

What Keeps You Awake at Night?

By Caryl Lee, RN, MSN, NCPS program manager, and Tina Nudell, MS, NCPS instructional systems specialist

IN MAY 2003 and several times in 2004, NCPS conducted day-long patient safety training sessions for VA facility leadership teams.

Directors, chiefs of staff, nurse executives, patient safety managers and other administrative and clinical leaders participated in these sessions.

The participants listened to presentations about patient safety and human factors engineering. A number of special topics were also discussed, such as the 38 USC 5705 confidentiality regulations, business case for patient safety, and physical plant assessment.

The leadership teams also participated in roundtable discussions. Several key questions were used as a basis of these discussions, including:

- 1.) What keeps you up at night?
- 2.) What are the most valuable patient safety initiatives implemented at your facilities?
- 3.) What are your strategies for changing the safety culture in your facility?
- 4.) How can the quality and value of root cause analyses (RCAs) be improved?
- 5.) What are your strategies for providing patient safety education for trainees (medical residents/students, nursing and allied health students) at your facility?

Among a broad range of responses to each question, we found enough similarities to condense the responses into meaningful categories.

Please turn to the back page to view the tables that provide the responses to the five questions.

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Read-Back — It's Not Just for Nursing Units

By Mary Burkhardt, MS, RPh, NCPS program manager

MR. SMITH WAS SENT for a CT scan in the afternoon on an emergency basis. Because of a previous minor reaction to contrast media the provider phoned in a pre-treatment medication.

The provider called the technician, who took the phone order, and the patient received the medication before the procedure. Upon reviewing the treatment records after the fact, the provider realized that while there had been no harm to the patient, the wrong drug had been given as a pre-treatment.

The patient safety manager reviewed this medication event report and realized that there had been a communication failure during a verbal order for the medication, which

involved a sound-alike medication. Neither "Read-back" nor "Repeat-back" had been used.

The PSM realized that despite the fact that the diagnostic areas of the hospital (such as radiology, cardiac catheterization lab, nuclear medicine, and endoscopy) are active patient care areas, no one had thought to implement the JCAHO patient safety goals dealing with high-risk communication in these areas. Many therapies, tests and medications are ordered there which may require the use of phone orders, patient identification procedures, hand hygiene practices, and administration of high alert drugs.

Inpatient care areas such as medical surgical, behavioral health, etc., are often the routine focus of

patient safety educational programs and awareness campaigns. However, patient safety initiatives often span across other departments and functions, so it is easy to understand how some areas might be overlooked.

In this case, the PSM brought the issue to the patient safety committee, and the diagnostic areas implemented "Read-back." A representative from those areas was added to the committee. The patient safety committee subsequently developed a check list of "areas" and "functions" to proactively assure that no area would be left out of future patient safety initiatives.

Have any areas of your facility fallen below the radar screen?

Hand Hygiene and Diarrheal Diseases in Healthcare Settings

By Noel Eldridge, MS, NCPS executive officer, and Linda Danko, RN, MSN, VHA infectious diseases clinical program coordinator

THE CDC, and other organizations that have followed their lead, such as JCAHO and VA, have put increasing emphasis on the importance of the use of alcohol-based hand rubs by caregivers and other staff members working in healthcare settings.

Although using an alcohol-based hand rub is usually the best way to routinely decontaminate hands, there are particular times when washing with soap and water and increasing the use of gloves are the best ways to prevent healthcare-associated infections.

This is the case for Norovirus and *Clostridium difficile* (also known as Norwalk-type virus and *C. diff*), two important pathogens against which alcohol-based hand rubs are not generally effective. These pathogens are frequently the cause of serious cases of diarrhea in healthcare settings. Both Norovirus and *C. diff* can create facility-level outbreaks and lead to significant illness or death, especially in patients who are already immunocompromised or frail.

On the microscopic or molecular level, Norovirus and *C. diff* have surface properties that make them very difficult to kill with alcohol or many other antimicrobial compounds used in hand hygiene products. Because of this, the use of gloves should be emphasized to reduce the likelihood of these infectious agents accumulating on caregivers' hands. The most effective way to eliminate them is to wash them down the drain using soap and water.

The detection, diagnosis, and treatment of diarrheal diseases, such as those caused by Norovirus or *C. diff*, is beyond the scope of this article. For further information, VHA has issued an information letter on Norovirus: vaww1.va.gov/vhapublications/ViewPublication.asp?pub_ID=757. A VHA information letter on *C. diff* is being drafted. Excellent resources are available online at the CDC Web site: www.cdc.gov/ncidod/hip/gastro/ClostridiumDifficile.htm.

For both pathogens, special environmental cleaning and disinfecting of potentially contaminated surfaces is also required. The focus of this effort is on high-touch areas such as: doorknobs, light switches, faucet handles, bedrails, wall areas around the toilet in patients' rooms, and edges of privacy curtains. Areas such as these may have been contaminated with feces or touched by symptomatic patients or their caregivers.

When the transmission of *C. diff* or Norovirus is of concern, the CDC-recommended approach to environmental infection control is meticulous cleaning followed by disinfection using an EPA-registered hypochlorite-based disinfectant as appropriate. Generic sources of hypochlorite (e.g., household chlorine bleach) may also be appropriately diluted and used. Additional guidance on cleaning and disinfection is available at the CDC Web site noted above.

Norovirus is the most common cause of acute gastroenteritis in the United States. In addition to diarrhea, Norovirus causes other gastrointestinal symptoms such as nausea and vomiting. Norovirus is spread by the fecal/oral route.

Because virus particles are present in feces, some particles can make the trip from fecal matter to bedding, commodes, or other surfaces. From these locations, the particles can be picked up on the hands of caregivers or other staff members; worse, directly to mouths of caregivers or patients.

Unlike many other viruses, a relatively small number of Norovirus particles can cause illness, possibly as few as 10 particles. A special concern about Norovirus is that those infected can continue to shed virus particles in their stool after acute symptoms dissipate. Further, Norovirus outbreaks in healthcare settings can originate from infected food workers just as easily as from new inpatients. The CDC reports that a majority of all Norovirus infections are food-borne.

C. diff is a bacterium that is the most frequently identified cause of healthcare-acquired diarrhea. In the majority of cases, it is transmitted to a patient during an inpatient stay; in rare cases, it is found in a patient's normal intestinal flora, especially infants and very young children.

C. diff often thrives when certain antibiotics are used to kill other bacteria that are present in the body. The antibiotics kill the bacteria that normally protect against *C. diff* in the colon. If the patient is then exposed to the *C. diff* bacteria, it grows rapidly. The increasing population of bacteria produces toxins that become present in the colon at a sufficient concentration to cause serious illness (a form of colitis) that can be life-threatening if not addressed.

C. diff spores can persist in the environment for many months. The two major reservoirs of *C. diff* are infected humans (symptomatic or asymptomatic) and inanimate objects. Patients exhibiting symptoms of diarrhea are thought to be the most significant source of new infections. The hands of caregivers are thought to be the primary way that the bacteria are spread from one patient to another.

In summary, Norovirus and *C. diff* are exceptions to the general rule that pathogenic microorganisms can be removed more effectively with alcohol-based hand rubs than hand washing with soap and water. When diarrheal diseases are present in healthcare settings and Norovirus or *C. diff* are suspected, hand hygiene should be focused on two main areas:

- (1) increased use of gloves to protect hands from contamination; and
- (2) the use of hand washing with soap and water to decontaminate the caregivers' hands.

The authors would like to acknowledge Dr. Dale Gerding, VAMC Hines, and Victoria Davey, VHA Office of Public Health and Environmental Hazards, who contributed to the content of this article.



Safety Spotlight: Telephone Triage Protocol

Background

A PATIENT CALLED a facility's telephone triage line to complain of shortness of breath, tightness in his chest, and pain in the left shoulder. The triage provider instructed the patient to call back if symptoms became markedly worse or did not improve. Primary care was alerted to schedule an appointment for the patient, a deviation from the telephone triage protocol. If the triage protocol had been strictly followed, the complaint of shortness of breath and shoulder pain would have been managed as chest pain, resulting in immediate referral.

Four days later, the patient again called telephone triage with identical complaints. The disposition of the second call was again non-emergent, with instructions to call back if symptoms became markedly worse or did not improve. Again, if the triage protocol had been followed, the complaint of shortness of breath and shoulder pain would have been managed as chest pain.

The following day, the patient went to his local, non-VA emergency room with complaints of shortness of breath and lung pain. Upon being examined, the patient coded, suffering an acute myocardial infarction.

Root Cause/Contributing Factors

Root cause/contributing factors (1): The lack of a barrier to prevent deviations from the telephone triage protocol can result in an incorrect, less urgent disposition.

The telephone triage protocol contains references to a chest pain management protocol for symptoms such as shortness of breath, tightness in the chest and shoulder pain. No forcing function or barrier, however, exists within the telephone triage documentation system to prevent deviations from the protocol. This can result in a less urgent disposition than appropriate; plus, it increases the likelihood that possible deviations

from the protocol will not be brought to the attention of a telephone triage provider.

Root cause/contributing factors (2): A second call for same complaint was not correctly prioritized.

The second call for the same primary complaints and symptoms was not assigned a higher priority level for immediate intervention. Policy and procedure in telephone triage did not provide clear step-by-step instructions for prioritizing a second call for the same complaint. This increased the likelihood that a second call would not trigger a more urgent disposition.

The Five Rules of Causation

The team followed the Five Rules of Causation (www.va.gov/ncps/SafetyTopics/CogAids/RCA/index.html) to focus on how and why these events occurred, rather than on who was involved. The rules provide a systems-based approach to understanding the root causes of adverse events, moving caregivers beyond the simplistic “name and blame” culture of the past.

Rule three states that each human error must have a preceding cause, leading the team beyond the caregivers’ involvement to the structure of the telephone triage system.

Further, rule four states that violations of procedures are not root causes; they must have a preceding cause. In the old days, an investigation into such events might well have ended with a wrong-headed, blame-based solution, such as: “The telephone triage provider did not correctly follow the protocol.”

Actions Taken and Recommended

Based on the lack of forcing functions and barriers, the RCA team's first recommendation was to pilot test and implement an electronic telephone triage documentation and decision support system.

Such interactive decision support systems for telephone triage are designed to prevent protocol deviations and can decrease the likelihood of adverse events. For instance, when a telephone triage provider enters symptoms into this type of support system, the system automatically designates patient care or evaluation. Some examples of this are: “call 911 now,” or “seek emergency care now,” or “seek urgent care within two-to-four hours.”

The team also recommended a telephone triage Quality Assurance (QA) monitor to review and track deviations from the protocol and provide feedback to practitioners for performance improvements. To measure the effectiveness, it was recommended that random chart audits of records in the QA monitor be conducted; further, that all staff audited be provided with timely feedback based on the findings.

Pertaining to the second call, the RCA team recommended high-priority “targeted education” concerning the chest pain protocol and communication between caregiver and patient.

The team also recommended that policy and procedure for telephone triage be revised to include clear, step-by-step instructions for prioritizing the disposition of a second telephone triage call for the same primary complaint. Further, the team recommended that all appropriate staff members receive in-service training.

The RCA team's recommendations on the second call do not include the mention of forcing functions, such as are used in decision support systems. Because these recommendations rely strictly on policies, procedures and individual actions, they should be considered weak.



What Keeps You Awake At Night? *(continued from front page)*

Those who participated in roundtable discussions during the patient safety training sessions for VA facility leadership teams discussed a number of issues. Among the broad range of responses to several specific questions, enough similarities were found to condense the responses into meaningful categories. Below is how these VHA leaders answered five specific questions.

How do these answers measure up to your experiences and opinions? Do they generate new ideas for you as they did for the VHA leaders?

What keeps you awake at night? *(Total responses: 102)*

- 26% Patient care issues (e.g., adverse events)
- 25% Increased pressures regarding resources and staffing (e.g., adequate resources)
- 23% Communication issues (e.g., under-reporting of events)
- 11% Culture issues (e.g., how to move to "no fault")
- 10% RCA process issues (e.g., implementing follow-up of actions)
- 5% General safety concerns/disaster/other

What are the most valuable patient safety initiatives implemented at your facilities? *(Total responses: 119)*

- 45% Initiatives related to specific types of events
 - 31% Falls
 - 28% Meds
 - 15% Surgery
 - 9% Mis-identification
 - 7% Missing patient
 - 6% Suicide
 - 4% Diagnostics/lab
- 19% Getting word out (e.g., town meetings, environmental rounds, newsletters)
- 12% Use of Human Factors Engineering, HFMEA, RCA
- 8% Event/close call reporting (e.g., anonymous hotline)
- 7% Equipment/physical plant changes (e.g., alarms)
- 5% Work process changes (e.g., streamline)
- 4% Computerization (e.g., alerts, reminders)

How can the quality and value of RCAs be improved? *(Total responses = 108)*

- 30% Improve RCA team selection and training, reward reporting, reward RCA team members
- 27% Leadership endorsement of RCA process (and share RCA successes)
- 22% Improve implementation, tracking and evaluation of actions
- 15% Improve RCA technical aspects and timeliness
- 4% Continued NCPS support, feedback and recommendations
- 2% Other

What are your strategies for changing the safety culture in your facility? *(Total responses = 137)*

- 35% Training/getting word out (e.g., newsletters, lunch-and-learn, in-service education)
- 30% Patient safety structure/process built in (e.g., patient safety built into strategic plan, patient safety manager participates in purchasing decisions)
- 24% Leadership tactics (e.g., environmental rounds, making patient safety the first agenda item in "morning report")
- 6% Rewards (e.g., on-the-spot awards)
- 5% Focus away from blame (e.g., prevention not punishment)

What are your ideas/strategies for providing patient safety education for trainees (medical, nursing and other professions) at your facility? *(Total responses = 131)*

- 48% Annual, mandatory, and ongoing training
 - 17% Brochures/handbooks/badge attachments/newsletters/posters
 - 14% On-line computer self-study
 - 14% Lectures, in-services
 - 10% Patient Safety Fairs
 - 10% "Just-In-Time" training
 - 8% Staff meetings/M&Ms/AM report
 - 8% Rounds
 - 8% Ongoing training
 - 6% Surveys
 - 3% Videos
 - 2% Simulations
- 23% Specific training/orientation (e.g., new employee, resident, customized)
- 11% Leadership (e.g., executive buy-in)
- 8% RCA team participation/feedback (e.g., include trainees)
- 6% Other
- 2% School curriculum
- 2% Employee recognition/rewards/incentives

TIPS is published bimonthly by the VA National Center for Patient Safety. As the official patient safety newsletter of the Department of Veterans Affairs, it is meant to be a source of patient safety information for all VA employees. Opinions of contributors are not necessarily those of the VA. Suggestions and articles are always welcome.

VA National Center for Patient Safety
P.O. Box 486
Ann Arbor, MI 48106-0486

Phone:(734) 930-5890

Fax:(734) 930-5877

E-mail:ncpstips@med.va.gov

Web sites:Internet - www.patientsafety.gov

Intranet - vaww.ncps.med.va.gov

NCPS DirectorJames P. Bagian, MD, PE

EditorJoe Murphy, APR

Asst. Editor, Layout & DesignJean Alzubaydi, MA

Thanks to all contributors and those NCPS program managers and analysts who offered their time and effort to review and comment on these *TIPS* articles prior to publication.