Own Your Outcomes: Driving Down HAPIs in the Cardiac Surgery Intensive Care Unit

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Focus
- Decrease the incidence of hospital acquired pressure injuries (HAPI) in the Adult Cardiac Surgery Intensive Care Unit (CSICU).
- Achieve unit culture change by redefining practice expectations and challenging beliefs surrounding actual and perceived barriers.
- Implement systems which will reinforce and sustain unit culture change.
- Develop a culture of individual and group accountability.
- Shift focus from reactive care to preventive care.

Methods

Achieving Culture Change

Staff Education:
CSICU nurse ‘Champions of Skin Integrity’ analyzed data and provided the following didactic classroom education to 100% of unit staff.
- Return demonstration of proper turning, medical device offloading, and medical device securement techniques.
- Introduction of ‘too unstable to turn’ protocol.
- Introduction of turning alternatives. (Hip shifts & ‘Opt Rest’)
- Reeducation on turning methods for patients with ECMO and delayed sternal closure.
- Instruction for how to easily incorporate PIP into head-to-toe, front-to-back assessments.

Empowerment:
Involved staff with evaluation and implementation of new and alternative products and PIP techniques.

Background
- In 2012, the Cardiac Surgery Intensive Care Unit was accountable for 23 pressure injuries over 12 monthly surveys with 12 being medical device related. (MDR).
- The annual prevalence rate was 17% higher than the NDNQI benchmark.
- Organizational implementation of monthly pressure injury surveys, uncovered this unacceptable trend.
- Clinical challenges to pressure injury prevention (PIP) in this patient population include inflammation from cardiopulmonary bypass, compromised perfusion, complex intropin and vasopressor management, delayed sternal closures (open chest), mechanical circulatory assist devices, extra-corporeal membrane oxygenation (ECMO).
- Additional challenges to intensive care PIP include the multitude of medical devices.

Unit culture change challenges
- PIP may not be a perceived priority in high acuity intensive care units (ICUs), resulting in failure to implement necessary preventive measures.
- ICU PI’s are often labeled as an ‘expected outcome’ or ‘unavoidable’ despite failure to implement necessary preventative measures.
- PIP is often perceived as being overly time consuming.
- ‘Do not turn’ orders inhibit the nurses’ ability to assess readiness to turn, and implementation of subsequent PI prevention.
- Fears related to turning delayed sternal closure, ECMO, and unstable patients often result in preventable injury.

Methods

Maintaining Culture Change
- Foster individual accountability to practice expectations through frequent informal peer-to-peer education, and engagement of CSICU nursing leadership at the point of patient care.
- Implementation of new hire onboarding PI prevention checklist.
- Real-time analysis and implementation of solutions for new PIs.
- Positive reinforcement for recognition that PIP is a component of holistic patient care in the Intensive Care Unit.
- Engaging providers in the PIP mission, adjusting their techniques as needed. (Avoiding trach sutures, sternotomy stabilization, NGT securement)

Outcomes

Total Cardiac Surgery ICU Associated Pressure Injuries on Day of Survey

CSICU Associated Medical Device Related Pressure Injuries On Day of Survey

Survey Details
2012 2013 2014 2015 2016 2017 2018

Data through 12/2018

*Patients who cannot reposition selves

*Boney bottom

Development of a Pulse Oximetry (ox) Decision Tree

Tube securement method resulting in zero points of contact with nares.

Soft, flexible post operative surgical bra. Decreases pressure and friction on flanks.

No sutures. Place light silicone foam dressing or split sponge gauze completely under phalange.

Sutures present. Place light silicone foam dressing under phalange edge.

Forehead pulse ox probe offloading, using silicone mesh dressing underneath.

Occiput offloading: fluidized head positioner.

Velcro pulse ox probe as alternative to forehead pulse ox.

Helpful for non-pulsatile patients.

Alternative for offloading high risk patients in chair

*Boney bottom

*Nasal clip pulse ox probe as alternative to forehead pulse ox.

Helpful for non-pulsatile patients.

Foster individual accountability to practice expectations through frequent informal peer-to-peer education, and engagement of CSICU nursing leadership at the point of patient care.