Don’t assume geography will keep your community immune from severe acute respiratory syndrome (SARS). Even though the virus originated halfway across the globe, today’s mobile society can land an unsuspecting carrier of SARS in your emergency room regardless of where you are located.

As of presstime, most Americans suspected of having SARS live in areas such as Los Angeles and New York City, where large populations of travelers return from Asia. Other suspected cases were in North Carolina and the Northeastern states.

Although SARS is new on the landscape, your bioterror disaster plan is a good template to use for handling a SARS patient, says Steve MacArthur, safety consultant for The Greeley Company in Marblehead, MA, a division of HCPro, the publisher of HSEM.

Uncertainty tempers first reactions at Kent Hospital
The response began at the end of a particularly busy night shift for Kent Hospital, the closest facility to the nightclub.

“We were first notified about...”

Nightclub fire response saves lives at two local hospitals
A well-organized response by hospitals, first responders, and regional officials is the key to saving lives during an emergency. Two hospitals in Rhode Island demonstrated this when they put their response plans into action as victims started arriving from the horrific fire at The Station nightclub in West Warwick.

Even though most of the 99 fatalities died at the scene, officials credit the well-trained staffs and organized responses of Kent Hospital in Warwick and Rhode Island Hospital (RIH) in Providence with saving the lives of countless others.

When the smoke cleared from the fire, Kent handled a total of 82 victims, while RIH treated 65.

Disaster plan case study

Look at your bioterror plan to set up SARS response solutions
Don’t assume geography will keep your community immune from severe acute respiratory syndrome (SARS). Even though the virus originated halfway across the globe, today’s mobile society can land an unsuspecting carrier of SARS in your emergency room regardless of where you are located.

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East coast hospital staff dons the gear on quick notice
For example, when Windham Community Memorial Hospital in Willimantic, CT, received...
word that a suspected case from a nearby university would arrive in 30 minutes, staff immediately grabbed gowns, gloves, air filter masks, and goggles, according to a story in the *Wall Street Journal*.

Upon arrival, staff members whisked the patient into a negative air pressure room for treatment. Meanwhile, local and state health department officials looked for symptoms in anyone who had recent contact with the patient, the newspaper said.

“Not only did this response use elements of the bioterror plan, but it also made good use of the community surveillance program,” MacArthur says. Notifying the health department allowed them to look at specific data and information to see other suspected cases in the area.

**Tip:** You won’t always get a heads-up that a SARS patient is coming to your hospital. “Make plans now for how to adopt your bioterror response plan to handle an unannounced SARS patient,” MacArthur says. “Work with your infection control officer to formulate those plans.”

**Recognizing the symptoms**

The key to knowing that a case is present in your hospital or community is to recognize the symptoms of a patient with SARS, says Rene Patterson, CSP, infection control officer for Ingham Regional Medical Center in Lansing, MI.

These symptoms include an unknown respiratory illness that began after February 1, a temperature over 100.4 degrees, and either a cough, shortness of breath, or difficulty breathing. Patients must have either traveled to areas in Asia that have reported community transmission of SARS or have been in close physical contact with someone who recently traveled in the area.

“The Centers for Disease Control and Prevention [CDC] publishes and updates information on SARS, including a set of definitions for the disease which is constantly updated,” Patterson says. “It’s important to know what to look for.” (Go to [www.cdc.gov/ncidod/sars/](http://www.cdc.gov/ncidod/sars/) for the latest information.)

A suspected case of SARS requires that ER personnel move the patient into a negative pressure isolation room for treatment.

**Tip:** Treating SARS patients requires extra precautions. Take the same precautions when treating a tuberculosis or measles patient. Use an N95 respirator mask in addition to gloves and gowns. Remove these items for disposal or sterilization immediately after treating the patient.

**Tip:** An anteroom next to your negative pressure isolation room allows clinical staff to prepare and recover from treating SARS patients. Designate a room only for this purpose in your response plan.

**Tip:** Separate suspected SARS patients from patients diagnosed with SARS. This requires two separate negative pressure rooms. Negative pressure isolation rooms must also have a minimum of six to 12 air changes per hour, Patterson says. Install high-efficiency particle air filters on any exhaust vent from a negative pressure room located within 25 ft of an air intake. Also, keep visitors of SARS patients to an absolute minimum. Provide gowns, gloves, and masks for visiting family members.

**Finding the 411**

You’re not finished once you’ve placed the patient in an isolation room. Take the following steps to begin the surveillance process in your hospital and throughout the local community:

- **Internal action**—Because the virus is transmitted via face-to-face contact, find out where the patient was in the hospital and begin monitoring workers with whom the patient came in contact.

- **External action**—Whatever you do, don’t keep the news secret that you have SARS patients in your hospital. Let other hospitals and the local health department know your situation so they can share it with others.
Keeping track of emergency costs helps recover funds

When Earl Williams, HSP, served as an observer in a 2002 community disaster drill, he asked a participant wearing an incident command system vest marked “finance” about his role. “He said he didn’t know what to do because someone just handed him the vest and told him to wear it during the exercise,” Williams says.

While observing another drill, Williams saw no finance personnel anywhere. Organizers told him that finance issues weren’t a priority during an emergency so they didn’t make any provisions for it in the exercise.

As a hospital safety director and veteran emergency planner with more than 20 years’ experience, Williams knows the errors of not tracking finances during a disaster.

“Hospitals shouldn’t be expected to eat the costs of an emergency,” Williams says. “If the federal government declares a disaster, there is a good chance you can recoup money spent during the incident, but if you don’t have a way to track your costs, you’ll never see any of those dollars.” Hospitals that have undergone numerous emergencies and disasters often have the most experience tracking costs, Williams says.

Familiarity counts in finance matters

One Southern hospital has plenty of practice in handling and paying for emergencies. “We set up a separate cost center for disasters within the normal operating budget,” says Barb Bisset, RN, MPH, director of emergency response, safety management, and special police at New Hanover Regional Medical Center in Wilmington, NC. New Hanover’s location in the heart of the Southeast’s hurricane belt causes the hospital to trigger its emergency response often, so it has a well-defined system for keeping tabs on costs.

“When the emergency is declared, we activate several pre-established electronic patient accounts that are connected to the emergency cost center. Patient treatments and supplies are recorded on these accounts, keeping those costs outside of the normal operating budget,” she says. Once the emergency is over, finance officers review those accounts to determine costs to the hospital.

Tracking employee costs

Another challenge during disasters is distinguishing the different roles employees serve, Bisset says. For example, do shift workers get paid out of regular cost centers when an emergency occurs during their shift? How does the hospital handle overtime?

“The hospital must determine how it is going to classify dollars during an emergency. Once the emergency is declared here, [we charge] all overtime and regular work time to the disaster cost center.”

✔ Tip: Use sign-in sheets for employees to track time spent in disaster mode. For example, employees already on the job will sign in after the emergency is declared. Also, indicate when the employee was either released or the emergency status was terminated for the hospital.

✔ Tip: Proper tracking of employee costs is important. Work with your human resources department to develop a policy for use of sign-in sheets during disasters. This is especially important if you offer incentives and bonuses to employees working during emergency incidents.
Nightclub fire

the fire on the fire department’s radio system at 11 p.m.,” says Brian Wallin, director of marketing and communications for Kent Hospital.

The hospital's location three miles from the site of the fire made it the default treatment center for victims. “We immediately sent a physician to the site to make an assessment and begin triage.”

Hospital officials paged a facility-wide emergency standby code, as the extent of the fire was unclear.

“At first, there was some initial confusion as we thought the dispatchers were saying a gas station was on fire,” says Jean Butler, RN, administrative director of emergency services for Kent.

Once the physician at the scene verified the scope of the tragedy, Kent put its disaster procedures into full effect.

“We cleared out the emergency room [ER] patients as much as we could and started calling employees to come in,” Butler says.

✔ Tip: When calling employees for a nighttime emergency, start by calling those who aren’t working the next day, Butler says.

“We weren’t sure how long this was going to last and we didn’t want people working all night and then facing a full day shift.”

✔ Tip: Regularly assess your notification rosters for access to employees, Wallin says. It’s common for people to have a cell phone in lieu of a home phone, and those numbers often change.

Victims’ arrival dictates response time
Kent also activated its incident command system and told employees from the second shift to remain at their posts even though their shifts were just ending.

This resulted in the presence of more than 60 clinical personnel, in addition to other staff.

Keeping all those clinicians on board proved to be beneficial, as the hospital handled 53 patients in the first 45 minutes.

Workers brought in a large supply of dressings while the pharmacy department set up shop right in the ER.

Triage nurses manned two of the ER entrances to take care of critical patients while other workers designated a third entrance for noncritical patients.

But even with all the resources available when the emergency code was called, workers had little time to react before triage and treatment activities began.

“Almost immediately after we were notified, patients began arriving via their own vehicles for treatment,” Wallin says.

When Wallin arrived at the hospital at 11:25 p.m., a
long line of ambulances had already arrived at the ER entrance.

Another hospital gears up for the response

At nearby RIH in Providence, similar activities were taking place.

After notification of the disaster through the state emergency management services radio system, a disaster page went out throughout the hospital.

Workers immediately transferred patients out of the trauma intensive-care unit to prepare for the influx of burn patients from the fire, says Nancy Cawley, senior media relations officer for the hospital.

Employees set up an area in an adjacent building so chaplains and social workers could counsel victims’ family members on what to expect when they saw their loved ones for the first time.

An additional lounge area was set up for family members who needed a break from visiting their injured relatives.

Security and information become crucial

At both hospitals, security officers directed ambulances in and out of the emergency area and pointed friends and family members of victims to lounges where information staff worked.

Wallin set up Kent’s press location on a paved area outside the ER and began regular news briefings, while RIH began talking to the press in a designated room in an adjacent building.

RIH communications staff began faxing media updates at 1:30 a.m. and provided them every hour after that until their first official press conference at 11:30 a.m., Cawley says.

Within both hospitals, disaster workers began to compile lists of fatalities and survivors’ injuries and shared them with the other hospital, police, and fire personnel.

✔ Tip: Evaluate your electronic technology to help circulate information, Wallin says. For example, a Web-based victim and treatment list allows for quick and easy access to information at multiple sites.

Practice drills make for perfect response

Staff at both hospitals say their own training, planning, and internal drills led to the successful outcome.

Additionally, the state emergency management office ran a drill at Warwick’s T.F. Green Airport in June 2002 during which 155 “patients” poured out of a military cargo plane as victims of a sarin attack.

“The disaster drills proved to be helpful,” Cawley says. “During this event we had incredible teamwork.”

The airport drill identified problems in communications between cities, towns, and first responders, a report in the June 2002, Providence Journal said.

As a result of the drill, the state set up special communications channels to be used by responders only during emergencies.

Emergency managers used those channels during the fire response, but Wallin recommends that emergency planners have other resources available.

“Make sure your area has several levels of communication,” he says. “Ask yourself what would happen if a command center became inoperable, or your regular communications lines broke down.”
When seven surveyors from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) entered the Virginia Commonwealth University Health System (VCUHS) in Richmond, they saw immediate proof of the hospital’s security plan.

“We met them at the door with visitor badges and also asked them to wear their JCAHO identification cards throughout their visit,” says Buz Stancil, safety officer for VCUHS, of the first day of the March 30 survey.

Keeping the sprawling, 825-bed health system on the Virginia Commonwealth University campus protected is no easy task. The system’s 10 buildings cover more than 3 million sq ft and house about 7,000 employees.

Security officers are part of the campus police force’s roster of sworn officers who patrol other areas of the university.

Specific areas garner extra attention
Even though the facility employs more than 100 closed-circuit television cameras and hundreds of swipe card locks, surveyors looked for extra security in certain areas, Stancil says.

These areas included infant wards, pharmacies, the emergency department, and the corrections unit.

“We showed surveyors that department heads must approve of staff who work in those areas. Once that approval is given, electronic key readers are programmed to give access to those employees,” Stancil says.

Additionally, Stancil identified six security performance objectives and assigned them to the hospital’s security management subcommittee of the environment of care (EC) committee. For example, one of those performance objectives was testing all of the infant abduction alarms.

“The subcommittee chair reported to surveyors on how they tested and monitored the infant abduction alarm system. Surveyors were very happy with the results,” he says.

Employees know the right stuff
Surveyors didn’t settle on interviewing executives and managers during their tour. Throughout the five-day survey, they quizzed employees in all departments on emergency and fire procedures.

“We train staff throughout the health system on fire procedures and oxygen cut-off,” Stancil says.

Employees explained their roles during fire emergencies and also showed surveyors the RACE acronym printed on the back of their identification cards. (See sidebar on p. 7 for more information.)

Emergency management hit parade covers the typical issues and looks at community drill
Even though security at the hospital didn’t come up until the EC session on the first day, surveyors were well aware of the measures the hospital took to handle potential security concerns.

“We set the tone right from the start by asking them to wear visitor and JCAHO identification badges,” Stancil says. “They knew we were serious about security.”
When the topic of community participation during emergency planning and a hospital-wide emergency drill came up, Stancil pointed to the health system’s 2002 plague response exercise.

Physicians in the epidemiological department, nursing staff, and members of the emergency preparation committee designed the 24-hour exercise involving other hospitals and the local health department.

“During the exercise, we told each department that a patient suspected of having the plague came though their area at a certain time,” Stancil says.

Each department tracked where the suspected patient traveled in the department, and with whom the patient came in contact. The report included the names of other patients as well as staff members, he says.

“This drill was a real joint effort,” Stancil says. “The surveyor liked our forward approach.”

Other emergency management topics covered by surveyors included:

- **Community involvement**—VCUHS is one of nine hospitals in the central Virginia region, Stancil says.

As the area’s only level-one trauma center, it has the responsibility of directing clinical response during a region-wide emergency.

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**Include training to back up RACE awareness, expert says**

When Joint Commission on Accreditation of Healthcare Organizations (JCAHO) surveyors quizzed employees at Virginia Commonwealth University Health System on fire drill procedures, staff quickly showed the RACE acronym printed on the back of their hospital identification cards.

The acronym is common to many hospitals and stands for

- **Rescue the patient**
- **Sound the Alarm**
- **Confine the fire**
- **Extinguish and evacuate as necessary**

The idea behind RACE is a good one, but no one has time during a blaze to figure out what to do; staff members should know it automatically, says Steve Bryant, practice director of accreditation at The Greeley Company in Marblehead, MA. Greeley is a division of HCPro, Inc., the publisher of *HSEM*.

Employees at any hospital can rely too much on the little cheat sheets printed behind their identification badges.

Therefore, employees should truly understand the procedures, instead of just memorizing the acronym. RACE cheat sheets can be a helpful way to remind staff members about fire policies every time they put on a name badge, but complement this friendly reminder with real training that helps people understand the intent of the strategy, Bryant says.
Good communication between hospitals and local police, fire, and paramedic units is crucial to properly execute this role.

“The hospital is connected by radio to the other hospitals in the region to solicit immediate response capabilities after a regional emergency is declared. We check with the other hospitals in the region to see how many patients they can handle, and then make the decision on where to send them.”

- **Incident command**—The health system’s efforts to create an incident command system (ICS) began nearly a year ago, and Stancil admits it is still a few months away from putting the final plan into practice.

Regardless, surveyors looked at current ICS documentation and were satisfied with the hospital’s progress.

- **Hazard vulnerability analysis (HVA)**—A computer spreadsheet lists potential threats against the facility, Stancil says. He analyzed internal and external threats separately, and worked with clinicians and engineers to determine overall scores.

“We looked at threats to patient care, the building and infrastructure, and threats to the community,” Stancil says.

“The surveyor took note of the fact that we also received weather and other regional hazard information from the local Red Cross chapter and incorporated that data into our HVA.”

**Summary sheets provide quick review**

Like with other hospitals, the security management plan at VCUHS is well over 100 pages. To make tasks clearer to managers, Stancil set up each plan according to the appropriate JCAHO standard and its intent statement.

Distinctive “pointing finger” icons next to specific paragraphs tell managers of their responsibilities.

“Surveyors like the fact that managers could flip through pages and use the icons to distinguish what actions were necessary for their departments,” he says.

To help surveyors, Stancil developed a one-page summary sheet addressing each standard and its intent covered in the management plan and attached the sheet to the plan’s page.

Surveyors reviewed both the management plan and its summary sheet at the same time. See p. 9 for a sample summary sheet.
Intent statement summary sheet

The following one-page summary sheet allows you to show surveyors in a concise format how you complied with an accreditation standard. Attach this sheet to the security management plan allowing surveyors to see how you complied with the standards covered in the plan. See the Comprehensive Accreditation Manual for Hospitals for the exact wording of the standard.

**Standard EC.2.10.1**
The organization maintains, tests, and inspects safety elements of the environment of care.

**Intent of EC.2.10.1**
The organization performs hazard surveillance surveys at least every six months in all areas in which patients receive care and in other areas at least annually to identify environmental deficiencies, hazards, and unsafe practices.

**Results**

- All hospital facilities were inspected twice in 2002
- ___ recommendations were submitted
- The 10 most common recommendations were:
  1. 
  2. 
  3. 
  4. 
  5. 
  6. 
  7. 
  8. 
  9. 
  10. 

*Source: Virginia Commonwealth University Health System. Reprinted with permission.*
Attention rural and community hospitals: Take these steps when the national threat level changes

Do hospitals outside of urban areas need to make changes in security or emergency planning in response to a rise in the national threat level?

Hospitals in smaller and rural communities don’t face the same threats as large urban hospitals, but still must take action when the threat level changes, says Fred Peterson, MPH, chair of the health and hospitals committee of the Southwestern Pennsylvania Metropolitan Medical Response System, and a staff member of the Hospital Council of Western Pennsylvania.

“No one is immune from threat,” Peterson says. “Take a hazard vulnerability analysis approach to preparing for threats.

“Look at the credibility of the threat level in relation to your area, and make your plans as necessary.”

For example, excluding Pittsburgh, there are no major metropolitan areas in western Pennsylvania where a mass-casualty incident similar to the World Trade Center attack can take place.

However, there are several nuclear plants in the area, ports in the city of Erie, and a vast interstate highway system that present various scenarios for a weapon-of-mass-destruction or a bioterror attack.

But what exactly should a hospital do? Peterson recommends the following steps:

- Review the next several days’ planned admissions and decide which to defer in response to a surge of victims from a terrorist incident.
- Count the number of beds that are ready to accept patients from a remote location impacted by a terrorist event. Look at your local National Disaster Medical System activation plans.
- Review the operating room schedule for the next several days and determine what surgeries to cancel in favor of acutely injured victims.
- Review your incident command and disaster response protocol with key personnel, especially second and third shift personnel.
- Review the work schedules of all key management personnel for the next several days.
- Test key communications and pager links. Contact your county emergency management agency and 911 call center and ask for a test of all communications links.
- Communicate your preparatory activities to medical staff leadership.
- Remind employees, medical staff members, volunteers, and others that official photo identification cards are required once the emergency management plan is activated.
- Understand your local school district response plans so employees can react appropriately if school activities are canceled.
- Review clinical information about any substance found recently in terrorists’ possession, such as ricin or anthrax. Go to www.bt.cdc.gov or www.jama.com for more information.
- Advise dietary and food staff to inspect deliveries carefully and to be suspicious of any damaged, open, or partial shipments.
In the news

Security
Suspicious package causes evacuation
Police and hospital security at the University of California–Los Angeles Medical Plaza used fire drill plans to evacuate staff and patients after hospital security received a call on April 2 reporting a “suspicious package,” according to a story in The Daily Bruin.

Police cordoned off the area around the package—a hollowed-out book—and waited for the Los Angeles Police Department bomb squad to arrive. Staff and patients of the clinics remained near the street while bomb squad officers did their work.

Police determined that the book was not a bomb, but instead contained a stash of marijuana, the newspaper says.

Motive not known in MA hospital shooting
An administrative worker at Massachusetts General Hospital shot and killed a doctor before turning the gun on herself in an apparent murder-suicide in April, the Boston Globe reports.

Colleen Mitchell, 51, allegedly carried an unlicensed handgun into the office of Brian McGovern, a physician in the electrophysiology lab and shot him three times before committing suicide. Mitchell worked in the lab near McGovern’s office, but was not his assistant.

Police recovered the handgun from inside the office and said no one else was there when the shooting occurred, the newspaper says. As of presstime, police still don’t know Mitchell’s motive for the shooting.

Even though the incident caused chaos around the front entrance of the hospital, police quickly determined there were no other suspects and did not shut down the entrance, the report says.

Emergency management
Congress approves smallpox compensation plan
Congress on April 11 approved a package of payments for people injured by the smallpox vaccine, the Associated Press reports.

People disabled by the vaccine could get up to $50,000 per year in lost wages—significantly more than the Bush administration proposed. For months, the administration resented proposing compensation, a move that many blamed for the low response from health care workers asked to receive immunizations.

Three people have died this year after receiving vaccinations, but authorities are unsure whether the vaccine caused their heart attacks. Reactions include severe rashes, blindness, and life-threatening infections.

The legislation includes the following provisions:
- Families of people who are killed by the vaccine and die without dependents are entitled to a lump sum payment of $262,100, an amount based on an existing compensation program for police and firefighters.
- Executors of estates of those who die and have dependents could choose the lump sum payment or up to $50,000 per year to make up for the deceased’s lost wages. The payments would continue until the victim’s youngest child reaches age 18.
- Those who are totally and permanently disabled would get up to $50,000 per year for lost wages until age 65, with no cap.
- Those who are permanently but not totally disabled, and those with temporary disabilities, would get lost wages up to a maximum of $262,100.

Bush’s original plan would pay people lost wages only after five days of missed work. Under the new deal, a person who misses work for at least 10 days would get pay for every lost day.
Emergency Prep Digest

Local CA sheriffs organize network meeting

The Orange County (CA) Sheriff’s Department’s Terrorism Early Warning Group met with more than 80 security representatives from Orange and Los Angeles county hospitals on March 14 to discuss plans and tactics, according to a story in the Orange County Register.

The law enforcement agency wants hospitals to address threats quickly and plan for mass-casualty events so the facilities won’t be in a similar situation as Tokyo hospitals after the 1995 sarin gas subway attack. More than 5,000 patients descended on hospitals seeking treatment after that incident.

Many hospitals have plans in place already, but meeting with their colleagues allowed the security managers to share concerns and problems with their peers and make improvements to their own plans, the newspaper said.