EP18EO- Workplace safety for nurses is evaluated and improved.

Provide two examples, with supporting evidence, of improved workplace safety for nurses resulting from the safety strategy of the organization. Supporting evidence must be submitted in the form of a graph with a data table that clearly displays the data.

Example 1: Nurse injury related to workstations on wheels (WOWs)

Background/Problem:

Planning for the hardware component of the major Epic rollout in March 2011 included consideration of many options for bedside clinician access to computers in the patient care areas. A variety of options were considered based upon the literature, consultation with peer institutions having recently been through such a conversion, and input from staff and leaders internal to our facility. This resulted in commitment to the use of computer workstations on wheels (WOWs) within our inpatient acute-care units. Throughout the planning and implementation process, Lorna Facteau, CNO, advocated for and secured resources sufficient to ensure that we could meet the following objectives:

- Each nurse would have ready access to the computer, medication scanner, and point-of-use laboratory specimen–labeling devices.
- Each nurse would have a work space with locking drawers for medication handling and preparation at the bedside.
- Each nurse would have a work space to document care at the bedside or in other unit locations as the situation dictated.

Nursing staff members were enthusiastic about this plan and its rationale.

As is true for any organization, the transition to Epic was challenging. As the dust settled from this enormous rollout and we began living with an EMR, nurses began to complain of musculoskeletal strain and fatigue from pushing the WOWs in patient care. Although nurses were involved with the initial selection of the WOWs, they found that the live experience of moving them around in the care environment created physical strain. The devices included a heavy battery in the base, and navigating around the unit placed repetitive-use strain on the nurse's arms and shoulders. Additionally, getting the WOW in and out of semiprivate patient rooms with associated bedside equipment and family members' belongings entailed considerable maneuvering, which also placed strain on the nurse's upper body.

Describe the Problem(s) that Exist(s) in the Organization:

By early 2012, we had established that this was a widespread issue in our acute-care units and a source of both RN dissatisfaction and documented workplace injury. Our employee safety coordinator, Peter Urban, RN, investigated each injury and complaint in concert with our unit leadership to determine root causes. A multilevel action plan was generated to address the issues. A reduction in or elimination of the number of RN musculoskeletal injuries and strain was needed and would be measured by standard injury data from UVA Employee Health injury database.

Goal Statement:

Reduce/eliminate the number of RN musculoskeletal injuries related to handling of the WOWs in daily workflow.

Description of the Intervention/Initiative/Activity(ies):

Urban took multiple levels of action to address the situation beginning in spring 2012.

- Several consultations occurred by phone and on site with the WOW cart vendor (Enovate) on the adult acute-care units, which annotated the issue and helped determine solutions.
- Initially, the vendor diagnosed an issue with the alignment of the cart wheels and their ability to fluidly adjust to small movements.
- All of the WOW carts had their four wheels adjusted or replaced to improve this issue. This was done in concert with our Health System Technology Services (HSTS) staff, who were trained on how to ideally maintain the wheels in an ongoing manner consisting of more than 200 checks/adjustments per year.
- Additionally, the vendor identified that the base of the WOW cart was defective in a number of our devices and they retrofitted the affected carts with new bases in June to August 2012, which permanently fixed the issue in those devices.
- Urban discussed the day-to-day use of the WOWs with RNs across multiple units and observed their typical cart handling and maneuvering into tight spaces. He consulted with ergonomics specialist Greg Cooper, a physical therapist, to help design interventions and retrain nurses to improve body mechanics during device use.

As a result of this consultation, in-service education was developed to help nurses change their use patterns. In-services began in November 2012 and were complete by the end of January 2013.

- Urban delivered in-services to staff in all acute-care units. Similar preventative content was added to his nursing orientation sessions on safe patient handling and ergonomics in the workplace.
- Additionally, Urban met with each nurse who experienced a WOW use–related injury to learn more. Insights gained were used to coach staff and populate the in-service education with real-life examples. He also consulted each unit manager of injured staff to problem-solve any local issues that were contributing to injury patterns.

The educational and consultative focus and the retraining of nursing staff in the ergonomic use of the WOWs resulted in the elimination of reported injuries by the early part of 2013. This achievement has been sustained throughout all of 2013 and thus far in 2014.

Participants:

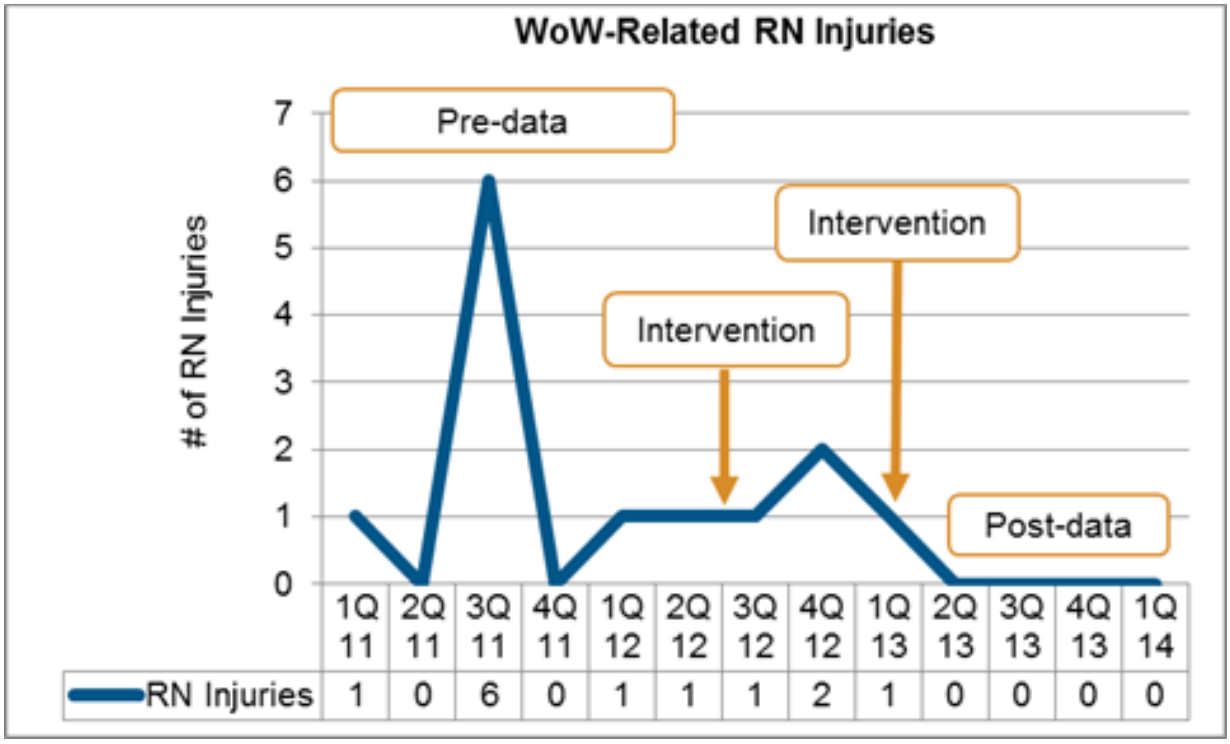
EP18EO Table 1. Participants, WOW Injury Reduction Initiative

Name	Discipline	Title	Department
Peter Urban	Nursing	Coordinator, Employee Safety	Employee Health
Greg A. Cooper	Physical Therapy	Physical Therapist	Therapy Services
Mark Seago	Clinical Engineering	Manager	Clinical Engineering
Richard Shelley	Information Technology	Manager	Health System Technology Services
Holly Hintz	Nursing	Director	Nursing Governance
Lorna Facteau	Nursing	Chief Nurse	Patient Care Services

Outcome(s):

A combined approach of ergonomics training and actual changes in the hardware configurations contributed to an improvement in WOW-related injuries. The organization has invested in the safety of nurses through a dedicated safety nurse position and equipment and technology changes.

EP18EO Figure 1. Outcome: Reduction in WOW-Related RN Injuries



Example 2: Slip/Trip/Fall Injuries Resulting in Lost Workdays

Background/Problem:

The organization monitors nurse safety outcomes using several measurements. These include the total number of injuries by injury type, the cost associated with injuries, and the number of nurses who have lost days as a result of an injury. This provides both quantitative information as well as an indication of the severity of injuries sustained. In June 2012, the number of nurses losing workdays as a result of an injury in the slip/trip/fall category was higher than desired. The care environment contains many hazards that dynamically change as care is delivered to patients. Two environmental conditions were addressed to improve this metric.

Goal Statement:

Reduce the number of nurses who lost days of work as a result of a slip/trip/fall injury.

Description of the Intervention/Initiative/Activity(ies):

Employee Safety Coordinator Peter Urban, RN, is the organization's expert on interventions that are available to improve worker safety. He maintains an updated working knowledge of industry tools and invests time in the investigation of safety events and education of team members. Urban enjoys strong partnerships with key departments to improve safety conditions. The slip/trip/fall committee reviews each event in this category to assess contributing factors and possible solutions. Slips/trips/falls is one category of RN injuries that UVA Health System is focused on. Each injury is reported to Employee Health, and contributing factors are documented.

One contributing factor that was common to multiple injuries was liquid spills that weren't immediately contained and removed. Urban partnered with Reba Camp, administrator for the Environment of Care, to explore possible products that would immediately contain spills and a process to initiate cleanup. In July 2012, contingency funds were allocated to purchase spill kits for high-traffic areas where fall risks were common. These yellow, wall-mounted spill kits include a pop-up, three-sided "Wet Floor" sign, absorbent pads to place over the spill, and instructions for whom to call for cleanup. Installation was complete in November 2012.

Another factor that increases the risk for trips and falls in the care environment is equipment cords. In the operating room and in procedure areas, cords to vital equipment often run through the same area where care providers stand or walk. In routine follow-up with team members in these areas, Urban consulted with them to discuss cord placement options and offer solutions to prevent falls in situations where cords could not be relocated. In May 2013, a product called Trip-No-More™ was introduced. This product is a disposable, bright orange cord cover that includes adhesive strips to secure loose cords. It does not leave a sticky residue and is ideal for temporary cord securement as needed in the OR and procedure areas. Wall-mounted dispensers make them easy and convenient to use.

Participants:

EP18EO Table 2. Participants, Slip/Trip/Fall Improvement Initiatives

Name	Discipline	Title	Department
Peter Urban	Nursing	Employee Safety Coordinator	Employee Health
Reba Camp	Administration	Administrator	Environment of Care Administrative Services

Michelle Longley	Nursing	Advanced Practice Nurse 2- Nurse Practitioner	Patient Care Services
Tony Caswell	Environmental Services	Director	Environmental Services
Mary Ann Thompson	Administration	Safety Officer	Environment of Care Administrative Services
Bill Rockwell	Engineering	Health System Engineer	Facilities Services/Health System Physical Plant

Outcomes:

Careful evaluation of the risks and conditions led to the implementation of key tools to reduce injury. The number of nurses who sustained injuries severe enough to lose workdays was dramatically decreased.

EP18EO Figure 2. Outcome: Reduction in Lost RN Workdays