• Inaccurate med-rec practices put patients at risk for adverse drug events.
• > 50% of adult patients will experience med–discrepancies in the U.S.
• Up to 9,000 people die annually in the US.
• Cost over $40 billion annually in the US.

Problem Statement

Purpose of Project and Goals

Purpose:
• To Modify Nurses’ work flow to facilitate adherence medication reconciliation policy.

Methods

Setting:
• Twenty-bed adult outpatient observation unit in mid-sized inner city hospital.
Population:
• Adults aged 18 years and above; admitted to the 23 hour observation unit.
Implementation strategies:
• Reintroduction of unit and admission nurses, clinical care coordinators to med-rec policy.
• Implemented work flow to facilitate completion of med-rec with 6 hours of admission.

Results

• N = 22, 100% of nurses received a medication reconciliation policy refresher and an introduction to the modified workflow.
• N = 112. Patients without med – discrepancies at baseline = 33% but sustained at average of 84.21% 14 weeks post intervention.
• N = 112. Med- reconciliation completed within six hours of unit arrival = 50% at baseline but sustained at an average of 78.78% 14 weeks post intervention.

Discussion

• New work flow improved med-rec adherence and reduced medication discrepancies.
• Nurses’ adherence to implementation was higher when supported by an admission nurse.
• Competing nurses’ obligation, the short patient stays, the patients’ low health literacy level, and staff resistance to change were challenges.
• Low patient census arising from the pandemic changed the typical unit population dynamics.

Conclusion

Implication for Practice:
• Change agents should tailor implementation strategies to address peculiar work place barrier
• One size does not fit all.

Future QI project:
• There is a scarcity of quality improvement projects specially addressing medication reconciliation in a short stay units.
Endotracheal Tube Cuff Pressure Monitoring in Adult Surgical Patients using Posey® Manometer

Chinweokwu Anadu MS BSN, Aguirre Priscilla DNP CRNA, Linda Cook, PhD, RN, CCNS, ACNP

Problem Statement

Patients frequently report sore throat following general anesthesia and intubation with an endotracheal tube (ETT). Overinflation of the ETT cuff can cause injury to the surrounding tissues, leading to postoperative sore throat (POST). Incidence rates of POST are between 30-70%. A common practice among clinicians is to estimate ETT cuff pressures by manual palpation.

Purpose

To Implement use of manometers to monitor ETT cuff pressures in adult surgical patients to decrease sore throat

Methods

Setting:
- Two Operating rooms at a community hospital

Population:
- Adult surgical patients that require intubation with ETT
- Exclusion Criteria: ASA 5, Age < 18 years, Pregnant patients, ENT surgery patients, trauma patients, COVID-19/PUI patients

Implementation:
- Clinicians educated and manometers placed in ORs
- Reminders with summary of instructions
- ETT cuff pressures checked via manometer, documented on observation tool
- PACU RNs assessed for presence or absence of POST, documented on POST outcome tool
- Data collated weekly, analysis by run charts and descriptive statistics

Results

- N= 19 patients
- After implementation, 89.5% ETT cuff pressures were between 20-30 cm H2O
- 94.7% patients denied POST

Discussion

Evidence strongly recommends that ETT cuff pressures remain between 20-30 cmH2O. Results show that there was a trend towards the goal, with ~95% of patients denied POST. This is consistent with evidence from literature. Overall, clinician use of manometry helped achieve the desired outcome of low POST rates. Main limitation was restricted access to patients due to COVID-19 protocols, this meant small sample size and limited data

Conclusions

Use of manometers to monitor ETT cuff pressures correlated with low POST rates

Implications for practice
- Increased patient satisfaction due to reduced POST incidence
- Future QI projects
  - Identify barriers to adopting practice change

References
Implementation of a Hospital-Acquired Pressure Injury Prevention Admission Bundle

Mickaela Berry, BSN, RN
Joyce Onken, BSN, RN, CWOCN
Kimberly Callender, DNP, CRNP, APRN-BC
Debra Bingham, DrPH, RN, FAAN

Background

- Hospital-Acquired Pressure Injuries (HAPIs) increase patient mortality risk and increase hospital costs. HAPIs are generally considered preventable.
- Care Bundles create uniformity of nursing care, which improves evidence-based care delivery and patient outcomes.

Problem: An adult Intensive Care Unit (ICU) within a community hospital located in central Maryland has an increased HAPI incidence average rate of 2.2% over a 2-month period.

Objectives

- Purpose: To implement and evaluate the effectiveness of a HAPI prevention admission bundle to reduce the number of HAPIs on an adult ICU
- Short-term goal: 100% of newly admitted patients will have all components of the HAPI prevention admission bundle documented in the EHR.
- Long-term goal: 100% reduction of new incidents of HAPIs

Methods

- Setting: 30-bed adult medical/surgical ICU with 92 staff RNs
- Population: Patients older than 18 years old admitted to the ICU
- HAPI Prevention Admission Bundle also referred to as the Save Our Skin (SOS) Bundle was made up of 4 care components that would be implemented by staff RNs upon patient admission

- Education was provided to the staff RNs about the care bundle via in-person teaching and a HealthStream module
- Chart Auditing was used to monitor the use of the care bundle by staff RNs
- The hospital’s Incident reporting system, RL6, was used to determine how many HAPIs occurred per month.

Bundle Components
1. Braden Scale Score
2. Two RN Skin Assessment
3. Pressure Reducing Surface
4. Prophylactic Sacral Foam Dressing

Results

Structure: Number of Nurses Educated About the SOS Bundle

<table>
<thead>
<tr>
<th>Method</th>
<th>Educated in-person only</th>
<th>Educated via HealthStream Only</th>
<th>Educated via Both</th>
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</thead>
<tbody>
<tr>
<td>14%</td>
<td>12%</td>
<td>14%</td>
<td>60%</td>
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</table>

Process: Utilization of the SOS Bundle

<table>
<thead>
<tr>
<th>Weeks</th>
<th>% of Bundles Challenged Completely</th>
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<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
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<td>2</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
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</tr>
<tr>
<td>12</td>
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<td>13</td>
<td>0.1</td>
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<tr>
<td>14</td>
<td>0.05</td>
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</table>

Outcome: HAPI Incidence Rates

<table>
<thead>
<tr>
<th>Month</th>
<th>Incidence Rate of HAPIs</th>
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</thead>
<tbody>
<tr>
<td>Jul-20</td>
<td>1.98</td>
</tr>
<tr>
<td>Aug-20</td>
<td>2.4</td>
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<tr>
<td>Sep-20</td>
<td>3.2</td>
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<tr>
<td>Oct-20</td>
<td>0.77</td>
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<tr>
<td>Nov-20</td>
<td>7.4</td>
</tr>
<tr>
<td>Dec-20</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Discussion

- The SOS Bundle did not improve the monthly HAPI incidence rate; The average incidence rate pre-implementation was 2.19% and the average incidence rate post-implementation was 4.14%.
- These results are not consistent with the findings of other comparable publications.
- Increased demand for ICU beds for COVID-19 patients resulted in adjustments in the standards of care and may have impacted the number of HAPIs during November and December.

Limitations

- Quality Improvement; Results not generalizable
- Unable to educate all staff RNs about the SOS Bundle
- Short time period of data collection

Conclusions

Implications

- A care bundle focused on HAPI reduction with regular chart audits and feedback improves documentation compliance.

Future QI Projects

- Further evaluation is needed regarding the long-term impact the SOS Bundle will have on monthly HAPI totals.
- Additional care components can be added to the care bundle.

References

- For full list of references, use the QR code below by opening the camera on your smartphone device

Contact Information: Mickaela.berry@umaryland.edu
Chemotherapy Goal of Treatment as Part of the Consent Process
Christina Boord, BSN, RN, OCN; Mary Ellen Connolly, DNP, CRNP; Paula Rosenblatt, MD; Nancy Bolan, PhD, MPH, FNP, CNM
University of Maryland School of Nursing

Problem Statement
- Many patients receiving palliative chemotherapy believe the goal is curative
- Belief in living for at least six months is highly associated with agreement to receive intense chemotherapy
- American Society of Clinical Oncology (ASCO)/Oncology Nursing Society (ONS) best practices emphasize patient understanding the goal of treatment
- Identified barriers to patient understanding include lack of information on the consent form and the use of ambiguous language by providers

Purpose of Project/Goals
- Develop and implement a new chemotherapy consent form that includes goal of treatment
- Increase documentation of goal of treatment
- Improve patient understanding of their treatment goal

Methods
- Project site: Outpatient National Cancer Institute (NCI) Comprehensive Cancer Center
- Project participants: Adult patients undergoing the consent process for intravenous chemotherapy
- Multidisciplinary team decided on 3 goals with common language definitions (Figure 1)
- Patient survey developed to assess
  - satisfaction with treatment information
  - if consent copy was provided
  - whether someone accompanied patient to consent appointment
  - patient's understanding of treatment goal.

Results
- Data collection: August 31, 2020 – December 11, 2020
  - 155 patients consented for chemotherapy
  - 84 patient surveys completed
- Documentation compliance for goal of treatment improved from 8% to 99% (Figure 2)
- No significant change in the percentage of patients who received a copy of their consent form
- Goal of treatment concordance increased from 42% to 61% (Figure 3)

Discussion
- Consent with clearly identified goal of treatment is an effective intervention
  - Compliance with goal documentation reached 100%
  - Goal concordance increased by 43%
  - Consistent place for documentation helpful for social work when discussing goals of care
- Limitations: small sample size/insufficient power, elapsed time between consent and patient survey, and provider variability in presenting goal of treatment unknown
- Recommendations for additional clarity
  - Add “Select one” before treatment choices
  - Modify “Other” option to read “Non-cancer Diagnosis”

Conclusions
- Goals of treatment are a vital part of consent conversations
- Including goal of treatment on the consent form creates an opportunity for meaningful treatment discussions
- Next steps:
  - Adoption of system-wide chemotherapy consent form
  - Electronic consents

References
Full list of references available using the following QR Code:

Special Thanks to Bob Arensmeyer whose assistance helped ensure this project’s success.
Problem Statement

- Vascular Access Devices (VADs) are a source for healthcare-acquired infections occurring with a high prevalence of ~10–20% per year and leading to increased morbidity and mortality.
- The baseline CVAD-related monthly infection rate for midline and central venous catheters was 2% and the rate for occlusions was 10% over a 3-month period.
- A site audit revealed that the home health nurses at the project site were inconsistently performing VAD care as outlined in the Infusion Nurses Society (INS) guidelines for midline and central line dressing changes.

Purpose Statement & Goals

Setting: A home health care agency in northeastern United States that provides home infusion therapy and other home health services.

Population: All adult patients receiving home CVAD infusion therapy from the project site.

The purpose of this quality improvement project was to implement a standardized evidence-based protocol for the care of midline and central venous access devices for home infusion patients.

The goals of this quality improvement project were to:
- Improve nurse adherence to guidelines for care of midline and central catheters to 100% by December 1, 2020
- Reduce CVAD-related infection rate to zero by December 1, 2020
- Reduce CVAD occlusion rate by 50% by December 1, 2020

Methods

Development of an administratively approved CVAD policy based on INS Guidelines

Implementation of New Policy

- RNs were trained to use the most current Infusion Nurses Society (INS) protocol for midline and central line dressing changes. Training included:
  - Simulation, Demonstrations and Print Materials

RNs applied new protocol

- Support from management facilitate project incorporation into overall infusion organizational culture
  - Inclusion of project champions facilitate the integration of the protocol during admissions and weekly visits
  - Patients were informed and educated on how they should anticipate their dressings to be done
  - Nurses were observed weekly during supervisory visits when performing midline and central venous access device care.
  - Weekly staff meetings used for reinforcing new protocol.
- Data regarding project goals was collected monthly for 3 months

Results

All RNs were trained by the end of the second week of the project. RN adherence to all components of the dressing change protocol increased from zero to 100% by the end of the project (Fig 1).

From baseline (September) to the end of the fourth quarter (December) midline and central line related infections decreased 100% from 2 per 100 to zero as shown in Figure 2. Occlusions trended downward for two months, then spiked during the last month (Fig 3).

Discussion

- Implementing a new standardized protocol for CVAD care, a written policy, and tactics to change CVAD care led to a reduced number of midline and central line infections in home infusion patients and markedly improved guideline adherence by RNs.
- Outcomes were consistent with evidence that supports line-related infection prevention in literature.
- The project was limited by staff size and duration.
- The agency will sustain this practice change by requiring all home infusion nurses to be trained in the protocol at onboarding and will monitor adherence during quarterly reviews.

Conclusions

- This is a feasible evidence-based practice change to improve safety outcomes and quality of care
- Future QI projects in the target agency could seek to develop interventions to reduce rates of line occlusions.
- A long-term analysis will determine if the standardized protocol will continue to decrease the per-patient cost of care related to infections

Selected References

Implementation of Early Mobility Screening in the Surgical Intensive Care Unit

Lindsay Jones, BS, BSN, RN
Elaine Bundy, DNP, CRNP, FNP-C
Crystal DeVance-Wilson, PhD, MBA, PHCNS-BC
University of Maryland School of Nursing

Problem Statement
• Lack of early mobility in critically ill adults leads to adverse hospital outcomes including patient falls and pressure injuries.
• Pressure injuries are first seen in 90% of patients when they are hospitalized.
• In the past 18 months, this ICU experienced seven HAPIs and one inpatient fall.

Purpose/ Goals
Quality Improvement Project: implement an early mobility screening tool in an adult Surgical Intensive Care Unit (SICU) population

Short Term Goal: Nurse compliance of screening tool will be 100% by 10/15/2020.

Long Term Goal: Daily use of screening tool will improve patient mobility levels and decrease patient falls and hospital-acquired pressure injuries.

Methods
Setting: 12-bed adult SICU in a Mid-Atlantic region community hospital
• Patients screened during implementation = 116
• Exclusion criteria: comfort care and acutely decompensating patients

Implementation:
• Education on use of tool during week one to nursing staff.
• Daily mobility screening by nursing staff using the Johns Hopkins Highest Level of Mobility (JH-HLM) screening tool.
• Changes in patient mobility scores, patient falls and patient hospital-acquired pressure injuries were tracked during weeks 2-13.
• Check-ins during staff huddles with nursing staff every 3 weeks.

Results
• All nurses completed education on the JH-HLM screening tool by week 1.
• Total patients screened with the JH-HLM tool was 116 over the 12-week period.
• Nurse Screening Tool Compliance:
  • Week 1 education period: 0%
  • Week 13 of implementation period: 100%
• Patients had improvement in mobility scores despite first assessment score.

Discussion
Use of the JH-HLM screening tool was feasible in the SICU.
• Tool was easy to use by nursing staff.
• Improvement in patient mobility scores occurred despite first documented mobility score.
• HAPI’s were zero during implementation compared to 7 in the pre-implementation period.
• Easy documentation in the EHR.
• Two patient falls during implementation period compared to 1 fall in the pre-implementation period.

Limitations:
• User variability in JH-HLM scale between nurses
• Unforeseen EHR downtime shortening implementation period

Conclusions
Implications for Practice:
• Nurses are receptive to early mobility screening
• Continuous education and support is vital to success

Future Projects/ Education:
• Incorporate a multidisciplinary approach to early mobility
• Bi-annual educational competencies on early screening to continue success

References

Acknowledgments
Thank you to Michael Friedman and Erik Hoyer for allowing use of the JH-HLM screening tool for this quality improvement project.
Thank you Vanessa Velez, DNP, RN, and Rachel Ridgely, MS, RN, CCRN for your guidance during the project.
To implement standardized nursing assessment and routine, 2.3 (3.2)Poor communication, quality of care = .196706.
Admission p=0.4
- (9) = 2.4, 5.0 (5.3)
(5.8) will have received the expected number of
10.2 (4.6)
Week 7
Hospitalized patients with dementia require
Week 9
D
3.4 (4.2)
May improve the quality of care
improve communication among health care teams
Was well accepted by nurses;
3.0 (2.6)
Evaluate mid = .058.
40%
Time/Frequency
Week 9: No
May (n=5)
7.8(1.3)
Median
Data
67% had improved NPI = 0.957) compared to 11.00 (n=10) = 1.6667,
Planned expansion to medical/surgical units in the hospital
Week 14: No
Simple, validated and reliable instrument for routine
(All item and total scale correlations were highly significant (p<0.0001 for both)
and caregiver distress range = 0.71
chronic neurological disorder,
assessment of NPS for comprehensive dementia care
documented procedures for day
history and responses to therapeutic measures provided during the hospitalization may contribute to:
Poor communication, quality of care symptom management;
Prolonged length of stay;
Denial of admission to intermediate care facilities

**REFERENCES**

**ACKNOWLEDGEMENTS**
Dr. Richard Lewis, MD
Dr. Adam Rosenblatt, MD
Katherine Kaiser, MS, LCPC
Claire Kidwell, RN, MSN
Britney Palm, RN, BSN
Miriam Sperling, RN BSN
Teamwork Collaboration Communication Expertise

**BACKGROUND**
- Dementia (Alzheimer and other forms of dementia) is a chronic neurological disorder,
- Neuropsychiatric symptoms (NPS) of dementia affect almost every patient in the course of their illness
- Standardized nursing assessment and documentation should be utilized for consistent and accurate symptom measurement and coding, and to promote improved communication
- Practice Problems:
  - Documentation of NPS was buried in the narrative progress reports in the electronic health record;
  - Reduced provider access to information about the patient’s NPS history and responses to therapeutic measures provided during the hospitalization may contribute to:
    - Poor communication, quality of care symptom management;
    - Prolonged length of stay;
    - Denial of admission to intermediate care facilities

**OBJECTIVES**
Purpose: Quality Improvement Project
- To implement standardized nursing assessment and documentation procedures for day-to-day observations of NPS among hospitalized patients with dementia (PwD)
Goals:
- 100% of PwD will have received the expected number of NPI-Qs administered per hospitalization (at admission, discharge, and every M-W-F)
- 100% of PwD will have decreased severity of NPS from admission to discharge

**METHODS**
Intervention: Registered nurses administered the Neuropsychiatric Inventory-Questionnaire (NPI-Q)**
- Simple, validated and reliable instrument for routine assessment of NPS for comprehensive dementia care
  - Test-retest correlations between the total symptom and distress scores on the NPI-Q = 0.88 and 0.94 (p<0.0001 for both)
  - Inter-scale item correlations for patient symptom ratings range = 0.71–0.93 and caregiver distress range = 0.71–0.97:
  - All item and total scale correlations were highly significant (p<0.0001) (Kauffer, et al., 2000).
- Population: Patients with dementia
- Setting: Inpatient behavior health unit (BHU)
- Time/Frequency: Admission, Discharge, and M-W-F 4-5pm
- Data Collection: The clinical site representative or nurse champion captured data on an Audit Form:
  - Age, gender, admission and discharge dates, NPI-Q total score at admission and discharge, plus an indication (Yes/No) of whether the NPI-Q was administered as per that day protocol
**Used with Permission:** The NPI-Q is copyrighted by Jeffrey Cummings, MD

**RESULTS**
- 74% received the targeted number of NPI-Q during their hospitalization [Figure 1].
- 67% had improved NPI-Q scores at discharge (among those who received both an admission and a discharge NPI-Q). The mean NPI-Q score at Admission was 7.6 (SD = 3.2) compared to mean NPI-Q score at Discharge of 3.4 (SD = 4.3), but this difference was NOT statistically significant, f (9) = 2.4, p = 0.089
- Non-significant relationship between length of stay (LOS) and receipt of the recommended number of NPI-Q assessments: the mean number of NPI-Qs for patients with long LOS (3-7 bed days) was 2.75 (SD = 0.957) compared to 11.00 (SD = 3.615) for those long LOS (>8 bed days), X² (df 9, N = 10) = 1.6667, p = .196706.
- Non-significant relationships between age and admission NPI-Q scores (p = .4), age and discharge NPI-Q scores (p = 1.0), gender and admission NPI-Q scores (p = 1.0), gender and discharge NPI-Q scores (p = 1.0) [Table 1].
- Non-significant relationships between age and LOS (p = .571), and gender and LOS (p = 1.0) [Table 2].

**CONCLUSIONS**
Implications for Practice
- Hospitalized patients with dementia require
  - Routine, standardized neuropsychiatric assessments
  - Incorporate the documentation procedure into the hospital’s
    - Nursing documentation policy
    - Electronic health record
Potential for Future Development
- Expand utilization of the NPI-Q for assessment of cognitive impairment of patients in other units
- Planned expansion to medical/surgical units in the hospital
- Evaluate mid- and long-term goals:
  - Reduced length of stay and readmissions
  - Improved admission rates to intermediate care facilities

**DISCUSSION**
Use of a structured, and validated instrument:
- Likely to improve assessment and documentation of NPS among patients with dementia in the inpatient BHU.
This practice change:
- Was well accepted by nurses;
- Is sustainable;
- May improve communication among health care teams
- May improve the quality of care
  - As evidenced by improved NPI-Q scores from admission to discharge.
Limitations:
- COVID 19 pandemic: staff quarantined; low patient census

**TABLE 1. Admission & Discharge Scores by Age & Gender**

<table>
<thead>
<tr>
<th>Age &amp; Gender</th>
<th>Mean (SD)</th>
<th>t-Value</th>
<th>p-Value</th>
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</thead>
<tbody>
<tr>
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<td>7.6 (3.2)</td>
<td>-4.213</td>
<td>.0001</td>
</tr>
<tr>
<td>Male</td>
<td>6.8 (3.2)</td>
<td>-1.811</td>
<td>.076</td>
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<tr>
<td>Female</td>
<td>8.3 (3.2)</td>
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<td>&lt;.0001</td>
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**TABLE 2. Age & Gender by LOS**

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<th>Mean (SD)</th>
<th>t-Value</th>
<th>p-Value</th>
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<tbody>
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<td>.004</td>
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<tr>
<td>Female</td>
<td>7.4 (3.2)</td>
<td>-1.811</td>
<td>.076</td>
</tr>
</tbody>
</table>

**Figure 1. Percent of expected numbers of NPI-Qs performed per week**

**Table 2. Age & Gender by LOS**

<table>
<thead>
<tr>
<th>Age &amp; Gender</th>
<th>Mean (SD)</th>
<th>t-Value</th>
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<tr>
<td>Female</td>
<td>7.3 (3.2)</td>
<td>-4.213</td>
<td>.0001</td>
</tr>
</tbody>
</table>
Reducing Falls with Tailored Intervention for Patient Safety on a Neuro Unit
Darlene Lockard, MS, RN; Justin Bowser, MS, RN
Bridgitte Gourley, DNP, FNP-BC; Sandra Lucci, PhD, MS, RN, CMSRN
University of Maryland School of Nursing

Problem Statement

- Patient falls in hospitals are preventable adverse events with approximately 700,000 to 1,000,000 hospital falls within the United States each year (Agency for Healthcare Research and Quality [AHRQ], 2013).
- Neurological patients suffering from a stroke or dementia are at a relatively high risk for falling.
- Tailored fall prevention interventions targeted towards a patient’s fall risk has shown to reduce falls (Ang, Mordiffi, and Wong, 2011; and Dykes et al., 2010).

Purpose of the Project

- Compared to the National Database of Nursing Quality Indicators (NDNQI) for total falls in 2019, the neuro care unit (NCU) was higher than the benchmark and averaged 2.98 falls per 1000 patient days with the benchmark at 2.95 falls per 1000 patient days.
- Falls with injury for 2019, the NCU averaged lower than benchmark with 0.57 per 1000 patient days compared to 0.63 per 1000 patient days.
- The purpose of this quality improvement (QI) project is to implement and evaluate the effectiveness of a Tailored Intervention for Patient Safety (TIPS) toolkit to reduce falls on an adult neuro care unit.

Methods

- All patients admitted and transferred to the NCU from October 1, 2020 through December 31, 2020 were included in the project.
- 100% of staff members (n=38) received TIPS training and education from September 1, 2020 to September 30, 2020.
- A TIPS poster displayed in patients’ rooms identified fall risk and targeted fall risk interventions. TIPS was done in conjunction with the Johns Hopkins Fall Risk Assessment (JHFRA) and was updated every shift and when there was a change in status.
- Twice a week observational audits were done to measure compliance. Audit data was analyzed using run charts.
- The number of falls with/without injury was compared from pre-intervention and post-intervention time frame for 2019 and 2020.

Results

- TIPS handout in admission folder was 0 during October to December 2020.
- TIPS compliance averaged 90% during October 9, 2020 to December 31, 2020.
- Staff adherence to TIPS greatly reduced falls by 67% during the pre/post-intervention for 2019 and 2020.
- Falls with injury decreased by 14% pre/post-intervention for 2019 and 2020.

Discussion

- A completed TIPS handout in the admissions folder was never adopted and after talking to staff, having several steps in a new initiative was confusing.
- Morning huddle was a great opportunity to answer TIPS questions and to update staff on fall data.
- TIPS adherence reduced falls and falls with injury for neuro patients.

Conclusions

- Falls are preventable adverse events that can cause injury, increase hospital stay, and increase hospital costs.
- Utilizing TIPS in conjunction with JHFRA in a neuro setting helps identify the patient’s fall risk and targeted fall risk intervention.
- The TIPS poster at the patient’s bedside helps the patient and staff identify the patient’s fall risk factors and proper mobility interventions to help reduce falls.
- TIPS poster compliance is key for successful patient outcomes.

References


Implementation of the National Early Warning Score for Sepsis Screening

Tierra McDearmon, BSN, RN, CEN
Lauren Nawrocki, DNP, MS, CRNP, CCRN
Katie Gresia-McElroy, PhD, RN
University of Maryland School of Nursing

Problem Statement

• There are 1.7 million cases of sepsis annually in the U.S., with an associated in-hospital mortality rate of 12-25% and annual costs of $41 billion.
• Cases undiagnosed prior to admission are associated with higher costs and increased rates of mortality.
• Sepsis-related mortality rates within this organization are 15%, which is nearly twice the rate when compared to all hospitals within the Military Health System.
• A practice gap was identified in the emergency department (ED), where patients were being screened for sepsis using Systemic Inflammatory Response Syndrome (SIRS) criteria, which has poor prognostic utility in triage.

Purpose of the Project

To implement and evaluate a sepsis screening tool utilizing the National Early Warning Score (NEWS) utilized by nurses and paramedics during triage for all adult patients presenting to the ED to improve sepsis identification and delivery of sepsis core measures.

Short-term Goal:

• 100% of the adult patients presenting to the ED will be screened for sepsis utilizing a NEWS-based tool.
• 100% of septic adult patients within the ED will receive care aligned with the Surviving Sepsis Campaign (SSC)
  o “Time to lactate” results within 60 minutes of “time zero”
  o “Time to antibiotic” administration within 60 minutes of “time zero”

Methods

The project was implemented in a 28-bed ED within a military tertiary care center that sees Active-Duty service members and military beneficiaries across the lifespan.

Intervention

• All adult patients age 18 years and older presenting to the ED were included
• NEWS-based sepsis screening tool conducted by triage personnel.
• Positive screenings triggered initiation of a sepsis protocol
• Screening tool embedded into electronic health record on Week 4

Data Collection

• Outcome measures collected over a 14-week timespan
• Sampling of screenings included 10% of charts/day
• Weekly progress of screenings and interventions tracked with run charts.
• Independent samples t-tests were used to compare baseline and post-implementation data

Results

• Weekly screening rates of eligible patients ranged from 54 — 94%, with a median of 81%.
• Independent-samples t-test showed there was a significant decrease in the delivery times of sepsis core measures after implementation of a NEWS-based sepsis screening.
  o “Time to lactate” results significantly decreased (M = 85.76, SD = 29.15) compared to baseline (M = 184.17, SD = 120.99); t(12) = 2.76, p = 0.02.
  o “Time to antibiotic” administration significantly decreased (M = 110.21, SD = 46.04) compared to baseline (M = 231.73, SD = 145.57); t(11) = 2.71, p = 0.02.

Discussion

• Although the screening rates did not reach the 100% goal, a statistical improvement in the delivery time of sepsis core measures was noted after implementation of a NEWS-based sepsis screening tool.
• The project findings were comparable to other studies that found sepsis screening was associated with improved time to diagnostics and interventions.
• Limitations to the generalizability of results should be considered:
  o Conducted in single department within a military tertiary care center during a pandemic.
  o Unmeasured confounders related to concurrent quality improvement projects

Conclusions

• Embedding tool into EHR is essential to ensure screening compliance
• Recommend automating data reports through EHR data mapping and data quality review to minimize personnel requirements and time lag associated with manual data processing.
• Future projects could incorporate a clinical decision support tool that prompts staff to order sepsis bundle when a positive screening is documented.

References


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Disclaimer: The views in this presentation are those of the authors and do not necessarily reflect the official policy of the Department of Defense or the U.S. Government.
Improving Parturient Outcomes with an Oxytocin Administration Protocol During Cesarean Section

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Problem Statement
- Cesarean deliveries increase risk for uterine atony and post-partum hemorrhage (PPH)
- Oxytocin is the standard of care agent to induce uterine tone and prevent PPH
- Ill-timed or excessive dosing of oxytocin is associated with maternal hemodynamic instability, myocardial ischemia, adverse fetal effects, and death
- At the quality improvement (QI) project site variability exists in the dosing and timing of the administration of oxytocin, in excess of evidence-based practice (EBP) recommendations for efficacy

Purpose of the Project
The purpose of this QI project is to implement an oxytocin administration protocol in the obstetrical operating room at a community hospital for healthy women undergoing an elective cesarean section

Short Term Goals, to be achieved by 10/2020
- Syringes containing 3 IU oxytocin will be constituted by pharmacy and stocked in the anesthesia drug carts

Long Term Goal, to be achieved by 12/2020
- 100% of anesthesia providers adhere to the protocol
- Quantitative blood loss (QBL) will remain below 1000mLs

Methods
Setting: Community hospital in Maryland performing ~40 cesarean sections per month
Population: Elective cesarean parturients, ASA ≤ class II
Pre-implementation – May 2020 – September 2020
- Mobilized site team, secured buy-in and leadership support
- Leveraged the evidence to develop and EBP Oxytocin Administration Protocol

Implementation Procedures
- Trained anesthesia providers on EBP, proper bolus syringe creation, and utilizing the standard oxytocin protocol
- Trained student nurse anesthetists to pre-fill oxytocin bolus syringes and place in medication cart daily
- Implemented protocol use in obstetrical ward
- Evaluated protocol compliance by reviewing anesthesia records postoperatively
- Tracked QBL to determine protocol safety and effectiveness

Included: 108 total participants, 70 met inclusion criteria, 38 not eligible

Discussion
- Using an EBP Oxytocin administration protocol in the obstetrical operating room is effective in standardizing oxytocin administration and preventing PPH in healthy parturients undergoing elective cesarean section
- Administering less oxytocin at a slower rate is non-inferior practice to unregulated administration as evidenced by zero occurrence of PPH
- Project facilitators included site team commitment and leadership support, strong evidence, and weekly engagement by team leadership
- Utilizing student nurse anesthetists to pre-fill oxytocin bolus syringes removed a barrier and eased ability to implement the protocol.
- Using a low-dose intraoperative oxytocin protocol was effective in preventing PPH in healthy parturients undergoing elective cesarean section
- Sustainability through key stakeholder involvement and utilizing pharmacy to mix bolus syringes for use when resources available

Limitations / Challenges
- Resistance to change
- Implementing change during worldwide Covid-19 pandemic
- 10 cases of second uterotonic agent administered. In 1/3 cases, agent was given before the protocol required. Explained by provider discretion

Future recommendations for QI projects:
- Track amount of oxytocin syringes used per case
- Utilize pharmacy to pre-mix oxytocin bolus syringes under sterile hood

Conclusions
Setting: Community hospital in Maryland performing ~40 cesarean sections per month
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References

Figure 1. Scan QR code to access Decision Making Algorithm

Figure 2. Protocol Compliance

Figure 3: Quantitative Blood Loss

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Improving Safe Infant Sleep Practices in a Neonatal Intensive Care Unit

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Problem Statement

- ~3500 infants die in United States every year from sleep-related infant deaths, including:
  - Sudden infant death syndrome (SIDS)
  - Accidental suffocation & strangulation in bed
- Increased risk in premature infants discharged home
- Compliance with safe sleep practices role-modeled by clinical staff endorsed by American Academy of Pediatrics (AAP) can reduce the risk of sleep-related infant deaths

Purpose of Project/Goals

Implement a safe sleep bundle in 24-bed level III NICU at a large joint military medical facility

- Goal: Evaluate effectiveness in improving compliance with safe sleep practices of clinical staff providing care to eligible infants ≥ 32 weeks post menstrual age
- Short Term Goal: 100% of NICU nurses will incorporate safe sleep bundle into routine care
- Long Term Goal: 100% of NICU nurses will be compliant with safe sleep practices

Methods

- Staff were asked to incorporate a safe sleep bundle into routine daily care encompassing:
  1. Unit policy update
  2. Physician order set
  3. Safe sleep crib cards & certificate
  4. Standardized sleep sacks
- Safe sleep compliance measured with a standardized crib audit tool; performed randomly pre-and post-implementation
- Compliance defined infants positioned back-to-sleep in crib with head-of-bed (HOB) flat; no additional items in sleeping area; provider order in the electronic health record (EHR)
- Eight nursing change champions performed daily random crib audits; reinforced use of bundle components amongst clinical staff

Results

- After implementation of the safe sleep bundle:
  - Overall compliance with safe sleep practices increased (p<.0001)
    - From 18% (79 pre-intervention observations) to 100% (85 post-intervention observations)
- Safe Sleep Compliance Categories (Pre- vs post- implementation)
  1. Infants positioned back-to-sleep:
     - Pre-implementation 94% → post-implementation 100% (p < .00001)
  2. Infants positioned with head-of-bed flat:
     - Pre-implementation 47% → post-implementation 100% (p=.006)
  3. Infants with no additional items in crib:
     - Pre-implementation 18% → post-implementation 100% (p=.004)
  4. Infants with provider order set in EHR
     - Did not exist pre-implementation → post-implementation 100% (p<.00001)

Discussion

- Incorporation of a care bundle promoting AAP recommendations led to increased nursing compliance with safe sleep practices
- Buy-in difficult to secure due to challenges with nursing culture and variations in clinical status
- Support from key stakeholders and facility backing of evidence-based practices was essential for success of practice change

Consistency with Literature

- Implementing a multifactorial bundle to improve compliance and consistency with safe sleep practices can encourage a safe sleep environment in the NICU and at home

Limitations

- Data collected over a limited time period (14-weeks); bundle included a multifaceted approach therefore cannot decipher which intervention had greatest impact

Conclusions

- Incorporation of a safe sleep bundle into routine care can improve safe sleep compliance in a level III NICU
- Role-modeling behaviors of clinical staff may reduce risk of sleep-related infant deaths upon discharge
- A multifactorial approach can leverage successful strategies for improving safe sleep compliance

Potential for Future Development

- Incorporate algorithm into the EHR to help guide timing of infant’s transition to safe sleep practices
- Measure parental knowledge or change behaviors to assess impact of observing compliance with safe sleep practices of NICU nurses

Implications for Practice

- Model safe sleep practices in the NICU can impact how parents and caregivers practice safe sleep behaviors at home

References


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