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Fall Reduction Utilizing Continuous Video Monitoring

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Nurse Resident, Fall Cohort 2019

Introduction

Problem Statement
- During the height of the "SARS-CoV-2" pandemic, the unit became a cohort for confirmed positive infected "Covid-19" patients.
- Patients were required to remain in a closed room. One of the consequences of this isolation is nursing being unable to visualize the patient freely, and therefore, an increase in fall incidents occurred.

Purpose
- To determine if using a form of continuous video surveillance (or monitoring) for patients would reduce the number of fall incidents in disoriented and/or dependent-mobility patients.

PICOT
- Can the number of fall incidents of dependent and/or confused patients be decreased with the use of continuous video monitoring compared to standard fall precautions?

Evidence

Continuous video monitoring significantly reduces high-risk patient falls compared to nonmonitored patients by 28-35% and decreases the number of serious injuries due to falls (Cournan et al., 2018), (Sand-Jecklin et al., 2016), (Votruba et al., 2016)

Use of webcams and virtual monitoring (such as VMT) resulted in zero falls (Hardin et al., 2016).

Video monitors can use an alarm to alert nursing, an overhead pager to talk with the patient, or direct phone calls to nursing when unsafe behaviors are observed. The overhead pager interrupts the patient's thought process and delays unsafe behavior long enough for staff to respond (Cournan et al., 2018), (Sand-Jecklin et al., 2016), (Votruba et al., 2016).

Video monitors allow patients to safely ambulate after staff intervene, increasing mobility which further decreases likeliness of falls (Cournan et al., 2018), (Hardin et al., 2016).

Use of video monitoring, rather than restraints or safety sitters, results in less patient falls related to agitation and struggling (Cournan et al., 2018), (Hardin et al., 2016).

Utilizing video monitoring instead of safety sitters positively impacts direct patient care for all patients because decreased staffing hours for safety sitters versus use on the floor. This may result in safer handling of overall patient population (Votruba et al., 2016).

Methods

Current Policies
- Fall/Trauma/Injury Risk Clinical Practice Guidelines
- Fall Prevention and Management Protocol
- Out of Bed Protocol
- AMPAC/HLM Scores

Quality Indicators
- National Database of Nursing Quality Indicators (NDNQI)
- The Joint Commission
- Magnet Recognition
- Press Ganey Scores
- Medicare/Medicaid

PubMed - MEDLINE
- Search query "patient falls video monitor"
- Applied filters
- Dates 2013-2020, Peer-Reviewed, Articles, English, Humans, Full Text
- Yields 1,007 results
- 31 articles selected for review for specificity to video monitoring in the inpatient setting and falls reduction based on article titles
- 4 articles chosen for final use

Results

4WW compared to the entire hospital over the past 12 months:
- The total number of falls trended down
- The median number of falls trended down
- The percentage of falls trended down

Results of Data Gathering Survey
- Increased use of either type of video surveillance for both covid and non-covid patients
- Many fall events avoided due to responsiveness of VMT or use of visualization through
- No falls documented during time of survey

During May and June, the entire hospital had a total 57 (the highest recorded in past 12 months) and 40 falls respectively. 4WW only had one fall each month. Both were unmonitored but, using the criteria, should have been

Next Steps

Increase the number of VMTs and therefore monitors available to medical/surgical floors, especially during emergent situations

Increase use of baby monitors, however, they can interfere with each other and become inoperable

Considering Morse Fall Risk, also assessing orientation and assistance level and nursing discretion, add impulsivity

It does not hurt to monitor someone, but it hurts for a patient to fall

Conclusions

During the height of the coronavirus pandemic, patients at risk for falls were unable to be easily visualized by their care providers

Nurses used the criteria of orientation, activity assistance level, and Morse Falls Risk criteria to determine if a baby monitor or continuous video monitor could be utilized for safety

4WW successfully decreased their number of falls over the previous 12 months and had a decrease number of falls relative to the entire hospital during covid-19

References

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