

2016 VA National Center for Patient Safety







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"To Err is Human"

The publication of the Institute of Medicine's (IOM) "To Err is Human: Building a Safer Health System" awakened the sleeping giant composed of the public, media, government, health care providers, health care organizations, third-party payers, and professional societies to the stark reality of unsafe health care. Cited in this 2000 publication, between 2.9 to 3.7 percent of patients admitted to a health care facility suffered an adverse event. Over half of these events were preventable, making avoidable adverse events in health care a leading cause of death in the U.S.

Fortunately, the Veterans Health Administration (VHA) and other health care organizations had already launched programs and initiated the pursuit of high reliability in health care.

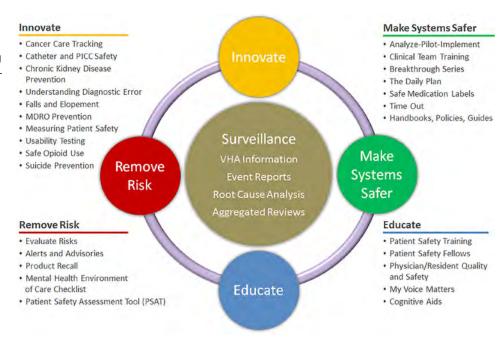
The Department of Veterans Affairs (VA) National Center for Patient Safety (NCPS) was established in 1999 to lead VA patient safety efforts and develop and nurture a culture of safety throughout VHA.

The primary goal of NCPS is the nationwide reduction and prevention of inadvertent harm to patients as a result of their care. NCPS is organizationally located within the VHA Office of Quality, Safety and Value.

Patient Safety and High-Reliability Organizations (HROs)

Patient safety is the prevention of inadvertent harm or injury to patients. It includes the identification and control of hazards/vulnerabilities that could cause harm to patients. High-Reliability Organizations (HROs) place the highest priority on safety and quality; higher priority than productivity concerns.

HROs are involved in risky activities yet achieve low adverse event rates. HROs include North American large jet commercial aviation and the nuclear power industry. Weick and Sutcliffe have studied HROs in detail and describe several foundational attributes that all HROs share: preoccupation with failure; reluctance to simplify; sensitivity to operations; commitment to



resilience; and a deference to expertise. HRO principles are actively being applied to health care.

Patient Safety Culture Survey

NCPS performs a national survey every two to three years to deliver current metrics on the patient safety culture at each VA facility. NCPS also measures and reports trends in the patient safety culture nationwide. Leadership is guided by these measures as they strive for a strong culture of safety.

Taking a Systems Approach

NCPS is based on a systems approach to problem solving that focuses on prevention, not punishment. NCPS uses human factors engineering methods to target and eliminate system vulnerabilities.

NCPS maintains a national software system for confidential reporting of safety events and root causes analysis reports. This allows NCPS to electronically document and analyze patient safety information nationwide; sharing lessons learned to benefit the organization.

It is essential for a culture of safety to embody both the willingness and an avenue for reporting concerns or potential problems.

Root Cause Analysis (RCA)

A multi-disciplinary team approach is used to study adverse medical events and close calls. The goal of each RCA is to find out what happened, why it happened, take action to prevent it from happening again, and measure to know if the action taken made a difference.

NCPS promotes national learning from both safety reports and RCAs by providing summary reports and information.

Human Factors Engineering (HFE)

Knowledge of Human Factors
Engineering (HFE) concepts is critical for
today's health care workforce. To know
HFE concepts is to understand the design
of everyday things and how the interface
between humans and technology affects
patient care. Safer systems for safer care
is possible through understanding the
interface and the design of objects,
facilities and environments to optimize
human and system performance.

The NCPS HFE division is responsible for the assessment of reported patient safety issues in order to determine if a VHA Patient Safety Alert, Advisory, Hazard Summary, Assessment Tool, Patient Safety Log Message, or some other form of communi-

VA National Center for Patient Safety **Program and Initiative Highlights**

cation to the field is necessary. The purpose of a field communication is to notify VA providers and/or users of unsafe or defective medical devices and products that may present an actual or potential threat to health or life, and provide actions or recommendations to eliminate or mitigate the risk(s). These communications are vital to ensuring patient safety within VA facilities.

Healthcare Failure Mode and Effects Analysis (HFMEA)

The Joint Commission Leadership Standard (LD.04.04.05.EP10) requires hospital facilities to select at least one highrisk process for proactive-risk assessment every 18 months. This selection is based, in part, on information published periodically by the Joint Commission that identifies the most frequently occurring types of sentinel events. NCPS also identifies patient safety events and high-risk processes that may be selected for this annual risk assessment.

The HFMEA process was designed by NCPS specifically for health care. HFMEA streamlines the hazard analysis steps found in the traditional Failure Mode and Effect Analysis (FMEA) process by combining the detectability and criticality steps of the traditional FMEA into an algorithm presented as a decision tree. It also replaces calculation of the Risk Priority Number (RPN) with a hazard score that is read directly from the hazard matrix table.

NCPS Pharmacists

Several pharmacists on staff at NCPS support safe medication practices. They collaborate with internal VA departments and external entities such as Joint Commission, United States Pharmacopeia, and the FDA to identify medication safety vulnerabilities and develop national mitigating interventions. NCPS pharmacists regularly consult with local VAMCs about medication-related issues.

Interventions included development of a national standardized patient-centric VA prescription label that enhanced Veteran comprehension of the drug information found on the label, and was preferred by Veterans compared to the previous label. Several safety vulnerabilities associated with the administration of injectable medications were also identified by NCPS pharmacists, resulting in development of several VA Directives and guidance documents.

Product Recall Office (PRO)

Located within NCPS, the Product Recall Office (PRO) is tasked to manage removal of all food items, drugs, medical devices and consumable products recalled by manufacturers or the FDA that are applicable to VA.

The PRO receives more than 10,000 recall notices from a variety of sources annually, of which about 10 percent apply to VA.

Following its December 2008 establishment at NCPS, recall compliance – removing recalled products from the supply chain – has risen to and is holding at 99 percent.

Since 2014, NCPS has partnered with several VHA program offices to further improve patient safety by eliminating or mitigating risks through the use of closed-loop communication embedded in the NCPS VHA Alerts and Recalls website.

Clinical Team Training (CTT)

The Clinical Team Training (CTT) program improves patient safety by facilitating clear and timely communication through collaborative teamwork in the clinical workplace.

Aimed at a multi-disciplinary group of front-line health care providers, the program is based on techniques used in aviation's Crew Resource Management (CRM) training.

CTT has demonstrated effectiveness in the clinical environment; notably reporting decreased surgical mortality in groups trained in CTT methods, decreased hospital acquired pressure ulcers, decreased failure to rescue events and medication errors. While thousands of VA personnel have already been trained in CTT methods, the program continues to actively train medical staff nationwide.

Cornerstone Recognition Program

VA facilities keep constant vigilance on patient safety close calls and adverse-event reports coupled with completion of high-quality RCAs. Facilities are able to achieve bronze, silver or gold levels of recognition, based on meeting patient safety program criteria. This NCPS-sponsored, non-monetary recognition program has offered awards annually since 2008.

The Daily Plan®

Involving patients in their care to enhance patient safety is the focus of this program. Establishing a shared mental model between patients, providers and caregivers strengthens the communication process and helps identify and prevent potential errors. A single patient-centered document is reviewed with the Veteran which outlines what s/he can expect of a specific day of hospitalization. This summary of provider orders is also used in multiple outpatient settings as well as emergency and specialty care.

On average, VHA staff members review The Daily Plan® over 75,000 times each month with Veterans, making this patient-centered approach of discussing medications, allergies, lab and imaging orders, future appointments, etc., a very valuable approach for patient education and patient safety.

Mental Health Environment of Care Checklist (MHEOCC)

The checklist was developed for VA medical facilities to review inpatient mental health units for environmental hazards, decreasing the chance a patient could commit suicide or inflict self-harm.

In a 2012 VA study that examined the effectiveness of the MHEOCC, a significant reduction in the rate of inpatient suicide was found in VHA between 2008, (when the checklist was deployed) and 2010. This trend has continued through 2015 and the current rate is less than one suicide per million bed-days of care.

Patient Safety Assessment Tool (PSAT)

This web-based assessment tool allows managers and staff to conduct a detailed assessment of patient care areas and the patient safety program using VHA directives and guidance, Joint Commission standards and industry best practices. Identifying and tracking action plans is a key feature of the PSAT software tool.

Patient Safety Centers of Inquiry (PSCI)

NCPS manages several centers, which develop, disseminate and, most importantly, implement clinically relevant innovations that can improve patient safety at VA medical facilities. The creation of toolkits for moderate sedation for non-anesthesiologists, the reduction of injuries due to falls, as well as protocols for reducing hospitalacquired infections and delays in treatment are a few examples.

Patient Safety Training

Patient safety programs are regularly provided by NCPS. National training complemented by regional (VISN or facility-based) training is aimed at improving the culture of safety. Educational programs may focus on a fair and just culture, RCA, HFMEA, along with supportive electronic training and cognitive aides.

My Voice Matters (MVM)

Establishing a fair and just culture is critical for a culture of safety. VA leaders expressing the commitment to establish this culture can receive active assistance from NCPS. Leadership training, support and coaching is provided by NCPS as the facility works to improve their culture.

Patient Safety Curriculum

NCPS believes the place to begin learning about patient safety is during early training (i.e., medical or nursing school, or early residency). However, this goal will require faculty well-trained in patient safety. Beginning in 2002, NCPS worked with stakeholders at VA medical centers and affiliated university schools of

medicine to create patient safety curricula for faculty development and resident education. These efforts led to the offering of patient safety workshops and accompanying workbooks.

Dozens of such workshops have been administered across the nation for 2,564 faculty and residents. While agendas are routinely customized to fit the specific needs of the host facility, topics include: an introduction to patient safety; human factors engineering; and teamwork and communication. Typically, the morning didactic session is complemented with an afternoon session featuring learner immersion in simulation scenarios designed to practice safety skills (e.g., leadership, assertiveness, handoffs, timeouts, usability testing).

Patient Safety Fellowship

The VA Office of Academic Affiliations (OAA) has partnered with NCPS to offer a one-year fellowship in patient safety. NCPS focuses on the faculty and curriculum while OAA provides program oversight and fellow funding. The fellowship is highlighted by its diversity, offering advanced training in patient safety to applicants from the clinical disciplines (e.g., nurses with master's degrees, physicians) as well as from non-clinical pathways (e.g., MPH, Ph.D.). Since inception in 2007, there have been 126 fellows that have graduated from the program. The fellows have published 89 manuscripts regarding their patient safety projects.

Project topics included implementation of mock codes, leadership patient safety walk-rounds, a simulation-based initiative to improve the first five minutes in the care of a deteriorating patient, enhancing the frequency of use, effectiveness and satisfaction of HFMEA to study patient safety, rapid identification and treatment of obstructive sleep apnea among Veterans with PTSD, and improving the care of the diabetic foot.

Graduates of the fellowship program have assumed important positions as patient safety leaders, both within and outside VA, as educators, researchers and administrators.

Chief Resident in Quality and Patient Safety (CRQS)

NCPS, in partnership with the VA OAA, has developed the Chief Resident in Quality and Patient Safety program (CRQS). The CRQS program is a one-year program for recently graduated residents. During their chief year, residents focus on learning and teaching about quality and patient safety, and engaging in improvement activities at their home facility.

The CRQS now includes 83 chief resident positions at 57 different VA hospitals. Each fellow will participate in the national curriculum led by NCPS, which includes a week-long face-to-face meeting and monthly sessions using distance technology. In addition, they pursue projects at their home hospital facility.

Publications

NCPS staff members have published over 300 articles in external periodicals, such as the Archives of Surgery, Emergency Medicine Journal, and the Journal of the American Medical Association.

NCPS publishes the Topics in Patient Safety® (TIPS®) newsletter focused on a wide range of patient safety issues. An archive of previous TIPS® publications is available on the NCPS website.

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