AMERICAN HEALTH CONSULTANTS

HOSPITAL CASE MANAGEMENT™

the monthly update on hospital-based care planning and critical paths

IN THIS ISSUE

■ **Denial management:** What case managers can do to avoid denied claims . . . . . cover

■ Using software to improve financial performance 51

■ **Documentation:** How to make sure you're doing it right 53

■ **Medical errors:** What case managers can do to make care safer 54

■ ***Critical Path Network:*** New protocol can rule out MIs in 90 minutes 55

■ ***Discharge Planning Advisor:*** On-line discharge process enables faster, more precise placement 59

■ ***Patient Safety Alert:*** Early results of Leapfrog hospital survey promising . . . . . insert

■ *Reader Survey . . . . . insert*

APRIL 2002

VOL. 10, NO. 4 (pages 49-64)

Case managers must take a proactive role in managing denials

Cooperation with billing departments, physicians crucial

With hospitals facing increasing financial challenges, a growing emphasis is being placed on proactive denial management. For case managers operating on the "front end," this has created the need to closely coordinate their activities with billing departments that handle denied claims on the "back end." In the process, it has created an opportunity for case managers to help hospitals improve their bottom line.

Beverly Cunningham, RN, MS, director of case management at Medical City Dallas Hospital, says case managers must be concerned with two different types of denials. The first includes denials that are difficult to avoid, either because the patient does not meet medical necessity criteria or the insurance company has a requirement such as a 24-hour notification rule that was not met. "These are usually very clear denials," Cunningham says.

Denials of the second type often leave room for a process improvement opportunity, she says. For example, the payer may indicate that no authorization was given when, in fact, it was. Or the claim may have lacked information or have been sent to the wrong payer.

"The second group of denials are problems that we created ourselves, and if we did something right upfront, we would not have that denial," she says. "We can do it ahead of time, or we can do it after the fact."

According to Cunningham, case managers may find that most of their denials occur in connection with certain physicians and consequently may focus their efforts with those physicians. Or they may find that patients from the emergency department are being admitted even though they don't meet inpatient criteria. That creates a

need for case managers to work with admitting physicians.

Also, case managers performing utilization review often are responsible for giving complete, timely information to the payer and determining if the patient is inpatient, outpatient, or outpatient observation, Cunningham says.

With Medicare, Medicaid, and even some private payers, sometimes patients who stay overnight are considered outpatients, she says. "That makes it important to make sure you have the right status, especially for Medicare and Medicaid," she says.

For example, a patient may come in for a surgical procedure, and the physician may wish to keep that patient overnight. However, Medicare may refuse to pay inpatient status, and the patient may not meet any criteria for observation status.

"If a hospital filed a claim stating inpatient or observation status, it could be committing fraud," Cunningham warns. "It is very criteria-driven. Hospitals have it in black and white."

These are the kind of things that case managers can do at the bedside to make sure denials are minimized, she says. "They can also help coordinate care. If we have a delay in care, such as if a physician ordered a consultant referral and nothing happens, case managers should follow up."

Day-to-day management of denials

According to Cunningham, the case management director typically is responsible for looking at aggregate data and determining the number of delays related to things such as surgeries not being performed on weekends. But the case manager still has the day-to-day responsibility for management of denials, she says.

John Englander, CPA, administrator of operations at the Cleveland Clinic Foundation, says the key ingredient to reducing front-end denials is solid registration. He says part of that means working with payers to issue insurance cards, which only can be done during negotiations with payers.

"That enables patients to tell you [what] the plan is and the plan code in addition to [what] the insurance is," he says. "Only then can you know what you can expect to be paid and what your obligations are before the patient gets there."

"One of the problems you run into is that you think you have a patient with all kinds of wonderful insurance, and then you find out it was a particular plan where there was no contract or a contract that requires a whole set of front-end parameters, such as notice," he adds.

According to Englander, there need to be solid systems in place at the front end to gather good information.

"You must be able to slice and dice it so that you know how many denials you have from whom and why," he asserts. "I describe it not as a database but as an inventory.

"The feedback is actually the most important part of any denial system," Englander says. "When I first drew up what I considered a good denial inventory system, the feedback was the key to the whole thing." At Cleveland Clinic, he says, case managers deal primarily with the coordination of care, while reimbursement specialists focus on capturing the right information.

"The real key is being able to find out the cause of denials and being able to eliminate them," he says. "What you can do at the back end is collect data to improve your front-end performance."

All of the 1,200 physicians are employed by the health system, segregated by division and department. That makes it important to determine how much feedback takes place between the reimbursement specialist and the registration staff who are responsible for insurance, Englander says. "You must have a system in place to compare department to department and division to division."

"If one department is getting no denials and another department with a similar insurance mix is getting a lot of denials, then you have a right to ask questions, and that is where the feedback becomes valuable," he adds

Catherine Foley, senior health care consultant

COMING IN FUTURE MONTHS

- Measuring the impact of case management interventions
- Part II Medication errors: What case managers can do to make care safer
- Values and ethics in case management
- Discharge planning in depth: What you need to know
- *Critical Path Network* on congestive heart failure

at the Unicare Corp. in Cleveland, reports that hospitals increasingly are employing new processes to become more proactive in this area. These processes originally were designed to respond to denials that were hitting the business office, she says. "They were getting authorization and medical necessity denials that were strictly retrospective on the back end," she explains.

"We learned as we went along that they did not have any type of process to collect any kind of information to inform the front end and help control them," says Foley.

She says that is when her firm started writing data systems to capture that information and feed it back in a form that let them view their data by physician trends, department trends, and payer trends. That data then can be used to help admitting and registration as well as contract management staff who negotiate contracts.

Unicare also started to run multifunctional and multidepartmental process improvement meetings within hospitals that included admissions, case management, and business office staff.

"What has been interesting about it is the difference in the way it is perceived by case management and by patient accounting," Foley reports. She says the latter look at it strictly as money that needs to be recovered, while case managers pay more attention to the clinical trends.

According to Foley, the first step in terms of developing a system is figuring out who will "own and operate" that system — whether that is case management, the business office, or a combination of both.

The next question is whether that process should be integrated with the current system, she says. Also ask if it should be a system that inventories the claims so you can see an active inventory of denied claims at any given time.

In addition, Foley puts a lot of emphasis on reporting, she explains. "If you only work denials to get cash, you are only looking at half the picture. You are going to get cash today, but you are going to get denials tomorrow." To have a real impact, she says, case managers must look at the data and make corrections at the front end.

In the past, case managers typically have been independent and closely aligned with nursing, Foley says.

Her goal is always to incorporate case management with contract management, utilization management, and the business office, she says. "If they do not work hand in hand, they will have a hard time being successful in the long run." ■

Software can improve denial management

Case managers integral part of revenue recovery

In an effort to reduce denials and improve their financial performance, an increasing number of hospitals are establishing revenue recovery units to overturn unpaid claims, while others are employing new software to reduce the number of unpaid claims proactively. Some of these units include case managers and utilization review nurses, while others address denials at the reimbursement specialist level.

Traditionally, most hospitals focused on high-dollar, high-volume procedures. But at least 400 hospitals now are using a software application to help avoid denials and speed claims processing, says **Patrick Harkins**, vice president of compliance and regulatory affairs at Healthworks Alliance, in King of Prussia, PA, which developed the software.

According to Harkins, the software allows hospitals to manage and evaluate medical necessity as soon as the order is submitted. If the orders do not meet medical necessity by the carrier or fiscal intermediary standards, they collect the advanced beneficiary notice (ABN) and notify the patient.

The claim then is submitted to Medicare for initial determination. Either the claim is paid and the patient does not get a bill, or the claim is denied and the hospital recovers the revenue from the patient because it already has generated the ABN.

Jaye Shaughnessy, corporate compliance manager at University of Miami Hospital and Clinics, says she uses the Healthworks software to screen for medical necessity on the front end as well as the back end before claims are submitted. "I would not let a bill go out of here without that software," says Shaughnessy, who has been using it for almost four years.

"If the system is used properly, you can have 100% Medicare compliance when it comes to billing," she asserts. "It is a wonderful system that is constantly updated by the service."

Claims may be denied for any number of reasons, including a request for additional information, Harkins says. The billing department may respond to those requests, while other more complex decisions based on medical necessity may require additional diagnostic information or

medical record information and usually are referred to case management.

According to Harkins, some hospitals deal with outpatient denials strictly in the billing department, and the only denials handled by case management and utilization review are those that involve inpatient services.

To facilitate that process, Healthworks Compliance Checker software takes the Medicare Part A and Part B rules and inputs them into its software along with the order and the diagnosis. The software then evaluates the combinations and generates an ABN if necessary.

All of that information is recorded in the database so that case managers can look at those reports and evaluate how well physicians are doing providing diagnostic information to outpatients they refer, Harkins says. If physicians are noncompliant, the case manager can use those reports to educate them and help them become compliant.

Dealing with APCs

Harkins says that medical necessity must be checked on everything because if the order fails medical necessity validation, it may not be subject to the ambulatory payment classification (APC). If a procedure is paid under an APC and fails medical necessity validation, the failed procedure cannot be grouped into the APC. The Healthworks software has the ability to generate not only the ABN but also the APC copay statement.

If the claim gets paid under an APC, the patient must pay a percentage as a copayment and the APC pays the balance, he explains. The software allows hospitals to collect that money upfront. In addition, the software prints out a requisition for the service.

According to Harkins, hospitals also can use the software with physicians who send a high volume of referrals. "That way, they no longer have to provide a requisition to the hospital," he says. Instead, they can input all of the information into the computer and the requisition is printed out with the patient's insurance information, the physician's information, the diagnosis, the test, and the ABN if required.

"That pushes the ABN process back out to the point of care where it should always have stayed," he says. "But we all know that physicians do not always comply." The application is very robust in terms of its ability to provide edits. "There are many different edits that can either be turned on or turned off depending on how detailed you want to get," Harkins says.

For example, Medicare's correct coding initiative (CCI) indicates certain procedures that cannot be ordered together on the same date of service. Other services can be performed only on an inpatient basis.

"Those edits reside in our software as well, and when procedures are ordered together that should not be, warnings are sent up on the system that say you have a CCI edit conflict that can be corrected with an appropriate modifier or cannot be corrected with modification," he says.

A similar edit looks at the age and sex of patients because some tests can be ordered only on either males or females or on patients of a certain age. "All of those things are edited on the back end of the claim by the FI [fiscal intermediary] or carrier, and if any one of those edits fail, the claim is returned," Harkins says. "The more that you put in upfront before the claim is sent out, the better off you are. It is just proactive management of your denial upfront."

Healthworks now is in the process of releasing a new software program called Denial Tracker that Harkins says will be beneficial to the revenue recovery units, especially case managers who may be tracking denials on the inpatient side. "There may be an issue where somebody was not pre-certified or it was an extended DRG or too many days or too many services," he says. "Case managers typically will deal with those type of inpatient denials because they are big bucks."

Denial Tracker is PC-based software that tracks claims by downloading the electronic remittance advice and recording all of the denials that have occurred. It attaches patient information and the reason for denial as well as the dollar amount.

Essentially, what the Denial Tracker does is allow the utilization review team or case managers and billing personnel to have their own automated tool to facilitate timely compliance with the guidelines for resubmitting denied or rejected claims, Harkins says. That allows the person tracking the claim to print a report that shows the denials categorized by dollar volume or other criteria, he says.

If a claim has been returned for additional information, the software puts it into a working queue and then generates a report indicating when the claim must be returned and the additional information requested about the patient.

It also has built-in forms so that the appropriate forms or letters can be generated and forwarded

as a cover letter for easy submission back to the payer. "It pulls all the patient information and your demographics and also has the address of the payer so that everything is sent out automatically," Harkins says. It also includes an automatic due-date calculation so that hospitals do not miss deadlines for different levels of appeal.

According to Harkins, many facilities are not yet using automation to track this process. Instead, they still may be using a Microsoft Excel spreadsheet or an Access database.

"This is true automation to help you through every process with overdue reports and different management reports that show you what has to be sent and what the status of any rejection may be," he says.

To date, Harkins says, Medicare is the only government insurance program that has issued local medical review policies while private insurance carriers and HMOs simply list in their beneficiary manuals what they won't pay for.

However, private payers now are moving more toward establishing local medical review policies as well, he says. "Most HMOs and private payers are now looking at the success that government has had with these programs." ■

Effective documentation: Know you're doing it right

Focus on decision-making process

As every case manager knows, getting claims paid boils down to effective documentation. "Documentation is the key," says health care attorney **Kathy Fritz**, JD, RN, a former nurse practitioner.

"So much of what we know about the patient and the factors that make a difference in the decision-making process are not documented in the medical record," says **Deborah Hale**, CCS, president of Administrative Consultant Service in Shawnee, OK. "Extenuating circumstances can make a difference in the decision-making process but are often not documented."

Hale says the team approach is the best way to make sure documentation is recorded accurately. "Case managers are the perfect people to get that done because they are on the front lines and they know what those circumstances are," she argues.

According to Fritz, the way services are rendered and the way case managers evaluate the reasonableness and medical necessity of those services is intimately related to how services are billed and how claims are paid.

For example, when case managers perform utilization review or quality assurance activities, they should evaluate whether documentation exists in the medical record to support not only the medical necessity of the services, but also the level at which those services are billed.

An important role of case managers is to determine whether the services the person is receiving are reasonable and medically necessary, consistent with the person's health care condition, Fritz says. Case managers generally make this determination by conducting a concurrent review of the documentation contained in the person's medical record, she says.

Similarly, federal payers that conduct audits of a provider's billing and payment practices also review a person's medical record documentation to determine the appropriateness of the services rendered and the level of service billed.

In fact, Fritz says that her experience representing providers in administrative agency actions underlines the fact that when it comes to auditing, federal payers rely almost entirely on documentation.

Unfortunately, physicians do not always appreciate this fact. "I am amazed at how many providers have never had any formal training in proper billing and coding practices, and particularly how documentation is integrally related to those practices," Fritz says.

To the extent that case managers can influence a provider's documentation practices, they should focus on educating providers about three necessary components for level of service determinations: history, physical, and medical decision making, she says.

According to Fritz, these are the three elements for evaluation and management codes that any payer will look at to justify payment at a particular level of service. If case managers cover these three areas, they have covered the essentials for documentation, she says.

Evaluations of new patients or patients who are first admitted to a hospital are fairly thorough, she says. "Generally, the subsequent documentation tends to be less then complete."

What payers generally require depending on the level of service is that two of these three items must be documented, she adds. On the other

hand, if providers are doing a comprehensive evaluation and billing at that level of service, which is likely to be costly, they will expect that all three be documented in some form in the record.

According to Hale, these three factors determine physician reimbursement, but they also can apply to the hospital setting. "If you have history and physical, you are establishing the need for the admission to the hospital," she explains. "If you have medical decision making, you have a lot of the factors that relate to the treatment plan that also contribute to the reason for the hospitalization."

One method that Fritz recommends is encouraging physicians to dictate patient information at the time of or immediately after their patient encounters.

"By dictating, providers significantly enhance their chances at complete documentation," she explains. "This way, it is done timely while they still have the patient's condition in mind rather then at the end of the day after [they] have seen 20 to 25 patients."

While the dictation itself is not a task for case managers, they often are responsible for reviewing the charts that might include dictated reports. In many cases, it will be case managers who, through their quality assessment activities and reports, will be able to influence and improve a provider's documentation practices.

"They often have direct access to physicians and likely sit on one or more committees where physicians are present," she says. Certainly, a review of proper documentation practices, as they relate to determinations of medically necessary and reasonable services and billing and coding edits, can be made a part of each monthly meeting where a best practice issue is presented, she adds. ■

Part 1 of a 2-part series

Medication errors: How CMs can make care safer

Most frequent errors include improper dose

By **Ruth Davidhizar**, RN, DNS, CS, FAAN
Dean of Nursing
Bethel College
Mishawaka, IN
Giny Lonser, RNC, BA, MSNc
Andrews University
Berrien Springs, MI

(This story is the first of a two-part series on medication errors. Next month, the authors will discuss 10 specific strategies to help prevent such errors from occurring.)

One morning as a rookie nurse, I* was asked to leave my home base, the 12-bed emergency department (ED), to go to pediatrics because several nurses had called in sick. I left our three ED patients in the capable hands of the charge nurse and dashed to the third floor. *(*Giny Lonser)*

In addition to pediatric patients, I found the unit had a significant population of women patients recovering from GYN surgical procedures predominantly, with some urology thrown in for good measure.

When I made initial rounds on my patients, I was astonished to find each one, children and adults, sobbing with pain. The mother of the first patient, my only pediatric case, was as hysterical as her child was. I quickly drew up narcotics and administered them. As I checked the order and drew up the Numorphan 1 mg, I thought, "That's an adult dose, but he's had mitral valve replacement and a cracked sternum and obviously is in a lot of pain. Perhaps that's how the cardiac surgeons do things around here." After giving the shot to the child, I hurried down the hall medicating the rest of my assigned patients.

Returning to the nursing station, I pulled the narcotic log to record what I had taken. When I located the Numorphan sheet for my first entry, I noticed everyone else had wasted 0.9 mg of each vial of Numorphan. Each dose used on the sheet had been signed out for my pediatric patient.

I was stunned.

I retraced my steps to the appropriate medication cart and checked the patient record. Sure enough, only 0.1 mg was ordered. I went to the front desk and confided in the head nurse, "I just gave a whole milligram of Numorphan to the little guy in room X."

The head nurse turned several shades of gray. "Get a set of vitals and report to the surgeon. Put the child on a couple of liters of oxygen."

I rushed down the hall. In the almost 45 minutes that had elapsed, the mother and the older brother were gone. The 4-year-old was resting quietly, his respirations easy and relaxed, eyes

(Continued on page 63)

CRITICAL PATH NETWORK™

New protocol can rule out MIs in 90 minutes

Triage combined with point-of-care blood test

Using a simple, inexpensive blood test and a critical pathway for triage, researchers at the U.S. Department of Veterans Affairs (VA) in San Diego have developed a protocol that can rule out heart attacks in 90 minutes, compared with six to 24 hours for existing methods. The protocol combines a new, Food and Drug Administration-approved "point-of-care" blood test for three cardiac enzymes with an electrocardiogram and patient history.

Over a period of nine months, from July 1998 to April 1999, the researchers analyzed the diagnoses, triage patterns, and medical outcomes of 1,285 patients. The critical pathway used the cardiac markers, as well as the clinical criteria, to triage patients either to the intensive care unit (ICU), the direct observation unit (DOU), the ward, or home. **(See pathway, p. 56.)**

"Patients who had chest pain were directed into one of five pathways based on history, electrocardiogram, and clinical suspicion of MI [myocardial infarction]," the authors explained. "A cardiac marker algorithm was incorporated into this pathway, which tested myoglobin, cTnI [cardiac troponin I], and CK-MB [creatine kinase-MB] at time of presentation (time 0), and at 30, 60, and 90 minutes to help determine patient diagnosis."[1] When indicated, the researchers subsequently measured the cardiac enzymes at three and six hours to establish a final diagnosis of MI. In most cases, they report, the emergency department (ED) physicians were able to complete the evaluation process and determine patient triage destination within 90 minutes.

The researchers were seeking a balance between the "excessive and often unnecessary costs" created by admissions of patients who are at low risk for acute coronary syndromes and "strategies that are too liberal," which can lead to large numbers of patients released with undiagnosed MI.

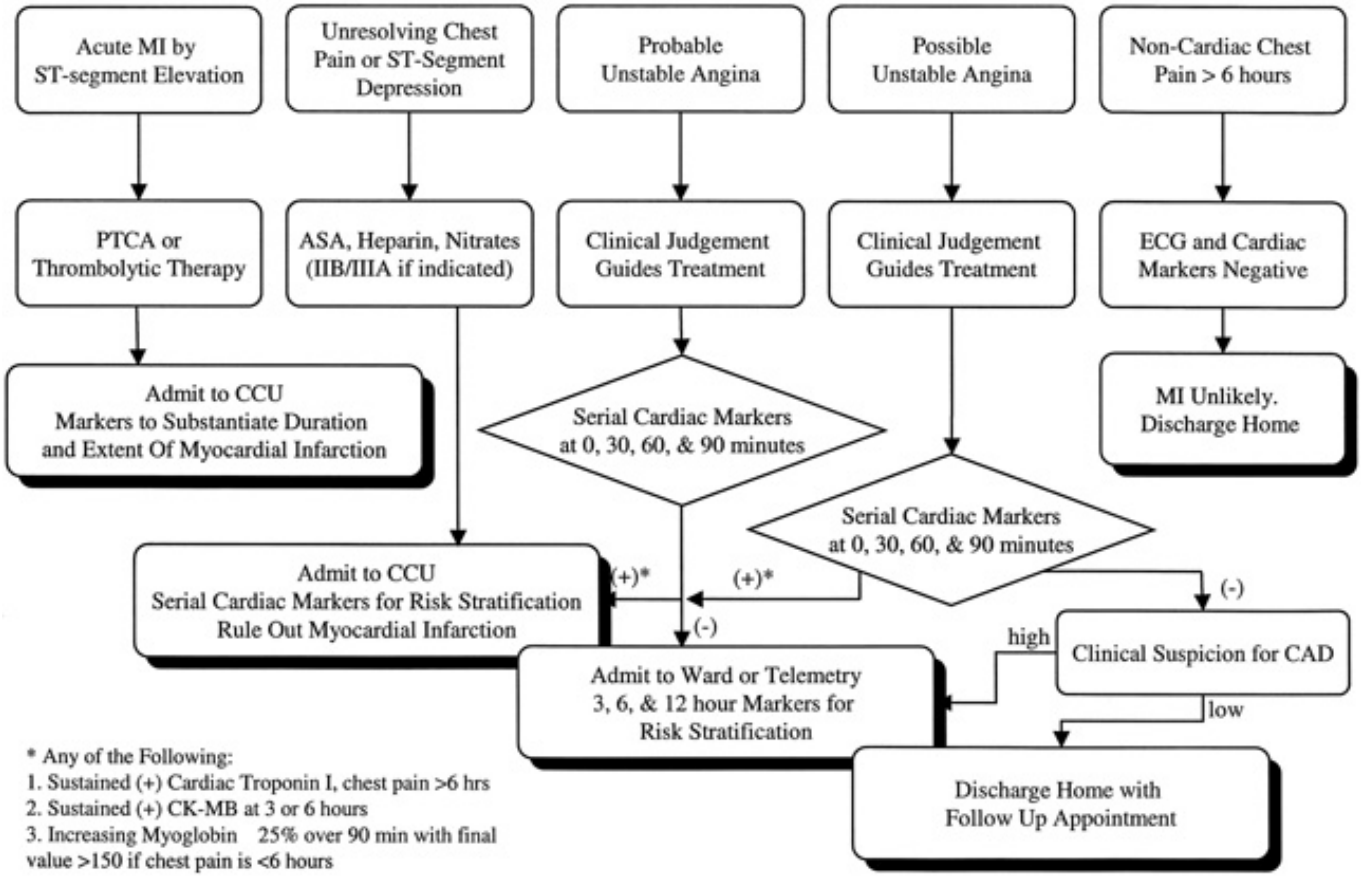
"We began our research initially as part of a performance improvement project at our hospital," explains **Alan S. Maisel**, MD, director of the coronary care unit at the VA San Diego Health Care System, professor of medicine at the University of California at San Diego, and one of the paper's co-authors.

"We didn't have enough beds and were actually sharing them. We had previously done research on the three markers. We got hold of this new point-of-care machine and decided to look at our earlier research and at sequential testing, using the algorithm and taking into account history or EKG findings. The marker elevation or lack thereof would then determine where the patients should go and what meds they should receive."

Per the protocol, the ED physician, after consultation with the cardiac care unit (CCU) team, made the call as to whether the patients could be sent home. The critical pathway dictated that patients who were not sent to the CCU on admission or not sent home after the first negative set of markers would be re-evaluated after 90 minutes. The physicians were allowed to make triage decisions (CCU, DOU, ward, home, or further testing) at the 90-minute point. Of the 1,285 patients who presented with chest pain, 508, or 40%, were discharged home. Of this group, 13 returned to the ED within 30 days. One patient subsequently was diagnosed with MI, and 12 others were admitted for unstable angina.

(Continued on page 57)

Accelerated Critical Pathway for Chest Pain Evaluation



Source: U.S. Department of Veterans Affairs, San Diego.

"This critical pathway decreased CCU admissions by 40% while triaging the sickest patients to the CCU," the authors write. "This decrease, along with its likely associated cost savings with regard to intensive care unit costs, may even be underestimated, because at several time points during our study, a shortage of DOU beds may have falsely elevated the CCU admission rate."[1] They estimate that about 10% of the CCU patients would have been sent to the DOU had space been available.

Maisel notes that "Early rule-outs and rule-ins are becoming pretty mainstream," noting other recent examples in the literature where it was determined that MIs could be ruled out within 90 minutes.

"What we want to do is move people out of the ED as quickly as possible — not only to save space, but because we also know that with the myocardium involved, time is money," Maisel adds. "If we can start treatment with the newer meds within 90 minutes instead of six hours, it can do a lot of good. For example, the II-3 platelet inhibitors (i.e., aggrastat) are found to be very effective in acute coronary syndrome, and the earlier you give it the better."

The exact nature of a critical pathway for ruling MI in or out must of necessity vary from hospital to hospital, Maisel notes. "Some hospitals have chest pain observation units," he points out. "They could use the algorithm and quickly rule out MI to see if the patient should go there."

[For more information, contact:

• ***Alan S. Maisel**, MD, VA Hospital, 3350 La Jolla Village Drive, San Diego, CA 92161. E-mail: amaisel@ucsd.edu.]*

Reference

1. Ng SM, Krishnaswamy P, Morissey R, et al. Ninety-minute accelerated critical pathway for chest pain evaluation. *Am J Cardiol* 2001; 88:611-617. ■

JCR issues 'call to action' for good practices

Joint Commission Resources (JCR), a subsidiary of the Oakbrook Terrace, IL-based Joint Commission on Accreditation of Healthcare Organizations, is issuing a call to action for hospitals to submit good practice examples related to patient safety, sentinel events, staffing, care of patients, and performance improvement.

The examples will be used to establish a good practices subscription database, scheduled to debut on line later this year. The database will be limited initially to hospitals, with a pilot project for ambulatory, long-term, and home care organizations set for 2003.

The database is intended to help health care organizations improve services by learning from the success of others.

Each example submitted for consideration must include information on:

- staff involvement;
- tools and resources utilized;
- how the example was implemented;
- how the success of the good practice was measured;
- lessons learned or recommendations from the organization.

Examples must be fully developed by organizations and must represent intellectually independent work.

A $500 fee will be paid to organizations submitting examples that are included in the database. ■

Cooperative accreditation in the works for hospitals

Work is continuing on the effort to establish a cooperative accreditation agreement between the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other accrediting bodies.

If approved by the Joint Commission board of directors, the plan could lead to modifications that would alter agreements with accrediting bodies that accredit specific departments or units typically found within JCAHO-accredited hospitals, but for which JCAHO does not provide separate standards.

Much of the plan is aimed at eliminating redundant accreditation and requirements for accredited hospitals.

The Cooperative Accreditation Initiative (CAI) would allow the Joint Commission to rely on the process and decisions of the cooperative partner, eliminating the need for duplicative evaluations of comparable standards.

The Joint Commission reports that discussions are ongoing because the evaluations conducted by some cooperative partners are not truly duplicative of JCAHO hospital surveys since the standards and survey process focus on technical and clinical functions within the department or unit.

The current plan for the CAI calls for certain accrediting bodies to be recognized by the Joint Commission but would not be required to achieve and maintain comparability with Joint Commission policies, standards, and accreditation processes.

Agreements with these accrediting bodies would be considered "complimentary," as opposed to comparable, the Joint Commission reports.

CAIs already exist with nine national accrediting bodies.

If approved by the Joint Commission's Board of Commissioners, CAIs might be arranged with the American Society for Histocompatibility and Immunogenetics, the American College of Surgeons-Commission on Cancer, the American Association of Blood Banks, the American College of Radiology-Radiation Oncology Program, and the Commission on Accreditation of Rehabilitation Facilities. ■

CCMC changes exam dates to increase accessibility

The Commission for Case Management Certification (CCMC) has changed it exam cycle, beginning October 2002.

In the past, the exams have been offered in June and in December. This year marks the last time the exam will be administered in June.

Beginning this fall, the exam will be administered the last Saturday in October and the last Saturday in April.

The changes are part of an ongoing effort the make the exam more accessible to case managers who had commented that the June exam often conflicted with high school and college graduation dates and the December date came during a busy holiday schedule.

Deadlines for application have also changed. Applications must be postmarked by May 15 for the October 2002 examination with all supporting forms due to the CCMC by July 15.

Candidates will be notified of their eligibility by Sept. 15 with exam fees due Sept. 30.

For more information contact the Commission for Case Management Certification, 1835 Rohlwing Road, Suite D, Rolling Meadows, IL 60008. Telephone: (847) 818-0292, Fax: (847) 394-2108. E-mail: info@ccmcertification.org. Web site: www.ccmcertifcation.org. ■

Conference replays offer educational opportunity

Have you missed one of American Health Consultants' recent audio conferences? If so, two upcoming conference replays offer another opportunity to take advantage of excellent continuing education opportunities for your entire facility.

Disaster Response at Ground Zero: How NYU Downtown Hospital Handled Mass Casualties With All Systems Down, originally held Jan. 10, takes participants to the heart of the World Trade Center disaster on Sept. 11.

Just a few blocks away from the crash site, NYU Downtown was cut off from crucial lifesaving supplies and power, even as hundreds of injured came through the emergency department doors. HazMat teams on the roof of the hospital had to vacuum all of the debris out of air ducts to maintain air quality and keep generators running. Physicians and nurses had to balance urgent care with proper documentation.

Learn how to prepare your facility for the unthinkable. The replay will be available from 8:30 a.m. on Tuesday, April 16, until 5:30 p.m. on Wednesday, April 17. Current AHC subscribers pay $249, which includes free CME and CE credit. The cost is $299 for nonsubscribers.

On April 23 and 24, **What to Say When Something Goes Wrong: Do the Right Thing When Trouble Strikes** also will be available for replay. This successful audio conference covers the major fear factors clinicians experience when confronting issues of medical disclosure. Learn benefits for both patient and provider, as well as the risks of litigation and how to avoid costly legal battles. Free CE for your entire facility is included in the $249 fee for AHC subscribers.

To register for either one of these replays, contact American Health Consultants' customer service department at (800) 688-2421. Customer service representatives will provide you with all of the necessary information on dial-in procedures and how to download conference handouts and material on line. ■

Discharge Planning Advisor®

— the update for improving continuity of care

- Accelerated discharge
- Staff cooperation
- Placement strategies
- Reimbursement
- Legal issues
- Case management

Discharge process enables faster placement

Report quality greatly enhanced, CM director says

Case managers at New York Hospital of Queens in Flushing are using a new software tool to determine the availability of post-acute services, then request and schedule those services over the Internet, says **Caroline Keane,** RN, MSN, ANP, CCM, director of case management and social work.

Since implementing eDischarge, a product of Curaspan Inc., in Needham, MA, in mid-January, her staff have dramatically reduced time spent on the telephone, enhanced the quality of report writing, and are able to make more precise matches of patients with care facilities, she says.

"It's real time," she explains. "We used to send out PRIs [patient review instruments] — maybe a 20-page package — to five facilities via fax. Even though it was programmed into the fax machine, it took a lot of effort, and then maybe it didn't go out right. Now we put in one [PRI] and send it out to all five at once. The PRIs are much more legible."

The high-quality reports alone are a huge plus to her operation, Keane says. But Columbia Presbyterian, the network to which her hospital belongs, chose to implement eDischarge in large part because of the patient privacy protection it provides, she notes.

With the privacy regulations of the Health Insurance Portability and Accountability Act (HIPAA) becoming effective in April 2003, Keane adds, "we're looking toward the future. This is an encrypted system, a secure system. We decide how much information the person on the other side receives, and at what time we give it."

As part of the eDischarge process, post-acute providers that take referrals from the hospital, including skilled nursing facilities (SNFs), home health services, and rehabilitation facilities, complete a profile outlining the services they offer. Each day, the provider updates the bed or service availability.

At her hospital, Keane explains, there is a merged case management / social work department, with 19 registered nurse case managers, seven social workers, and one placement coordinator, who acts as a liaison between the post-acute facilities and the social workers. The hospital has about 460 patients at any one time, she notes, and her department arranges between 200 and 220 nursing home placements per month.

The case manager drives the discharge plan, she says, determining whether the patient should be placed in a facility or cared for at home, doing the initial intervention with the patient's family and performing the ongoing chart review. Once the discharge plan is ready and there is a solid placement need, the case manager makes a referral to the social worker, Keane says. "The case manager continues to review the case, and as the patient becomes closer to 'discharge-ready,' issues the PRI, entering it electronically into the computer."

Meanwhile, she adds, the social worker has developed a relationship with the family, helping them understand the process and negotiating where the patient will receive post-hospital care.

When the patient is ready for discharge and the PRI is completed, the case manager transfers the PRI to the social worker, who completes the departmental screen of the patient and transfers the case to the placement coordinator with a list of appropriate facilities, Keane says. "The placement coordinator electronically sends out queries to facilities the patient and family have chosen and awaits the follow-up. When she gets that, she transfers the information appropriately. If there is a medical need or question, it goes to the case manager, but if there is a financial or psychosocial need, it goes to the social worker."

Once the patient is accepted by the facility, she notes, the PRI is updated, if necessary, and the social worker proceeds with the transfer. If the patient came from a nursing home and is returning there, the process is driven by the case manager from start to finish, and there might not be a social worker involved, Keane adds.

To protect patient confidentiality, identifying information on the patient is sent to the provider only after the final match is made, she notes. "We can give [the provider] just a look at the PRI and whatever clinical information is necessary. We're not giving them next of kin until we're ready to give them next of kin, and we're not using fax lines that may not be secure."

The eDischarge system "eliminates the back and forth," Keane points out. "Otherwise, people are going back and forth, faxing within the building, going up and down [floors] all day. We've decreased the unnecessary steps."

A clerical employee, for example, used to spend five hours collecting data and typing and distributing a monthly report showing where patients have been placed, she says. "The system does it in a minute, and we run a great report at the end of the business day."

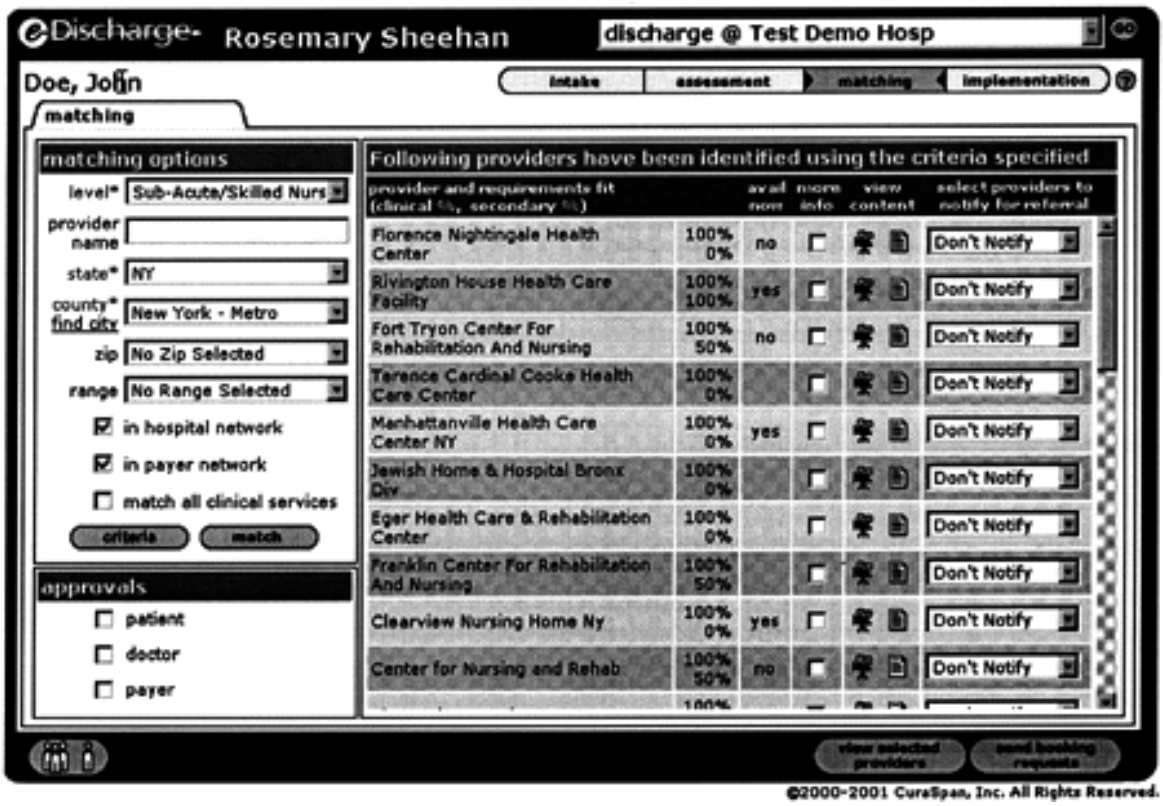
Her staff can look at data showing where a patient was placed, how many facilities were sent applications, and what facilities have taken what types of patients in the past, Keane adds.

Using the criteria match, which is part of eDischarge, case managers sometimes are able to find an appropriate placement for patients they didn't think a facility could accommodate, she points out. "We'd look at the criteria match and say, 'Oh, we didn't know they did dialysis,' so it was a heads-up that a facility we didn't think about would take a patient." Placing patients who need dialysis is particularly difficult because of limited resources in the area, Keane adds.

Placement of people with "extreme needs," such as a recent 540-pound patient, also is facilitated by the on-line system, she says. "We can query [regarding] specific patients who have specific needs to see if a facility we don't use very often can provide that service.

"You know the facilities in your area that you use all the time," Keane adds, "but occasionally a facility is changing its scope of practice or opening a new unit. It's right there on the computer." Meeting a special language or dietary need, for example, is particularly crucial with long-term placements, she notes.

Communication with payers is enhanced, Keane says, in that her staff can take a list of all the facilities within a certain plan and electronically transfer



Source: Curaspan Inc., Needham, MA.

the PRI and other information in real time. "We don't have to find a fax machine and fax to five different facilities. We can make one phone call to a managed care company and say, 'This patient has been medically approved by one of your preferred providers. Can I get an authorization number?'"

At present, Keane says, most of the post-acute facilities to which her hospital historically has made referrals are part of the eDischarge system. "Some smaller facilities that service another community more than ours, or are borderline, have not joined, but it has not remotely been an issue," she adds. "If they didn't get on board in the beginning, I think most of those we do business with will join."

Similar products her hospital tried several years ago "didn't pan out," Keane says. "I don't think they were clinically as good. With one, we tried making referrals without enough information — we couldn't scan in enough to give the full package. Also, there was not a tremendous buy-in. [Participants] were not as computer savvy. There's been a lot of change in our environment that made this the right time."

What Keane likes about eDischarge, she notes, is that it is "very comprehensive and very user-friendly, and it's done at the front line. The case manager controls the discharge." In addition, she says, the vendor provided a tremendous amount of support during implementation. "None of the other programs had the technical support this one has, or the time [the vendor] spent training and retraining."

What the vendor did make clear, Keane points out, is that the on-line discharge system by necessity must "change the way you do business. You have to set a limit [on telephone calls], squelch that knee-jerk impulse to use the phone."

And, she adds, "it takes getting used to seeing the PRI in the computer instead of in front of you — even though you can print it if you want to."

Although cases already are being turned around and decisions being made more quickly, Keane says she expects further improvements as staff get more comfortable with the system. "We've created our own security measures, but as time goes by we'll drop some of the unnecessary [backup] steps and will get faster."

"Any time there's a change," she adds, "there's always a little holding on to the past, but the future is where you need to be."

[For more information, contact:

• ***Caroline Keane**, New York Hospital of Queens, 5645 Main St., Flushing, NY 11355. Telephone: (718) 670-1300.*

• ***Jackie Birmingham**, Managing Director, Professional Services, Curaspan Inc., 368 Hillside Ave., Needham, MA 02494. Telephone: (781) 433-9800. E-mail: jbirmingham@curaspan.com.]* ■

To smooth discharge, check bed 'life cycle'

Defining terms spurs solution, physician says

Hospitals with ongoing bed management problems and high censuses would do well to look more closely to determine the true cause, suggests **John Whitcomb,** MD, medical director of emergency services for Milwaukee's St. Luke's Medical Center, which is a part of Aurora Health Care.

Although the emergency department (ED) is a popular scapegoat when it comes to assigning blame for hospital diversions, it is just a symptom of an inefficient hospital, he says.

That inefficiency is defined by several clinical processes, "all of which are slow," adds Whitcomb, who helped spur development of a cutting-edge bed management system at Aurora Health Care.

"They all happen at the same time in the middle of the day, and they all have in common one person occupying two beds or a bed with nobody in it," he explains.

Those problematic processes, he says, include the following:

• **Discharge from the hospital.** From the time the physician writes the discharge order until the bed is reoccupied, Whitcomb says, is "in the range of six to eight hours. The patient is there for the first two or three hours, and then you have multiple handoffs — to nursing, to pharmacy, to transport the patient. Each one is just 15 minutes, but when you have 10 of them, suddenly that's six hours."

• **Transfers between units in the hospital.** When a patient is transferred from the intensive care unit (ICU) to the nursing floor, he is in one bed and waiting for another, he notes. "The other bed has to be cleaned and the order has to be given and coordinated with pharmacy." Then the patient, along with his personal effects, has to be moved, and the family directed to a different waiting room. "Again, it's about a six-hour process," Whitcomb says.

• **Procedures in the operating room (OR).** While an elderly or frail patient is in the OR for example, a five-hour procedure, "his slippers and robe are in the original room," he says. "He may go back there, or he may go to a room in the ICU, which is on hold because the patient is so frail." Both beds are held in reserve until the outcome is clear.

• **Outpatient procedures.** There's a similar process with outpatient procedures, whereby physicians hold open the option of admitting a patient to the hospital, just in case there are complications or unforeseen outcomes. "In the meantime, there are all these other procedures where a bed is put in reserve, and all of those procedures peak in the middle of the day," Whitcomb adds.

That means that in the middle of the day, any hospital with an occupancy rate of more than 80% thinks it's at 120%. "It's because [clinicians] have saved a bed, 'just in case.' It's that 'just in case' stuff that's causing the problem."

At noon, Whitcomb says, hospital personnel are likely to get so panicked by these numbers that they "send business elsewhere," only to find there are 20 available beds at 8 p.m.

"That's because they didn't know how many beds they had, really," he adds. It doesn't help that various physicians are calling the units directly to "make private deals" to get their patients admitted, Whitcomb notes.

"It's a confusing process," he says. "You can't keep track, and you don't have control of how long it takes for one empty bed to get reoccupied. So how can you make a science of that?"

To correct what Whitcomb calls "the life cycle of a bed," certain hard information can be measured, he says. Terms that need to be clearly defined include the following:

• **Available bed.** "This is not a licensed bed, not a budgeted bed, and not a bed with sheets on it," he says. "It's a *staffed* bed. [Bed management staff] need to recognize that the hospital they're working with is not the same every day. Every day it's a little different. Patients are complicated. Some patients have one nurse, and in another place, one nurse is caring for five patients."

• **Open bed.** An open bed, Whitcomb says, is a bed for which a discharge order has been written. When the order's written, the clock begins ticking. "When is the secretary going to report it? When is the patient going to be moved out? When is it going to be cleaned? When is a new patient assigned to it? When is a report given from the incoming patient? When is the patient actually in the bed?" If it generally takes six hours after the order is written for a bed to be open, Whitcomb notes, what would be the benefit if that time were cut in half? "If you can add three hours of occupancy, and the average hospital stay is five days, you gain 3%," he adds. "With a 500-bed hospital, you've gained three empty beds."

Once the situation is defined, Whitcomb notes, "you can put a tool together to manage it, and you can act prospectively. Then you can make what you do match the hospital's mission." ■

CE questions

Save your monthly issues with the CE questions in order to take the two semester tests in the June and December issues. A Scantron sheet will be inserted in those issues, but the questions will not be repeated.

13. According to John Englander, administrator of operations at the Cleveland Clinic Foundation, what is "the most important part of any denial system"?
    A. clinical data
    B. feedback
    C. effective computer software
    D. All are equally important.

14. According to King of Prussia-based Healthworks Alliance, a new software tool called Denial Tracker tracks claims by downloading the electronic remittance advice and recording all of the denials that have occurred.
    A. true
    B. false

15. According to Kathy Fritz, JD, RN, case managers should educate physicians about what three components for level of service determinations?
    A. history, medical decision making, and type of insurance
    B. type of insurance, physical, and medical decision making
    C. history, physical, and medical decision making
    D. physical, history, and type of insurance

16. According to a 2000 study by United States Pharmacopeia, which of the following is not one of the three most frequently reported types of medication errors?
    A. omission
    B. improper dose/quantity
    C. unauthorized drug
    D. incorrect administration technique

(Continued from page 54)

closed. I took the vital signs. While slipping on the nasal cannula, I noticed his father, a nurse anesthetist, linger briefly in the doorway. He nodded to my quiet "Hi there" and disappeared.

The calm surgeon's voice on the phone gave me additional orders and said he would be right over. I rapidly implemented the orders, placed a flow sheet at the bedside, and recorded vital signs regularly — all of which remained remarkably within normal limits for his age and size. The cardiac surgeon arrived, examined the patient, the flow sheet, and the chart.

The next morning, the shift supervisor called me into her office. "You did an excellent job of charting, but some of the information is more properly recorded on an incident report," she said.

Other nurses already had rewritten their portions; the form awaited my edited entry. She mentioned the surgeon visited her office the day before and demanded she hand over my nursing license. Instead she reached into her purse in her desk and handed him her own, claiming responsibility for sending me into that troubled environment because she knew I would not refuse.

Although most medications are lethal at 10 times the proper dose, perhaps the high levels of catecholamines, the adrenaline of hysteria, and panic over unrelieved pain, may have been an effective antidote and kept the vital signs from taking a nosedive.

Most frequent types of errors

Even so, I was overcome with guilt. Where was I when my nursing instructor lectured on the principle of adjusted dose related to size and weight of the patient? If I had taken time to log out each injection as I gave it, I would have discovered the error sooner.

When the steps are altered, the risk of error increases. I did not appease my guilt by blaming the noise and chaos of the environment. I learned a lesson I would never forget. As chaos increases, so must diligent carefulness!

In l999, a report by the Institute of Medicine focused national attention on errors in hospitals. Since that time, increasing numbers of television documentaries have heightened public concern about medical and nursing treatment.[1]

In 2000, another important report on medication errors was released by the United States Pharmacopeia (USP), a private, not-for-profit organization that works to assure the strength, quality, purity, and adequate labeling of therapeutic products.

The report on 6,224 medication errors from 56 community, government, and teaching health care facilities nationwide spanned the calendar year l999.

Those who are interested in a more extensive summary of these data than this article permits can find a summary of the data on the USP's web site at www.usp.org/med-marx. A more

Hospital Case Management™ (ISSN# 1087-0652), including **Critical Path Network**™, is published monthly by American Health Consultants®, 3525 Piedmont Road, N.E., Building Six, Suite 400, Atlanta, GA 30305. Telephone: (404) 262-7436. Periodical postage paid at Atlanta, GA 30304. POSTMASTER: Send address changes to **Hospital Case Management**™, P.O. Box 740059, Atlanta, GA 30374.

Subscriber Information

Customer Service: (800) 688-2421 or fax (800) 284-3291. Hours of operation: 8:30-6 Mon.-Thurs.; 8:30-4:30 Fri. EST. E-mail: customerservice@ahcpub.com. World Wide Web: www.ahcpub.com.

Subscription rates: U.S.A., one year (12 issues), $399. Outside U.S., add $30 per year, total prepaid in U.S. funds. Two to nine additional copies, $319 per year; 10-20 additional copies, $239 per year. For more than 20 copies, contact customer service for special handling. Missing issues will be fulfilled by customer service free of charge when contacted within one month of the missing issue date. **Back issues**, when available, are $67 each. (GST registration number R128870672.)

Editorial Questions

For questions or comments, call **Russ Underwood** at (404) 262-5521.

American Health Consultants® is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center's Commission on Accreditation. Provider approved by the California Board of Registered Nursing, provider number CEP 10864, for approximately 18 contact hours.

Opinions expressed are not necessarily those of this publication. Mention of products or services does not constitute endorsement. Clinical, legal, tax, and other comments are offered for general guidance only; professional counsel should be sought for specific situations.

Vice President/Group Publisher: **Brenda Mooney**, (404) 262-5403, (brenda.mooney@ahcpub.com).
Editorial Group Head: **Coles McKagen**, (404) 262-5420, (coles.mckagen@ahcpub.com).
Managing Editor: **Russ Underwood**, (404) 262-5521, (russ.underwood@ahcpub.com).
Senior Production Editor: **Ann Duncan**.

complete version is available for purchase from the USP and can be ordered on the web.

The three most frequently reported medication errors in the USP study were:

1. omission;
2. improper dose/quantity;
3. unauthorized drug.

Omission errors accounted for 1,689 (27%) errors, while improper dose/quantity accounted for 1,313 (21%). Unauthorized drugs accounted for 751 (12%). Other causes included wrong time, prescribing error, extra dose, wrong patient, wrong drug preparation, wrong dosage form, wrong administration technique, and wrong route.

However, when all medication errors are considered, any type of medication may result in an administration error and any medication error can subject the patient to harm.

Performance and failure to follow procedures or protocol were the two main causes of medication errors in the USP study. Factors cited as contributing to performance errors were distractions and workload increases.

Factors cited as contributing to failure to follow procedure were distractions and staff inexperience.

Distraction was by far the factor most frequently noted in relation to the causes of error. Case managers need to be aware of these factors and strategies to prevent medication errors from occurring.

Reference

1. Kohn L, Corrigan J, Donaldson M. (Eds.) *To Err Is Human: Building a Safer Health System.* Washington, DC: National Academy Press; 1999.

Recommended reading

1. Bindler R, Bayne T. Medication calculation ability of registered nurses. *Journal of Nursing Scholarship* 1991; 23(4): 221-224.

2. Brown O. Effects of a stress management program on nurse absenteeism, medication errors, and anxiety. (Doctoral dissertation, University of New Mexico.) *Dissertation Abstracts International* 1990.

3. National Coordinating Council. National council focuses on coordinating error reduction efforts. *USP Quality Review* 1997; Jan:57.

4. Potter P, Perry A. *Fundamentals of Nursing*. St. Louis: Mosby; 2001.

5. United States Pharmacopeia. *Summary of the 1999 Information Submitted to MedMARX*. Rockville, MD: U.S. Pharmacopeia; 2000. ■

CE objectives

After reading each issue of *Hospital Case Management*, the nurse will be able to do the following:

- identify particular clinical, administrative, or regulatory issues related to the profession of case management;
- describe how those issues affect patients, case managers, hospitals, or the health care industry in general;
- cite practical solutions to problems associated with the issue, based on independent recommendations from clinicians at individual institutions or other authorities. ■

PATIENT SAFETY ALERT™
A quarterly supplement on best practices in safe patient care

Early results of Leapfrog hospital survey promising

Nearly half of institutions contacted provided replies

In mid-2001, a total of 525 hospitals in six regions around the country were invited to complete a web-based patient survey by the Business Roundtable's The Leapfrog Group in Washington, DC.

Now, the first returns are in, and The Leapfrog Group's top official says she is encouraged by what she sees.

"Overall, the results are very promising," said **Suzanne F. Delbanco**, PhD, executive director, during a press briefing held Jan. 17, 2002. "Nearly half of the hospitals that we invited to take the survey submitted responses (241, or nearly 48%). That's an enormous achievement."

53% meet standards

What's even more exciting, she added, is that of the hospitals that responded, 53% already met at least one of Leapfrog's standards for three key safety practices: The use of computerized physician order entry (CPOE); staffing intensive care units (ICU) with intensivists; and evidence-based hospital referral.

By practice, the results broke down as follows:

- Of the responding hospitals, 3.3% have instituted CPOE.
- About 10% of the responding hospitals have fully implemented the intensivist model, and another 18% indicated plans to enlist intensivists by 2004.
- In terms of specific volume recommendations, 12% meet Leapfrog's recommended level of annual experience for coronary artery bypass graft; 31% for coronary angioplasty; 21% for abdominal aortic aneurysm repair; 20% for carotid endarterectomy; 15% for esophageal cancer surgery; and 22% have neonatal ICUs that meet Leapfrog's recommendations.

The six targeted regions include urban hospitals in Atlanta, California, East Tennessee, Minnesota, St. Louis, and Seattle-Tacoma-Everett. Three of the six regions (California, East Tennessee, and Minnesota) reported having at least one hospital with a fully implemented CPOE. Five of the six (California, East Tennessee, Minnesota, St. Louis, and Seattle) have at least one hospital that has fully implemented the ICU physician staffing or intensivist practice.

The greatest impact

The three standards were selected because, according to Leapfrog members, the greatest impact could be made on patient safety in the shortest period of time. If implemented, nearly 60,000 lives could be saved each year and more than half a million serious medication errors could be prevented, the group claims.

"CPOE has been shown to reduce serious medical errors by more than 50%. Staffing intensive care units with intensivists has been shown to reduce the risk of patients dying in the ICU by more than 10%. Appropriate referrals for high-risk procedures and conditions can reduce the risk of a patient dying by at least 30%," Delbanco declared.

Private industry is an integral part of this effort, and companies have their own incentives for participating, noted **Charles R. Lee**, chairman and co-CEO of New York-based Verizon Communications.

"We have two standpoints. First, we care about our employees and our retirees, and their

dependents, and their families," he said.

"The other one is the whole matter of quality. Quality is a never-ending journey. You're never satisfied with the current results; you always want to get better and do better. It's a standard practice in big corporations. We hope that we can, over time, develop relationships with some of the institutions that are involved in the medical profession to move them forward."

Sharing the information

Now that Leapfrog has this survey information, the next step is to share it with specific stakeholders. "Our members are going to share it with their employees, retirees, and dependents, through internal communications like newsletters, benefits materials, and corporate web sites," Delbanco said.

She also noted that Leapfrog, with the help of the Portland, OR-based Foundation for Accountability, has created a consumer test and tool kit that members, health plans, physicians, and others can use and customize to educate consumers. The hospital information is being made available to the public on the group's web site www.leapfroggroup.org.

Delbanco noted that sharing these results fulfills a commitment not only to consumers but also to the hospitals that took the time to complete the survey.

"Sharing this information is only part of what we're doing with hospitals," she added.

"In some cases, our members will offer financial incentives to hospitals to implement the Leapfrog practices, as well as other types of reward and recognition," Delbanco said.

Such strategies are, of course, intended to engender change at the institutional level, which is critical to the success of Leapfrog's efforts. The survey information "is only significant if people change behavior," noted **John Rother**, director of policy and strategy for the Washington, DC-based American Association of Retired Persons (AARP).

"It's only significant if the hospitals respond not only to a request for information but start to implement these changes to save lives." **(Some institutions and health care organizations already have; see article, at right.)**

It's also important for all of us, as patients and family members, to pay attention to the information and make decisions based on it, Rother noted.

"Do not send your parent to a hospital that's refusing to give this kind of information," he warned. "Do not send a family member to a hospital for an operation where we know that another hospital in your area does it better — a lot better. These choices are life and death decisions."

[For more information, contact:

- ***Suzanne F. Delbanco**, PhD, Executive Director, The Leapfrog Group, c/o the Academy, 1801 K St., N.W., Suite 701-L, Washington, DC 20006. Telephone: (202) 292-6713.*
- ***Charles R. Lee**, Chairman and Co-CEO, Verizon Communications, 1095 Avenue of the Americas, New York, NY 10036.*
- ***John Rother**, Director of Policy and Strategy, AARP, 601 E. St., N.W., Washington, DC 20049. Telephone: (202) 434-3704. E-mail: jrother@aarp.org.]* ■

Putting safety principles into practice

Incentivizing safety efforts

When it comes to safety, theory is nice but results are better. Two panelists at the Leapfrog Group press briefing reported how they have given teeth to safety principles with transformative initiatives.

Michael A. Stocker, MD, MPH, CEO of Empire Blue Cross and Blue Shield in New York City, described an innovative incentive program being undertaken in his area.

"We represent about 100,000 employees and dependents in the New York City area," he said.

Making it worth the effort

"Those hospitals that meet the computerized physician order-entry (CPOE) standard and the enclosed ICU [intensive care unit] standard will receive a 4% bonus on all income that we provide to them if, in fact, they fulfill these standards. We are actually going to send a check quarterly to the CEO to make the point to the hospitals in the area." In the second year, a 3% bonus will be provided, and a 2% bonus will be paid in the third year, he added.

Why is Empire Blue Cross and Blue Shield doing this? "From its inception, what we really

liked about The Leapfrog Group's standards is the fact that they are evidence-based," Stocker noted.

"The evidence is simply overwhelming; one large company estimates that one or two of their employees died because of medical errors every day, including retirees and dependents," he said.

Because the standards are evidence-based, he continued, "Everybody can intuitively understand what it means if you have a volume standard, what enclosed ICUs mean, if you have intensivists [who] are available and [CPOE]. Second, it can be done anywhere. You could do this all across the country, and our hope, of course, is that's what's going to happen."

CPOE implementation

At Cedars-Sinai Health System in Los Angeles, CPOE is about to become a reality. "We've been working on it for about two years, and it's set to go live in May of this year," reported **Michael L. Langberg**, MD, FACP, chief medical officer and senior vice president for medical affairs.

The medical executive committee at Cedars-Sinai passed a motion in January that basically would suspend a physician's ability to practice in the institution if the physician was not certified competent in his or her ability to use the CPOE system by the time it goes live.

"The reason for doing this is not punitive," Langberg explained. "It's a very strong belief in the marriage of a physician order-entry system with clinical decision support. So at the time physicians submit an order to the hospital, they will have available to them all the important information to make the best judgment or choice for their patients.

"Once we establish that standard, all patients and all physicians will have to be involved in that kind of support in real time," he said.

[For more information, contact:

- ***Michael L. Langberg**, MD, FACP, Chief Medical Officer and Senior Vice President for Medical Affairs, Cedars-Sinai Health System, 8700 Beverly Blvd., Suite 2211, Los Angeles, CA 90048. Contact: Grace Cheng. Telephone: (310) 423-3510. E-mail: grace.cheng@shs.org.*
- ***Michael A. Stocker**, MD, MPH, CEO, Empire BlueCross and Blue Shield, 11 W. 42nd St., 18th Floor, New York, NY 10036. Contact: Deborah Bohren. Telephone: (212) 476-3552. E-mail: Deborah. bohren @empireblue.com.]* ■

Safety tool stresses education and action

Tragedy transforms facility into industry model

Two tragic medication errors seven years ago prompted Dana-Farber Cancer Institute in Boston to undertake what CEO **Jim Conway** calls "a journey of change."

That journey has led to industrywide praise and recognition, including the recent awarding to Conway of one of the two inaugural Individual Leadership in Patient Safety Awards from the Joint Commission on Accreditation of Healthcare Organizations and the National Committee for Quality Assurance.

Among Conway's most notable accomplishments was the development of a patient safety self-assessment tool that encourages executives to initiate improvements proactively rather than to wait for the occurrence of adverse events to force action.

In early 1995, Dana-Farber discovered that two patients had received massive chemotherapy overdoses. As one of those patients was Betsy Lehman, a well-known health reporter for the *Boston Globe*, the events received extensive media coverage, including 28 front-page stories in the *Globe*. The question on everyone's lips seemed to be, "How could such a bad thing happen at Dana-Farber, and to such an informed patient?"

This led to what Conway calls "a journey of change for our leadership and staff." Naturally, he says, Dana-Farber carried the burden of these events, but that was not enough.

"It was also our responsibility to learn all we could about why our system failed," Conway says. The events, he says, took on significant power, driving health professionals across the country to learn about medical errors.

"It's mentioned in the first sentence of the executive summary of the [Institute of Medicine] report [*To Err Is Human*]," Conway notes. "It was not only a sentinel event, but a seminal event."

The development of the safety tool grew out of the ongoing process of change. "Myself, the chief of nursing, the staff, the directory of pharmacy, the director of risk management, and others have all spoken on the subject extensively," Conway notes.

"We get two common questions from health care leaders. The first is, 'In the absence of high-profile events, how do you create the tension for

change?' The second issue we hear is something like this: 'You would never catch my boss standing in a public forum and talking about *our* stuff!' We have talked a lot about the gap between excellence and perfection," he explains.

It was not surprising then that last November, the Joint Commission asked Conway to give a talk at its annual meeting on leadership and patient safety. "In preparation for that talk, we had conversations with our trustees and executive leadership, as well as with our staff," he says.

"We asked ourselves, 'What are the things we do that work and seem to make sense, and that lead to success?'" Conway then put up a posting on the National Patient Safety Foundation listserv, asking if health care professionals believed their organizations' leaders "got it" when it came to patient safety.

"We got a number of comments from people who said they did, and they told us what they do," Conway reports. "Then we went and looked in the literature. We spoke with people like [the Institute for Healthcare Improvement's] Don Berwick and [Harvard University's] Lucian Leape, and asked what they thought."

Dana-Farber also consulted two other groups: a state coalition of 20 organizations dedicated to improving patient safety, and their patients.

The result was the patient safety tool, which has been given the title, "Strategies for Leadership — Hospital Executives and Their Role in Patient Safety."

It is divided into four basic sections:

- **Personal Education.**

How do you educate yourself? What books and articles have you read? Do you take courses? Do you understand the facts of your organization?

- **Call to Action.**

What are you doing to establish a framework for safety in your facility? What policies and procedures have you put in place?

- **Practicing a Culture of Safety.**

How do you do this every day?

- **Advancing the Field.**

What do you do outside of your institution to support others?

The tool is presented in the form of a questionnaire, with "Y" and "N" boxes next to each of the 42 questions. The American Hospital Association in Chicago has put its imprimatur on the tool and has distributed it to hospital executives. In the cover letter, Conway notes: "To be sure, having a number of checks in the 'Yes' column of the self-assessment is far more significant than having none. But identifying a plan to move some checks from 'No' to 'Yes' could be equally significant."

Clearly, he says, some "Y's" are more important than others, but that can vary from institution to institution.

"The question to ask is, 'How can I move in my organization from No to Yes?' It is an opportunity to step back and reflect," Conway says. "We propose that you not only reflect with yourself, but with a group of other people before checking off the box."

The Dana-Farber program actively involves patients and family members at all levels of institutional planning; this is what helps keep safety at the forefront of all Dana-Farber activities, he adds.

"We have patient and family advisory councils in both adult and pediatric care," he says. "They sit on most of our operational committees — at the board level on our quality committee. [They leave if the board goes into executive session.] We share error rates with patients, and slips and falls. When we go through the Joint Commission survey, they are involved."

Nearly instant feedback

By actively engaging patients and families in the process, Dana-Farber can get almost instant feedback. "We can implement a new system today, and the next day a patient can say, 'The infusion room is too crowded,' or 'The construction project is making the staff uncomfortable,' or 'When I was admitted they couldn't find my records,'" he explains.

"Our patients are experiencing care in ways that none of us do, and to the extent our processes are not working, they can tell us — and quickly. Sure, we do statistical surveys, but the results often come in two or three months later. We want our patients to pick up a phone and give us a call."

Out of a tragedy have come some very good things indeed. Today, Dana-Farber sees nearly three times as many patients as it did in 1995.

"Not only has our volume grown, but our research has grown; the center is vibrant," Conway says. "Our story is the story of how an institution took a tragic situation and used what it learned to leverage the whole organization to a better place."

[For more information, contact:

*• **James Conway**, CEO, The Dana-Farber Cancer Institute, 44 Binney St., Boston, MA 02115. Telephone: (866) 408-3324. E-mail: Dana-Farber ContactUs@dfci.Harvard.edu.]* ■

BIOTERRORISM WATCH

Preparing for and responding to biological, chemical and nuclear disasters

Building a bridge over the abyss: Will bioterrorism help bring disjointed health system together?

Getting in same boat as 'tsunami' of money builds

Diverse and disjointed, the nation's public health and clinical settings have education needs and communication gaps that must be bridged if the system is to improve its response to bioterrorism, a group of consultants recently told the Atlanta-based Centers for Disease Control and Prevention (CDC).

The CDC's national center for infectious diseases is holding a series of meetings to assess the lessons of last year's anthrax attacks and begin to close the long-standing breach between public health and clinical medicine.

The gap may stem from differences between the private and public health care systems, both of which are fragmented and highly variable by geography and urban vs. rural settings, according to a CDC draft summary of the Jan. 7, 2002, consultants' meeting, which was obtained by *Bioterrorism Watch.*

Seeking collaboration

"There was lot of [discussion] about the gap between public health, private practices, and hospitals and how to bridge that gap and make things more collaborative," said **William Scheckler**, MD, a consultant at the meeting and hospital epidemiologist at St. Mary's Hospital in Madison, WI. "[We need] to reduce some of the redundancies in the systems both in terms of preparing and education."

Scheckler also is a member of the CDC Healthcare Infection Control Practices Advisory Committee (HICPAC), which met Feb. 25-26, 2002, in Atlanta.

Scheckler gave a report on the consultants' meeting, telling HICPAC members that the CDC had input from a broad range of bioterrorism groups and clinical specialties. There is a wealth of information scattered among these groups and on numerous web sites, he noted. For example, a dermatology group at the meeting has photographs of skin lesions that could be a good resource in an investigation of cutaneous anthrax.

"When an outbreak occurs, the same questions [arise]: What do people need to know? What is the best way to get out the information?" he said. "There should be one best-practices web page that you can go to."

The CDC currently operates several different clearinghouses for information as well as different public inquiry numbers. The agency now is considering the possibility of centralizing its clearinghouses and public inquiry services, the CDC report states.

"During the anthrax crisis, the CDC public inquiry system was overwhelmed, and therefore the agency set up a new system during the outbreak," the CDC report continues.

In addition, the CDC found that "during the attacks, the amount of information on anthrax increased from virtually nothing to an overwhelming number of e-mails, web sites, printed

This supplement was written by Gary Evans, editor of *Hospital Infection Control*. Telephone: (706) 742-2515. E-mail: gary.evans@ahcpub.com.

documents, and other materials. Much of this information and work was duplicative."

The consultants suggested that the CDC devise a strategy to centralize information development activities and then distribute the product, rather than having so many individuals working independently. **(See CDC action items, below right.)**

Linking the data base

Regarding public health and clinical partnerships, a relatively simple system of linking health departments with hospital emergency departments (ED) was described by HICPAC member **Alfred DeMaria Jr.**, MD, state epidemiologist at the Massachusetts Department of Public Health in Jamaica Plain.

Under the program, participating hospitals in the Boston area report their daily number of ED visits to the health department. The numbers are compared against emergency visits a week earlier and on the same date a year prior to detect surges that might suggest a bioterrorism event, he said.

The information is easily obtainable by the hospitals and can be submitted electronically to the health department without extra work. That is important because bioterrorism surveillance systems that are labor-intensive will likely falter as vigilance inevitably wanes, DeMaria noted.

The system has provided the secondary gain of improving communication between public health and clinical sectors. The threshold for investigation occurs at two orders of magnitude above baseline, which thus far has occurred with influenza ED visits and those associated with a large trauma event such as a bus crash, he said.

Sometimes, the threshold will be reached simply out of random chance, as ED visits increase for no single reason. "The question is, we don't know how big an event has to happen [to be detected]," DeMaria said.

The CDC is interested in such bioterrorism surveillance systems, and also may seek to apply its existing hospital sentinel networks, including the National Nosocomial Infections Surveillance system, said **Steve Solomon**, MD, chief of special studies activity in the CDC division of healthcare quality promotion.

National concerns about patient safety and bioterrorism have created a "tsunami of money" to address such issues, Solomon told HICPAC members.

"We have a lot of concerns about the surveillance and response needs," he said. "We are seeking a small trickle of that tidal wave of funds."

Ultimately, the CDC may help shape a national system or contribute to a "mosaic" of systems that track surrogate markers such as severity of illness in "real time," he said.

The research and development needs for such a system are in the ballpark of $120 million to $180 million, which may be available in the current climate over the next four or five years, he said. There is considerable interest being expressed from health care-related industries in partnering with the CDC on such efforts.

"They are standing in line," Solomon told HICPAC members. "The phone is ringing off the hook. We are trying to figure out who is the best partner." ■

CDC gets plenty of advice for action

Clarify roles, make info user-friendly

A recent consultants' brainstorming session on education and communication needs for bioterrorism resulted in numerous suggestions to the Centers for Disease Control and Prevention (CDC) in Atlanta. Some of the points of information and recommended items for action included:

- ✔ Strengthen the CDC Health Alert Network e-mail notification system to ensure that all state and local health departments are involved.
- ✔ Make surveillance and reporting as automatic as possible, and do not depend on the clinician to initiate the report quickly.
- ✔ Because the CDC is recognized as an authoritative source for information provided through *Morbidity and Mortality Weekly Report* and press releases, the CDC web site should be changed to make it more user-friendly.
- ✔ Ruling out disease is the most important clinical issue, rather than identifying new cases of disease.
- ✔ Clarify roles when a criminal investigation is going to occur during a public health emergency.
- ✔ Develop a prototype disaster plan for use by communities and make it readily available.
- ✔ The cacophony of information is a problem. For clinicians, an appropriate tool would be a page of bulleted information necessary for the

clinical setting. This should be provided in addition to baseline information.

✔ The CDC smallpox plan is a good model for allowing outside review during the development phase.

✔ Identify additional ways for using communication technology, particularly e-mail, to link local resources together. ■

Was anthrax mailer a bioweapons researcher?

'This has military lab stamped all over it'

Given the difficulty of creating high-quality anthrax in a civilian research lab, the original source of the *Bacillus anthracis* that killed five people last year was likely a U.S. bioweapons facility, the president of the American Society of Microbiology (ASM) tells *Bioterrorism Watch*.

"Given the high quality of the preparation that was used, this has military laboratory stamped all over it," says **Abigail Salyers**, PhD, ASM president and a professor of microbiology at the University of Illinois in Urbana-Champaign.

The U.S. bioweapons program was formally disbanded as part of a global treaty in the early 1970s, but many military labs remained open for "biodefense" research to counter bioterrorism, she says. "These anthrax spore preparations last for decades," Salyers says.

Anthrax mailer is 'criminal, but not stupid'

The atmosphere of a university research lab is too open and freewheeling for someone to produce anthrax undetected, she says. Salyers' personal theory is that someone who worked in a military bioweapons laboratory stole the anthrax, possibly years ago.

"It's anybody's guess as to what is going on here, but I would be astounded if this came out of a university laboratory," she says. "[This person] is crazy, criminal, but not stupid. I can't imagine that anybody who was going to do that would take the trouble and risk of trying to do that in a university laboratory environment."

In a related matter — despite a published report to the contrary — the Federal Bureau of Investigation denies it has narrowed its anthrax investigation to a former scientist in a U.S. bioweapons lab.

A FBI spokeswoman at the agency's national office in Washington, DC, told *Bioterrorism Watch* that the agency has not identified "a prime suspect" in the hundreds of interviews it has conducted in the investigation.

A story that was published in the Feb. 25, 2002, *Washington Times* reported that the FBI's search was focusing on a former U.S. scientist who worked at a government bioweapons laboratory. The government's chief suspect, the article reported, is believed to have worked at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, MD, which has maintained stores of weapons-grade anthrax. No charges had been filed as this issue of *Bioterrorism Watch* went to press.

Do you know this person?

Salyers described her theory on the case — before the newspaper report was published — when the FBI openly solicited help from the ASM in the investigation. In a message appealing for help from ASM members, **Van Harp**, assistant director of the FBI's Washington, DC, field office, said "a single person" is most likely responsible for the mailings. "It is very likely that one or more of you know this individual," he told ASM members.

A $2.5 million dollar award is offered to anyone providing information that leads to an arrest of the bioterrorist. The FBI profile describes a socially withdrawn person who has "a clear, rational thought process" and is very organized. "The perpetrator might be described as 'standoffish' and likely prefers to work in isolation as opposed to a group/team setting," Harp told the ASM. It is possible the mailer used off-hours in a laboratory or may have even established an improvised, concealed facility to produce the anthrax, the FBI profile noted.

"The person is experienced working in a laboratory," Harp told the ASM. "Based on his or her selection of the Ames strain of *Bacillus anthracis,* one would expect that this individual has or had legitimate access to select biological agents at some time. This person has the technical knowledge and/or expertise to produce a highly refined and deadly product."

Indeed, the Ames strain used in the attacks has been used in bioweapons research both in the United States and worldwide, Salyers says. In

addition, given the elaborate research protocol required, it is unlikely a university laboratorian creating anthrax would go undetected no matter how "standoffish" he or she was.

"I'm just telling you what you have to go through if you were crazy enough to be a bioterrorist," Salyers says. "If a deranged scientist tried to do this in a university laboratory, red flags would be going up all along the way."

Recipe for disaster

The first step — cultivating the bacteria and producing spores — is something that almost any microbiologist could do, she says.

"But you get this slush, and that is not going to hurt anybody," she says. "There are people who will tell you that you can do this the hard way with a mortar and pestle and grind it up in the laboratory. But it is clear that the powder that was in the letters was a much higher quality than that."

The anthrax "slush" must be ground into a fine powder to be capable of getting past human respiratory defenses. "The machinery for doing this is mostly in military research laboratories," Salyers says. In addition, sophisticated treatment of the spores must be done to defeat their general property of clumping and sticking together.

"You would want to treat the spores so that they don't stick together and also so that you get a preparation that is very volatile — goes into the air and stays in the air," she adds.

Regardless of whether the mailer worked in a military lab or other facility, there is growing consensus that the attacks were not the work of foreign terrorists.

"The current thinking among many people is that this is a domestic event that kind of occurred in the slipstream of 9/11," says **William Schaffner**, MD, ASM member and chairman of preventive medicine at the Vanderbilt University School of Medicine in Nashville, TN.

"The [FBI profile] characteristics don't seem terribly surprising. They seem akin to the kind of characteristics that were part of the picture of [the Unabomber] Ted Kaczynski — a disgruntled person who is very bright, and in this instance, has a substantial amount of professional and technological expertise in order to carry this off."

[Editor's note: Those who think they may have information relevant to the case can contact the FBI via telephone at (800) CRIME TV — (800) 274-6388 — or via e-mail: Amerithrax@FBI.gov.] ■

Bioterrorism forensics: The burden of proof

If bug does not fit, you must acquit?

Already asked by federal investigators to assist in finding the anthrax mailer, the American Society of Microbiology (ASM) is taking the next step and discussing the emerging science of bioterrorism forensics.

Despite an impressive array of scientific methods, primarily used in health care epidemiology and outbreak investigations, linking a pathogen to a terrorist will not be easy.

"You want to trace it back to the 'smoking gun,' says **Abigail Salyers**, PhD, ASM president and a professor of microbiology at the University of Illinois in Urbana-Champaign. "We know how to tell what bullet came from what particular gun. But when it is bacteria, viruses, or other microorganisms we really don't have established forensics for that."

To address the issue, the ASM will hold meetings later this year that may result in a booklet on how to use molecular epidemiology techniques to establish a chain of evidence rather than identify the source of an outbreak, she says.

The methods typically used by outbreak investigators include DNA fingerprinting and pulsed-field gel electrophoresis. But using such methods to link a bioterrorist to a biological weapon would be unprecedented, Salyers notes. "Suppose they find somebody [who] might have perpetrated the [anthrax attacks], and they find some spores on that person or the immediate environment."

"Trying to prove that that is the [exact strain] will be unprecedented. It is not just a question of finding the person. It is a question of what are going to be the legally binding types of evidence," Salyers explains.

Another problem in the anthrax attacks is the separation of act and outcome, she says. As opposed to a bomb exploding and leaving an immediate impact, the anthrax mailer had time to dispose of evidence after the mailings.

"You have a perpetration of an act and the consequences of the act separated by nearly a month," she says. "There has been a lot of time for the perpetrator to cover up tracks. This is very different from putting nerve gas into a subway system, where the cause and effect are very close together," Salyers adds. ■