

QI: Decreasing Musculoskeletal Disorders for Nurses in the ICU

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Topic

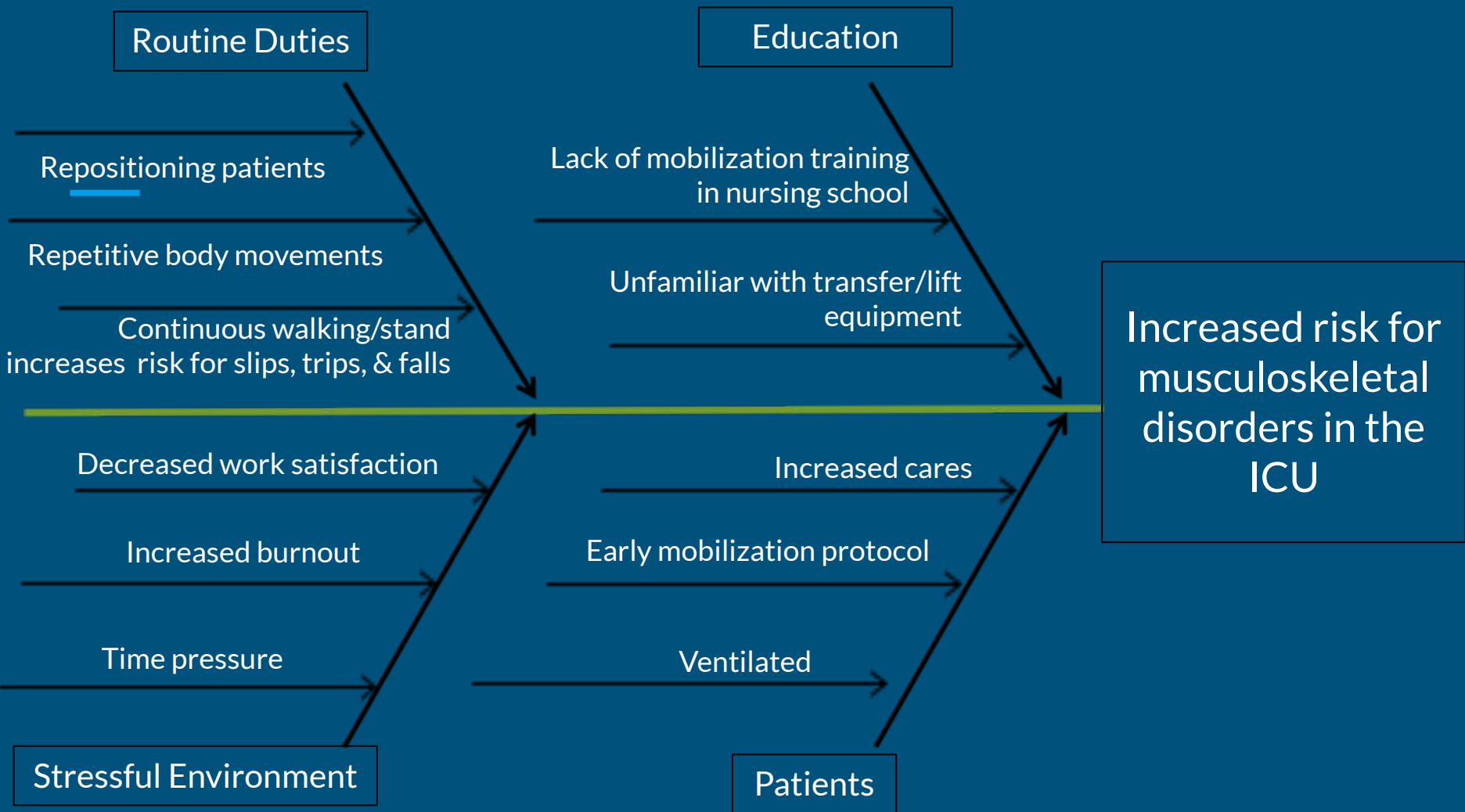
Building a safe environment for ICU nurses to reduce musculoskeletal disorders.

Background

- Musculoskeletal disorder (MSD) definition: injuries or disorders of the muscles, nerves, tendons, joints, cartilage, and spinal discs
- Work-related musculoskeletal disorders (WMSD) are conditions in which:
 - The work environment and performance of work contribute significantly to the condition; and/or
 - The condition is made worse or persists longer due to work condition
 - Lifting of heavy objects, routine overhead work, work with the neck in chronic flexion position, bending, reaching, overexertion, twisting, or performing repetitive forceful tasks
- Most common (WMSD):
 - Location: Neck, shoulder, elbow, hand and wrist, and back
 - Examples: sprains, strains and tears, back pain, carpal tunnel syndrome, hernia

Background (cont.)

- Nurses have higher musculoskeletal disorders (MSDs) compared to other occupational groups
 - Lower back pain is a common injury for ICU nurses
- Overexertion injuries cost employers \$13.4 billion every year in the U.S.
- Effective outcomes correlate with the safety of the patient and the nurse
- Proper education on patient mobilization, and transfer/lifting devices is necessary to decrease the risk for workplace injury



Root Cause Analysis

Lack of Training

Physical Stress

Workplace Injury

- Lack of sufficient education given to nurses increases lower back injury
- High recurrence of workplace injuries
- Summary:
 - A vital aspect to safe work environment is nursing morale and productivity to job satisfaction, that ultimately fosters mindfulness in preventing MSD

Action to Prevent Further Occurrence

- Action:
 - Establish an ERGO team to implement an effective ergonomic risk prevention programs
- Action strength:
 - Strong
- Rationale:
 - Interventions are intended to reduce the musculoskeletal symptoms to improve the quality of life of ICU nurses and their work performance in the long term

Action to Prevent Further Occurrence

- Action:
 - No lift policy
- Action strength:
 - Strong
- Rationale:
 - By placing necessary equipment in place and implementing non-punitive approach to encourage ICU nurses to use them after proper training can eliminate the need to do manual patient lifts.

Outcome Measures

Numerator: Reduced incidents of MSD in ICU nurses

Denominator: Nurses who underwent the ERGO risk prevention program

Threshold: Incidence of MSD will decrease by 50% after implementation of ERGO team

Date/Time Frame: Data will be gathered from 5 ICU's over 12 months

Outcome Measures Type

- Type: **Adverse Event Outcome**
- Rationale
 - To demonstrate that implementation of an ERGO team in the ICU reduces the incidence of MSD in nursing staff
 - This outcome measure is effective because body mechanics training, exercise training, use of auxiliary lifting devices and collaborating with the ergonomics team reduces the chance of adverse event occurring
- Outcome statement → Six months after implementation of the ERGO team the number of MSD reported injuries will decrease by 50%

Stakeholder Analysis

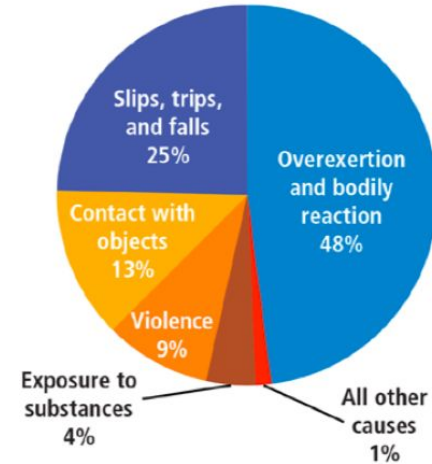
Internal Stakeholders

- ICU nurses
- Staff on the unit
 - Less stress
- Hospital organization
 - Workers' compensation claims

External Stakeholders

- Patients
- Family and friends of nurses

Top Five Causes of Injury Among Hospital Workers



Data source: Bureau of Labor Statistics, 2011 data

Force Field Analysis

Driving forces	Restraining forces
<ul style="list-style-type: none">● Need for education, training, and a new policy● Need to decrease nurse injuries to improve quality of life● Need for nurse attendance	<ul style="list-style-type: none">● Nurse's time for education course● Approval from management● Cost of education● Nurse compliance with the program

Ideas for overcoming restraining forces:

- Evidence-based practice on ergonomic risk prevention programs
- Data on hospital costs and time off from WMSD from 2018 and 2019
- Incentive program for nurses for an injury free unit

Conclusion

The safety of ICU nurses from workplace-induced injuries is important to nurses themselves and the patients they serve.

- Proper education on patient mobilization, and transfer/lifting devices is necessary to decrease the risk for workplace injury
- Implementation of an ERGO team in the ICU reduces the incidence of MSD in nursing staff
- The benefits of improvements to nurse safety are great, both for retaining ICU nurses and attracting new nurses into the profession.

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