospital for Joint Disease Department of Orthopedic Surgery in New York City, chairman of the Council on Education of the American Academy of Orthopaedic Surgeons, and a member of the conference steering committee.

"They are occurring at an epidemic rate, with over 350,000 incidents per year accounting for approximately 30% of all fracture-related hospitalizations," he explains.

The conference recommendations fell into four broad categories:

- communication/continuum of care;
- reimbursement issues;
- prevention/education for public and professionals;
- research initiatives.

Key Points

- Shorter lengths of stay are seen as major roadblock to quality of care.
- Ongoing, detailed communication through the continuum of care is critical.
- Group calls for development of a critical pathway for the treatment of hip fracture patients.

Targeting length of stay

While the recommendations are numerous and far ranging, it is length of stay that Zuckerman says is at the crux of many of the challenges presented by hip fracture patients. In a draft of a summary of conference recommendations, the steering committee wrote: "Discharge from the acute care setting to subacute, skilled nursing facility, or home should be based on the attainment of specific functional milestones, not achieving the shortest length of stay."

"Length of stay is a quality indicator for financial reasons, but not necessarily with respect to outcome," Zuckerman argues. "With this population, it is probably just the opposite."

Length of stay, he notes, became an issue in the mid-'80s when diagnosis-related groups (DRGs) came into existence. "It became incumbent on the hospital to become as efficient as possible," Zuckerman observes. "When you were paid on a per-diem basis, there was no reason to get the patient out of the bed."

With the system structured as it is now, it allows hospitals to do things only one way, Zuckerman concedes. "But they are shooting themselves in the fiscal foot," he asserts. "All we are doing is cost-shifting."

In order for real change to occur, it has to be authorized as a Centers for Medicare and Medicaid Services issue, says Zuckerman. "This a real public policy issue; you can't do that on a busy weekend," he declares.

That's one of the reasons for this consortium. "It has to be shown — and we are very aware of this — that [keeping patients longer] is not just a way to get doctors or hospitals more money. We have to show it will lead to greater quality of

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care. The quality indicator should probably be how the patient is doing six months after the fracture. If a patient gets out of the hospital in five days but then stays in a nursing home for six months, do you really save money?"

Communication is one of the keys to establishing a true continuum of care, says Zuckerman. "If I operate on a hip facture patient and they get transferred on day five to their home, I have to communicate that information to their doctor; it's very important that information gets transferred," he explains. "If they go to the rehab center, then leave and go back to their original doctor, how does [that physician] grasp the issues that have arisen in the interim?"

It is the responsibility of the quality professional, says Zuckerman, to be sure that when a patient leaves the facility, a proper transfer of records occurs — from physician to physician and from nurse to nurse. "That should be a quality indicator," he asserts. "How do we confirm that a record of what occurred got to the next facility? The Mayo Clinic focuses on this tremendously. If you send a patient to the Mayo, they send you back unbelievable information on that patient."

Toward a critical pathway

Under the heading of "Research Initiatives," the committee asserts that the care provided to patients with hip fractures should follow "an evidence-based multidisciplinary critical pathway."

What might that pathway look like? "One of the elements should be standardized evaluation when the patient is admitted," says Zuckerman. "There should be rapid recognition as to whether the patient should get to the OR quickly for the stabilization of any serious factors. Patients who go to the OR two days after admission have a higher mortality rate."

As for the surgery itself, Zuckerman says that is difficult to standardize. "But we should stress prompt surgery, technically well done, rapidly progressive post–op care, thromboprophylaxis to prevent clots, [and] ambulation — if you restrict weight bearing, you may as well leave them in bed."

It also should be recognized that there is significant malnutrition in this population, Zuckerman says. "If they are admitted with a hip fracture and malnutrition exists, this is considered a co-morbidity and a separate DRG — which increases the level of reimbursement. In other words, hospitals should *want* to identify this condition."

Antiresorptive medication is another key consideration. "If a patient has a heart attack, there is no way he leaves the hospital without having his cholesterol and blood pressure checked, and if need be, being put on meds," he says.

"There should be an analogy when we admit patients with hip fracture. Clearly this is a risk factor for osteoporosis, but probably less than 20% of these patients leave the hospital being treated for osteoporosis. Some in the medical profession question whether we could actually prevent osteoporosis, but we could clearly have an impact," Zuckerman says. ■

Aggressive treatment best for older hypertensives?

Data show effectiveness four times greater

It appears that the very group of patients that physicians often are reluctant to treat for high blood pressure — older adults with multiple risk factors for cardiovascular disease — have the most to gain from aggressive treatment.

Researchers from Wake Forest University Baptist Medical Center in Winston-Salem, NC, and colleagues found that treating these high-risk older adults was four times more effective at preventing heart attacks, strokes, and heart failure than treating those with lower levels of risk.[1]

Key Points

- Ironically, treatment is being withheld from those hypertensive patients who could benefit most.
- Findings were drawn from study of nearly 4,500 adults over the age of 60.
- Joint National Committee treatment standards should apply to patients of all ages.

"This is a real breakthrough in geriatric medicine because high blood pressure is one of the most prevalent and least adequately treated cardiovascular conditions in older people," notes **Marco Pahor**, MD, professor of geriatrics at Wake Forest, and one of the paper's co-authors.

Data substantial

The researchers used a risk assessment tool developed by the American Heart Association in Dallas to classify the risk of future heart attacks, stroke, and heart failure in 4,453 adults over the age of 60 who participated in the Systolic Hypertension in the Elderly Program (SHEP), a study conducted in 1991 by the National Heart, Lung and Blood Institute and the National Institute on Aging. Participants had systolic blood pressure readings of at least 160 mm Hg.

That study tested whether treatment of isolated systolic hypertension in older persons prevents stroke. The first-step therapy was chlorthalidone (12.5 mg / d). The second-step therapy involved the addition of atenolol (25 mg / d), or reserpine (0.05 mg / d) if atenolol was not tolerated. Drug treatment in the placebo and active treatment groups was increased by doubling the dosage or adding a second-step drug until the BP goal (decreasing systolic BP to <160 mm Hg or by at least 20 mm Hg) was reached.

"What we did was re-analyze the data of this trial and the effects of treatment according to levels of risk, to see if it was effective when the patients had more risk levels," explains Pahor. His group's analysis focused on four types of events: First-occurring major cardiovascular event, including stroke, MI or heart failure; first-occurring MI; first-occurring stroke; and first clinical diagnosis of congestive heart failure. "What we found was that the treatment was actually more effective and more efficient among those patients with more risk factors. The absolute risk of a cardiovascular event was higher, but the effect of the treatment was better," he explains. "This gives us the empirical evidence that we should treat those people even more aggressively."

These findings have great significance, says Pahor, because of the number of people they potentially could help.

"Between 50% and 70% of those people over 60 have hypertension, so it's a condition that's very frequently seen," he notes. "In the U.S., there are about 18 million older adults with high blood pressure. Of those, only 3 million are adequately treated and 15 million are not."

Why is this population not being treated adequately? "A small proportion of those who have hypertension are unaware that they do, but many are aware but are not treated," Pahor observes. "Frequently, physicians believe that when an older person has higher than normal blood pressure this is related to age, but we have several trials that show they should be treated as aggressively as younger people and it will do no harm. Still, there's a concept among physicians that they can't tolerate the medications."

Also, says Pahor, if these patients have several different conditions — i.e., they have diabetes, high cholesterol, or a previous stroke or heart attack — physicians are concerned that if they treat them too aggressively they will do more harm than good — that they are more likely to experience adverse effects from the treatment.

Quality managers should review these findings carefully, he advises, and be aware of what they do and do not show. "What we have found that applies to older people is well-known in younger people, so we should treat both groups the same," he says. "What we have not addressed is to what extent they should be treated. If they are not treated at all, we know their outcomes are much worse — but we could not assess, for example, what would happen if their blood pressure was lowered even more aggressively."

The key, he says, is to make sure that *any* patient who has high blood pressure receives adequate treatment. That standard was outlined in the *Archives of Internal Medicine* (*1997;* 157:2,413-2,446), by the Joint National Committee. "It has been endorsed by both the American Heart Association and the National Heart, Lung and Blood Institute," Pahor concludes.

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Combined modalities aid brain cancer survival

Whole brain radiotherapy, radiosurgery effective

A review of studies from 10 separate facilities indicates that patients with brain metastases who receive radiotherapy — small doses of radiation given over the course of 10 to 15 days — and stereotactic radiosurgery (RS) — a one-time shot of high-dose radiation — show an extensive improvement in survival.[1]

For the past 20 years, the authors note, the median survival of patients with brain metastases has remained level at six months. However, they point out, two recent trials that compared whole brain radiotherapy (WBRT) with surgical resection plus WBRT for patients with single brain metastases have shown statistically significant improved survival.

In addition, retrospective studies suggested that RS improved control of intracranial metastases and yielded survival advantage.

"The retrospective studies, and studies where surgery had been used for solitary lesions, showed good results," notes **Seema Sanghavi,** MD, attending, radiation oncology, at Saint Vincents Comprehensive Cancer Center in New York City, and lead author of the article. "The surgical studies are prospective and also showed there could be benefit. We took multi-institution results, factored out possible biases, and still found a survival benefit."

Sanghavi and her co-authors accomplished this using a method called Recursive Partitioning Analysis, which allows the researcher to identify the most important prognostic factors and then put them into classes, and, by comparing treatment among similar classes, controlling for biases. "If everyone has the same main characteristics influencing their survival, then in the same group they would not be a factor," she explains. "The only influence would be treatment."

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Key Points

- Median survival of patients has remained steady at six months.
- Radiotherapy already is the standard of care; radiosurgery is a new element.
- Overall median survival is extended to nearly 11 months.

In explaining her rationale for the study, Sanghavi notes that whole-brain radiotherapy already is considered the standard of care. The goal of the study was to examine the addition of stereotactic radiosurgery and "determine whether that would have any additional benefit."

The data for the study were drawn from results at 10 facilities: nine in the United States and one in Brazil. A total of 502 patients were studied. They were divided as follows:

- Class I, a Karnofsky Performance Status (KPS) of >70, age < 65 years, controlled primary tumor site and no extracranial metastases;
- Class III, KPS < 70;
- Class II, all others.

The overall medial survival was 10.7 months. The addition of RS boosted results in median survival (16.1, 10.3, and 8.7 months for classes I, II, and III, respectively) compared with the median survival (7.1, 4.2, and 2.3 months) in patients treated with WBRT alone.

While noting possible limitations on their findings, the authors cited "a significantly better survival rate for patients with newly diagnosed brain metastases who received RS in addition to WBRT . . . We do not wish this report to be regarded as uncritical acceptance of RS in the treatment of brain metastases patients, but expect it to serve as an impetus for further randomized evaluation of this modality."[1]

"The results are very promising, but you can't control for everything; it's not a prospective study," Sanghavi concedes. "However, there is a randomized trial that has not yet been published."

Nevertheless, she says, the advantage of combining modalities is that "potentially you can treat the whole brain with an external beam and positively impact survival. Even if the patient has disease elsewhere, you can at least prolong survival by getting better intracranial control."

Hospital quality managers should be aware that "Basically, irrespective of your parameters,

there's a suggestion that combined modality can improve survival," she continues, "Especially if the cancer can be controlled at the primary site. If the patient has a good performance status, the benefit appears to be quite promising."

Is this approach replicable at many different facilities? "Wherever you have radio-surgery you can do this," says Sanghavi, "And it's starting to become a lot more common."

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Cardiac monitor may aid critical burn patients

Necessary data obtained at reduced risk

A new cardiac monitoring system seems to improve the care of critically ill burn victims while minimizing the risk, according to early anecdotal data gathered at the University of North Carolina School of Medicine in Chapel Hill.

Doctors and nurses at the N.C. Jaycee Burn Center are among the first in the country to use the PiCCO system in treating burn patients. The monitoring system, manufactured by Pulsion Medical Systems AG, of Munich, Germany, was approved by the Food and Drug Administration (FDA) in May 2001.

"This is *not* a study," asserts **Bruce A. Cairns,** MD, an assistant professor of surgery specializing in trauma, critical care, and burns at the UNC School of Medicine. "We would like to eventually do a study, but the whole impetus was the fact that we were able to introduce the catheter and immediately recognize benefits, particularly among the nursing staff, that without analysis seemed fairly evident."

Key Points

- A new device eliminates the need for insertion of wire through the pulmonary artery.
- The system makes calculations of cardiac output function.
- Burn patients typically have a high bloodstream infection risk from catheterization.

According to **Loree Farber**, RN, nurse education clinician for the burn center, using older cardiac function monitoring technology calls for many more steps, including insertion of a wire through the pulmonary artery across the right side of the heart with the subsequent risk of artery damage and bloodstream infection. Risk of the latter is increased in the critically ill; burn patients typically have a high bloodstream infection risk from catheterization.

"It also means bringing another box and more equipment into the room vs. having one little module to stick into our monitor, which is less invasive and calls for less complicated steps," Farber says. "The information is integrated on the screen and all you have is one wire and one box. With the PiCCO and its continuous numbers, physicians can just look at the monitor and get as much information as they need."

How the monitor works

The PiCCO involves the insertion of a very thin catheter into the femoral artery. The catheter is thin enough to use in children, and as light as 4.4 pounds. The system makes calculations of cardiac output function based on information obtained from within the artery rather than having to float a catheter through the heart, as is done with the widely used Swann-Ganz catheter.

With standard cardiac monitoring systems, cool saline fluid is injected through the Swann-Ganz catheter. Temperature changes are calculated and entered into a formula, from which a representation of cardiac function is derived. "In combination with the blood pressure measurement, other calculations can be made to come up with a picture of the blood profusion in the body," Cairns explains. Thus, when doctors need more data, nurses must inject more fluid and derive new calculations.

"This newer arterial catheter is not floated through the heart and into the lung, the pulmonary venous system," says Cairns. "It can measure temperature differences at the level of the artery rather than at the pulmonary arterial level. Therefore, with PiCCO, we can place an arterial catheter that functions almost identically as the Swann-Ganz catheter but without the risks. And the PiCCO module can let us observe real-time cardiac output changes, real-time cardiovascular

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and volumetric monitoring that's never been available before."

Despite the positive first impressions, Cairns emphasizes that he is interested in better defining the effectiveness of this new device. "There are a whole lot of things that need to be answered before we jump in on this," he cautions.

A number of validation studies have been conducted in Europe, he notes, which have shown that this monitoring system would be equivalent to the Swann-Ganz parameters. "We wanted to confirm for ourselves that this was the case," says Cairns, "And our analysis was that the Swann-Ganz parameters were equivalent. At least that was the original assessment."

The main advantage Cairns sees so far is the ability to get the same amount of information while minimizing the amount of effort required and minimizing the risk to the patient. "That was really the purpose of looking at this device," he explains. "In addition, while we are still in the process of reviewing our information, we believe there will be a substantial cost advantage."

Most burn patients do not require the highest levels of cardiac monitoring, Cairns notes, but the high-risk patients are precisely the cases that represent the greatest potential value if you can obtain the same information with less intervention.

"The inherent attractiveness of this alternative is if all we do is put in the same catheter and central lines and get similar information without having to put in the Swann-Ganz, you would have an impetus to consider that alternative," Cairns says.

The device has been approved by the FDA because it is safe and accurate for what it proposes to do, Cairns explains. "Whether or not others will find it as useful and as cost-effective as we appear to is what we are trying to evaluate," he observes. "There is a great deal of enthusiasm on the part of our nursing staff, and when you talk about the ICU staff for treating burn victims, they are the critical element."

The PiCCO can be used in virtually any facility, says Cairns. "One of the things I find so interesting is how easy it was to introduce to the nurses," he notes. "It has been one of the few introductions of technology here that have been universally accepted by both the nursing staff and the physician staff." ■

NEWS BRIEFS

Bio attacks pose new risk challenges

Treating patients of biological and chemical attacks can pose a different kind of challenge for hospitals from a risk management perspective, **Jim Bentley,** senior vice president of the Chicago-based American Hospital Association, recently told members of the American Society for Healthcare Risk Management (ASHRM).

Speaking in Boston at ASHRM's annual meeting, Bentley said changes to triage procedures for treating mass casualties from such attacks could create new areas of liability. For example, he said, it might be necessary for health care providers to give treatment priority to the most survivable patients. Bentley said hospitals should include risk management in the preparation of disaster preparedness plans. ▼

Medicare to pay for ED observation in 2002

The long-awaited proposed rule on payment for the emergency department (ED) observation services from the Baltimore-based Centers for Medicare and Medicaid Services (CMS) has been published, and you probably will be pleasantly surprised at the outcome.

"The [CMS] ruling was in our favor," announces **Sandra Sieck**, RN, director of cardiovascular development at Providence Hospital in Mobile, AL. "Now we can provide better patient care without financial restraints."

The rule proposes to create a new payment group for observation services for patients with chest pain, asthma, and congestive heart failure. The proposed ruling was published in the Aug. 24, 2001, *Federal Register*. The final rule will become effective Jan. 1, 2002.

Raymond D. Bahr, MD, FACP, FACC, president of the Baltimore-based Society for Chest Pain Centers and Providers, reports that the group got CMS's attention by building a consensus among a dozen groups, including the Irving, TX-based American College of Emergency Physicians.

"At an early stage, we were able to engage [CMS] administrators who wrote the previous

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outpatient regulation," says Bahr, who is also medical director of The Paul Dudley White Coronary Care System at S. Agnes HealthCare, also in Baltimore. "We made them aware of the medical advances which have taken place in the care of patients with acute coronary syndrome."

He gives the example of current chest pain evaluation in the ED, which includes an "attack" approach for patients with acute myocardial infarction (AMI), but also an observation period to assess other patients.

"This approach provided evidence for reduction in a number of missed AMI patients being sent home, as well as a significant reduction in the number of inappropriate admissions to the hospital," he adds.

This system of risk stratification was included in the new American College of Cardiology / American Heart Association for patients being evaluated with unstable angina and non-ST-segment elevation myocardial infarction, he notes.[1] To use this approach effectively, EDs needed to have appropriate reimbursement, Bahr urges. Although observation centers have been declining due to lack of reimbursement, Bahr expects that to change.

"With the proper reimbursement, we expect to see a renewed interest in observation services that will result in exponential growth of chest pain centers," he says. Bahr predicts that the number of chest pain centers, currently 1,300, will double over the next year or two.

Reference

1. ACC / AHA Guidelines for the management of patients with unstable angina and non-ST-segment elevation myocardial infarction: Executive Summary and Recommendations. *J Am Coll Cardiol* 2000; 36,:970-1,062. ▼

PacifiCare patients are using new data

The latest edition of PacifiCare Health Systems Quality Index physician and practice report card shows patients are making use of the data the system provides to consumers. The report card rates groups in more than 40 specific areas, from patient safety to affordability. Preventive health screenings, access, and patient satisfaction data are provided for participating medical groups.

According to the company's vice president and corporate medical director, **Sam Ho**, MD, better-performing groups in California attracted 30,000 more members than those who didn't score as well — a membership gain that represents $18 million in increased revenues as a reward for improved quality.

Ho says that since its inception in 1998, scores have risen in areas such as breast cancer screening, diabetic care, and treatment for heart disease.

"We've also seen improvements in many service measures, including patients' satisfaction with primary care doctors and decreased complaint rates about doctors as well. In fact, quality results for 18 of 26 measures have shown substantial improvement throughout the provider networks."

PacifiCare plans to expand the Quality Index profile to Arizona, Colorado, Nevada, Oklahoma, and Texas next year, and to include new measures profiling the performance of hospitals throughout its network.

PacifiCare of Oregon and PacifiCare of Washington issued their first profiles last winter and plan to release their fall 2001 editions later this year. ■

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