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Bioterrorism Watch Enclosed

INSIDE

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Hospital worker dies from inhalation anthrax, raises bioterrorism concerns

Programs practice evaluation drills, update workplace emergency plans

First, it reached the media. Next, the politicians. Then, postal workers. Now anthrax has hit "home": the health care setting. "As this [anthrax threat] is expanding, we need to get a lot more serious about it," says **Peggy Alteri**, CEO of Harrison Center Outpatient Surgery Center in Syracuse and Camillus, NY.

When Kathy T. Nguyen, 61, an employee at Manhattan (NY) Eye, Ear, and Throat Hospital, tested positive for inhalation anthrax at the end of October, it led to the temporary shutdown of the outpatient hospital. Nguyen, who succumbed to the disease, worked in a basement supply room. Until recently, the space included a mailroom, and she occasionally handled mail. However, the source of the anthrax was not known at press time.

New York City Health Commissioner **Neal Cohen**, MD, said people who visited the hospital on or after Oct. 11, which was two weeks before the employee began to show symptoms, will be contacted. Up to 2,000 hospital workers, patients, and visitors who have been to the hospital since Oct. 11 are being offered antibiotics.

A hazardous materials team took 40 environmental samples from the

EXECUTIVE SUMMARY

As anthrax exposure has been identified in a hospital and authorities investigate whether private homes may be targets of the biological agent, health care providers are preparing for the possibility of bioterrorism.

- Report any patterns of unusual illness, and use precaution when opening mail.
- Have a plan for discharging patients quickly in a disaster, and have a plan for canceling nonemergency cases.
- Participate in disaster drills or, at a minimum, notify local emergency personnel that you can handle minor injuries.
- Educate your staff about bioterrorism.

Manhattan hospital, but preliminary tests show no anthrax. Nasal swabs were taken from employees, and 25 people began a prophylactic regimen of antibiotics.

The New York City Health Department alerted other hospitals in New York City to watch out for suspicious illnesses. Symptoms of anthrax disease usually occur within seven days of exposure, according to the New York City Department of Health.

Initial symptoms of inhalation anthrax may resemble the flu and may include low-grade fever, headache, chest discomfort, malaise, and general fatigue, the department says. After several days, symptoms may progress to severe breathing difficulty and shock, it says.

In light of recent anthrax incidents, some hospitals and surgery centers are being advised to practice evaluation drills and develop/update their workplace emergency plans. Also, authorities are investigating the possibility that private homes may be targets of anthrax-tainted mail.

In Syracuse, NY, the Onondaga County Health Department sent an alert to health care providers suggesting that they should notify the department of unusual patterns of absenteeism or illness. The department also suggested they use reliable sources to confirm information on biological or chemical threats.

In terms of what to tell employees, the department offered the following suggestions:

• Stay alert and observe your surroundings for unusual events. **(See chart, Epidemiologic Clues of Biologic Warfare, at right.)**

• Report any usual or sudden illness to your physician immediately.

• Remain calm, and follow the workplace emergency plan.

3 types of anthrax

The inhalation form of anthrax is particularly uncommon and particularly lethal. In its early presentation, inhalation anthrax could be confused with a viral or bacterial respiratory illness. The patient progresses over two to three days

Epidemiologic Clues of Biologic Warfare

- ANY single case of an uncommon agent (smallpox, some viral hemorrhagic fevers, anthrax)
- The presence of an unusually large number of patients with similar disease or symptoms
- Many cases of unexplained diseases or deaths
- Dead or dying animals
- More severe disease than is usual for a specific pathogen
- Failure to respond to standard therapy for a specific pathogen
- Disease that is unusual for the geographic area or season
- Disease transmitted by a vector that usually is not present
- Unusual route of exposure for a disease (inhalation anthrax or plague)
- Multiple, simultaneous, or serial epidemics of different diseases
- A disease that is unusual for an age group or population
- Similar genetic pattern of diseases from distinct sources at different times or locations
- Discrete attack rates among those in a particular building or at a specific event
- Outbreak of disease in noncontiguous areas (not spread by travelers)
- Intelligence report of a potential attack

Source: Adapted from a similar table found in the USAMRIID Medical Management of Biologic Casualties Handbook. USAMRIID 2001; Fort Detrick, MD.

COMING IN FUTURE MONTHS

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- Hispanic patients — What should you do differently?

and then suddenly develops respiratory distress, shock, and death within 24-36 hours. Dyspnea, strident cough, and chills are common.

More than 95% of naturally occurring anthrax is cutaneous. The primary lesion is usually a painless itching pimple on the head, neck, or extremities. It appears about three to four days after exposure. Over the next day or so, this pimple undergoes central necrosis and dries into a black scab. The scab sloughs in two to three weeks. Localized disease becomes systemic and fatal in about 5%-25% of untreated cases.

Gastrointestinal anthrax is very rare and results from the ingestion of contaminated meat. Death results from peritonitis or anthrax toxemia. **(For more information on bioterrorism, see *Bioterrorism Watch* enclosed in this issue.)**

How to handle the mail

Regarding the handling of mail, the department advised the following:

- Use common sense and care when inspecting and opening mail and packages.
- Use a letter opener.
- Suspect unusual-looking mail, e.g., no return address, no canceled postage, bulky, strange odor, discolored, or threatening message on the outside.
- If a letter is suspect, do not open it. Leave it, evacuate the room, and notify the police.

At Acadiana Surgery Center in New Iberia, LA, the secretary in charge of opening the mail is now wearing gloves for protection against any chemical or biological agents, says **Lori Theriot**, RN, director of nursing.

"Anything out of the ordinary, she's just throwing it away," says Theriot, who adds that any unsolicited mail also is being discarded.

4 steps to preparing for a disaster

The incident has raised concerns in the health care field about bioterrorism readiness. Although the Sept. 11 terrorist attacks did not involve bioterrorism, some of the suggestions coming out of those events are helpful in preparation for disasters of all types:

- **Plan for efficient discharge of patients.**

In a disaster, there are several good reasons to empty your ORs. For example, you can make those rooms, equipment, and staff available for emergency disaster cases, and you can conserve blood and other supplies that may be needed elsewhere.

At the time of the Sept. 11 terrorist attack on the Pentagon, Inova Surgery Center in Falls Church, VA, had six patients in the operating rooms (ORs) that should have been finishing their procedures within 30 minutes or so, says **Sheree Lopez**, RN, director of ambulatory surgery. Inova Fairfax Hospital, with which the surgery center has an affiliation, called an "external disaster."

"The protocol for that is to empty the ORs and do not start any elective surgeries," Lopez says. "For the patients who were in the OR, we finished them, took them to the recovery room, and closed the ORs."

In addition, the hospital discharged about 200 patients from the hospital to prepare for potential admissions, which did not arrive, she says.

- **Plan for cancellation of nonemergency surgical procedures.**

The patients who were awaiting surgery were extremely accommodating, Lopez reports. "We told them there would be a 30-minute delay, based on what the disaster team found out," she says. "We had a TV in the waiting area, so it was evident what was happening."

Thirty minutes later, the hospital's disaster team said to cancel all elective surgery for the rest of the day.

"At the off-site facility, we had approximately 34 patients on the schedule," Lopez says. "I went into the lobby and spoke individually with each patient and family member waiting. I assured them I would work to get them on the schedule within the week." (The surgery center was able to fulfill that promise by running extra ORs and running some rooms later.)

"My advice is to be upfront and candid with them, and make every attempt to reschedule them within a two-week period," Lopez says.

The surgery center staff began calling patients who hadn't arrived for their procedures.

"At that point, we were standing ready for

SOURCE

For more information on preparing for a disaster, contact:

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RESOURCE

The Chicago-based American Hospital Association (AHA) has developed a *Disaster Readiness Advisory* to assist health care providers in preparing for a bioterrorism incident.

The advisory includes part of an April 1999 report prepared by the Association for Professionals in Infection Control and Epidemiology's (APIC's) Bioterrorism Task Force in Washington, DC, and the Centers for Disease Control and Prevention's (CDC's) Hospital Infections Program Bioterrorism Working Group in Atlanta.

To access the AHA advisory, go to www.aha.org, and click on "Disaster Readiness" and "AHA Communication to the Field." Scroll down to "Member Advisory: Bioterrorism Readiness Plan: A Template for Health Care Facilities, 10/17/01."

The full text of the APIC/CDC report, including specific responses to agents such as anthrax, can be found at the AHA web site (www.aha.org) under "Disaster Readiness." Click on "Readiness Resources" and scroll down to the section titled "Reports." Click on *Bioterrorism Readiness Plan: A Template for Health Care Facilities, 10/17/01.*

casualties if needed," Lopez says. "What would have been triaged to us normally would have been burns or fractures or things we could have fixed here." However, no patients arrived, she adds. **(For information on how the surgery center turned the facility into a makeshift blood donor center, see *Same-Day Surgery*, November 2001, p. 121.)**

• Participate in disaster drills.

Inova Surgery Center participates in biannual disaster drills and had participated in one the Saturday before the Sept. 11 disaster.

"The ED and OR and nursing units were prepared," she says. "We update our disaster call lists every six months, and the safety and security staff keep a copy of that list."

Surgery centers that are not affiliated with a hospital may feel they are "locked out" of such disaster planning because they may be considered competitors to the hospital, but one facility has taken a proactive stance.

"We contacted the fire department and said, 'We're here if you have minor injuries,'" says **Mark Mayo**, and administrator at Valley Ambulatory Surgery Center and executive director of the Illinois Freestanding Surgery Center Association, both in St. Charles. "We wanted them to know that we have trained staff, equipment, and supplies, and that we want to help. It made sense to them."

AHA provides information

• Prepare and educate your staff regarding bioterrorism.

The AHA has distributed a significant amount of information to assist facilities in preparing for bioterrorism, including a recent *Disaster Readiness Advisory*. **(For information on earlier *Disaster Readiness Advisory*, see November *SDS*, p. 124.)** The AHA suggests that the information should be shared with the persons at your facility who are responsible for risk management, infection control, safety, public relations, and others involved in disaster response planning.

In addition, the AHA has updated its Chemical and Biological Agent Checklist that was printed in last month's issue of *SDS*. A vaccine for the biological agent "Plague" is no longer available, and a seven-day course of antibiotics is the appropriate prophylaxis for plague, according to the AHA.

The hospital system that includes Inova Surgery Center is just beginning to educate staff on bioterrorism. The managers are being trained by the hospital's infectious disease staff, and the managers will give the same training to their staffs.

"The one message we want to impart is that our staff should not be afraid to take care of patients, if we indeed do get victims of bioterrorism," Lopez says. ■

GPOs can cut supply expense by at least 18%

Pick organization that focuses on SDS programs

Finding the right fit is important when shopping for clothes or shoes. It also is important when looking for a group purchasing organization (GPO), according to experts interviewed by *Same-Day Surgery*.

GPOs and their distributors have niches in which they specialize, points out **Greg Eisele**, FACHE, MHA, president and chief executive

EXECUTIVE SUMMARY

Cost savings of 18%-22% can be expected by members of group purchasing organizations (GPO), say experts. By joining a GPO, you can enjoy the same discounts given to larger organizations. Pick a GPO that fits your needs by asking key questions:

- Choose a GPO that gives the same attention to all members. This may mean choosing a GPO that focuses on outpatient surgery programs.
- Make sure the GPO's contracts cover the items you regularly use in your program.
- Find out how distribution of items is handled.
- Look for a GPO that offers the ordering options you need.

officer of MD Resources, a Fresno, CA-based health care consulting firm that offers a variety of services, including advice on managing purchasing and other financial activities.

While the primary advantage of using a CPO is cost-savings, a same-day surgery program should look for an organization that focuses on same-day surgery programs to get the best prices and the best customer service, he says

A GPO negotiates on behalf of a large group of same-day surgery programs, which means the members qualify for much larger discounts than they can on their own, says Eisele.

Finding the best organization for your needs

Once you've decided to participate in a GPO, meet with several groups to find the best for your program, he suggests. **(See story on how to find GPOs, p. 142.)** Eisele says there are several questions to ask as you evaluate different groups and their ability to meet your needs:

• **Who does the GPO serve?**

Finding out what type of health care clients make up the majority of a GPO's clientele is the first step to figuring out which organization can best help you, says Eisele.

"If a GPO is hospital-oriented, a same-day surgery program will be one of the smaller members and won't command the same attention," he points out.

Another reason to check out the GPO's orientation is to make sure it addresses the specific needs of your program, says **Brent Christensen**, vice president of national accounts for Amerinet, a St. Louis-based GPO.

"Be sure you ask to see the GPO's contract portfolio, and take a close look at the items included," he says.

Pay careful attention to the availability and price of the specialty items you may need for your program, he recommends.

"Most same-day surgery programs can expect a savings of 18%-22% over what they have been spending," says Christensen.

• **What items do they offer?**

While a same-day surgery program that focuses on one specialty such as ophthalmology or plastic surgery will have a very specific list of needs, multispecialty programs need to make sure the GPO can meet all of their needs, says **Leanne Bales**, RN, CNOR, administrator of the Effingham (IL) Ambulatory Surgery Center.

Checking your supply list

For this reason, you want to check out a variety of GPOs, even those who supply a number of hospitals since your supply list may resemble that of a small hospital that would benefit from the discounts given to the larger members, Bales adds.

"Be prepared with your volume projections for each type of procedure as well as your supply lists," she suggests. "Your volume will affect pricing, and it's easier to have your supply list in front of you rather than rely on memory as you review the GPO's item list."

Also, look at the manufacturer of the items, says Bales. If a GPO offers sponges from only one manufacturer, and it is not a sponge you normally use, ask if it is willing to offer alternative sources, she suggests.

• **Where is the distributor?**

Location of her distributor was important to Bales. "The GPO in which I participate has distributors in Peoria, St. Louis, and Chicago," she points out. "This means that my supplies come by truck and can get to me 99% of the time with no delay," she says.

Some GPOs will use a centralized distribution system in which the supplies are shipped from a few locations only, says Bales.

"This can work for some programs, depending on the distributor's location and how the supplies are transported," she admits.

The most important thing is to find out up front how the distribution works, she adds.

Check with other GPO members to see if deliveries are timely, suggest Eisele. "You should expect

SOURCES

For more information about group purchasing contracts, contact:

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a normal turnaround time of 24-48 hours," he adds.

• **How are orders placed?**

A variety of methods are available from different GPOs, so pick the one that fits your program, says Christensen. While e-commerce is important to some clients, not all same-day surgery programs are set up to handle on-line ordering. **(For more information about e-commerce and outpatient surgery, see *Same-Day Surgery*, June 2001, p. 61.)**

Pick the GPO that offers what you need, he suggests.

"Even if you only want to use the e-commerce option, be sure that there is a live customer service option available when you have a problem," he recommends.

Also find out if your GPO has a local field representative who is available to answer your questions or help you deal with problems, suggests Bales.

In addition to the face-to-face communication with the field representative, find out if the GPO sends out notices of special pricing for certain items during the year, she adds.

"This type of communication is important as we all juggle our capital equipment budgets," she points out.

The last tip Eisele has for same-day surgery managers is a caution. "Be aware of hidden costs," he warns.

These are not costs the GPO slips in without notifying you, but they are higher prices you pay because you aren't reviewing your invoices carefully, Eisele says.

"Everyone knows to compare the quantity received with the quantity ordered, but have someone on your staff look at the prices charged as compared to your contract price, he suggests. The difference can be significant, Eisele points out.

In addition to having your staff be on the look out for these differences, find out if the GPO will help you monitor for price errors, he suggests.

"In some cases, you will have a 25%-35% difference in price," he says. "This represents a lot of money if it happens consistently." ■

Advice on locating group purchasing organizations

There are several ways to find group purchasing organizations (GPOs) that should be included in a same-day surgery manager's search for the right plan, says **Greg Eisele**, FACHE, MHA, president and chief executive officer of MD Resources, a Fresno, CA-based health care consulting firm that offers a variety of services including advice on managing purchasing and other financial activities.

"Talk with other same-day surgery managers to see who they are using," suggests Eisele.

Find out if their GPOs focus on same-day surgery, and find out how responsive the GPO is to the special needs of a same-day surgery program, he recommends.

Go to trade shows

Trade shows and professional publications are also good ways to find the names of GPOs that focus on same-day surgery, Eisele adds.

If you are checking out a GPO that you found this way, be sure to get names of current members from the GPO so you can see how the GPO really serves its members, he suggests.

"I found that membership in my state association gave me the best access to information about GPOs," says **Leanne Bales**, RN, CNOR, administrator of the Effingham (IL) Ambulatory Surgery Center.

"By talking with other members, I not only learned the names of organizations that focused on same-day surgery, but I received good information about how GPOs worked and what to look for during my evaluation of GPOs," she explains. ■

Same-Day Surgery Manager

Staff incentives that work for ASCs or hospital-based

By **Stephen W. Earnhart**, MS
President and CEO
Earnhart & Associates
Dallas

You budget staff hours, and they put in the time and do their jobs. Easy, and it works. But cases still run over, and surgeons are still upset that they cannot get their rooms started until late in the day or early evening.

Patients don't like elective surgery at 7 p.m. They thought they would be home by then. Anesthesia is going to be upset with running rooms late because they have fewer resources as personnel becomes harder and harder to find.

What do you do?

Call me crazy, but incentives for staff do work. I fly all over this country and work hard because I have the incentive to do so. The trick is to find the right incentive button to push for your staff.

Health care workers have advantage

We are living in extraordinary times. Those of us in health care are experiencing job security that is the envy of all the other industries combined. Not only are our jobs secure, but we have the unique ability to choose where we work and under what conditions.

Try explaining that to your spouse who came from a dot-com company. So, we as a group are also becoming harder and harder to please and to motivate.

So how can we provide incentives to our staff in this job market? By becoming creative and individualizing incentives. I guarantee that what motivates me will not work for all — so sit down with each staff member, one on one, and find out what buttons are important to them.

Let me share with you what we are finding at Earnhart & Associates during countless staff interviews.

We have found some commonalities that might save you some time with your staff. Surprisingly, what we have found will work for both ambulatory surgery center (ASC) and hospital-based surgery facilities.

As we say in Texas, "If you want to make an omelet, you have to break some eggs," so think out of the box with me.

Remember our scenario: cases running later and later into the day and the staff, anesthesia, the surgeon, and the patient rightfully complaining about it.

As a staff member, what is my incentive to bust my butt to track down the patient, the surgeon, and the paperwork to get the case started and to move it forward?

What is my reward (outside of personal satisfaction and professionalism — yeah, yeah, I hear you) to turn that room over and safely take the patient to the post-anesthesia care unit? I get the next case!

No, no, no. That is not an incentive. That is a disincentive! You have to do better than that. That is old-school thinking and will not fare well in this new job market.

Do this if you want to get my attention: When the last case of my room is complete, send me home — with full pay! And why not? You budgeted the money anyway, right? So why not pay me for expediting my room? I made the facility look good, the surgeon is happy, the patient is safe and recovering, so why not give me that incentive?

Motivating different age groups

I know enough of you to know that some of you are thinking, "He just came on at 3 p.m. and finished his last case at 5. Am I going to pay him six hours to go home?" Yes, yes, and yes! Stop thinking the old way.

We need to increase our physician satisfaction to keep them from going elsewhere (and they are — in increasing numbers). We need to start marketing to them. They are our clients, and every patient they bring to the hospital or ASC has part of our paycheck in their pocket.

OK, our experience has shown that the "older" staff (people like me!) want to go home with pay because time is more valuable to us than it typically is to a "younger, more ambitious staff." Precisely why you need to individualize this group of staff by paying a new differential to staff members who want to stay on through their

shifts and do the "other work" like pulling cases, cleaning, patient phone calls, etc. — now the other teams have gone home.

If you cannot get consensus on who will stay late or go home, rotate the teams daily or weekly so everyone gets the same opportunity. The differential pay to the "late" staff should come out of the money you used to pay in overtime.

Should you do this for every member of the department or ASC? No. Only the people who are directly involved in or can expedite the cases should have this opportunity. Clerical staff and instrument room personnel are not affected and should not be included.

I suggest you try this for a month and see if it works for your facility. Remember, your goal is not to reduce your staff budget. That budget is unchanged. Your goal is to finish the surgical list faster and with higher physician, patient, and anesthesia satisfaction by providing the staff with a time / financial incentive.

This is a marketing thing and not a money thing. Motivate me!

(Editor's note: Earnhart and Associates is an ambulatory surgery consulting firm specializing in all aspects of surgery center development and management. Earnhart can be reached at 5905 Tree Shadow Place, Suite 1200, Dallas, TX 75252. E-mail: searnhart @earnhart.com. Web: www.earnhart.com.) ■

Parental presence in OR means happy customers

Assign staff person to accompany parent

Do parents alleviate a child's anxiety in the operating room (OR)? Or do they just add to the confusion and fear a child may have? Should a same-day surgery program allow a parent in the OR? If so, how long and who is responsible for the parent?

While parents believe their children are less anxious when they are present during anesthesia induction, studies show that parental presence alone does not reduce a child's anxiety.[1]

There is, however, a Yale University School of Medicine Study that shows that while only 12% of the anesthesiologists involved in the study believed that parental presence does have a significant calming effect on the child, 98% of the parents reported significantly higher satisfaction with their children's medical care when they are allowed to accompany their premedicated child to the OR.[2]

You definitely should consider parental satisfaction, says **Ellen Kavee**, MD, assistant clinical professor, Department of Anesthesiology and Pediatrics at Mount Sinai School of Medicine in New York City.

"We have to remember that although the child is our patient, it is the parent who is the consumer," she says.

Because parents often have a choice of locations for same-day surgery, this small difference may mean a parent choosing your program over another, says **Sharon L. Tolhurst**, RN, CNOR, MBA, executive director of ambulatory services for the Sarasota (FL) Memorial Healthcare System.

Have a protocol in place

Before you allow parents in the OR, have a well-defined protocol or policy that spells out who can come into the OR, how long a parent can stay, and which staff members are responsible for the parent , suggests **Dona Martin Laing**, RN, MSN, CNOR, CEN, clinical nurse specialist for perioperative services at MetroHealth Medical Center in Cleveland. **(See parental policy, inserted in this issue.)**

"Spend time developing the policy so all staff

EXECUTIVE SUMMARY

Although studies don't show that parents in the operating room (OR) during induction of anesthesia calms pediatric patients, parents are significantly more satisfied with their child's care when they are offered the option.

- Develop well-defined policies that specify when the parent comes into the OR, how long a parent stays, and which staff member is responsible for the parent.
- Assign a specific staff member to escort the parent into and out of the OR and to answer any questions the parent has before, during, or after the OR visit.
- Let the surgeon and anesthesiologist have final approval for parental presence in each case.
- Make the OR visit an option, not an obligation, for the parent.

members, surgeons, and anesthesiologists are on board before you bring in the first parent," says Laing.

It is far more comforting to the parent if there is no confusion among staff members regarding the parent's presence, she explains.

Most programs that allow parents in the OR allow only one parent, and only during the initial induction of anesthesia, says Kavee.

Some places have the parents leave before any intravenous lines or intubation are started, she adds. In all cases, a staff member, or in Kavee's case, a surgical resident, is assigned to accompany the parent into and out of the OR at the appropriate times.

Parent's presence must be approved

In Laing's program, parents are not offered the option of accompanying the child until the surgeon and anesthesiologist have approved their presence, she says.

"This may occur as the child is being prepared to go to the operating room," she adds. At that point, parents are told they can go into the OR for induction of anesthesia, if they want to, she explains.

"We suggest that they hold the child's hand, sing a favorite song, tell a story, or just talk quietly to reassure the child," Laing says. At the same time, the circulating nurse or a child life specialist is standing with the parent, she adds.

"Once the child is asleep, the staff member places a hand on the parent's arm and says it is time to leave," she explains.

If a parent is hesitant, the nurse takes the parent's hand and walks him or her out of the OR, she adds.

"We tell parents that they may be able to accompany the child during the pre-test telephone call and on the morning of surgery," says Tolhurst.

"We explain that the final decision is made by the surgeon and the anesthesiologist, but we want them to consider whether or not they want to go in during induction," she says.

During these conversations, the nurse explains what will happen and how long the parent may stay. "Setting expectations up front makes it easier for everyone," Tolhurst adds.

Kavee tells parents accompanying their child in the OR that if the child cries during a mask induction, it actually is helpful because the child breathes the anesthesia more deeply, which makes him or her fall asleep more quickly. "It's important to let parents know that their child's reaction to the mask or an unusual circumstance is normal," she adds.

Parents going into the OR generally wear a gown, hat, and shoe covers, says Laing. If the room is sterile, they wear masks as well, she adds.

Could be difficult for some parents

Even if your facility allows parents in the OR, be aware that sometimes it is better if they don't accompany the child, says Kavee.

"I've seen some children who are more mature than the parent; in fact, the children sometimes are telling the parents not to worry," she says.

If one parent or another cannot stay calm and console the child, they should not accompany the child into surgery, she adds.

It's also important to let parents know that they don't have to go to the OR if they are not sure they want to go, says Laing. No parents should feel that their child will be all alone and traumatized if they don't accompany them, she explains.

Some patients may have difficult airways, so the anesthesiologist may ask that the parents not watch induction, says Kavee.

"It would be more traumatic for the parent to observe the anesthesiologist having a difficult time, and it would be more difficult for the OR

SOURCES

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staff to do their jobs," she explains.

Children under a year old also do not need parents in the OR, says Kavee. "Children this young typically have difficult airways, and they usually are not calmed by a parent," she says.

References

1. Kain ZN, Mayes LC, Caramico LA, et al. Parental presence during induction of anesthesia. A randomized controlled trial. *Anesthesiology* 1996; 84:1,060-1,067.

2. Kain ZN, Mayes LC, Wang SM, et al. Parental presence and a sedative premedicant for children undergoing surgery: A hierarchical study. *Anesthesiology* 2000; 92:939-946. ■

EXECUTIVE SUMMARY

Although body jewelry may represent a risk of infection, electrosurgical burn, and obstruction of airway, many patients are reluctant to remove the jewelry. Most programs are relying upon existing jewelry policies to guide them as they explain reasons for removal to patients.

- Assess each case individually to determine if the jewelry is a risk.
- Emphasize safety to the patient.
- Keep proper tools on hand to avoid damaging jewelry.
- Be prepared to cancel surgery if patient won't allow removal of jewelry and you have determined that there is a risk.

Body jewelry isn't a good accessory for surgery

Patient safety requires removal in many cases

Same-day surgery managers are accustomed to responding to trends as they develop and spread throughout our communities. Some trends are related to new surgical techniques and equipment, while other trends are related to nonclinical developments.

A growing use of herbs and tattoo removal are two areas in which same-day surgery programs have had to develop policies or programs in recent years. **(For information about herb use and surgery, see *Same-Day Surgery*, September 2001, p. 97. For information on tattoo removal, see *SDS*, August 1999, p. 89.)** Another area in which there is increasing need for policies and guidance is related to body jewelry.

A lot trickier than earrings

"Asking a patient to remove earrings from pierced ears almost never presents a problem, but asking patients to remove jewelry from other parts of their body more often creates resistance on the patient's part," says **Beth Ackerson**, RN, MSN, CNOR, perioperative director for the Health Alliance of Greater Cincinnati in Fort Thomas, KY.

Sometimes a patient is afraid the jewelry will be difficult to put back in the body, while others are afraid that the jewelry will be damaged or lost, says Ackerson.

"Some of the jewelry is very expensive, so we treat it carefully," she adds.

"Whenever possible, we give the removed jewelry to a family member, but if there is no family member, we give it to security to lock in the hospital safe," Ackerson explains.

Most same-day surgery programs utilize their existing policies related to jewelry removal and apply it to body jewelry. "We use our existing policy and address each case individually," says **Willie M. Tarr**, RN, director of perioperative services at St. Joseph Hospital in Bellingham, WA.

Recently, a patient who was undergoing a procedure on her back refused to remove her navel jewelry, so Tarr's staff explained the risk of electrosurgical burns when metal is left in the abdomen. After emphasizing their concern for her safety, Tarr's staff was able to convince her to remove it, he says.

Avoid surprises

"Anesthesiologists always remove tongue jewelry or other jewelry that might interfere with airway management," says Ackerson. "Sometimes they don't discover the piercing until they start to intubate the patient," she says.

These discoveries of surprise piercings happen even after staff members have asked patients about piercings, says Ackerson.

Although she doesn't know if the patients neglected to tell them about the piercings because they didn't want the staff to know, didn't understand the patient safety implications, or because they honestly forgot, Ackerson's staff now ask about piercings in several ways.

SOURCES AND RESOURCE

For more information about body jewelry policies and practices in same-day surgery programs, contact:

- **Beth Ackerson**, RN, MSN, CNOR, Perioperative Director, Health Alliance of Greater Cincinnati, 85 N. Grand, Fort Thomas, KY 41075. E-mail: ackersb@health-all.com.
- **Willie M. Tarr**, RN, Director of Perioperative Services, St. Joseph Hospital, 2901 Squalicum Parkway, Bellingham, WA 98225.

For information about body piercing and body jewelry, contact:

- **Association of Professional Piercers**, PMB 286, 5446 Peachtree Industrial Blvd., Chamblee, GA 30341. Telephone: (888) 515-4APP. E-mail: secretary@safepiercing.org. Web: www.safepiercing.org.

To purchase tools to remove body jewelry, contact:

- **Anatometal**, 411 Ingalls St., Santa Cruz, CA 95060. Telephone: (888) ANOMETAL or (831) 454-9880. Web: www.anatometal.com. (Click on "tools and accessories.")

"We ask if they have body jewelry anywhere on their body and may ask specifically about tongue piercings," Ackerson says.

"When patients tell us about body jewelry, we ask them to remove it," she says.

If the patient seems reluctant, the nurse explains the safety issues related to infection, electrosurgical burns, and the risk of jewelry breaking and falling into the body, she adds.

Use the proper tools for removal

Because some body jewelry requires special tools for removal, Ackerson suggests that same-day surgery programs invest in the proper tools such as ring-opening pliers to remove captive bead rings. **(For vendor information, see source box, above.)**

"We keep the tools on hand because we want to make sure the removal is also safe for the patient," she says.

Although neither Ackerson nor Tarr have had to cancel a procedure because a patient refused to remove jewelry, they both say they would do so.

Tarr points out, "The patient's safety is our primary concern, and if we believe the jewelry represents a risk, we wouldn't proceed." ■

Pre-registration is key to collect money due to you

Payment options increase success

Collection is not an activity that should occur only after insurance claims are paid, say experts interviewed by *Same-Day Surgery*. If you want your same-day surgery program to effectively collect all monies that are due, start the collection process at the pre-registration table.

"The biggest positive impact on a same-day surgery program's collection rate occurs at pre-registration," says **Matthew J. Reat**, MBA(HOM), senior consultant, Zimmerman and Associates, a Hales Corners, WI-based consulting firm.

Get necessary information up front

"You must have the patient's insurance information up front in order to collect the fees you are due," he adds.

Not only do you need the name of the patient's insurer, but you also must have checked with the insurer to verify coverage, copay, and deductible, Reat points out.

The best reason to have this information early in the process is to be better able to inform patients of their payment responsibilities, he explains.

"Patients who are informed at the front end are more willing to pay because they know why the charges are being passed to them and they have time to make payment arrangements," he says.

One way you can ensure patients understand their payment responsibilities is to make sure

EXECUTIVE SUMMARY

Collections experts say the best time to determine what you are owed from the insurer and the patient is at pre-registration.

- Make sure your staff explain payment responsibilities clearly and correctly.
- Offer payment options that include credit cards, commercial loans, and monthly payment schedules.
- Follow up in a timely manner based upon your average days in accounts receivables and your contracted payment schedules with payers.
- Involve the patient when a payer is not paying in a timely manner.

SOURCES

For more information about collections, contact:

- **Matthew J. Reat**, MBA(HOM), Senior Consultant, Zimmerman and Associates, 5307 S. 92nd St., Hales Corners, WI 53130. Telephone: (800) 525-0133 or (414) 425-2189. E-mail: matt@zimm-assoc.com.
- **Ann Ryder**, Corporate Director of Patient Accounts, Valley Health Systems, 629 Cedar Creek Grade, Winchester, VA 22604. Telephone: (540) 536-7654. Fax: (540) 536-7681. E-mail: aryder@valleyhealthlink.com.

your employees understand the insurance coverage, says Reat.

"I would guess that 60% of the people handling registration responsibilities don't understand the difference between a copay and a deductible," he says. "How can they explain it to a patient if they don't understand the terms?" he asks.

In-house education that covers insurance coverage terms and definitions will help employees better inform patients, he adds.

Check with one of the managed care companies with whom you contract to obtain a list of the most commonly used terms and their definitions, he suggests.

Same-day surgery programs also should be able to help patients with different payment options, says Reat. "Accepting credit cards and offering monthly payment plans are two ways a same-day surgery program can help patients pay their bills," he says.

If a patient at Valley Health Systems in Winchester, VA, is a self-paying one, the facility requires a deposit, says **Ann Ryder**, corporate director of patient accounts.

"We do set up a six- to 12-month payment plan after the patient completes a credit application and shows proof of income," Ryder adds.

A copy of a tax return for the most recent tax year is the most common way to prove income, she adds.

While the national average for same-day surgery accounts receivable is estimated at 70 days, her same-day surgery collections average between 35 and 37 days, says Ryder.

Part of her success is not just the upfront work, but also a very proactive follow-up program, she says.

"We allow 21 days for receipt of payment from Medicare and 30 days for receipt of payment from other insurers," she explains. Once the allowed time has elapsed, a letter is automatically generated to the insurer and the patient explaining that payment has not been received.

"Patients receive a letter asking them to contact the insurer to ask them to pay," Ryder says. "This really works well, since no patient wants to be billed for money that the insurer is suppose to pay," she adds.

After this first letter goes to the insurer and the patient, Ryder waits until 40 days from the date of filing the claim to send a bill to the patient.

"Because we average less than 40 days in accounts receivable, I have set our direct billing day at 40," she says.

Ryder recommends that a same-day surgery manager set a number of days that serves as the trigger date for follow-up. Five days from benchmark you set for your facility or from your average days in accounts receivable is a good rule of thumb, she adds.

Benchmarks are difficult to find for ambulatory surgery, says Ryder. She suggests participating in local or state organizations that collect accounts receivable data as well as national organizations, because local organizations reflect the insurance trends of your area.

"Be sure that whatever benchmarks you do use are comparing same-day surgery to same-day surgery," she adds. ■

Accreditation streamlined for office-based centers

The Wilmette, IL-based Accreditation Association for Ambulatory Health Care (AAAHC) has announced an updated accreditation program designed for office-based surgery programs that don't have a large staff to prepare for accreditation.

The program is geared to office-based surgery organizations with no more than four surgeons and two operating suites. The *Guidebook for Office-Based Surgery Accreditation* helps office-based programs prepare for accreditation by offering interpretive and review guidelines for each standard; complete eligibility criteria, accreditation policies and procedures; and sample forms and worksheets.

The AAAHC's *Policy and Procedure Manual for Office-Based Surgery Practices* helps with the documentation process for accreditation and includes

generic policies and procedures as well as templates for documentation of activities such as office meetings and disaster drills.

For more information on the AAAHC Office-Based Accreditation program and its publications, contact the Accreditation Association for Ambulatory Health Care, 3201 Old Glenview Road, Suite 300, Wilmette, IL 60091. Telephone: (847) 853-6060. Fax: (847) 853-9028. Web: www.aaahc.org. ■

FDA delays reprocessing requirements enforcement

Hospitals that reprocess devices labeled for single use have a one-year extension from the Food and Drug Administration (FDA) on reprocessing requirements that cover medical device reporting, tracking, corrections and removal, quality systems, and labeling, according to the Chicago-based American Hospital Association (AHA).

However, hospitals still are required to register with the FDA and list the single-use devices that they plan to reprocess, the AHA reports.

The FDA will begin inspecting hospitals shortly to assess compliance, according to the AHA. The agency has said it intends to use those inspections to educate hospitals rather than punish them.

This education approach will be in effect until Aug. 14, 2002, the FDA says, "provided that the hospitals are taking steps to correct the violations noted in the inspection and that the violations do not pose a serious public health threat." ■

Think outside the box to find and keep OR nurses

The news is not good:

• The Princeton, NJ-based Gallup Organization conducted a survey that shows an aging operating room (OR) work force. More than 37% of OR nurses are between ages 41 and 50, and 14% are older than 50.

• According to the 2001 *Same-Day Surgery* reader survey, almost half of respondents reported significant impact (12.9%) or moderate impact (35.7%) from the nursing shortage.

• A survey conducted by Washington DC-based polling firm Peter Hart Research reports that one in five nurses plans to leave the profession in the next five years because of poor working conditions.

Let nurses check you out

Experts say that the best way to address your staffing needs during this time is to make it easy for nurses to check out your facility as a potential place of employment and offer benefits that recognize your staff's importance and increase your chance of retaining good employees.

Obviously, a same-day surgery program must offer competitive salaries, benefits that are comparable to other programs in the community, and a flexible work schedule in order to attract and keep qualified nurses, says **Sue Yaudes** RN, nurse manager at Centre Community Surgical Center in State College, PA. Yaudes' program offers these items, but goes one step further by offering a trip incentive for all staff.

"We've always offered a quarterly gift or check as incentives, but every other year we take a three-day trip over Labor Day weekend as a combined reward and team-building event," says Yaudes. Of the 31 employees who were eligible for the trip, 23 went to Cancun in 2001. Employees have the option of skipping the trip and taking one-half the cost of the trip as their incentive bonus, she adds.

"We don't pay for spouses, but employees can bring their spouse at their own expense," says Yaudes.

The cost to the same-day surgery program is between $500 and $600 per employee who takes the trip, she adds.

EXECUTIVE SUMMARY

The nursing shortage presents recruitment and retention challenges. Use nontraditional methods to recruit and reward staff members.

- Staff trips to places such as Cancun serve as a reward and a team-building activity.
- Partnerships with local nursing schools give you an opportunity to orient nursing students to the OR and identify potential employees.
- Job fairs offer nonthreatening environments for experienced nurses, as well as newly graduated ones, to check out a potential employer.
- Use youth-oriented activities, such as scouts or middle school career days, to promote nursing as a career.

The trip builds unity among the staff, Yaudes says. "The team building is a natural by-product of spending time together," says Yaudes. "On our patient surveys, we often have comments about our 'happy staff.'"

Partner with a school to attract nurses

In addition to innovative ways to reward and retain employees, same-day surgery managers are also looking for ways to attract nurses.

"One of the most exciting things we have is an excellent relationship with a local college that offers a BSN program," says **Sherron Kurtz**, RN, MSA, CNOR, CNAA, director of perioperative services at Henry Medical Center in Stockbridge, GA.

"Nursing students perform their clinical rotations, including one day in the operating room, at our facility," says Kurtz. Because the school also offers a perioperative elective, her facility has two or three other students meeting their clinical requirements in their OR, she adds.

"We've had some very good students work with us," says Kurtz. "In fact, we've hired at least one student out of each class."

The advantage to the same-day surgery program is that the students are familiar with the OR and know if that is where they want to work, she explains.

Encourage children to consider nursing

Another way Henry Medical is trying to "grow" nurses for its program is to sponsor an Explorer Post, says Kurtz.

Explorers are part of the Learning For Life program, a subsidiary of the Irving, TX-based Boy Scouts of America, says **Sara Needs**, director of Learning for Life programs for the Atlanta Area Council of Boy Scouts. The Explorers program is designed to give boys and girls, ages 14-20, a chance to learn about a career field in which they are interested, she explains. Costs to the sponsoring organization are a $20 certification fee and $7 post leader fee. **(To obtain more information, see resource box, right.)**

"The Explorers meet at the hospital, hear speakers from different areas of the hospital, and take tours," says Kurtz. "We've had a number of troop members become candy-stripers, which gives them even more time to work with our staff as they consider nursing or health care as a career."

The 3-year-old troop had its first member start nursing school this past fall, she says.

"We also work with local schools to provide speakers on career days and encourage children to think of nursing as a career," Kurtz explains.

Don't wait until children are seniors

Emphasis on the importance of nurses as well as the many different options for specialization within nursing is key points to make with this audience, she says. Kurtz believes the most important targets are fifth and sixth graders. "If you wait until the children are seniors in high school, it is often too late," she adds.

A job fair that is open to nurses from all surrounding areas is one way Kurtz' program attempts to attract experienced nurses. "We held the job fair on a Saturday, advertised in the local newspapers, offered refreshments, and had human resource and nursing coordinators available to answer questions," says Kurtz.

The job fair gave nurses a chance to learn more about the medical center, look around and ask questions without making a commitment to an interview, she explains. While none of the nurses hired as a result of the job fair were OR nurses, Kurtz' program did hire a scrub tech who attended, she adds.

Once a nurse is hired, Kurtz says the best way to keep the person at your facility is to keep teaching new skills.

"Today's nurses want professional development to be a part of employment," she says. "If they are learning new skills, they stay happy and stay with you longer." ■

SOURCES AND RESOURCE

For more information about recruitment and retention, contact:

- **Sherron Kurtz**, RN, MSA, CNOR, CNAA, Director of Perioperative Services, Henry Medical Center, 1133 Eagle's Landing Parkway, Stockbridge, GA 30281. Telephone: (770) 389-2100, ext. 2357. Fax: (770) 389-2158. E-mail: skurtz@hmc-ga.org.
- **Sue Yaudes**, RN, Nurse Manager, Centre Community Surgical Center, 1850 E. Park Avenue, Suite 103, State College, PA 16803. Telephone: (814) 234-6750. E-mail: syaudes@cch1.org.

For more information about setting up an Explorer's Post, visit www.learning-for-life.org.

2001 salary survey chart omitted

In last month's *Same-Day Surgery Salary Survey* results enclosed in the issue, we inadvertently left out the chart that lists salary by title. The chart has now been added to our on-line versions of *SDS*.

Also in last month's issue, Guidelines to Help Evaluate Anesthesiologists Who Desire to Continue Their Careers in Anesthesia contained an error, which has been corrected in the electronic versions of the newsletter. *SDS* apologizes for the error. ■

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Editorial Questions

Questions or comments? Call **Joy Daughtery Dickinson** at (229) 377-8044.

CE objectives

After reading this issue, the continuing education participant will be able to:

• Identify clinical, managerial, regulatory, or social issues relating to ambulatory surgery care and management.

• Describe how those issues affect nursing service delivery or management of a facility. (See *"Parental presence in OR means happy customers."*)

• Cite practical solutions to problems or integrate information into their daily practices, according to advice from nationally recognized ambulatory surgery experts. (See *"GPOs can cut supply expense by at least 18%," "Staff incentives that work for ASCs or hospital-based,"* and *"Pre-registration is key to collect money due to you."*) ■

CE*questions*

21. What are two things you need to have on hand as you evaluate different group purchasing organizations, according to Leanne Bales, RN, CNOR, administrator of the Effingham Ambulatory Surgery Center?
    A. volume projections and supply lists
    B. list of managed care programs in which you participate and the number of covered lives they represent
    C. number of surgeons on your staff and their specialties
    D. number and description of other same-day surgery programs in your area

22. According to Stephen Earnhart, MS, President and CEO of Earnhart & Associates, which personnel should NOT be included in the staff incentive plan of sending staff home and paying a differential to those who stay?
    A. physicians
    B. nurses
    C. clerical staff and instrument room personnel
    D. surgical assistants and technicians

23. According to Ellen Kavee, MD, assistant clinical professor, department of anesthesiology and pediatrics at Mount Sinai School of Medicine, one of the best reasons to allow parents in the OR is:
    A. Parents significantly calm children.
    B. Their presence adds another pair of hands to handle the child.
    C. Satisfaction with their child's care increases.
    D. Some managed care companies require parental presence.

24. One way you can make sure patients understand their financial responsibility is to do what, according to Matthew J. Reat, MBA (HOM), senior consultant, Zimmerman and Associates?
    A. make sure your employees can explain the responsibilities clearly and correctly
    B. get a copy of the patient's policy
    C. have the payer explain it to the patient
    D. collect 100% from the patient, then send refunds when necessary

BIOTERRORISM WATCH

Preparing for and responding to biological, chemical and nuclear disasters

Clinicians must be voice of reason, reassurance now that bioterrorism battle has been joined

The threat is real, but we are far from defenseless

A new era of bioterrorism has begun with the intentional anthrax scares that have left several people dead and many more exposed as this issue went to press.

But amid the shrill coverage of the widening anthrax investigations, the scramble for gas masks and the expected hoarding of Cipro, there must be a voice of calm and reason. That voice must be your own.

Infection control professionals, hospital epidemiologists, and other key clinicians involved in health care bioterrorism readiness and response must set the tone for a panicky public and an uneasy health care work force, emphasizes veteran epidemiologist **William Schaffner**, MD, chairman of preventive medicine at Vanderbilt University School of Medicine in Nashville.

"We have to re-instill a sense of confidence for people who work in the health care system," he says. "Start with the doctors. They are the ones who are going to be more panicked than the nurses."

Restoring calm to health care community

The current situation is reminiscent of the early stages of the HIV epidemic, when there was much anxiety about the communicability of the disease and whether even casual contact would spell a death sentence for health care workers.

In that chilling time of alarmist reactions and burning mattresses, Schaffner recalls that ICPs, epidemiologists, and other clinicians, stepped into the fray to provide calming confidence and accurate risk data.

"I'm beginning to think that we may be in a similar position now," he says. "We could have a very powerful educational and reassuring effect. Everybody's anxious about this, but I think we can diminish the level of anxiety," Schaffner adds.

Infection control methods in place

Health care workers must be educated about bioterrorism agents and provided reassurance that the patient isolation precautions developed by the Centers for Disease Control and Prevention (CDC) are extremely effective, urges Schaffner.[1]

"The barrier precautions are going to work for bioterrorism. Once you get to chemical [weapons] then you get into the whole 'moon suit' issue. But for bioterrorism, we don't need that," he says.

For example, systems of barrier precautions such as gloves, gowns, and masks to isolate patients infected with all manner of infectious diseases are already in place in virtually all U.S. hospitals.

"They work," he says. "Look, we all know pulmonary tuberculosis is communicable. I'm an infectious disease doctor, have been for 30 years. I've seen a lot of patients with tuberculosis, but I have also been meticulous about my use of [face masks and respirators]. My tuberculin test continues to be negative."

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

A Bioterrorism Time Line

1155 Barbarossa uses the bodies of dead soldiers to poison the wells at the battle of Tortona.

1346 Mongols catapult corpses of plague victims into the city of Kaffa to infect the defenders.

1763 British commander Sir Jeffrey Amherst ordered the transfers of blankets used by British smallpox victims to Native American tribes, ostensibly as a gesture of goodwill, with the intention of inducing illness.

1970 The United States ends its programs of developing biological agents for use in warfare. The offensive use of such weapons was forbidden by U.S. policy under executive orders of President Richard Nixon.

1972 Soviet Union signs off on Biological and Toxin Weapons Convention, but continues a high-intensity program to develop and produce biological weapons at least through the early 1990s. Hundreds of tons of weaponized anthrax spores are stockpiled, along with dozens of tons of smallpox and plague. Many of these agents are reputed to have been specifically designed to be resistant to common antibiotics.

1984 Members of the Rajneesh cult contaminated salad bars in Oregon with salmonella, resulting in the infection of 751 people. The Paris Police raided a residence suspected of being a safe house for the German Red Army Faction. During the search, they found documentation and a bathtub filled with flasks containing *Clostridium Botulinum.*

1990s Japan's Aum Shinrykyo cult plans attacks using biological agents, specifically, anthrax and botulinum toxin. While these biological attacks were not successful, cult members later implemented the release of sarin nerve gas in the Tokyo subway system.

1995 A U.S. microbiologist with right-wing ties orders bubonic plague cultures by mail. The ease with which he obtained these cultures prompts new legislation to ensure that biologic materials are destined for legitimate medical and scientific purposes.

1998 A variety of feigned exposures to anthrax spores occurred in several U.S. cities including Indianapolis, where a full-scale response by emergency services and public health occurred before the episode was found to be a hoax.

Sources

1. Stewart C. *Topics in Emergency Medicine: Biological Warfare. Preparing for the Unthinkable Emergency.* Atlanta: American Health Consultants; 2000.

2. Bosker G. Bioterrorism: An update for clinicians, pharmacists, and emergency management planners. *Emergency Medicine Reports* (in press) 2001. ■

And anthrax, of course, is not communicable from person to person, reminds Schaffner, who investigated a case of occupational anthrax in an animal-hide worker when he was a epidemiologist for the CDC in the late 1960s.

"The bacteria do not cause a conventional pneumonia," he says. "They replicate locally and then release toxins. Because the bacteria never replicate to very high numbers the person is not communicable. It is not so much an infection as it is an intoxication."

Inordinate fear of anthrax could cause another problem — hoarding and misuse of Ciprofloxacin and other antibiotics. That tactic eventually could contribute to emerging resistance in pathogens such as *Streptococcus pneumoniae,* Schaffner notes.

"It is one thing for a hospital and the health department to develop an inventory in the event of an emergency," he says. "I do not recommend that individuals do that. I'm quite concerned that with antibiotics in their medicine cabinets there will be a temptation to just use it now and again for inadequate reasons in inadequate doses. If there was a recipe for antibiotic resistance — that's it."

More terror than toll

While the anthrax mailing campaign now under way sends out another shock wave with every news report, the tactic will likely result in more terror than actual toll. The rapid administration of antibiotics has offset illness following exposures, the disease is not communicable from those actually infected, and everyone is now on high alert for suspicious mailings.

Indeed, if the wave of anthrax mailings continues, postal-treatment technologies may become a growth industry.

Regardless, anthrax is problematic as a bioweapon because only a certain micron size of the inhaled spore will lodge in the upper lungs where it can release its toxins, says **Allan J. Morrison Jr.**, MD, MSc, FACP, a bioterrorism expert and health care epidemiologist for the Inova Health System in Washington, DC.

"If it is too large, it won't go in," says Morrison, a former member of the U.S. Army Special Forces. "If it's too small, it goes in and moves about freely without ever lodging. This is not as easy as getting a culture, growing it in your home, and the next day having infectious microbes.

"The sizing, preparation, and ability to deliver such a weapon are extremely difficult," he adds.

The Aum Shinrykyo cult in Tokyo attempted at least eight releases of anthrax or botulism during 1990 to 1995 without getting any casualties, he recalls. **(See time line, p. 2.)** Variables such as humidity can come into play, clumping up spores even if they are perfectly sized for inhalation. Anthrax spores bound for human targets are also at the whims of ultraviolet light, rain, and wind dispersal patterns, Morrison says.

"It is a very hostile climate for microbes on planet earth." Morrison says. "The intent may be widespread, but the ability to deliver weapons grade agents is going to be restricted to a very small subgroup. And even among them, they still will require optimal climatic conditions to carry it out. There will be causalities, as in war, but the distinction here is that there has not been widespread infection."

While anthrax is the current weapon of choice, the direst scenarios usually turn to the most feared weapon in the potential arsenal of bioterrorism: smallpox.

"Invariably, I have seen smallpox described as 'highly infectious,'" Schaffner says. "It's not. That is erroneous." For example, during the global eradication efforts in the 1960s, African natives infected with smallpox were often found living with extended families in huts, he adds. "It would usually take two to three incubation periods for smallpox to move through an extended family."

"It doesn't happen all it once. This was a critical concept in the strategy to eradicate smallpox. If you could find smallpox, you could vaccinate around that case and prevent further transmission. If it had been a frighteningly [rapid] communicable disease, that strategy would never have worked," Schaffner explains.

In addition, some medical observers question the certitude of the general consensus that all those vaccinated decades ago are again susceptible to smallpox. They argue that those immunized during the eradication campaign may at least have some greater protection against fatal infection.[2]

Regardless, rather than dropping like flies, as many as 70% of those infected with smallpox actually survive and then have lifelong immunity.

While there are many other agents to discuss and prevention plans to outline in the weeks and months ahead, perhaps the greatest protective factor is the unprecedented level of awareness in the health care system. The world has changed so much since Sept. 11th that hospitals are probably more prepared for bioterrorism than they have ever been. Everywhere, lines of communication have been opened with health departments and affiliated clinics, emergency plans have been reviewed and hot-button phone numbers posted on the wall.

"We're on alert," says **Fran Slater**, RN, MBA, CIC, CPHQ administrative director of performance improvement at Methodist Hospital in Houston. "We are *all* on alert."

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1. Garner JS, the Centers for Disease Control and Prevention Hospital Infection Control Practices Advisory Committee. *Guideline for Isolation Precautions in Hospitals. Web site: http://www.cdc.gov/ncidod/hip/ISOLAT/isolat.htm.*
2. Bosker G. Bioterrorism: An update for clinicians, pharmacists, and emergency management planners. *Emergency Medicine Reports* (in press) 2001. ■

Should clinicians get smallpox vaccinations?

Questions arise, stockpile expansion fast-tracked

The recent decision to accelerate production of a new smallpox vaccine is raising the complex question of whether health care workers — front-line soldiers in the war against bioterrorism — should be immunized against the disease.

As opposed to the current anthrax attacks, a biological release of smallpox would result in incoming patients with an infectious disease. Even health care workers directly exposed to anthrax could be treated with ciprofloxacin and several other antibiotics, so the anthrax vaccine is not a likely candidate for health care.

On the other hand, legitimate questions have been raised about whether health care workers will stay on the job during a smallpox outbreak unless they and their families are rapidly vaccinated. The only known stocks of smallpox virus are held by the United States and Russia, but many bioterrorism experts have warned for years that another nation or group might have secret stocks.

"I think if smallpox [vaccine] became available, we should definitely immunize all the health care workers," says **Martin Evans**, MD, hospital epidemiologist at the University of Kentucky Chandler Medical Center in Lexington. "A lot of people think [health care workers] ought to

be high on the list because they are part of the response team if there was an outbreak in the community. Not to sound self-serving, but I think we ought to immunize the medical community."

But the question currently is somewhat moot because the Centers for Disease Control and Prevention (CDC) is not wavering from its established policy of mobilizing the available vaccine only if smallpox is released. "I'm sure CDC wants to conserve its current stocks for dealing with an outbreak so it could immunize contacts," Evans says. "If [the agency has] already used [its stock] by immunizing all the health care workers in the country, then it won't be able to respond."

15 million doses stockpiled

Currently, there are some 15 million doses of the old smallpox vaccine available, according to Secretary of Health and Human Services **Tommy Thompson,** who recently announced plans to accelerate production of a new smallpox vaccine. Forty million new doses of vaccine are expected to be available by mid-to-late 2002, moving the project up considerably from its original completion date of 2004 or 2005.

The manufacturer of the new vaccine is Acambis Inc. (formerly OraVax) — based in Cambridge, UK, and Cambridge and Canton, MA. The new vaccine will be a purified derivative of the same strain of cowpox virus (vaccinia) that was used in the United States previously, because the old vaccine's efficacy was clearly demonstrated by direct exposures to those infected. While the method of immunization through scarification will be essentially the same, the new vaccine will be produced in a mammalian cell culture that contains no animal protein.

Acambis stated on its web site that it would have no other comment on the project other than to confirm it has "accelerated" its production plans. But when the project was first announced in 2000, company officials said they had the ability to scale up production well beyond the requested 40 million doses. They were even scouting for other global markets. That means the capability to produce smallpox vaccine in abundance is on the horizon, and the question of immunizing health care workers will invariably arise. *Bioterrorism Watch* was unable to get a CDC response on the question as this issue went to press, but CDC director **Jeffrey Koplan**, MD, MPH, outlined the agency's position in an Oct. 2, 2001 Health Alert posted on a CDC web site.

"Smallpox vaccination is not recommended and, as you know, the vaccine is not available to health providers or the public," Koplan said. "In the absence of a confirmed case of smallpox anywhere in the world, there is no need to be vaccinated against smallpox. There also can be severe side effects to the smallpox vaccine, which is another reason we do not recommend vaccination. In the event of an outbreak, the CDC has clear guidelines to swiftly provide vaccine to people exposed to this disease. The vaccine is securely stored for use in the case of an outbreak."

One factor in favor of the CDC's position to rapidly deploy the vaccine — rather than do widespread vaccinations — is that immunization should still be effective several days after a smallpox exposure. In the smallpox global eradication campaign, epidemiologists found they could give vaccine two to three days after an exposure and still protect against the disease. Even at four and five days out, immunization might prevent death. Still, though the new vaccine will be improved in many ways, the hazards and risk factors of introducing cowpox into the human body are expected to be roughly the same as those documented with the old vaccine.

"We are looking at probably about one death per million primary vaccinations," says **D.A. Henderson**, MD, director of the Center for Civilian Biodefense Studies at Johns Hopkins University in Baltimore. "We are looking at one in 300,000 developing post-vaccinal encephalitis — an inflammation of the brain, which occasionally is fatal and sometimes can leave people permanently impaired."

Based on those estimates, if the new stockpile of 40 million doses is eventually rolled out, approximately 40 of those immunized will die, and another 133 will develop encephalitis. In addition to those severe outcomes, the arm lesion created during inoculation can be very large and painful, serving as a reservoir to self-inoculate the eyes or even infect immune-compromised patients.

The downside is real, but as more vaccine becomes available immunization will certainly be discussed at hospitals in previously targeted areas such as New York City and Washington, DC. If they are not immunized in advance, health care workers are going to want vaccine very quickly if they are expected to take care of smallpox patients, says **Allan J. Morrison Jr.**, MD, MSc, FACP, health care epidemiologist for the Inova Health System in Washington, DC. "Forget about smallpox patients. We're talking about taking care of any patients." ■

MetroHealth Medical Center
Department of Perioperative Services

Parental Presence in the Operating Room During Anesthesia Induction

In selected cases, a parent may accompany their child into the operating room and remain with them during the initial induction of anesthesia. The objective is to improve the quality of care for our pediatric patients (and their families) by providing parental comfort and support in order to minimize the fear of the unknown associated with separation anxiety.

It is anticipated that this policy will be most beneficial for younger school-age children in good general health.

The Department of Perioperative Services, the Department of Anesthesia, the Department of Surgery, and the Department of Pediatrics — Child Life and Education Program jointly support the practice of parental presence during anesthesia induction.

CRITERIA

1. The decision to permit a parent into the operating room must be made jointly by the attending surgeon and anesthesiologist on a case-by-case basis. The decision to invite the parent into the OR is to be agreed upon, prior to offering the option to the parent.

2. The surgeon and or anesthesiologist will initiate discussion of the visitation option before the patient is taken to the operating room and will include nursing, anesthesia personnel, and surgeons. Nursing, anesthesia, or the surgeon will discuss and implement parent teaching and education.

   A. The purpose and positive aspects of parental presence during anesthesia induction is to be discussed with the parent.
   B. The purpose of a parent being present during induction of anesthesia is to provide comfort during the initial phase of anesthesia, not for the purpose of observing surgery. The parent leaves the operating room immediately after induction of anesthesia, before the preoperative prep and drape begin.

3. Parents must be dressed in attire appropriate to enter an operating room.

4. Only one parent may accompany the child into the operating room.

5. Parent must agree to leave the OR when asked by the attending anesthesiologist or any member of the surgical team.

6. The parent will be escorted back to the holding area, as soon as initial induction is complete. Directions for the waiting room will be given.

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Guidelines to Help Evaluate Anesthesiologists Who Desire to Continue their Careers in Anesthesia

I. Return after appropriate treatment (for health care professionals)

1. Accepts and understands disease of addiction
2. Bonding with Alcoholics Anonymous/Narcotics Anonymous (AA/NA) with active sponsorship
3. Good relapse prevention skills
4. Other psychiatric disorders in remission
5. Healthy family relationships
6. Balanced lifestyle
7. Anesthesia department supportive
8. Committed to five-year monitoring program
9. Confident to be in operating room, administer anesthetic drugs, and not relapse
10. All of the above required for immediate return to anesthesia

II. Possible return, with reassessment after one or two years

1. Incomplete bonding to AA/NA but improving
2. Some denial / minimizing
3. Lacks complete confidence to be in operating room and not relapse to chemical use
4. Recovery skills improving
5. Brief relapse may have occurred
6. Other psychiatric disorders improving
7. Dysfunctional family members improving (may require therapy)
8. Healthy attraction to anesthesia

III. Never return to clinical anesthesiology (any of these conditions)

1. Prolonged addiction history
2. Significant relapse despite adequate treatment
3. Lacks confidence to return to operating room and not self-administer anesthetic drugs
4. Significant Axis I or II psychopathology
5. Inability to follow treatment and monitoring contract
6. Poor bonding to AA/NA and recovery skills
7. Significant family pathology

Source: Excerpted from article by Eric B. Hedberg, MD, Associate Medical Director, Talbott Recovery Campus, Atlanta, in *American Society of Anesthesiologists Newsletter/* A copy of the full text can be obtained from ASA, 520 N. Northwest Highway, Park Ridge, IL 60068-2573. Based on guidelines in Angres DH, Talbott GD, Bettinardi-Angres K. *Healing the Healer: The Addicted Physician.* Madison, CT: Psychosocial Press; 1998.

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