Use of Physical Restraints in the ICU Setting: Prevention of Self-Extubation and Removal of Invasive Tubes/lines

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Introduction
Maintaining patient safety in an intensive/acute care setting is complicated by many challenges including patient acuity, agitation, delirium/confusion, as well as lack of healthcare staffing.

PICO Question:
P: Adult in-patients (ICU)  
I: Physical restraints (bilateral soft wrist)  
C: Restraint vs. Non-restraint  
O: Prevention of self extubation

Question: Do the use of physical restraints better prevent patient self extubation than non-restraints?

Objective
-Identify the prevalence of restraint use in PSHMC ICU's  
-Examine effectiveness of restraints in prevention of self-extubation/removal of invasive tubes and lines

Methods
Databases used:  
-PubMed, Google Scholar, CINAHL  
-PSHMC restraint policy  
Search terms:  
-Restrains, Safety, Self-extubation

Results
From the search, five articles were relevant to our PICO question;
-Literature reviews – 3  
-Random control trial – 2
ICU Nurses primarily use physical restraints to maintain patient therapy and monitoring devices such as;
-Endotracheal tubes, Central lines, arterial lines, chest tubes
- Hypertension, Tachycardia  
- Worsening agitation, anxiety, depression  
- Impaired circulation, pressure ulcers, nerve injury  
- Aspiration  
- Nosocomial infections  
- Longer hospital stays

Evans and Fitzgerald (2002), noted that “the prevalence of serious injuries does not increase when restraints are not used.”

According to Tolson and Morley (2012), even in an ICU setting, “physical restraints do not appear to be efficacious at preventing patients from extubating themselves.”

Evans and Fitzgerald (2002), reported that in the acute care setting responders cited reasons for restraints that were “more for the benefit of the health care worker, or the health care organization, than for the patient being restrained.”

Discussion
The overwhelming theme throughout the literature was that the use of physical restraints is no more effective in preventing patient injury and discontinuation of intensive therapies than if the patient were not restrained. The majority of the articles we researched cited alternatives to restraints such as;

-Appropriate RN to patient staffing to allow for,
-1:1 Patient “sitter”
-Re-orientation
-Soft music/TV
-Family at bedside
-Diversion activities

Conclusion
Through the research obtained via this Evidenced Based Project, we as healthcare workers and patient advocates must strive to limit the use of restraints in our practice and employ safer alternatives to maintain intensive therapy in the ICU setting.

References


Penn State Milton S. Hershey Hospital Administrative Manual, Restraint and Seclusion: Medical and Behavioral Reasons. Policy Number: PC-77HAM