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Safer systems, safer care: Bringing the tools and strategies to clinical service areas through applied patient safety programs

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Abstract

Along with creating and supporting a trained network of Patient Safety Managers across the U.S. Veterans Health Administration, the National Center for Patient Safety brings an increased, shared awareness of patient safety goals and strategies to disciplines of healthcare, beginning with the biomedical engineers at VHA facilities. This presentation outlines a 'roadmap' for the journey to high reliability healthcare and shares the training approach and results to date. This roadmap is modelled after that used at NASA and contains four development phases beginning with an awareness of human limitations and ending with proactive analysis to anticipate causes of safety episodes. The goal of the roadmap is to systematically ensure the care given to patients is done as safely as possible by incorporating best practices from mature industries.

*Keywords:*Patient safety; Roadmap; VeteransHealth Administration; Best practices

1. Introduction

The U.S. Department of Veteran's Affairs (VA) has over 15 years of experience building and sustaining a culture where patient safety is foundational to all care given in the largest integrated health care system in the nation, the Veterans Health Administration (VHA). VHA has over 1,700 sites of care, including more than 150 medical centers.The VA's National Center for Patient Safety (NCPS) is a headquarters division of VHAfocused on the reduction and prevention of inadvertent harm to patients as a result of their care as well as nurturing a culture of safety. To aid in accomplishing this goal, NCPS provides training to Patient Safety Managers (PSMs) staffed at VHA medical centers; ensuring that facility-based employees are able to capture details aboutpotential or actual adverse events, determine the root causes, and take effective actions. PSMs are critical employees tasked to lead

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analyses of events in which patients were harmed or could have been harmed. When engagement with facilities is needed to remove hazards, NCPS can direct national action through Patient Safety Alerts,so all VA facilities implement steps to remove or contain a vulnerability that could cause patient harm. With this patient safety network, organizational learning occurs. Every care team at every VA facility benefits from what any one individual discovers using the patient safety tools provided by NCPS. It is a VA core value that care provided should never harm a patient; hence, the tag line of 'Safer Systems, Safer Care' reflects this core value and represents a system of PSMs utilizing patient safety tools so that the entire workforce learns from every adverse event or close-call.

When an adverse event or close-call occurswithin a facility, the reporter shares the information with the PSM who enters the report into a confidential quality improvement national database. Details are important to document, and the database of over one million entries, which allows for VA to recognize trends in how various systems can fail those trying to deliver critical care to our Veterans. Actions are then recommended to reduce the likelihood and/or severity of future such events. Ideally the recommendations for improvements that come from a root cause analysis process, will leadto recommendations for improved design as manufacturers learn of new vulnerabilities with the use of their medical technology in the field. Success of this patient safety system relies on a number of sustained organizational elements. Hospital leadership needs to appreciate that learning *why* something happens is more important than identifying *who*to blame for an inadvertent outcome. The organization must be committed to prevention, rather than punishment, in order to improve patient safety. Employees need to believe that it is safe to discuss situations that did not result in the intended outcome, and that punishment will not result from making honest errors. And the PSM needs to see that the hospital director supports the structured analysis of events and close-calls, and will allow multi-disciplinary teams the time to gather and determine the root causes of an adverse event or close-call. Most importantly, every individual hospital needs to believe that it is worth the investment of time to thoroughly understand the root cause(s) of an event and share it through NCPS so that others have the opportunity to benefit from what was learned.Based on lessons learned from recurrent failures, NCPS develops improvements for implementation across the entire VHA enterprise.Successful implementation of improvements requires a commitment to the Veteran and to the organization that supports his or her care. One obstacle occasionally encountered is local leadership's interest in fixing a local problem and moving on instead of addressing a larger, systematic problem.

As a result of the attention on VA spending formeetings, strict limits were imposed on travel. These limits reduced opportunities for face-to-face training of PSMs and travel to support facilities with their understanding of events. Additionally, a leadership decision was made to allow each medical centerDirector to determine where in the organization the PSM reported, as opposed to the original structure of having Patient Safety report to the Director at every VA medical center. The seeming reduction in underlying support of the patient safety role served as a catalyst to consider programmatic design changes to sustain the robust culture of patient safety pioneered by the VA. This paper will describe this 'organizational engineering' and shares the benefits seen to date with Applied Patient Safety programs.

2. A systematic approach to patient safety training

An important part of creating the Applied Patient Safety training was to create a 'roadmap' to guide the strategic direction of the program.This helps every employee across the organization see where we are, and where we are going as an Agency, in a simplified manner. The first 'stop' is to see each task as part of a system, and realize how as humans our performance is affected by various factors and vulnerabilities in our environment, in the task, and in ourselves on any given day - human factors. We depend on our VA workforce to capture the factors that influence our performance by documenting clearly how events happened, and defining the root causes. As a large organization our next stop on the journey is utilizing experience and data to better understand the real-world performance envelope; awareness is created by evaluating what has gone wrong and considering actions to avoid additional adverse outcomes. The third stop on the roadmap is to rigorously look at what can change – with the task, with the environment, or with the user – to proactively consider changes instead of addressing them ad hoc. As the last stop on the journey, we have a discussion with our partners in industry who are extremely interested in the safe use of their products. Together we look at which failure modes we've each analyzed, and anticipate other system failures for more robust patient care. This 'Purchasing for Safety' initiative consists of VA and the U.S.