



Reducing Sprain and Strain Injury through a High Reliable Organization (HRO) Class: Building Nursing Staff Safe Patient Handling Knowledge and Skills



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Background/Problem

Manual patient handling places employees at a serious risk for acquiring an employee injury, often in the form of musculoskeletal disorders. Like many other healthcare institutions, Sentara Norfolk General Hospital (SNGH) nurses have historically experienced a high rate of strains and sprains, the majority of which are associated with manual patient handling. Musculoskeletal disorders (MSDs) can be debilitating and often career-ending injuries for employees. Nurses suffer more MSDs than employees in the manufacturing, construction, and shipbuilding industries.

During 2015 it was noted that the number of sprains and strains sustained by nurses during patient care was increasing in the Heart Hospital inpatient units of SNGH. Safe Patient Handling principles and skills are no longer taught in Nursing Schools so much of the nursing staff do not have the knowledge or skill to safely handle patient repositioning, assess patients for level of mobility, or to mobilize patients. It is likely that the increasing staff sprains and strains and staff-attended patient falls are related to this lack of nursing staff knowledge and skill.

Goal

Reduce the rate of sprains and strains experienced by cardiac unit nurses. By December 2015 the rate of sprains and strains sustained by nurses in the Cardiac inpatient units of SNGH was 0.0012%. A 30% reduction goal in sprains and strains was set for December 2016. An interdisciplinary approach was developed that combined Safe Patient Handling education provided by Physical Therapists with High Reliability Organization (HRO) principles that pursue a zero-defect environment.

Description of Intervention

Injury results provided by occupational health were analyzed to assess causality and identify the focus of planned educational interventions. In late January 2016 Stephanie and Sandy Wood from the Physical Therapy department developed a 90 minute Safe Patient Handling class that was added to the current Heart Hospital HRO class. The content included patient assessment for readiness to mobilize, individualizing mobilization interventions, safety principles, use of gait belt and walker, fall prevention and emergency maneuvers. Nursing staff were required to practice standing, stand and pivot, ambulation with one or two staff, ambulation with a gait belt, ambulation with a walker and safe toileting. Twice monthly classes were offered in February and March 2016. Monthly classes started in April 2016. This class was offered 13 times during 2016. Class attendance was tracked. By the end of May only 38% of staff had attended and so a greater effort was put forward to assure most current staff would participate. A spike in additional injury and safety events mid-summer continued to confirm the needed prioritization of this intervention. By the end of 2016, 229 of the 240 nurses on the six inpatient cardiac units attended the class for a 95% participation rate. The goal for 2017 was to ensure all inpatient nursing staff new to the Heart Hospital would attend HRO class within 60 days of hire/transfer-in.

Outcomes

The goal of improvement, decreasing the rate of sprain and strain injury in nursing was met as demonstrated in the graph.

Pre-Intervention Timeframe: December 2015

Pre-Intervention Baseline Data: 0.0012

Intervention Timeframe: January-December 2016

Post-Intervention Timeframe: January – May 2017

Post-Intervention Data: During the post-intervention timeframe, the rate of sprain and strain injury improved to 0.0004.

- January 2017: .0004
- February 2017: .0004
- March 2017: .0000
- April 2017: .0000
- May 2017: .0004

2017: HRO classes continued monthly with the focus on onboarding new staff using SPH and HRO principles to continue to build an HRO culture where Zero harm to both patients and staff is the goal. Mid 2017 lift equipment was purchased by most of the Cardiac units and lift equipment education was added to the SPH section of HRO class in September 2017.

The Cardiac Clinical Nurse Specialists and Unit Educators assumed the SPH education in January 2017. The ultimate goal is to continue to design for Zero staff and patient injury.

References

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