

## Contents

Pages 1 and 4:

NCPS Patient Safety  
Centers of Inquiry: An  
Introduction

Page 2:

Participating in Proactive  
Nursing Rounds

Page 3:

A New Effort to Promote  
Fire Safety in the OR

## 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:.....NCPS@va.gov

### Web sites:

Internet....www.patientsafety.gov

Intranet...vaww.ncps.med.va.gov

Acting VHA  
Chief Patient Safety Officer  
Caryl Lee, R.N., M.S.N.

Editor  
Joe Murphy, A.P.R.

Graphics  
Deb Royal

Copy Editing  
Deb Royal  
Stephanie Bergsieker

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.

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.

## NCPS Patient Safety Centers of Inquiry: An Introduction

By Peter Mills, Ph.D., M.S., director, NCPS Field Office, White River, Vt.

Patient Safety Centers of Inquiry (PSCIs) were first funded in 1999 and have made valuable contributions to the improvement of patient safety within the VA and beyond.

For example, the PSCIs have contributed to teamwork and simulation training; the application of usability testing and human factors design to Bar Code Medication Administration; Breakthrough Series Collaboratives, designed to reduce patient falls; and, many other highly significant projects.

We currently have six PSCIs in VISNs 6, 8, 16, 18, 19 and 20 (Note 1) and I am the NCPS point of contact for the PSCI program (Peter.Mills@va.gov). We hope the following list of projects will inspire others in the VA to participate in the program, as well as indicate the depth of commitment to patient safety shown by those who participate (Note 2).

Each PSCI is expected to:

- Develop, implement and demonstrate interventions in multiple VA medical facilities to promote practices that improve patient safety by reducing adverse events; or, that replace or improve practices known to be associated with patient safety problems
- Document that changed practices and/or systems reduce the likelihood of adverse events in multiple VA medical facilities
- Document the methods employed to foster changing practices and systems so that other VA medical facilities can implement similar or identical changes to improve patient safety
- Develop, test, refine and facilitate active distribution of tools and products specifically designed to promote patient safety, such as: clinical tools, cognitive aids, educational materials, policy reports; VA information letters, handbooks, and/or directives. Tools and other output should also be evaluated for effectiveness and impact

### VISN 6 PSCI

Improving patient safety for moderate sedation in the VA is this PSCI's goal. The following projects are currently underway:

- Development of a moderate sedation tool kit (scheduled to be disseminated in FY 2011)
- Study of the hand-over process from OR to ICU
- Improving non-technical skills during cardiopulmonary resuscitation, using high fidelity simulation

- Development of a PSCI human simulation lab  
Key contact: Dr. Jonathan Mark  
(Jonathan.Mark@va.gov)

### VISN 8 PSCI

Falls, wandering and patient transfers are areas this PSCI is working on to improve patient safety. Projects during the past two years have included:

- Fall prevention program customized for inpatient psychiatry
- Unit peer leader program for falls in psychiatry units
- Hip protector tool kit
- Medication algorithms for fall risk in outpatient geropsychiatry
- Hip protector/floor mats tool kit for psychiatric settings
- Safe patient hand-offs for patients at risk for falls in psychiatry
- Business case for falls prevention
- Lab testing of wandering technologies
- Participation in Alzheimer's Association Safe Return Project
- Staff educational tool kit on wandering for community living centers
- Mobility-related equipment redesign for safe use on psychiatry units
- Technology resource guide (bedside floor mats)
- Patient education brochure (Anticoagulation: Preventing Injurious Falls)
- Web-based technology resource guide for low beds
- Multifaceted program to reduce risk for fall injury in acute care
- Fall resource for nurses (improving safety and quality of care in community living centers)
- Fall prevention amputee education tool

Key contact: Dr. Tatjana Bulat  
(Tatjana.Bulat@va.gov)

### VISN 16 PSCI: (New in FY 2010)

The aim of this PSCI is to improve outpatient safety through effective electronic communication. Projects/areas of study include:

- Electronic communication break-downs in follow-up of abnormal diagnostic results
- An instructional tool kit on alert management (includes the top 10 Computerized Patient Record System strategies for alert management)
- Delays in electronic consultation requests in a VA outpatient clinic

# Participating in Proactive Nursing Rounds

By Cheryl Wolf, R.N., B.S.N., patient safety coordinator, VA Medical Center, Dublin, Ga.

Nursing rounds, or “rounding,” is not a new phenomenon, but rather something introduced by the founder of modern nursing, Florence Nightingale.

During the Crimean War, Nightingale was kind and gentle to the soldiers she cared for, talking to them and comforting them as she made her rounds. At night, she carried her lamp to light the way and became known as “The Lady With the Lamp.” Nightingale revolutionized nursing and remains a hero in many of our hearts.

## Research and a New Look at Rounding

I recently read many interesting articles about hourly nursing rounds and was reminded that regularly checking on a patient’s needs during nursing rounds uses the “4 Ps” – Positioning, Personal needs, Pain, and Proximity of personal items (such as the call light) – with the promise of returning in one hour.<sup>1</sup> I can recall performing hourly rounding on the night shift over 30 years ago, as I began my VA career as a new, young, inexperienced graduate. It worked! Team nursing was also in vogue at that time, and there is a lot to be said for the concept. Teamwork requires cooperation and effective communication with all staff members.

How many times have you found an unresponsive patient during the night, when you last had them joking with you a few hours before? Our time now seems preoccupied with admissions, discharges, transfers, bed shortages, staff shortages, care planning, and a barrage of electronic documentation – rather than visibly seeing our patients on an hourly basis. Are we losing sight of the reasons that we selected nursing as our career?

Of course, a major difficulty is how to establish a workday design to make hourly rounding a success. This may be a particular problem in light of the nursing shortages today.

Hourly rounding does incorporate teamwork: It’s a group effort that includes nurse managers, R.N.s, L.P.N.s, nursing assistants, and even the unit secretary. Building a cohesive team on your unit is the first step to success.

I even found a script that nurses can use when conducting the hourly rounding role:

I am here to do rounds. How is your pain? Do you need to use the rest room? Do you need help to reposition (or get up, or get back to bed, or whatever the activity is)? Once all that is complete, the nurse should make sure the call light, telephone, TV remote, bed light, bedside table and tissues are within the patient’s reach. Then tell the patient, Is there anything else I can do for you? I have time now while I am in the room.

Also, someone will be back in about an hour.<sup>1</sup>

Scripting is important for a number of reasons. If a patient is aware of when to expect you back, you have increased their trust and decreased their need to call you. Asking the patient if there is anything else that you can do for them is proactive. The patient might have one more request that they would have called you back for, had you not asked. Fundamentally, patients are more likely to feel that you really do care and are not just “doing your job.”

The benefits of hourly rounding are many. Hourly rounding saves nurses’ time. This time could be redirected to complete other nursing tasks without interruption and improve patient safety.<sup>2</sup>

Fewer interruptions allow more time to complete charting, patient education, etc. A study<sup>3</sup> has also shown that the anticipation of patients’ requests promotes timely and organized care, improves work satisfaction, makes the staff’s jobs easier, and can reduce falls. Patients were more satisfied, too, due to the enhanced care they received. The use of call lights was reduced, since patients knew that the nursing staff would be back to check on them regularly – and this can also help reduce a patient’s anxiety.

Transforming care at the bedside is never an easy task. It requires staff buy-in to the process and additional accountability. Proactive nursing rounds involve the active participation of the staff. It is not a “rote” exercise.

For instance, instead of just popping your head in the door during the night, if you notice one of the patients is awake, you might ask: “Since you are awake, may I assist you to the bathroom?” How many times do patients fall while attempting to go to the bathroom, yet nursing rounds had just been made!

Proactive nursing rounds involve anticipating and being attentive to the needs of your patients. This seemingly simple step has powerful advantages for patients, staff, hospitals and the community as well. Satisfied patients and better patient outcomes enhance the hospital’s reputation.

## Summary

Scheduled patient rounds give nurses and clinical staff a concise updated awareness of their patients’ needs. This awareness is crucial, as it allows the staff to anticipate patient requests.

Wireless communication enhancements, such as cell phones and staff locator systems, are often used to summon staff members who are caring for a patient; therefore, these devices can be used in combination with rounding to optimize communication between patients and staff.

Scheduled proactive rounding can improve staff morale and help with nurse retention. Cost savings can be realized because better patient outcomes reduce the cost of care and may also reduce liability claims against the hospital. Participating in proactive nursing rounds on an hourly basis is truly a win-win situation for everyone involved.

## References

1. Retrieved May 11, 2010: <http://thehappyhospitalist.blogspot.com/2009/11/hourly-rounding-by-nurse-turning-4ps.html> (Not available at publication of this TIPS.)
2. Briefings on Patient Safety, HCPro, Inc., April 2007
3. Meade, C., Bursell, A., Ketelsen, L. (2006). Effects of Nursing Rounds on Patients’ Call Light Use, Satisfaction and Safety, *AJN*, Vol. 106, No. 9, pages 58 – 69

# A New Effort to Promote Fire Safety in the OR

By Joe Murphy, NCPS public affairs officer

The San Francisco VA Medical Center has developed a checklist, "The Surgical Fire Assessment Protocol," which has been placed on the reverse side of the Medical Team Training (MTT) preoperative checklist.

"Before any operation, our OR teams review the preoperative checklist, which now includes questions about fire safety," said Diane Laney R.N., B.S.N., one of the facility's two patient safety managers.

The preoperative checklist was developed as part of NCPS' MTT initiative. The idea for MTT came from the realization that many safety issues in health care are related to miscommunication and the failure of groups to operate as effective teams.

About midway through the preoperative checklist (below), facility OR teams now find a question that asks them to review the reverse side of the checklist (right) and develop a "Surgical Fire Risk Assessment Score."

Confidential: This document is confidential and privileged information from quality management activities under the provisions of 38 U.S.C. 571 not to be disclosed to anyone without authorization as provided for by that law or its regulations. The status provides for fines up to \$25,000 for each violation.

DATE: \_\_\_\_\_ SURGICAL SECTION: \_\_\_\_\_ SECTION CHARGE RN IN OR? Yes No

CASE # \_\_\_\_\_ ATTENDING SURGEON: \_\_\_\_\_

**OR BRIEFING** Introductions of team members and their names recorded on whiteboard. If any, please communicate to the team.

Surgical Items:	Anesthetic
Name / SS# verification	<input type="checkbox"/> NKA <input type="checkbox"/> Yes Allergies
Procedure verification	<input type="checkbox"/> Yes <input type="checkbox"/> NA IV antibiotic
Estimated length of operation	<input type="checkbox"/> Yes <input type="checkbox"/> NA Re-dose
Laterality / Position with safety check (see below)	<input type="checkbox"/> Yes <input type="checkbox"/> NA Special prep
Safety check: lines, sheets, cables free from bed rail? <input type="checkbox"/> Yes	
<b>Surgical Fire Risk Assessment Score:</b> _____ (See reverse for fire risk assessment protocol & scoring)	Pain management (e.g. IV) Temperature control
Surgeon's description of procedure: Conduct of operation, critical aspects of case	<input type="checkbox"/> Yes <input type="checkbox"/> NA DVT Prophylaxis
Equipment/insts/supplies/ medications available <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> NA Beta Blockers
Implants available, sterility verified <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> NA Glycemic Control
<input type="checkbox"/> Yes <input type="checkbox"/> NA Pre-op imaging reviewed & verified	<input type="checkbox"/> Yes <input type="checkbox"/> NA Type & crossmatch
<input type="checkbox"/> Yes <input type="checkbox"/> NA Fluoro, x-ray or ultrasound needed	<input type="checkbox"/> Yes <input type="checkbox"/> NA Blood availability
<input type="checkbox"/> Yes <input type="checkbox"/> NA Pathology notified for frozen section	<input type="checkbox"/> Yes <input type="checkbox"/> NA Special prep
Post-op disposition	Issue(s) identified:
Bed availability	

**TIME OUT** Called by Attending surgeon just before incision (scalpel not provided until Time Out completed):

**CORRECT PATIENT:** RN checks consent; Anesthesia checks armband

**CORRECT OPERATION:** Surgeon says operation; RN checks consent

**CORRECT SITE:** Surgeon says "I see the mark"; RN confirms site

**OR DEBRIEFING**  Completed Case  Aborted Case, list reason

Methodical Wound Exam (MWE) (both need to be checked):

"Call out" by surgeon for MWE: "All sponges are out"

MWE performed

Wound class verified for accuracy/corrected pm  
(Closing circulator RN will verify with surgeon wound class and correct as needed)

Procedure performed verified with surgeon for surgical package

Counts performed: Sponges/Sharps/Instruments

Sponge count verification (3 counts required & checked off):  
 INITIAL  CLOSING  FINAL (count same as INITIALS)

Yes  NA Critical Care Notified or ASU/PACU if it is a change in planned disposition (e.g. admit vs home DC)

How did the case go overall? (Please mark the category that best reflects the team's experience for this case.)

(1)  Major issue(s) (e.g. hand-off, equipment, delays, communication problems) that impacted case - need plan for flu

(2)  Minor issue(s) that impacted case - need plan for flu

(3)  Major / minor issues with patient post-op plan for flu, no impact on case

(4)  Major / minor issues but resolved by team intra-op, no impact on case, no need for flu

(5)  No problems - case went well

Recognition of good teamwork!! (if so, please provide an example):

Intra-op hand-off issue(s)?  No  Yes (please indicate what the issue was):

Delays (if delay occurred, please complete next section if referral was made):

Pre-op delay(s), specify: \_\_\_\_\_

Procedural delay(s), specify: \_\_\_\_\_

Equipment/instrument malfunction

Equipment/instruments/supplies not available

Other: \_\_\_\_\_

Need to revise "Pick List"  Pick list revised

Issue(s) requiring follow-up

Identified issue referred to:

SPD  form filled out

Biomed  work order request

Surgical Section

Anesthesia Service

Nursing Service

Other: \_\_\_\_\_

Name Label

**Surgical Fire Risk Assessment Protocol**

Alcohol-based prep solution dried for >5 minutes. No pooling observed.  Yes  No  NA

(Circle appropriate option)	Y	N
* Surgical site or incision above the xiphoid, or involving airway or pulmonary components	1	0
* Open oxygen source, >40% oxygen (supplemental oxygen via face mask or nasal cannula) potential airway leak, proximity of ETT, double-lumen tube	1	0
* Available ignition source: i.e. monopolar electrosurgery unit, laser, fiberoptic light source	1	0
<b>Total score</b>		

Scoring:  
3 = High risk  
2 = Low risk w/potential to convert to high risk  
1 = Low risk

High Risk Fire Protocol initiated by: Anesthesia provider Surgeon RN Scrub tech (circle one)

**Fire Risk Protocols:**

**Score 3 = High Risk**  
The circulating nurse, surgeon and anesthesia providers take these precautions and communicate at handoff:

**Circulating nurse:**

- Write "Fire Risk High" on dry erase board
- Ensures appropriate draping techniques to minimize oxygen
- Suction by O<sub>2</sub> prongs to "scavenge" O<sub>2</sub>
- Maximizes the perimeter around the incision point.
- Confirms verbally the heat source setting.
- Assesses that enough time has been allowed for fumes of alcohol-based prep solutions to dissipate (minimum of 3 min)
- Use of saline-dampened sponges
- Basin of sterile saline and bulb syringe are available for fire suppression
- Places laser in "standby" mode when not in use. Secures laser foot pedal to prevent accidental activation

**Anesthesia provider:**

- Notifies the surgeon and documents if O<sub>2</sub> concentration >40% or risk of air leak present
- Before an ignition source is activated:
  - Reduce the oxygen concentration to 40% or less if possible
  - Stop the use of nitrous oxide

**Surgical Tech:**

- Water or saline available for the surgical field.
- Wet sponges
- Suction always available on field
- ESU in holster when not in use; light source turned off when not in use

**Surgeon:**

- Before an ignition source is activated:
  - Wet sponges used as barrier between ESU and oxygen source
  - Announces the initial intent to use an ignition source
  - Verifies that the anesthesia provider has reduced the O<sub>2</sub> concentration to the minimum acceptable level for 1-3 min before using ignition source.
  - Confirm verbally the heat source setting - minimize ESU setting if possible

In Case of Fire:

- 1) Shout "Fire"
- 2) Remove ETT (if airway fire)
- 3) Turn off O<sub>2</sub>
- 4) Throw saline on field

Revised 9/15/10br

A fire risk is initially developed from questions at the top of the protocol. If the score adds up to three, the risk is considered to be high and the entire back of the form must then be completed. The protocol was initiated at the medical facility in September 2009 after it had been developed by an interdisciplinary team.

"It wasn't a difficult sell to the chief of surgery and the OR staff," Laney said, "the protocol heightens the awareness of all staff regarding the potential lethality of a surgical fire."

Laney also said the communication level among OR staff members has improved, which is a critical aspect of providing safe, quality care.

The checklists are available online in conjunction with this issue of TIPS: [www.patientsafety.gov](http://www.patientsafety.gov)

# NCPS Patient Safety Centers of Inquiry: An Introduction

(Continued from page 1)

- Communication through the computerized provider order entry window
- A national survey of VA primary care providers regarding the use and usability of the alert notification system at various VA facilities
- Interventions to reduce volume of alert notifications
- Does making an alert mandatory improve follow-up?
- Qualitative analysis of electronic communication break-downs in alert notification and the referral process
- Do amended imaging reports create opportunities for missed or delayed diagnosis/treatment?

Key contact: Dr. Hardeep Singh

(Hardeep.Singh@va.gov)

## VISN 18 PSCI (New in FY 2010)

This PSCI is the VA's Center for Evaluation of Human Factors in Reprocessing Safety, studying the human factors that influence the reprocessing of reusable medical items.

Projects thus far include the following:

- Supply Processing and Distribution (SPD) immersion: Gain understanding of SPD and the reprocessing environment from the user's perspective through participation in reprocessing observations, informal staff interviews, and SPD training
- Heuristic evaluation: A human factors method for identifying usability problems within a product or procedure
- Usability testing: Novice participants simulate reprocessing an endoscope to identify the most commonly made errors, yielding opportunities for training improvements and product design implications
- Expert interviews: Using the knowledge of expert reprocessing technicians at three VA sites to identify problem areas and common difficulties in endoscope reprocessing

Preliminary results: Thus far, project findings have shown converging evidence of three themes that appear as primary factors contributing to error in endoscope reprocessing: lack of visibility, high memory demands, and inconsistent feedback.

The PSCI is also currently working to develop and disseminate products, including: The top five problems in endoscope reprocessing for novice users; recommendations to manufacturers' on product

redesign; recommendations for training; and, manuscripts.

Key contact: Emily Hildebrand  
(Emily.Hildebrand@va.gov)

## VISN 19 PSCI (New in FY 2010)

As the VA Center for Human Factors in Patient Safety, the overall goal of this PSCI is to add a human factors engineering approach to patient safety improvement tools used at the VA. Currently, the PSCI is focused on reducing hazards and risks associated with central line associated blood stream infection. The PSCI is pursuing:

- Human factors-based assessment of current best practices to manage patient safety risks in the context of hospital-acquired infections (HAIs)
- Development of a human factors-based intervention to improve patient safety in the context of HAIs
- Assessment of a human factors-based patient safety intervention
- Development and implementation of a human factors education program that provides human factors-based training and that disseminates human factors knowledge regarding patient safety
- Integration with local and national patient safety improvement activities

During this PSCI's first year, the best practices to reduce central line-associated blood stream infection and obstacles to increase compliance with best practices were identified. One of the challenges noted was a lack of standardization of equipment used for central line insertions, and maintenance, in conjunction with overall complex procedures.

By using a human factors approach, with the goal of reducing the cognitive demand of the procedures while supporting compliant behavior, an insertion kit and a maintenance kit were developed.

Currently, the PSCI is in the process of collecting data on baseline performance for peripheral and central line insertion and maintenance. After completion of 14 weeks of data collection, the new kits will be introduced and post intervention data will be collected for another 14 weeks. The focus of the data collection will be assessing protocol compliance and hazards. In parallel, the PSCI is developing a human factors education program and a VA Intranet Web site to disseminate human factors knowledge relevant to patient safety.

Key contact: Frank Drews Ph.D.  
(Frank.Drews@va.gov)

## VISN 20 PSCI

Focused on medication reconciliation, work in this PSCI includes:

- Fostering a patient-centered model of medication stewardship
- Identifying medication discrepancies for the purpose of reducing medical errors and system-based root causes of error
- Developing system-based strategies and cognitive heuristics to better predict and recognize high-risk prescribing situations
- Integrating of highly reliable business processes into enterprise operations
- Applying human factors engineering principles (e.g., heuristic evaluation, usability testing) to the evaluation and installation of clinical decision support systems

The PSCI developed the "Automated Patient History Intake Device" in 2007 to support completion of medication reconciliation tasks in ambulatory care, which they continue to evaluate. The long-term goals for this PSCI are:

- Design, implement, and test a suite of medication reconciliation tools that address major interfaces in care (hospital admission, hospital transfer, clinic-based encounters, home health encounters)
- Identify and manage the unique system-of-care barriers intrinsic to specialty care venues (where the primary prescriber is unavailable)
- Create a modular medication reconciliation solution strategy that could be installed at other interested hospitals within the VA

Key contact: Dr. Blake Lesselroth  
(Blake.Lesselroth@va.gov)

## Notes

1. VISN stands for Veterans Integrated Service Network, which is a regional office that oversees a number of VA medical facilities in its geographic area. A list is available online: [http://www2.va.gov/directory/guide/division\\_flsb.asp?dnum=1](http://www2.va.gov/directory/guide/division_flsb.asp?dnum=1)

2. The author would like to thank all the PSCI points of contact listed above, and their staffs, for their help with this article.