Epinephrine moves into the spotlight as a hazardous waste in hospitals

*Colorado takes a stand that the EPA is reviewing*

The Environmental Protection Agency (EPA) put epinephrine on its P-list of acutely hazardous toxins despite its use in dilutions measured in parts per million or greater.

That means that, technically, many hospitals are large-quantity hazardous waste generators, because they use enough epinephrine and generate enough fluid in epinephrine cleanup to warrant that status.

The bigger problem is that hospitals don’t even know that they have an issue with epinephrine, says Charlotte Smith, RPh, MS, HEM, founder of PharmEcology, a Madison, WI, pharmaceutical waste consulting firm.

Epinephrine is adrenaline, a hormone used to treat anaphylaxis and sepsis—in other words, it’s part of many surgical and emergency procedures in hospitals.

In Colorado, a shift in opinion

Colorado is at the center of a national debate about hospital epinephrine use. Regulators there have interpreted federal regulations to not include epinephrine salts.

**Update your wireless device policy based on this new information**

If the last time your hospital revisited its cell phone policy was back during the Clinton Administration, new studies suggest that it might be time to update your approach for 2007.

Make sure that revisions discuss the use of Bluetooth, wireless notebooks, and any other battery-powered gizmos that patients, families, and staff members tote around.

These devices emit signals that could—although they probably won’t—interfere with hospital equipment.

Beyond the new technology, there are other good reasons to rewrite your wireless policy, says Steven MacArthur, a safety consultant for The Greeley Company, a division of HCPro, Inc., in Marblehead, MA. Consider the following:

- Joint Commission standard EC.1.10 broadly requires hospitals to establish safety policies and review them at least every three years.
on the P-list, leaving that distinction to the much more concentrated epinephrine base solutions. Epinephrine salts are common in hospitals.

Environmental observers in the healthcare field have wondered whether Colorado’s stance will expand nationally.

Not yet, says the EPA.

“The EPA is currently investigating the issue of hospital epinephrine,” says agency spokesperson Roxanne Smith. “Until we complete our investigation, the EPA remains consistent with our longstanding interpretation that all discarded, unused epinephrine is a P-listed waste.”

P-listed waste falls under the EPA’s Resource Conservation and Recovery Act (RCRA). To learn more about the P-list, see “The P-list and your hospital” on p. 3.

Generator status can change on you
To pass into the large-quantity generator threshold, a hospital needs to generate only 2.2 lbs (1 kg) of a P-listed chemical waste in a calendar month, which in turn precipitates reporting and training requirements.

Further, containers that hold epinephrine must be triple-rinsed to be considered empty, with the rinse water treated as hazardous waste, says Smith. The EPA made an exception in this regard for used syringes containing epinephrine in 1994, she adds.

Epinephrine is the substance that typically causes hospitals to get bumped from small- to large-quantity hazardous waste generators, because 1,000 kg of other hazardous wastes combined are needed to qualify for that status, Smith says.

“So you’ve got a situation that doesn’t make a lot of sense to people, but what it means is that all my vials or IV bags that held epinephrine, even if they’re empty, have to be managed as hazardous waste and contribute to my 2.2 lbs,” she says. “So it’s very difficult for a hospital not to become a large-quantity generator.”

A few states are beginning to enforce the epinephrine rules—going in the opposite direction of Colorado—as environmental authorities make the connection between healthcare sites and epinephrine.

An invitation sparks the movement
The Colorado story started with the Boulder (CO) Community Hospital, which invited the Colorado Department of Public Health and Environment (CDPHE) in for a review of its facilities under the state’s hazardous-waste-generator assistance program.

As part of that program, compliance-minded entities show the state that they’re making good-faith efforts to be responsible environmental citizens. In return, they typically get a bit of enforcement immunity down the line.

The CDPHE and Boulder Community Hospital had to work out exactly what substances in the building were hazardous, says Chuck Merritt, MS, MT (ASCP), CHSP, safety and security manager at the hospital.

Epinephrine came up right away, and regulators wanted to know how hospital staff members used it and what they did with the leftover amounts, Merritt says.

State gathers hospitals for discussion
The compliance review led Colorado to discuss epinephrine use with hospitals during a roundtable discussion.

At first it appeared as if state regulators would take an even stricter route than the EPA, but in August 2006 came a surprise: Colorado officials wrote a letter to all hospitals in the state saying that they “determined that materials contaminated by epinephrine salts are not hazardous waste and/or do not need to be managed as hazardous waste.”
Epinephrine salts and solutions thereof would be classified as solid medical waste and would need to be managed as such, according to the letter (view the full text at http://tinyurl.com/2xhouf).

“We were afraid that we were really going to have to tighten up the way we do business,” Merritt says. “Naturally, we’re relieved now that the state ruled the way it did.”

**Getting it away from the drain**

Prior to the CDPHE review, Boulder Community Hospital had dumped unused epinephrine solutions down the drain; Merritt didn’t realize it was hazardous, let alone P-listed, he says.

Like most safety managers, “I probably understand the RCRA requirements ‘above average,’ but I certainly wouldn’t call myself a professional in that [regard]—so I brought in the experts to help me understand what I need to do,” he adds.

In fact, most hospitals nationwide aren’t aware that epinephrine is P-listed—except for the few that have run afoul of state or federal environmental regulators, Smith says.

Now, Merritt’s hospital and other healthcare facilities in Colorado are handling epinephrine as medical waste, per the CDPHE ruling.

Considering that before the ruling, much of the substance was going straight into the wastewater, the state’s revised method of handling epinephrine is better for the environment, Merritt says.

“I’m a hospital safety manager, and I represent the interests of Boulder Community Hospital, but I’m also a citizen and an outdoorsman, and I enjoy the environment,” Merritt says.

“I want to make sure what I’m doing here at the hospital isn’t going to harm the environment,” he says. “I don’t lose any sleep over this epinephrine thing. Personally, I think what the state has done is intelligent and in service to the environment.”

**Other facilities await federal action**

It’s possible that Colorado hospitals could be subject to EPA violations if agency inspectors were to rule that the facilities didn’t follow federal epinephrine guidelines, even if the hospitals were in compliance with the CDPHE rules, Smith says.

On the other hand, the EPA could use Colorado as an example to change its own regulations, Smith and Merritt say.

“People have been trying to get [the] EPA to reevaluate epinephrine in this diluted form for many years,” Smith says.

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**The P-list and your hospital**

The epinephrine debate may have you wondering what else is on the Environmental Protection Agency’s P-list of acutely toxic chemicals—and more specifically, which substances your hospital might use in big enough amounts to make you a large-quantity hazardous-waste generator.

The P-list is long, but **Charlotte Smith, RPh, MS, HEM**, has identified the following seven substances that are likely in hospitals:
- Arsenic trioxide
- Epinephrine
- Nicotine
- Nitroglycerin (exempt in many medical applications)
- Physostigmine
- Physostigmine salicylate
- Warfarin (greater than 0.3%)

This is not a comprehensive rundown. For full details about the P-list and the less-toxic U-list, go to www.epa.gov/epaoswer/osw/hazwaste.htm, scroll down to the “Listed Wastes” section, and look for the third bulleted item.
Wireless devices

- You may run into new medical equipment that comes with warnings or special instructions pertaining to wireless phone use.

“I don’t know that the jury will ever come all the way in on the safety of wireless, electromagnetic radiation–generating devices, but it does appear that they have become exponentially safer to use in the healthcare environment,” MacArthur says.

(For a rundown of the latest wireless technology, see “Guide to wireless technology” on p. 5.)

Less risk, but risk nonetheless

Although new wireless phones create less electromagnetic interference than their ancestors, in certain situations they can still affect hospital equipment.

It might be premature to lift hospital wireless phone restrictions completely, says Art Augustine, senior project engineer for ECRI, a nonprofit health services research group in Plymouth Meeting, PA. Augustine’s review of current research—which he wrote about in ECRI’s December 2006 Health Devices—showed that some phones, when used very close to medical equipment, can cause problems (e.g., they can reset or even shut down ventilators).

Researchers conducted most of the studies in controlled environments away from patient care, but ECRI has heard similar real-life anecdotes in patient treatment areas.

Most reported interference has been minor, says Augustine.

However, “there were a couple of incidents . . . that would certainly be major events,” he adds.

The potential for such events is low, and medical device manufacturers are taking steps to improve the electromagnetic compatibility of devices, says Augustine.

“That’s not to say that something couldn’t happen,” he says. “It’s unpredictable, but the risks of Bluetooth and Wi-Fi are much lower than a cell phone or even a walkie-talkie.”

Further, a study published by Mayo Clinic also supports the idea of cell phones presenting little risk to medical devices (see “Mayo Clinic: Phones don’t affect hospital equipment,” on p. 6).

Use a 3-ft boundary

Banning wireless phones and devices would be
difficult for hospital safety managers, Augustine says. The issue isn’t stopping their use, but rather getting people to use them in areas that don’t threaten patient care.

“We don’t agree with a total ban,” he says. “Certain restrictions should apply in certain critical care areas.”

Specifically, that means keeping wireless phones a certain distance away from medical devices. ECRI recommends wireless phones be used at least 3 ft from medical equipment, and walkie-talkies and walkie-talkie phones from even farther distances.

MacArthur agrees that a complete ban would be nearly impossible from an enforcement standpoint.

The good news is that because there’s no regulatory guidance or rules governing wireless devices, hospitals get to decide what’s allowable, he adds.

**How to fine-tune your policy**

When updating a wireless device policy, enlist the help of someone with a good understanding of electromagnetic or radio-frequency properties, Augustine says. That person could be on staff or might be from outside of the hospital.

Be sure the policy doesn’t bring your facility to a halt in the event of a communications disruption that necessitates that staffers use their cell phones to continue delivering care, MacArthur says.

Hospital safety officers should try to craft a policy for managing wireless technology that covers the following:

- Bluetooth devices
- Personal digital assistants
- BlackBerrys
- Camera phones
- Two-way radios
- Direct-connect, walkie-talkie–type phones
- Computers on wheels used by clinical staff

“Some organizations can probably move through the process fairly quickly; for others it will be a long, drawn-out battle of wills,” MacArthur says.

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**Guide to wireless technology**

To the uninitiated, reading all of the jargon about personal wireless devices can be mind-numbing. Following are the most common technologies, what they’re used for, and where they’re found:

- **Bluetooth:** These are weak transmitters specific to a device (e.g., computer mouse, keyboard, or wireless phone headset) that are effective only for a few feet.

- **Global positioning systems (GPS):** Devices that use satellite signals to determine their location. Most GPS devices that people carry or install in their cars can’t transmit signals. However, a few models—and some newer wireless phones with GPS capabilities—can transmit radio signals that tell a network where they are.

- **Instant messaging devices:** A few Internet text-message transceivers, popular among teenagers and twentiesomethings about five years ago, still exist.

- **Radio frequency identification devices (RFID):** RFID is a method of automatic identification and data gathering used to identify and track objects or people. These devices are commonly found in ID badges or patient tags, theft-prevention tags in the pharmacy or hospital gift shop, and on transmitters that deduct highway or parking lot tolls.

- **Walkie-talkies:** They look harmless, but some of these two-way communicators can crank out 10 times the wattage of wireless phones.

- **Wii:** A new video game system unlikely to show up in your facility.

- **Wireless networking (wireless fidelity, or Wi-Fi):** Wi-Fi is a trademarked name that refers to wireless computer systems that allow laptop users to get on a network or the Internet without plugging in via a phone or Ethernet cable.

- **Wireless (cell) phones:** They might be smaller than they were 10 years ago and transmit weaker signals, but phones and their BlackBerry and Palm cousins can do a lot more, such as access the Internet and threaten your hospital’s privacy protection policies with built-in cameras.

Sources: Art Augustine, senior project engineer for ECRI, Plymouth Meeting, PA; Steven MacArthur, safety consultant for The Greeley Company, a division of HCPro, Inc., Marblehead, MA; March 2007 Mayo Clinic Proceedings.
Wireless devices

“For those who think their safety culture is more likely to result in the latter, they may want to break it up into component pieces.”

Plan for alternative spots to talk

As far as enforcement goes, MacArthur predicts that it will be akin to getting people to smoke cigarettes only in designated areas.

For the most part, people will likely comply with your policy once you explain the risks to them and show them locations where they can safely continue their conversation or scroll through e-mails.

Writing a policy that will remain valid as new technologies crop up can be tricky, so consider wording that is general rather than specific, says MacArthur.

Don’t try to itemize each different device; instead, use an umbrella term for your guidelines, such as calling it your “wireless policy.”

“It’s] a step in the right direction,” MacArthur says. “Regardless of the innovations, the basic device class is going to remain comfortably in the wireless realm.”

Mayo Clinic: Phones don’t affect hospital equipment

There is little to no need to separate cell phones from medical equipment.

So says a multidisciplinary team of doctors and telecommunications experts from Mayo Clinic College of Medicine in Rochester, MN, who published their findings in the March Mayo Clinic Proceedings.

The researchers concluded that the phones caused no noticeable interference in 300 individual tests during spring 2006, using two wireless phones and 192 medical devices.

Try different spots

Using the phones in live clinical settings (which necessitated getting patient consents), they placed calls to and from the phones while walking around patient rooms; they repeated the same procedure for each device.

They couldn’t get machines such as electroencephalogram monitors, ultrasound devices, ventilators, pulse oximeters, or anything else to react adversely to the phone signals.

“The cellular telephones tested, when used in a normal way, did not cause any interference with the various medical devices present in the patient care areas,” wrote the authors.

“For institutions that have restricted cellular telephone use, these data support revision or abolition of the existing policy.”

Avoiding certain areas

The researchers wanted to replicate real-world wireless phone use, so they didn’t take their testing into pediatric intensive care units and operating suites, figuring that patients and their families in these settings either would not be present or would not be making calls.

They also noted that in certain parts of the hospital (e.g., the nuclear cardiology lab) lead shielding around the rooms blocked phone signals, so they didn’t test for interference there.

Editor’s note: Download the full text of the study at http://mayoclinicproceedings.com.
Sample pandemic planning exercise cost-analysis

The following chart can help your hospital determine how much money and other resources a pandemic drill will cost. It can also be used for other emergency management tests.

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**Survey monitor**

**Negative air pressure concern garners attention**

*Editor's note: This survey took place in February at Doctors Hospital, a 281-bed acute-care facility in Coral Gables, FL.*

There’s been a fair amount of debate about how closely The Joint Commission’s unannounced survey schedule mirrors the due dates under the old system of triennial visits.

At Doctors Hospital, the surveyors showed up seven months ahead of time; the three-year anniversary of the facility’s previous survey falls in September.

**Dale Sickle,** director of plant operations at the hospital, didn’t get advance warning when The Joint Commission showed up at the door for what would be a two-and-a-half-day survey.

The first inkling he received was when surveyors were already in the building.

“They announced ‘code smart,’ which we use in the hospital whenever any regulatory agency presents itself,” Sickle says.

Surprised or not, Sickle and his team were ready—they received no EC requirements for improvement.

“We’ve been working with consultants for the past three years, off and on, so all in all, we were pretty prepared,” he says.

**Negative pressure challenged during a tracer**

Although he was ready to field questions from tracers started in other departments—or even help on an EC tracer—the only tracer in which he was directly involved came when surveyors were in the intensive care unit, Sickle says.

It turned out that a pressure monitor in a negative-pressure isolation room didn’t show any air change when people came in and out of the door. One surveyor thought the system was malfunctioning and that the room wasn’t really under negative pressure, he says.

“I immediately brought in [a vendor] and verified that the room was negative,” Sickle says. “There was something wrong with the monitor, but [the surveyor] didn’t write that up.”

If hospitals want outside backup to refute any potential surveyor findings, safety managers should give vendors and others (e.g., suppliers or contractors) advanced warning so they’re ready to come at a moment’s notice, he says. “If you can prove...
Drill poses a hypothetical hurricane
Doctors Hospital hosted a life safety specialist for the first day of the survey. The surveyor spent a lot of time peering above the ceilings during the building tour, looking for barrier penetrations, Sickle says. He also checked smoke and fire doors to make sure they latched properly and that they carried the correct ratings for their applications.

Meanwhile, on the final day of the visit, surveyors reviewed the hospital’s emergency management plans. The meeting included EC program leaders, as well as an assortment of other staffers, all of whom participated in the proceedings.

Sickle says surveyors oversaw a tabletop disaster drill during the emergency management session. The scenario for the drill sounded familiar:

The hospital is in the midst of a hurricane, it’s the middle of the night, and the emergency generator fails, leaving the hospital in the dark with no phone system. What do you do?

Following the tabletop test, surveyors asked for a rundown of the safety committee’s accomplishments in the past year.

Surveyors ask for fewer documents
A portion of the survey that caught Sickle off-guard was something the surveyors omitted: “The biggest surprise is that they didn’t go through documentation like they normally do,” Sickle says.

He said surveyors asked for only the following documents, which they devoted time to reviewing in detail:
- Fire alarm inspection records
- Fire sprinkler logs
- Fire pump inspection paperwork
- Generator logs

Sickle was ready to produce a lot more based on previous surveys and what his consultants had told him to prepare for.

He was surprised when surveyors didn’t ask to see records for the following:
- Hazard surveillance
- Grounds inspections
- Medical gas maintenance

However, the easier-than-expected records review doesn’t mean Sickle will relax for future surveys.

Survey at a glance
Hot spots: tabletop drill on hurricane preparedness, negative pressure isolation rooms, fire and smoke protection, and inspection logs.

Life safety specialist on-site: Yes.

Emergency management session: Yes.

EC citations: None.

Quote of note: “If you can prove [surveyors] wrong, you want to do it while they’re still in the building.”
OSHA fines hospital for worker fatality
OSHA fined Grinnell (IA) Regional Medical Center $4,000 because of the death of an employee who plunged off of the facility’s roof on a small tractor while clearing snow.

The hospital should have known about the hazard, because the tractor’s owner’s manual stated that the equipment should not have been used around drop-offs, OSHA said, according to the Des Moines Register.

Since the accident, hospital authorities say they’ve changed snow-removal policies for the helipad. Ride-on machines are no longer allowed on the roof and two people must work together to clear the snow, according to the Register.

Infant abduction causes stir among hospitals
An infant abduction on March 10 caught the attention of hospitals nationwide, many of which subsequently reviewed their security plans for maternity units.

A woman who impersonated a staff member at Covenant Medical Center Lakeside in Lubbock, TX, allegedly kidnapped a newborn from the mother’s room, put the baby in a purse, and left the building, according to the Associated Press. Video surveillance gave authorities a description of the suspect.

The next afternoon, police in Clovis, NM, received tips about the infant’s whereabouts after an Amber Alert went out. Officers found the suspect with the baby, who was unharmed.

“All of our employees wear name badges, and it is unclear if this [suspect] indeed had a name badge,” said Gwen Stafford, the hospital’s senior vice president, during a news conference following the abduction.

Hospitals suffer in the wake of tornados
Mother Nature took a brutal turn for at least two hospitals that suffered damage after tornados swept through their communities in March.

Bits & briefs

Two-day life safety visits are possible in 2007
The Joint Commission’s plan to send life safety specialists for two days to hospitals with an area of 750,000 or more square feet officially rolls out in 2008. These surveyors generally spend only one day in hospitals for building tours in 2007.

However, some hospitals that meet the 750,000-square-foot threshold may experience the two-day visits this year under certain conditions, according to the accreditor.

Although full details are scant, The Joint Commission has released some broad guidelines regarding how it will determine the two-day visits. The criteria mainly come from the hospital’s answers to Part 2 (basic building information) in the Statement of Conditions.

The electronic version of the basic building information became mandatory January 1, and it contains more questions than the previous, paper-based version.

Items that The Joint Commission will consider when determining whether to schedule a two-day visit in 2007 include the following, as outlined in the March 2007 The Joint Commission Perspectives:

- Number of monitored critical beds
- Number of buildings
- Age of buildings
- Percentage of buildings that have been renovated
- Percentage of buildings that have fire suppression systems
- Whether buildings have addressable fire alarm systems and smoke detection systems
- Data from the priority focus area dealing with the physical environment
Sumter Regional Hospital in Americus, GA, took a direct hit by a twister on March 1. “The storm blew out windows, as high winds bombarded the hospital’s infrastructure and turned cars over in the parking lot,” according to the hospital. Several buildings were damaged bad enough to remain closed for the foreseeable future.

Staff successfully evacuated all patients to other hospitals and established an emergency room and triage area at a nearby church, the hospital said. Attempts to reach the staff at Sumter Regional for further comment were unsuccessful at presstime.

Meanwhile, Medical Center Enterprise (AL) received damage from another March 1 tornado that blew through the town. The same storm killed eight students at Enterprise High School, according to the Mobile (AL) Register.

Man abandons package; hospital calls bomb squad

An unusual package dropped off at a nursing station prompted an evacuation and a call to the local bomb squad in Riverdale, GA, in February.

Southern Regional Medical Women’s Life Center evacuated 33 infants and 30 adults when a man—whose motives still aren’t known—dropped off the package, which contained a sponge, clear liquid, and a paste, according to the Clayton (GA) News-Daily.

Staff at the women’s hospital called authorities after the liquid started foaming when a nurse handled it. Police later arrested a man in connection to the incident. He wasn’t difficult to find because he had checked into the emergency room, close to the wing where he allegedly deposited the package, the News-Daily reported.

University launches online flu-prediction tool

The University of Iowa launched an online tool on March 1 called the “Avian Flu Market,” which aims to gather data about avian flu infections and predict their spread. The tool will use information from hospitals and public health agencies about infection trends and aggregate these data to forecast the future activity of avian flu.

“Many healthcare workers are the first to know about influenza activity in their communities, and that information can help predict the course of an infectious disease,” said Forrest Nelson, PhD, in a statement. Nelson is an economics professor at the university and principal investigator on the project.

To learn more, go to www.fluprediction.uiowa.edu.

OSHA investigates hospital construction death

OSHA is looking into a fatal accident at a hospital construction site. A masonry worker died in March at the work site at the John Peter Smith Hospital in Fort Worth, TX, where workers are constructing a new patient building.

Managers called construction crews off of their scaffolds when they spotted a storm in the distance, and somehow the worker fell through an open gateway and plunged 40 feet to his death, an OSHA official told CBS-11 TV in Dallas.

Lawmakers bar OSHA from enforcing TB fit-testing again

For the third consecutive year, Congress has prohibited OSHA from spending funds to enforce annual tuberculosis (TB) fit-testing.

An OSHA spokesperson confirmed the TB fit-testing ban for Briefings on Hospital Safety on March 7.

The prohibition—part of lawmakers’ approval of funding for OSHA—is in effect at least until the end of the current fiscal year, which wraps up on September 30.

The annual fit-testing requirement falls under OSHA’s respiratory protection standard. Congress’ action only applies to annual TB fit-testing, not fit-testing for other exposures in hospitals.
Remember that as safety officers you often deal from a position of authority when it comes to understanding regulations. Use this fact to your advantage during Joint Commission surveys.

Here’s an example of one way you can benefit: In October 2006, surveyors argued that the University of Pittsburgh Medical Center waited too long between lead apron inspections.

Surveyors noted that there was a 13-month gap between the 2005 and 2006 inspections, says Bill Smith, director of environmental health and safety for the hospital.

“There is no standard anywhere that says you have to do [apron inspections] every 12 months,” Smith says. “[Surveyors] were adamant that they had to be done every 12 months, even though our policy just says they need to be done once [every calendar] year.”

Pennsylvania regulations do not address lead apron inspections at all, which meant that from a state perspective, the facility’s policy was fine.

The hospital’s in-house radiation safety technician knew the radiology expert at the Pennsylvania Department of Environmental Protection, the agency that oversees radiology equipment. The technician called state officials, who offered to tell surveyors that the hospital was in the clear in regard to state regulations.

“We didn’t necessarily accept what [surveyors] said on face value,” Smith says. “We discussed it with them and presented our side.”

In the end, the surveyors relented without talking to the state to verify the medical center’s position. The hospital’s well-timed call may have saved the facility from receiving a citation.

Tip of the month

When conflict with surveyors arises, don’t be afraid to contact others for help

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Design and build a new public safety communications center that meets the needs of your hospital

Every hospital needs a communications center as a hub for its security operations, says Anthony N. Potter, CHE, CHPA-F, CPP. At smaller hospitals, that hub is usually the switchboard, where operators receive routine and emergency calls, dispatch security officers and other radio-equipped personnel, and monitor closed-circuit television (CCTV) and alarm systems.

However, as hospitals increase in size and complexity, that arrangement becomes less satisfactory and impedes the cost-effective provision of security services, says Potter, the director of public safety at Forsyth Medical Center in Winston-Salem, NC.

The increasing emphasis on both security and cost containment has driven the decision of many hospitals—ranging in size from as few as 150 beds to more than 800 beds—to design and build a public safety communications center, says Potter, who spoke during the 2006 American Society for Healthcare Engineering annual conference in Boston about how to accomplish that goal.

Forsyth Medical Center opened its communications center in April 2005 to help meet the needs of a growing hospital, Potter says. Prior to the center’s opening, a telephone operator dispatched public safety officers to respond to calls.

“What little monitoring [of security cameras] we did was done by the secretary in the public safety office,” he says. That’s all changed.

The role of security in handling mental health patients in the emergency department

Editor’s note: Each issue of Healthcare Security Alert features an expert’s answer to your security questions. Russ Colling, CHPA, CPP, a security consultant for Colling and Kramer in Salida, CO, provides this month’s response. If you have a security question for one of our experts, e-mail Senior Managing Editor Joanne Finnegan at jfinnegan@hcpro.com.

Q Our hospital does not have a psychiatric unit. Of course, we still have to serve patients who come to our emergency department (ED) who clearly have mental health issues. We have had several incidents recently in which these patients assaulted employees in the ED. Do you have any advice about how to handle these patients, such as using seclusion rooms or establishing a protocol to handle violent patients?

A Hospital security officers are often called on to help support the medical care staff when it comes to managing potentially violent patients—not just mental health patients. When it comes to the
Communications center

with the communications center that took the security department from a small office of 600 square feet to 3,600 square feet. The communications center is staffed by dispatchers who have the latest technology at their fingertips to monitor security throughout the hospital. When planning a communications center, Potter advises that security directors think about the following issues:

1. **Consider your needs before you design.**

   Every hospital that is thinking about designing a new communications center or upgrading its existing setup must first consider the specific needs of the individual hospital it will serve, says Potter. Over the past decade, healthcare has experienced a noticeable shift away from traditional security operations and security guards to more comprehensive public safety departments, whose responsibilities integrate security, safety, fire prevention, hazardous materials response, and emergency management, he says.

   Think about what works best in your facility. Should you contract security officers or hire your own in-house staff; armed or unarmed officers; public safety or a facility police department? The answers depend on the hospital’s security needs and the vision of its administrator, and they must be addressed before the design work begins. “There is no prototype. A good communications center is a reflection of your specific facility’s requirements,” Potter says.

   And although technology can help improve a hospital’s security, it also carries a price tag. A facility could probably spend a couple of million dollars in building a state-of-the-art security system, Potter says, but keep in mind that you can make improvements incrementally as your budget allows.

2. **Location, location, location.** The location of the communications center is of prime importance, Potter says. If your communications center will handle other functions such as making ID badges, issuing parking passes, or issuing employee keys, you need to make it accessible to both hospital employees and the public, he notes. Good locations include being adjacent to the emergency department, the staff entrance, or, in some cases, the main lobby. However, it can be difficult to place a communications center in these locations unless it is being built as part of new construction or a major expansion project.

   If you don’t require employee and public access, location is less critical, but consider the following factors:

   - **Expansion capability.** Many hospitals are constantly growing, and the communications center must grow with the facility. Don’t landlock your communications center adjacent to exterior walls or departments that cannot be easily relocated, or future expansion may be costly or impossible. If your communications center is sandwiched between a room with your CAT scanner and the cafeteria, it will be tough to expand without spending a lot of money, Potter says. The ideal location is where neighboring departments are clerical or administrative, so you can move them if the center needs to expand.

   - **Physical security.** The communications center must be physically secure, with controlled access limited to authorized personnel. The location should provide protection against severe weather, attacks during civil disturbances, and other hazards. If flooding is possible in your area, locate the center on an upper floor. Provide emergency power as well as direct external telephone lines and battery backup for radio repeaters and other essential systems, Potter says.

   - **Proximity to other functions.** Locate the center adjacent, or in close proximity, to the public safety offices to facilitate supervision and relief of communications personnel. Have rest rooms and a break area close at hand. If possible, locate your center close to the hospital’s emergency operations center.

   - **Technical limitations.** If the communications center also serves as the switchboard, consider any limitations on its location due to incoming telephone trunk lines. If the center serves multiple facilities, consider whether its location may be limited by its distance from the other facilities that you need to monitor.
Communications center functions. A properly designed communications center can perform a wide variety of functions, depending on the needs of the hospital, Potter says. These include, but are not limited to, the following:

- Switchboard monitoring
- CCTV monitoring
- Life safety systems
- Telephone and radio communications
- Alarm monitoring
- Access control

Plan for the future. It is a truism in public safety that every system will reach its capacity in less than half the time expected, Potter says. Therefore, the public safety director must ensure that all systems are both flexible and expandable to meet anticipated and unanticipated future requirements. He advises security directors to keep abreast of the latest technology and whatever a hospital builds to make sure it has flexibility.

One sure thing: “Whatever you think you’re going to need is going to change,” he says.

Editor’s note: In next month’s Healthcare Security Alert, watch for a story about the various functions a communications center can handle in your hospital.

Find and train staff for your communications center

The most technically advanced hospital communications center is only as efficient as the employees who staff it, says Anthony N. Potter, CHE, CHPA-F, CPP, the director of public safety at Forsyth Medical Center in Winston-Salem, NC.

However, finding the right staff members isn’t always easy. Recruiting and training public safety dispatchers is especially challenging for hospitals, Potter admits. The job requirements are virtually identical to those of police and fire dispatchers, who generally earn higher salaries and have better benefits. However, staffing the communications center with public safety or security officers generally does not work, because of the vast differences in skills required, he says.

So what can hospitals do? One way to attract and retain candidates is to establish a separate career path for dispatchers, with compensation equal to that of public safety officers, Potter says. For example, one large hospital established a career ladder for its dispatchers, progressing from an entry-level communications technician position to senior, lead, and supervisor positions—each requiring more training and responsibility to go along with pay increases.

In addition to regular dispatchers, most hospitals will need to train several public safety officers on each shift to provide coverage when a dispatcher calls in sick, is on vacation, or attends a training course. If the pay ranges are identical, officers who are interested in becoming dispatchers can transfer into the communications center without any loss of pay. If the hospital has a separate telephone switchboard, your facility may want to cross-train operators for eventual promotion to dispatcher.

Dispatcher training is essential and should include all of the training your hospital gives to new public safety officers, with certain exceptions, such as self-defense, handcuffing, use of batons and firearms, and other physical skills that they will not need.

Local police and fire academies are the best source for dispatcher training and may offer state certification, Potter says.

This training has the added benefit of developing professional relationships and mutual respect between hospital dispatchers and 911 operators, who will interact with each other during emergencies.

If this is not available, check out the Association of Public Safety Communications Officers, which offers self-study courses that meet hospital communications requirements, Potter says.
role of security officers in managing these patients, there are several basic elements that all hospitals should have in place.

They must have a policy, procedure, or protocol in place that delineates how, when, and where security is involved in supporting the medical care staff in rendering patient control and care. Hospitals must be sure to involve administration, nursing, medical staff, and security in collaboratively developing this directive.

Hospitals must also ensure ongoing training of both ED and security staff members in how to manage potentially violent patients. This training should include verbal de-escalation techniques, as well as the role of each participant in case staff members need to physically restrain a patient. In this regard, the hospital should always view the security staff as playing a supporting role when it comes to patient management as directed by the medical care staff.

According to Emergency Medical Treatment and Labor Act of 1986 (EMTALA), all patients seeking treatment at a hospital ED must receive a medical screening exam. A growing problem for many hospitals occurs when people with mental health problems are in a crisis situation and end up at the ED. It is common knowledge among healthcare security professionals that this problem, along with other contemporary social issues, has led to a significant increase in ED violence. The answer to stemming this type of ED violence lies primarily with the medical management of the patient.

The most important person in preventing violent patient behaviors is the medical caregiver, who should be trained in de-escalation techniques and make sure that patients receive timely medical interventions. Patient restraint or seclusion are last-resort measures and are subject to specific standards, regulations, and rules of The Joint Commission, the Centers for Medicare & Medicaid Services, and general medical practices.

Your hospital should have a policy regarding restraint use that complies with all standards and regulations, and your security officers should know what that policy is.

Nursing, administration, and security leaders should continuously strive to minimize the need for security staff involvement in direct patient care issues, therefore permitting the hospital to use security resources to maintain a safe environment of care for the total facility.