

## Top Ten Myths about Patient Safety Information System (SPOT) Safety Reports

By Erik Stalhandske, MPP, MHSA, NCPS program manager, and John Gosbee, MD, MS, NCPS physician director

QUESTIONS FROM THE VA safety staff have revealed misconceptions about Safety Reports that are reported to SPOT. Safety Reports are important even though they do not require a Root Cause Analysis (RCA). This article, therefore, is offered to discuss the top ten myths that surround these reports and increase understanding of their value.

Safety Report data is entered into questions 1-7 in the NCPS SPOT database (see Figure 1, page 4). The data includes: date of event, Safety Assessment Code (SAC) score (actual and potential), and a one-to-two paragraph description of the event. If the actual and potential SAC scores are both less than three, the facility is not required to do an RCA. A button on the initial SPOT screen allows entering the data as a safety report into the facility database while simultaneously transmitting the information into SPOT.

**Myth 1:** For patient safety managers (PSMs), facilities and networks, there isn't a downside for failing to enter Safety Reports into the SPOT database.

**Reality:** There most certainly is a downside to not reporting. Failing to enter a Safety Report deprives others throughout the VA of information that can be used to identify and address systemic vulnerabilities. Whether in program development, such as ensuring correct surgery, or investigating other areas, such as tissue processing in labs or retained foreign objects, Safety Reports have been a critical component of safety programs, and have been invaluable in mitigating potential hazards. The requirement to enter this data has been clearly communicated at all levels of the organization, and is considered a required and critical component of a well-functioning program.

**Myth 2:** It takes too long to enter reports.

**Reality:** Entering a single Safety Report

takes no more than approximately three minutes, if the description is no more than a couple of paragraphs in length, as has been verified through time trials with those having average computer skills. Currently, facilities on average enter three Safety Reports per week (less than ten minutes to input). If this were increased tenfold, PSMs would spend about one-and-one-half hours a week, less than 5 percent of their time, on this task.

### 12 Steps to Entering Safety Report Data

- 1) Open SPOT and Log-In
- 2) Click on "Start New Event"
- 3) Enter "Event Date"
- 4) Enter "Date Aware"
- 5) Enter "SAC Actual"
- 6) Enter "SAC Potential"
- 7) Enter description of event
- 8) Choose type of event
- 9) Check if possible alert; if "yes" enter text
- 10) Check if contract care
- 11) Click on "Safety Report" button
- 12) Click on pop-up button to confirm sending report

**Myth 3:** These reports add little value to facilities.

**Reality:** In some facilities, PSMs have been able to use the aggregated safety reports as an "early warning system" about systemic flaws, initiating needed changes. For instance, one PSM made a request to NCPS to investigate safety reports on tourniquets inadvertently left on patients' limbs following venipuncture. She and her RCA team used the analysis to help develop root cause/contributing factors and actions. Another facility used our analysis of Safety Reports and RCAs on tissue specimen

processing in the laboratory to help with their RCA.

**Myth 4:** No one is entering Safety Reports.

**Reality:** In FY04, there were 25,978 Safety Reports entered by VA facilities.

**Myth 5:** Analyzing Safety Reports doesn't really create much value.

**Reality:** NCPS has done many analyses that have relied upon Safety Reports for some or all of the information. These include a wide range of risks to patients such as: ensuring correct surgery, retained foreign objects, emergency airway management, slips in parking lots, pill splitting, and misuse of fentanyl patches. Multiple safety reports allow for meaningful aggregation of topics and thus can mitigate risk to our patients.

Thom John, VISN 20 patient safety officer, reported that one facility experienced a couple of cases of scalding within a month that were related to food services. Based in part on the NCPS analysis of Safety Reports, the facility decided to do a Healthcare Failure Mode Effect Analysis on the topic. This resulted in several changes, ranging from bolting down coffee urns to verifying that food warmers were set to appropriate levels.

**Myth 6:** Safety Reports are not required.

**Reality:** The reports have been required since the VA Patient Safety Handbook was finalized in 2002. The requirement can be found in section 7, Review and Analysis of Reported Events, paragraph 7: "All events must be entered into the Patient Safety Information System. In this way all events reported are captured in the Patient Safety Information System even if they have a SAC score less than three."

([vaww1.va.gov/vhapublications/ViewPublication.asp?pub\\_ID=374](http://vaww1.va.gov/vhapublications/ViewPublication.asp?pub_ID=374))

**Myth 7:** Our facility doesn't have any reports.

**Reality:** Healthcare is a complicated

## When Tourniquets are Left Behind

By Carol Samples, BGS, NCPS program analyst

WE ARE DISTURBED when we lose patients' personal belongings, such as dentures and eyeglasses, while they are in the hospital. Veterans or family members quickly let us know they are missing, and we promptly act to rectify the situation.

Sometimes items used in healthcare delivery are not known to be missing until they are found much later actually *still on* patients. Such is the case with tourniquets. In more than 90 reports submitted to SPOT, every tourniquet was discovered by someone other than the one who had placed it on the patient.

Tourniquets that remain on limbs for extended periods can potentially cause significant harm to patients, including nerve, vascular or circulatory damage. Literature cites a patient who was awarded more than \$100,000 for nerve damage after a tourniquet was left in place for an extended period when a phlebotomist had to leave the room and became distracted ([www.hpso.com/case/cases\\_prof\\_index.php3?id=61&prof=Phlebotomist](http://www.hpso.com/case/cases_prof_index.php3?id=61&prof=Phlebotomist)). In our reports, tourniquets were reportedly left on limbs for as long as 10 hours; 50 percent of these reports mentioned events that

resulted in pain, swelling, indentations, change of color and/or temperature, ecchymosis, and skin appearance.

Follow-up care included: elevating arms and applying ice packs; administering pain medication due to skin sensitivity; and transporting patients to the ER, urgent care and neurology for evaluation and treatment.

From a human factors perspective, we found that procedures are often completed hurriedly in a complex environment. Professionals with different levels of expertise and from multiple disciplines

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## Patient Safety Spotlight

### Decubitus ulcers, commonly called bedsores or pressure ulcers

ACCORDING TO the National Decubitus Foundation, one-in-ten hospital patients, one-in-eight home care patients, and one-in-four nursing home patients suffer from bedsores.

Because our patient population is, on average, older, decubitus can be a serious problem for our elderly veterans.

Of the 199 records available in the SPOT data base concerning decubitus, 185 are listed as Safety Reports and the remainder as RCAs.

#### Vulnerabilities

Vulnerabilities identified in the RCAs, concerning hospital-acquired decubitus, included:

- Assessments, plans of care and interventions were not consistently documented.
- Staff members had not been provided instruction regarding peripheral vascular disease, skin and wound care, and pressure ulcers.
- Skin care assessment guidelines for newly admitted patients did not sufficiently provide clearly defined protocols for initial and follow-up skin care assessments.

#### A Skin Care Protocol is Available to VHA Employees

A skin care protocol on decubitus prevention, developed by VAMC Kansas City, is available on the VHA Intranet ([vaww.kansas-city.med.va.gov/Memos-Page/NursingProcedures/S-15%20Skin%20Care%20Protocol.doc](http://vaww.kansas-city.med.va.gov/Memos-Page/NursingProcedures/S-15%20Skin%20Care%20Protocol.doc)).

The protocol provides a wealth of information on how best to standardize prevention and treatment of pressure ulcers – and how many of the problems listed above can be avoided.

The protocol provides caregivers a detailed skin assessment to be conducted on patients during admission to screen them for the likelihood of pressure ulcer development.

The assessment covers a number of areas of concern, such as general physical condition, mobility and body mass. Each item on the assessment is scored, resulting in a patient being rated as having a moderate or high risk for decubitus.

In Attachment A of the protocol, one can find detailed definitions of these scale assessments, such as this example for the patient's general physical condition:

- Good=0 No more than two health problems, currently under control. Admission for elective surgery or diagnostic testing.
- Fair = 1 More than two health problems currently controlled. Anticipated hospital stay of 72 hours or less.
- Poor=-2 Any serious health problem(s) out of control.

The protocol lists actions to be taken dependant upon the patient's condition:

- All patients will have a visual inspection of the skin at time of admission, transfer to another unit,

and/or conversion to a high-risk category.

- All patients identified as high risk will have a skin inspection at least every eight hours.
- All high-risk patients will have measures instituted to prevent skin breakdown within 24 hours of admission/conversion to a high-risk category.
- All patients will have a visual inspection of the skin at the time of discharge.

Lengthy sections on quality improvement and skin care guidelines are also offered in the protocol, updated June 2004.

#### Other References

As with many other afflictions, the most basic form of treatment of decubitus is prevention, as is stressed on a number of informative non-VHA Web sites, such as:

MedlinePlus – U.S. National Library of Med/Nat institute of Health. Offers a wide range of information; topics include clinical trials, screening, research. [www.nlm.nih.gov/medlineplus/pressure-sores.html](http://www.nlm.nih.gov/medlineplus/pressure-sores.html)

Family Practice Notebook — Search using decubitus as a keyword. Offers an excellent section on prevention and numerous links. [www.fpnotebook.com/](http://www.fpnotebook.com/)



## When Tourniquets are Left Behind *(continued from page 2)*

perform various types of venipunctures not solely associated with routine blood draws, such as IV starts. Varying methods are used to track vials, labels, patients and tourniquets; both reusable and disposable tourniquets are available. Furthermore, a tourniquet has no feedback loop to indicate to the user that it has not been removed.

### Examples of tourniquets discovered by staff, patients and families include:

- A paralyzed veteran with poor veins had a tourniquet left two inches above the knee. He said that he was unable to see or feel it.
- When turning a patient, a staff member noticed an armband was tight and the arm edematous. The armband was cut off, then a strip of adhesive wrapping was removed. The patient's spouse still had reason for concern. The nurse then checked the blood pressure cuff for tightness. When the cuff was removed for repositioning, a tourniquet was found beneath it.
- Upon an initial nursing home assessment, a tourniquet was found tightly wrapped around a patient's arm.
- A patient described as "fussy" was later found with a tourniquet around his arm.
- A surgical glove was found tied in tourniquet-fashion around a patient's upper arm.

### Root Causes:

RCA teams, VA clinical staff and NCPS found numerous root causes for tourniquet-related events. Among these were: phlebotomy procedure overlap with morning meals; multiple disciplines with multiple skill levels performing venipunctures; assumptions made about levels of competency; distractions occurring during procedures; easily accessible back-up tourniquets; tourniquets often not differentiated from skin color; length intentionally short, making them less visible; lighting levels limiting visibility; checklists not used to control equipment; gowns and shirts slipping and covering tourniquet sites; and processes not always standardized with regard to the exact time when the tourniquet should be released.

Complicating matters further, some veterans are either unable to respond or

realize that a tourniquet has *not* been removed. This is due to such things as reduced levels of cognition, limited awareness, a compromised peripheral neurovascular status, or illness acuity. One patient thought a tourniquet was left in place for therapeutic reasons.

### RCA team actions from stronger to weaker included:

\*\*\*Standardize blood drawing schedule on units so as not to interfere with meals, particularly breakfast. Re-evaluate the order of unit lab draws for blood collections.

\*\*\*Inpatient units will designate a controlled environment for collections outside patients' rooms to minimize distractions and interruptions during blood draws.

\*\*Document procedures only after completion.

\*\*A phlebotomist checking into a unit will present a list of patients for venipunctures and present the number of tourniquets in the venipuncture tray. Upon leaving the unit, the count will be reconciled.

\*\*A second staff member shall initial or sign the IV flow sheet, verifying all tourniquets were removed and the number of IV kits opened equals the number of tourniquets collected.

\*\*Double-check for tourniquet disposition prior to leaving a patient's room.

\*Bolster or improve training for residents.

\*Loosen tourniquet whenever a blood draw process is interrupted.

### Recommended RCA Actions

\*\*\*Strong — Action likely to eliminate or greatly reduce the likelihood of an event: uses physical plant or systemic fixes with application of human factors principles.

\*\*Intermediate — Action likely to control the root cause or vulnerability: employs human factors principles, but also relies upon individual action, e.g., checklist or cognitive aid.

\*Weak — Action by itself is less likely to be effective: relies on policies, procedures, and individual action.

Here are some additional suggestions on other possible actions from NCPS, VA phlebotomists and IV teams:

- Standardize procedures across departments and disciplines, such as controlling the number of tourniquets issued.

- Enhance tourniquet visibility by using wider, more brightly colored ones (such as bright orange) that are highly visible and less likely to be lost in folds of skin or clothing.
- Place the tourniquet over a patient's sleeve, or roll the sleeve up, rather than pushing it up. This will keep the tourniquet fully visible. Placing a tourniquet over the sleeve also protects fragile tissues and prevents pinching.
- Use checklists to account for control of equipment.
- Raise the bed so a patient's arm is fully visible, eliminating the need to bend over. Bending over can cause discomfort to the clinician and be distracting.
- Place a tourniquet no more than six inches above a needle insertion site so that the tourniquet remains visible.
- Design processes to ensure that incoming residents have a standardized procedure for blood draws and IV starts, since they begin rotations at various levels of experience and technique.
- When doing procedures in which blood flow does not stop quickly, double-check for tourniquet placement.
- Confirm process that tourniquet is loosened when blood begins to flow into the vacuum tube, or with IV starts, after catheter is advanced and blood begins to flow.
- Observe processes to assure that a tourniquet is being released prior to withdrawal of the needle.
- Unless specifically required, limit blood draws on off-tour hours or postpone until IV team or experienced staff is available.

Many thanks to RCA teams across the VA, phlebotomy and nursing staff in our facilities, and other NCPS staff members for making contributions that greatly enhanced this study.

If you are a VA employee who would like to read a version of this piece that includes a cause and effect diagram as well as an annotated bibliography, click to the Front Lines section of the NCPS Intranet site: [vawww.ncps.med.va.gov](http://vawww.ncps.med.va.gov)





## Top Ten Myths about SPOT Safety Reports *(continued from front page)*

process involving multiple interactions between humans, machines, equipment, and dangerous toxic substances. Each inpatient stay involves multiple opportunities for this complex process to be stressed, exposing vulnerabilities.

additional information to generate more meaningful topic reviews. For instance, these have included reviews of pill splitting, Bar Code Medication Administration workarounds, and fentanyl patches.

and trend Safety Reports. The “Search Facility Events” function on the initial SPOT screen allows a PSM to search one or more key words or terms in safety reports, RCAs, or both. Lists that are returned can be further winnowed by the “remove event from list” function, and can be displayed or manipulated in other ways by exporting to MS Word or Excel.

**Myth 10:** *Our facility will look bad if we enter what actually happens in safety reports.*

**Reality:** Facilities look bad only if they demonstrate they are *unwilling* to share their experiences through the submission of Safety Reports. The reports are protected by 38 USC 5705 with significant penalties for inappropriate disclosure. Once entered into our database, we conduct aggregate analysis and offer de-identified presentation of results. More importantly, given the complex nature of medicine and the fallibility of human performance, we know that adverse events and close calls will occur. Failure to report just squanders an opportunity for learning.

**Conclusion:** Safety Reports provide us with additional information needed to better conduct our analyses, thereby supporting improved reports for our patient safety managers and officers. Risks identified from these reports can then be addressed.

Taking the time to fill out Safety Reports isn’t just a paperwork drill — it’s important to patient safety. They don’t take long to enter, are extremely valuable, and help us to provide the safest possible care to our patients.

### References

- Andrews LB, Stocking C, Krizek T, Gottlieb L, Krizek C, Vargish T, et al. An alternative strategy for studying adverse events in medical care. *Lancet* 1997; 349: 309-13.
- Donchin Y, Gopher D, Olin M, Badihi Y, Biesky M, Sprung CL, et al. A look into the nature and causes of human errors in the intensive care unit. *Crit Care Med* 1995; 23: 294-300.



Figure 1 SPOT Screenshot of Questions 1-7, Safety Report

Reports studying vulnerabilities indicate they range from trivial to life-threatening events. Donchin et al (1995) reported on real-time ICU observation of care delivery by trained observers, concluding that there were 1.7 events per patient per day. Andrews et al (1997) reported that 50 percent of all admitted patients had had from one-to-ten events occur during their stay. In short, these types of events should be submitted as Safety Reports. It may, however, require some incentive to create a sense of value by reporting them.

**Myth 8:** *All the important information can be found in the RCAs.*

**Reality:** Whether reviewing tourniquets, scooters or bariatric care, RCAs haven’t always provided sufficient detail for a thorough understanding to be gleaned. Safety Reports have provided us with

**Myth 9:** *The only result of seeing hundreds of Safety Reports in the database is to “make us feel bad.”*

**Reality:** Actually, staff report a feeling of relief when their observations about hazards are sought out and reported. Analogous to ignoring the elephant in the room, we tend to deny that Safety Report events occur every day in our facilities. One of the best ways to convince staff and management to make necessary changes is to offer them data about frequency of hazard reports. Discussions using these reports, even if incomplete, is preferable to purely hypothetical musings with no data. Safety Reports showing hazards of a certain type can be used as hard evidence to support making changes.

Additionally, SPOT has been enhanced to allow for better use of reports. Many ways have been created to view, search,

*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.

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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.