5-17-2024

Enhancing Pain Documentation in Medical Surgical Units: Integrating Supportive Tools with Pain Nursing Education

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Enhancing Pain Documentation in Medical Surgical Units: Integrating Supportive Tools with Pain Nursing Education

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N670- ME-MSN Internship

University of San Francisco, School of Nursing and Health Professions

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May 6th, 2024
Abstract

**Problem:** Pain management in in-patient care, particularly involving opioids, is critical due to the associated risks. Proper pain assessment is essential to ensure safe medication administration and mitigate adverse effects.

**Context:** This quality improvement (QI) project aimed to improve opioid assessment and documentation rate above 90% compliance in two medical-surgical units, focusing on bedside nurses who play a crucial role in patient safety and effective pain management.

**Interventions:** A baseline survey provided nurses' understanding on compliance criteria and assessment timing. Interventions included visual reminders, informational posters, and instructions on how to access individual compliance reports.

**Measures:** A post intervention survey evaluated the effectiveness and gathered nurses feedback. Manual chart auditing of the Electronic Health Record (EHR) monitored preliminary improvement and official quarterly report data assessed final compliance rates.

**Results:** The quality report for April, 2024, revealed Unit A pre-assessment compliance at 61.5% and Unit B at 76.7% with post-assessment scores of 89.6% and 88.7% respectively. Unit A saw a 7% pre-assessment decrease and 0.5% post-assessment increase, while Unit B increased by 6.3% and 3.5% respectively.

**Conclusions:** Despite falling short of the targeted compliance rate, the project provided valuable insights, revealing varying success levels between units dependent on participation. Moving forward, aligning hospital policy with the quality data team is essential to enhance clarity, data accuracy, and stakeholder engagement, thus improving patient care and safety in future initiatives.
Enhancing Pain Documentation in Medical Surgical Units: Integrating Supportive Tools with Pain Nursing Education

Although pain is officially recognized as “The Fifth Vital Sign” and one of the main reasons patients seek medical care worldwide (Mengesha, Lencha, & Digesa, 2022), it remains undertreated in up to 80% of patients in some settings (Walid, 2008). Nurses play a fundamental role in effective pain management through their performance of pain assessment techniques (Mengesha, Lencha, & Digesa, 2022). However, recent evidence indicates suboptimal knowledge among nurses regarding pain assessment and management over the last two decades (Coll & Jones, 2020) potentially due to a lack of standardization of pain assessment techniques and workflow. This is of utmost importance, particularly in administration of opioid analgesia across varied medical units, where the needs of hospitalized patients, pain assessment practices, and nursing education levels may vary. It poses a significant concern for patient safety, as proper pain assessment and documentation are essential to mitigate risks of opioid-induced sedation and respiratory depression (Jungquist et al., 2020). To address these issues, a quality improvement initiative was developed targeting nursing education and pain assessment documentation adherence to ensure proper pain management.

Problem Description

Pain assessment compliance rates for two medical surgical units within a 244-licensed-bed hospital in Northern California, prompted a need for improvement from a January 2024 quarterly report indicating consistent unit under performance in the latest January 2024 quarterly reports. Unit A, specializing in renal telemetry, demonstrated a pain assessment underperformance of 68.5%, whereas Unit B, focusing on a wide scope of metabolic issues, showed a performance of 70.4%. Post assessment documentation rates were much better at
This quality improvement project aimed to enhance pain assessment documentation prior to and post opioid medication administration within the acceptable time frame according to the hospital policy medication peak action times. To be in compliance, pre-and-post assessment needed to include four criteria: respiratory rate, oxygen saturation, sedation level, and approved pain scale rating. These criteria were to be charted within the medication administration record (MAR) for pre-assessment at the time of administration and the reassessment to be entered within the flowsheet respectively.

**Available Knowledge**

**PICOT Question**

PICO(T) is a framework used in evidence-based practice to formulate clinical questions in order to improve healthcare outcomes. It stands for Population(patient or problem), Intervention, Comparison, Outcomes, and Timeframe. The intervention refers to the exposure or treatment being considered. The comparison refers to the alternative to the intervention, whether that is a treatment or placebo. Outcome refers to the result. The Time Frame indicates the duration for which the intervention took place or the outcome was measured. The research inquiry at the core of this study centers around the PICOT question: For nurses on a medical-surgical unit (P), does education (I) about best practices for opioid medication assessment and documentation, compared with no education (C), lead to increased documentation (O) over two months (T)?

**Search Methodology**

In the search for articles that were up to date and relevant to pain assessment and documentation compliance, databases like Google Scholar, PubMed, and CINAHL were used, including only publications from 2015 to 2024. The following keywords were used: “pain
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assessment education,” “pain reassessment”, “documentation compliance”, “pain assessment in medical surgical units”, and “opioid administration documentation”. Articles included in this search were narrowed down to those that focused within adult medical surgical units, and intensive care, with the exception of pediatric postoperative units. A total of 10 articles were critically appraised, presented in Appendix A (Dang & Dearholt, 2018) using the John Hopkins Nursing Evidence Based Practice methodology for assessing the level of evidence, quality, and its relevance to this quality improvement project. An advantage of synthesizing the literature lies in the inclusion of a diverse set of research, both qualitative and quantitative studies, case studies and research data. This facilitates thorough examination and description of the identified problem (Dang & Dearholt, 2019). Of the 10 articles included for final integration in this review, one study was a randomized controlled trial (Level I), 4 studies were level III, (systematic, retrospective and observational studies), and 5 studies were found to be Level V evidence project improvements. Given the wide scope of information included in this literature review, it serves as a robust representation of the existing research on the influence of education on best practices for opioid medication assessment and documentation.

Literature Review

The comprehensive literature review, sourced from CINAHL and PubMed databases, explored key terms such as pain assessment education, reassessment, documentation, compliance, and opioid administration in the context of medical-surgical units. The main themes found in the literature highlighted effective pain management, nurse knowledge in pain assessment, educational interventions, factors influencing prompt charting of pain assessments, and lastly, nurse accountability. Randomized controlled trials were limited, but the inclusion of
mixed-method observational studies and quality improvement initiatives from both the U.S. and international hospitals provided diverse perspectives.

One study by Phillips et al. (2019), analyzed pain documentation practices among hospitalized patients receiving opioid therapy before and after nurse education implementation. The nursing education training was made available through the hospital intranet as a module and provided explicit guidelines that aligned with hospital policies on appropriate pain assessment and reassessment based on medication route and pharmacokinetics. The training also established clear expectations regarding the required parameters and instructed where in the Electronic Health Record (EHR) the assessment criteria needed to be recorded. Comprehension was assessed with a brief quiz following the training module. The study revealed a significant improvement in documentation percentages from 32.9% in the dataset collected in April to 37.8% in October of the same year (P=0.003). This underscores the importance of the critical role of clear expectations and education in enhancing the accurate monitoring and documentation practices vital for effective pain management (Phillips et al., 2019). Limitations however did lie in the insufficient and inconsistent monitoring and documentation of "as needed" medications and intramuscular drugs that are not extensively represented in the collected data. Meaning, the observed rise in documentation primarily pertained to intravenous and oral opioid medications, a gap that needed to be addressed since these are the typical route of medication administration in medical-surgical units (Phillips et al., 2019).

Dang et al. (2023), took an observational study approach to examine the impact of an educational intervention incorporating three pain scales (Numeric Rating Scale, Behavioral Pain Scale, Face, Legs, Activity, Cry, Consolability). Nurses received education on these pain scales through training sessions spanning over two weeks, emphasizing the appropriate use of
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assessment tools customized to meet their patients’ individual needs. The training also emphasized that patients receiving opioid medication required a pain scale and sedation level to be charted. Results were compelling, showcasing a significant increase in pain assessment scores, a rise in the utilization of the Critical Care Pain Observation tool, and improved documentation at discharge (Dang et al., 2023). The study offered insights into the potential benefits of training sessions targeting specific pain scales for enhancing nurses' ability to assess and document postoperative pain accurately.

In a randomized controlled trial, Grommi et al. (2021) sought to enhance registered nurses' pain knowledge and documentation management. The study utilized a pre-post-and retention test design, with nurses divided into 26 intervention groups and 24 control groups across three surgical wards, involving a total of 32 RNs by the end of the trial. Nurses were recruited voluntarily, and their pain knowledge was initially assessed. Subsequently, an educational intervention was implemented to enhance pain management assessment, as well as management and documentation skills. The progress of the nurses was tracked through a pain documentation quality audit frame which gathered codes, shifts, and pharmacological pain relief methods to assess and compare individual nurses’ documentation in various phases: pre-post-and after the intervention. A knowledge test with a maximum score of 21 points was conducted. Assessment results showed an 11 point postoperative pain management score for the pre-intervention group, no post intervention measurements for the control group, and 12.5 for the intervention group. Alternatively, the 3-month retention test averaged 12 in the intervention group and 12.5 in the control group. The study did reveal short-term knowledge improvement, but no significant long-term difference (P=0.478) which showed that the interaction between group and time did not differ. Authors suggest exploring various educational methods to enhance
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the effectiveness of nursing pain care and documentation, emphasizing leadership collaboration to improve patient management (Grommi et al., 2021).

Morris et al. (2021), addressed the under-assessment of pain in Quebec ICUs through the implementation of standardized pain documentation. The study highlighted the importance of contextual factors associated with pain assessment and management. By focusing on patient self-report as the gold standard, the study illuminated the challenges associated with alternative pain scales, particularly in medical-surgical units where nurses' education levels may vary to implement them correctly. The findings underscored the significance of addressing site contextual factors, standardizing documentation, and providing access to tools and protocols, as well as staff training.

The observational study by Manworren & Atabek (2021), delved into the challenges in managing post-surgical pain in children's hospital post surgical units. With descriptive statistics, the study examined time intervals between pain assessment and medication administration, drawing light on influential factors affecting nurses' ability to provide timely pain management. Findings revealed that the patient transition between units made them more vulnerable to untreated pain, unverified orders, and often delayed medication administration. Nurse time, which could be allocated to assessment and medication, was frequently disrupted by tasks that could be delegated to ancillary staff, hindering patient care. Apart from these insights, the study concurred with previous research, emphasizing that documentation, medication administration, and care coordination constituted the majority of nurses' time (Manworren & Atabek, 2021).

On a broader scale, Peterson et al. (2017), conducted 12-month program evaluation spanning 44 inpatient wards in three hospitals to enhance nurses' pain assessment practices. The study used a multifaceted approach including Pain Resource Nurses and tailored pain assessment
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routines, with educational meetings held three times every two-month interval during regular staff meetings. The effectiveness of the program was assessed through documentation surveys of medical records and patient surveys before education at 6 and 12-months. While the program led to an increase in pain assessments, it revealed consistently low documentation reassessment after rescue medication. Half of the patients reported being asked about pain, but not prompted to rate it, which highlighted a gap in optimizing care. Further, it emphasized the need for ongoing education and support strategies, and perhaps closer partnerships with physicians on pain reassessment expectations utilizing the aid from Pain Resources Nurses to facilitate the widespread adoption among nurses. (Peterson et al., 2017).

Gordon et al. (2008), showcased the impact of strong leadership in setting clear practice expectations related to pain assessment and reassessment. Type of pain, level of intervention, side effects, and whether the patient's relief goal was met were all factors considered. Over the two years of the project, data demonstrated sustenance compliance above 90% with a cumulative rate of 94.9% of appropriately documented pain assessments. The study highlights that direct and extensive leadership involvement in the form of continuous bed coaching, combined with clear accountability, and alignment with goals was necessary for substantial change. Strategies used were daily administrative and monthly staff documentation audits with prompt and direct feedback to clinical managers and staff, laminated posters on unit trends, and a shared database with the unit-specific data.

Wissman et al. (2020), implemented interventions in an emergency department, leading to a notable increase in pain reassessments. The interventions, comprising six focus groups, daily audits, and weekly newsletters, targeted nursing barriers, provided continuous feedback and emphasized the importance of pain reassessment. The study included 581 patient encounters,
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with pre-and-post intervention assessment showing a significant rise in pain reassessment rates from 36.2% to 62.3% (Wissman et al., 2020). Although specific to the emergency department, the effectiveness of daily audits suggests a potential applicability to medical-surgical units. Further research with extended implementation periods could enhance these findings.

Cline et al. (2016), was one of the only articles found that focuses on nurse accountability as one of the influential factors for pain reassessment documentation in a pre-post intervention quality improvement project. Two hospitals performed audits through computer-generated reports of the pain reassessment scores and provided unit-specific and confidential individualized report cards for each nurse's performance related to documentation in the EHR. The audit consisted of 3000 audits/unit with a compliance increase from 27% in April 2013 to 80% in December 2014 on the adult oncology and inpatient surgical unit in Hospital A. Researchers suggest that the increase may be due to the nature of underlying conditions in these units. However, this shared learning approach and knowledge sharing provided immediate monthly feedback on performance and it encouraged many nurses to relearn hospital policies and expectations, thereby enhancing their practice which could be discussed at yearly review evaluations (Cline et al., 2016).

Lastly, a systematic review with meta-analysis sought to reveal how pain education intervention affects registered nurse pain management. It focused on narrowing down the type of pain nursing education that has already been implemented to improve nursing pain management as well as its outcomes. In total, there were 23 articles included in the review that included a criteria of: RNs pain management, patient-related outcomes, nurse satisfaction with interventions, and knowledge about pain management. There were diverse approaches to pain education but in general it concluded that pain education interventions, including education,
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audit, and documentation, were effective in improving nurses' pain management practices and patient satisfaction (Grommi et al., 2023).

In summary, the literature review presents a comprehensive understanding of the impact of educational interventions on opioid medication assessment and documentation among nurses in their respective units. Clear guidelines and tailored training modules have shown significant improvements in documentation practices. Key factors including nurse accountability, leadership involvement, and contextual considerations also play pivotal roles in successful pain compliance rates. While diverse educational approaches demonstrate impact, sustained efforts in education, feedback mechanisms, and interdisciplinary collaboration are essential for optimizing pain management practices. Further research is necessary to explore long-term efficacy and refine educational strategies to ensure comprehensive and standardized documentation practices across nursing units.

Rationale

In healthcare, implementation science utilizes theories of change to facilitate the application of research findings into practical settings. Shojania et al. (2004), emphasizes the importance of understanding implementation outcomes to enhance healthcare quality. Nilsen (2015) further stresses the necessity of carefully selecting change frameworks during microsystem changes to achieve evidence-based practice, improve patient outcomes, and optimize costs. Lippitt’s theory, an extension of Lewin’s framework, offers a democratic leadership style and four distinct phases: assessment, planning, implementation, and evaluation, treating the microsystem similar to the patient. This theory, as outlined by Mitchell (2012), thoroughly assesses the system, addresses motivation and acceptance for change, and promotes structured planning with goal documentation. Roger’s Five Stages of Innovation Diffusion,
although useful for understanding innovation adoption, lacks a patient-centered approach and fails to explore resistance to change. For projects like the quality improvement of workflow pain assessment documentation, a patient-centered model like Lippitt’s proves more effective, involving stakeholders in decision making and emphasizing through assessment and continuous evaluation. Lippitt’s theory stands out for its comprehensive and systematic approach, promoting adaptability and flexibility across diverse healthcare settings (Mitchell, 2018; Udod & Wagner, 2018).

Taking into consideration Lippit’s theory, this quality improvement initiative aimed to thoroughly assess, plan, implement, and evaluate the microsystems of interest. The initial assessment phase involved soliciting input from staff nurses regarding the existing pain assessment workflow. This process identified both internal and external stakeholders and explored if there were any gaps in nursing education, policies, and nurses’ understanding of pain assessment and opioid administration. Subsequently, planning efforts factored in the involvement of Epic and Optum quality reporting analysts in pain assessment data capture. The implementation stage centered on reinforcing pain assessment criteria through supportive tools and educational posters within their units. Finally, evaluation was conducted through the post intervention surveys, which facilitate feedback and foster communication for ongoing project enhancement, essential characteristics to Lippitt’s theory for continuous evaluation.

**Ethical Considerations**

This project meets the guidelines for an evidence-based quality improvement project. An IRB Review was not required. A statement of non-research determination (SONRD) form was completed to validate this quality improvement initiative (Appendix B) followed by a review and approval by University of San Francisco School of Nursing and Health Profession clinical
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The project described received no funding and the project group members declare no conflict of interest for the project.

This quality improvement initiative aligns with Provision 7 of the ANA Code of Ethics that states the nurse, in all roles and settings, is responsible for advancing the profession through research and scholarly inquiry and professional standard of development. Specifically, the nurse contributes to the nursing profession by developing, maintaining and implementing professional standards. With this project, the aim is to establish, maintain, and promote standards of education and practice through nursing education so as to enhance knowledge and skills that are essential to nursing (ANA Code of Ethics, 2015).

This initiative exemplifies the spirit of social responsibility rooted in one of the core Jesuit Values at the University of San Francisco (USF)- being people for others (University of San Francisco, n.d.). It represents a graduate- level contribution aimed at serving a local Bay Area community hospital by improving patient care standards, particularly related to pain assessment and management through accurate documentation practices. The success of this project is attributed to community engaged learning and collaborative efforts of the hospital and all its stakeholders.

**Project Aim**

The project aim of this quality improvement project is to meet and sustain a pain pre-assessment and post-assessment documentation compliance rate of 90% or above in the upcoming April 30th, 2024, quarterly report for the medical surgical units analyzed. The two medical surgical floors indicated a need for improvement due to underperforming pre-assessment and documentation rates of 68.5% of unit A and 70.4% for unit B, and post-assessment
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documentation rates of 89.1% for unit A and 85.2% for unit B. At 90% or above, these two units would then meet acceptable criteria.

Methods

Context

A microsystem assessment was conducted using the 5 P’s microsystem framework that is essential to understand its effective functioning: purpose, patients, professionals, processes, and patterns. This framework was utilized to identify any gaps in systems and risks to patients. Although the two microsystems involved in this project have distinct scopes of practice, both are responsible for ensuring optimal pain management for their patients. Various processes within these microsystems facilitate optimal pain management, including recognizing patient verbal and nonverbal cues signaling the need for pain intervention, conducting thorough pain assessments by nurses, accurately documenting pain levels, and assessing the effectiveness of interventions.

The focus of this quality improvement project is on the precise documentation required before and after administering opioid pain relief, which aids in determining the effectiveness and safety of pain management strategies. While the entire interdisciplinary team shares the responsibility for assessing and addressing patient pain, nurses play a central role in continuously monitoring patients throughout their shifts to ensure their comfort and safety. Processes taken into consideration for this project were nursing feedback about the current workflow and documentation patterns related to pain assessment as well the analysis of the most recent quarterly reports. Nursing feedback was invaluable to identify any gaps between pain assessment knowledge and Epic user understanding at the time of pain documentation. Furthermore, analysis of quarterly reports revealed the improvements needed in pre-assessment pain evaluation to enhance patient safety and prevent adverse events. Nonetheless, post-assessment continues to
require attention to evaluate the effectiveness of pain interventions and determine if further actions are necessary.

Project Outline

A Gantt Chart (Appendix C) was utilized to outline project activities and coordinate efforts with stakeholders, including nursing educators, unit managers, quality analysts, and the Pain Committee of the hospital. It also identified critical deadlines across all project phases, including initiation, planning, implementation, evaluation, and synthesis. A Fishbone Analysis (Appendix D) identified potential causes for inadequate pain assessment documentation: People, Culture, Environment, Education, Methods, and Policy and Procedure. The project intervention was then weaved together to target these potential causes and analyzed using a SWOT analysis. The SWOT Analysis (Appendix E) outlines the proposed intervention’s strengths, weaknesses, opportunities, and threats. The intervention focused on enhancing opioid pain assessment criteria documentation through various strategies, including educational posters, reminders, and huddle announcements briefly outlining the pain criteria to be in compliance.

Cost-Benefit Analysis

A cost-benefit analysis (Appendix F) was conducted to assess the potential costs and benefits of the proposed project. The total cost of implementation was estimated at $23,473.04 with a projected cost avoidance of $442,714 and resulting in net savings of $419,241. Considering the significant cost avoidance and potential to improve patient safety, it was concluded that the proposed intervention could be beneficial and financially advantageous.

Intervention

The intervention proposed was informed by using nursing feedback gathered through surveys (Appendix G), employing an open-door strategy to encourage unit participation. For the
purposes of this project, our focus was specifically on implementing reminders to pain assessment within the unit. Feedback concerning time management issues, while valuable, fell outside the scope of our ability to address. The intervention encompassed four components: a unit specific performance poster, reminders, and huddle announcement to include in the unit. The poster outlined each unit’s performance in assessment areas, setting a target goal of 90% for the upcoming quarterly reports. The poster also specified criteria for documenting oral, intravenous, and intramuscular medications within designated time frames for compliance. Furthermore, it included suggestions such as integrating pain assessment into hand–off reports, adding reminders to the nursing brain interface, and accessing individual pain compliance reports. In addition, mini reminders were added to the mobile workstations, where a pain assessment compliance checklist and QR code was added linking to the informational poster. Flyers were also posted in the bathrooms with the four different pain criteria needed for before and after opioid administration: oxygen saturation, respiration rate, sedation scale, and pain score (Appendix H). Lastly, to ensure that nurses were aware of the purpose for the deliverables, a huddle blurb was added to the morning and evening huddle reiterating the importance to document all four criteria and where to document it to ensure compliance. The huddle blurb was to be delivered by the charge nurses to ensure dissemination and support in the unit.

**Study of the Intervention**

Daily manual charts were conducted for two weeks following the intervention. Each chart in the medical surgical units studied was meticulously reviewed to identify any opioid medication administration orders and the criteria charted by the nurse before and after medication was given. Noncompliance was determined if any criterion was missing, while compliance required meeting all criteria. Team members of this project ensured continuity by
seamlessly continuing audits where the previous colleague left off, resulting in a comprehensive audit record. During the audit period, team members also monitored the presence of intervention material in the units, ensuring their availability until the end of the audit timeframe in mid-April, 2024. However, it was discovered that the huddle announcement had not been consistently delivered to one unit by the second and last weeks of the audit period. Other charge nurses did not seem to be familiar with the project or the scheduled presence of the project team on the unit.

Post-intervention, a survey (Appendix I) was conducted to gather nursing feedback on the provided supportive tools as part of the PDSA cycle (Appendix J), focusing on their perceived helpfulness and any constructive feedback. Some nurses found the information repetitive, noting their familiarity with the reassessment icon on the Epic dashboard. Others did not provide additional feedback. Nevertheless, this survey played an important role in eliciting feedback that was not initially available by nurses, sparking discussions regarding potential improvements to the Epic user interface. These conversations highlighted the need for enhancements aimed at improving with pain pre-assessment scores, mirroring the existing reassessment icons that are given on post-assessment.

**Outcome Measures**

The intended outcome of introducing pain assessment reminders in the units is to increase pain assessment compliance scores on the quarterly data. The quarterly data will accurately show how pre-and-post pain assessment areas have improved or decreased. In the meantime, the manual chart audits served as a way to predict how well each unit was doing during the implementation of the project. This also gave the team an opportunity to assess any issues that arose from the implementation and bring up any issues found on the informatics side to inform the quality data team.
The quality data report received on May 1st, 2024, (Appendix K) revealed that Unit A had a pre-assessment compliance rate of 61.5% and a post-assessment rate of 89.6%. Conversely, Unit B exhibited a pre-assessment compliance rate of 76.7% and a post-assessment rate of 88.7%. Initially, Unit A's pre-assessment score was 68.5%, indicating a decrease of 7%, and a 0.5% increase for post assessment. Unit B's pre-assessment compliance score was initially 70.4%, but in the latest data, it increased by 6.3%, while the post-assessment increased by 3.5%.

**Discussion**

**Summary**

While the project didn't meet its intended goal within the allocated timeline, it's important to acknowledge the individual performances of each unit and their respective contributions to the project. Upon reviewing the data, Unit A experienced a significant 7% decline in pre-assessment scores, with only a slight improvement in post-assessment scores. In contrast, Unit B showed significant progress, with a 6.3% increase in pre-assessment scores and a 3.5% increase in post-assessment scores. At first glance, the project's success might seem unclear based solely on the raw data.

However, the project met the most resistance within Unit A. This resistance was evident in their reluctance to provide constructive feedback on distributed surveys and their overall opposition to having students in the unit. Conversely, Unit B demonstrated greater engagement by actively providing feedback, welcoming students into the unit, and being receptive to inquiries about the project's purpose. These differences in participation and attitude towards the initiative likely influenced the varying outcomes observed in the two units.

**Limitations**
The quality initiative encountered three primary limitations, primarily revolving around inadequate communication with the third-party quality data analysts team, unclear hospital policy, and resistance to organizational change. From the onset of the project, the team faced difficulties in reaching the third-party data analysts, hindering the retrieval of complete information regarding the comprehensive pain criteria requirements. Consequently, incomplete data capture requirements were disseminated to the nursing unit. This was crucial, as it impacted the nurses' ability to access correct information during pain medication administration and post-assessment guidelines.

Furthermore, the current hospital policy lacked concrete information regarding the timing of patient assessment prior to medication administration and who should be responsible for entering patient assessment vitals in the EHR. The absence of clear guidelines on patient assessment requirements is troubling, as it could result in vitals being documented by unlicensed personnel hours before medication administration, potentially compromising patient safety while still being compliant. It was also unclear if the hospital policy aligned with the pain assessment criteria requirements gathered by the quality team.

Finally, resistance to organizational change manifested in manners that impeded the dissemination of information to the unit. While both units received pertinent information regarding each phase of the project to ensure unbiased results, Unit A exhibited notable resistance to accommodating students within the unit. Furthermore, there was uncertainty regarding the consistent delivery of huddle blurbs during each shift, as observed through brief check-ins with both Unit charge nurses. This discrepancy may stem from either resistance to change or breakdown in communication channels.

Conclusion
In conclusion, the quality improvement project aimed to achieve and sustain a pain pre-assessment and post-assessment documentation compliance rate of 90% or above by the quarterly report deadline of April 30th, 2024, for two medical surgical units. Although the goal was not met within the designated timeline, the project's implementation and outcomes provided significant insights. The results revealed varying levels of success between the two units, influenced by factors such as unit participation, attitude towards change, and communication effectiveness. These factors may stem from the unclear policy and the confusion related to pain assessment criteria requirements enforced by the quality team without providing clear communication, leading to unengaged staff.

Moving forward, aligning hospital policy with the quality data analyst team’s pain assessment criteria requirements will be essential. This alignment will establish more concrete guidelines for disseminating correct information, ensuring clarity and understanding among all stakeholders. Additionally, it will minimize confusion, enhance data accuracy, and foster stakeholder buy-in. Addressing these limitations is crucial for future quality improvement initiatives. Clear communication channels, updated policies, and a supportive culture open to change will be essential for weaving of upcoming projects and their success to improve patient care and safety.
References


https://www.internationaljournalofcaringsciences.org/docs/13_grommi_original_14_2.


https://10.1016/j.pmn.2019.06.007

https://journals.lww.com/jonajournal/fulltext/2021/07000/time_from_pain_assessment_to_pain_intervention.8.aspx

https://doi.org/10.7748/nm2013.04.20.1.32.e1013

https://doi.org/10.1007/s12630-021-02022-1


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(Retraction published Pain Pract. 2009 May-Jun;9(3):245)

## Appendix A
Evidence Table for Literature Review

<table>
<thead>
<tr>
<th>Journal #</th>
<th>Citation</th>
<th>Evidence Type</th>
<th>Sample, Sample Size, Setting</th>
<th>How Does Article Address Problem?</th>
<th>Quality of Evidence</th>
<th>Other Highlights from Article (consider including limitations &amp; outcomes)</th>
</tr>
</thead>
</table>
- 462-acute care bed (hospital A)  
- 324-bed children’s and women’s hospital (hospital B) in South | Auditing process conducted through computer-generated reports  
Individual report cards developed for each nurses’ specific performance on pain reassessment documentation in EHR  
Automated reports provided confidential and individualized reports | Level V/B Clear project goal, consistent results across both hospitals | Compliance increased from 27% in April 2013 to 80% in December 2014 on the adult oncology and inpatient surgical unit in hospital A  
(Prevalence of pain and requirement for pain med admin is higher due to nature of underlying acuity/conditions)  
Audit helped profile individual nurse accountability  
3000 audits/unit were conducted to address the issue of sample size in data analysis  
Reports provided immediately monthly feedback on performance and were discussed at evaluations  
Leadership used the audits to encourage staff to enhance practice and receive education on hospital policies and expectations, particularly given the higher prevalence of pain and need for pain medication administration  
This study is relevant to the current QI project as a quarterly report is run for each unit’s pain assessment |
<table>
<thead>
<tr>
<th>doi: 10.1097/NA.0000000000031 1.</th>
<th>hern CA</th>
<th>Utilization of a shared learning approach for staff improvement and knowledge sharing</th>
<th>compliance rates. While we may not be able to do individual score cards due to a limitation in access and budget for a software audit, we can use this study to implement a similar unit specific accountability concept at the intended hospital.</th>
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<tbody>
<tr>
<td><strong>2</strong></td>
<td>Dang, H., &amp; Stafseth, S. K. (2023). Documentation for assessing pain in postoperative pain management pre- and post-intervention. <em>Journal of peri anesthesia nursing: official journal of the American Society of PeriAnesthesia Nurses,</em></td>
<td>Observational study with pre- and post intervention 304 patients in postop unit N= 36 nurses</td>
<td>Purpose: Investigate whether an educational intervention can increase nurses’ documentation of postoperative pain assessment, alter patient’s opioid consumption and ensure that patients have at least one documented NRS &lt;3 at rest before discharged</td>
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<tr>
<td></td>
<td></td>
<td>Post operative pain documentation was at below acceptable standards, necessitating improvement Two 45 minute teaching sessions were conducted within two weeks These teaching sessions were meant to assess nurses’ knowledge about pain and how to use the assessment tools suitable for their patient Numeric Rating Scale (NRS) Behavioral Pain Scale (BPS)</td>
<td>Level V/B Clear aims, formal QI method used, reasonably consistent recommendations with some reference to scientific evidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use of Critical Care Pain Observation Tool increased from 6.1% to 25.8% Opioid consumption increased in mean from 3.344 to 4.79% Documentation at discharge increased from 81.4% to 91.4% Documentation of nurses with more than 10 yrs experience in the unit increased 17.5% to 31.7% This article showcases a prime example of the impact knowledge of pain assessment and educational interventions have in a unit. It also utilizes widely</td>
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<td>38(1), 88–95. <a href="https://doi.org/10.1016/j.jopan.2022.05.079">https://doi.org/10.1016/j.jopan.2022.05.079</a></td>
<td>Face Legs Activity Cry Consolability (FLACC)</td>
<td>implemented pain assessment tools that are tailored to each patient's needs: NRS, BPS, and FLACC.</td>
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<td></td>
<td>The University of Wisconsin Hospital &amp; Clinics- a 472-bed tertiary care medical center, a Level 1 trauma center, and a National Cancer Institute-designated comprehensive cancer center</td>
<td>Formation of three councils: Nursing Practice, Nursing Research, and Unit Council Chairs</td>
<td>Direct and extensive leadership involvement in the form of continuous bed coaching, combined with clear accountability and alignment with goals, was necessary for substantial change</td>
</tr>
<tr>
<td></td>
<td>Implementation of a evidence-based focused Quality Improvement PDCA cycle</td>
<td>Practice expectations related to pain assessment were defined keeping in mind each patient’s individual pain assessment needs</td>
<td>Strategies used: daily administrative and monthly staff documentation audits with prompt and direct feedback to both clinical nurse managers and staff, laminated posters of unit trends per unit, shared database with nursing-unit specific data</td>
</tr>
<tr>
<td></td>
<td>Reassessment of pain requirement to be timely and</td>
<td>Level V/B Clear aims and objectives, formal QI method used</td>
<td>This serves as a well-documented instance of an evidence-based, focused QI PDCA cycle. It holds relevance for our unit as it provides clear guidance on expectation for pain assessment and reassessment, aiding in the closure of knowledge gaps within our current practice.</td>
</tr>
<tr>
<td>Grommi, S., Voutilainen A., Vaajoki A., &amp; Kankkunen P. (2021). Educating registered nurses for pain knowledge and documentation management: A Randomized control trial</td>
<td>Randomized control trial with a pre-post-and retention test design where nurses were divided into 26 intervention groups and 24 control groups</td>
<td>Problem: Inadequate pain relief in postoperative patients due to unacceptable pain management documentation and quality standard criteria. Intervention: Assessment of nurses’ postoperative pain management knowledge and Level I/ B Reasonably consistent results, sufficient sample size for the study design, fairly definitive conclusion</td>
<td>RNs were invited and recruited to participate from 3 specialized surgical wards. Acute postoperative pain management test was obtained as a baseline for the RNs knowledge on the up to date nursing practice guidelines in Finland. Postoperative pain documentation quality audit framework—Included 37 structured criteria about postoperative pain quality. Gathered codes, shifts and pharmacological pain relief method from nurses to assess and compare individual RN’s documentation in various phases: pre-post-and-after intervention.</td>
</tr>
</tbody>
</table>
### Enhancing Pain Documentation in Medical Surgical Units

<table>
<thead>
<tr>
<th>randomized control trial.</th>
<th>3 surgical wards</th>
<th>then implemented an educational intervention to improve RN’s knowledge of pain assessment, management, and documentation skills</th>
<th>dations based on fairly comprehensive literature review that includes some reference to scientific evidence (Dang &amp; Dearholt, 2018)</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Journal of Caring Sciences. 14 (2), 919-929. <a href="https://www.internationaljournalofcaringsciences.org/docs/13_grommi_original_14_2.pdf">https://www.internationaljournalofcaringsciences.org/docs/13_grommi_original_14_2.pdf</a></td>
<td>50 RNs total 32 completed the study</td>
<td>Education entailed a Powerpoint of 21 slides - about a 45 minute lecture. Knowledge was evaluated by comparing the pre-post-and retention test intervention knowledge scores</td>
<td>The design aimed to control potential impact of interaction between groups</td>
</tr>
<tr>
<td>3surgical wards</td>
<td>50 RNs total</td>
<td>Findings: The intervention group demonstrated greater short term knowledge than the control group but in the long term, there was no significant difference between the intervention and the control groups.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32 completed</td>
<td>Various educational methods could enhance the effectiveness of nursing pain care and documentation, including collaboration with leadership to improve patient pain management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the study</td>
<td>This article is pertinent to this project because we aimed to implement an educational program. The contrasting findings in this article, compared to those indicating significant benefits from standalone educational programs, prompt us to explore alternative avenues for potential benefits. We anticipate a potential requirement for additional leadership support and possibly supportive tools that emphasize the significance of specific pain assessment criteria and documentation.</td>
<td></td>
</tr>
</tbody>
</table>

|   | Systematic review of 23 articles published between 2008 and 2021 using four criteria | Purpose: to reveal how pain education intervention affect registered nurses pain management | 23 articles were analyzed by looking at their study design, participants, intervention outcomes, measures, and main findings |
|   | Posed questions: | Level III/B Systematic review with meta-analysis | To answer question number (1) : posed the articles were classified according to the article characteristics, interventions and quality of the articles |
| 6 | Manworren, R. C. B., & Atabek, A. (2021). Time from pain | 297-bed free standing non profit children’s hospital in the Level III/B Contains good-quality quaNtitati | The first observational study to investigate the complex interplay of factors that hinder nurses from achieving optimal pain management for hospitalized patients experiencing acute postsurgical pain. | (1)What types of pain nursing education interventions have been implemented to improve RNs’ pain management? (2) What are the outcomes of pain nursing education interventions implemented to improve RNs’ pain management? Inclusion criteria: original research, educational interventions related to pain, and studies involving RNs as an intervention target group and in care facilities. | The examined articles revealed diverse approaches to pain education studies. Generally, interventions involving pain nursing education, the audit of pain nursing practices, and documentation, along with feedback, were found effective in helping nurses adapt their pain management and assessment practices, thereby enhancing patient satisfaction. Nevertheless, additional research using reproducible, evidence-based pain education interventions is required for a more comprehensive understanding and validation of these findings. This systematic review was helpful in including diverse pain nurse education strategies that have been implemented in previous years to consider in this QI project. |
| assessment to pain intervention. JONA: The Journal of Nursing Administration, 51(7) https://journals.lww.com/jonajournal/fulltext/2021/07000/time_from_pain_assessment_to_pain_intervention.8.aspx | southwest US Post surgical department composed of 2 nursing units with 18 patient rooms each. Both units staffed with the same nurses rotating between units. Average daily census of 34.7 patients and average LOS 3.6 days. | time from pain alert to intervention, with the goal of alleviating or reducing acute postsurgical pain. Descriptive statistics were utilized to look at how much time passed between checking for pain and providing pain medications, how often nurses performed certain tasks, what factors influenced them, and how they evaluated and dealt with acute post-surgical pain. Qualitative analysis included quotes and descriptions. | Considered nurses’ familiarity with their assigned patients and change in care demands throughout their entire shift. Concurred with previous studies: documentation, medication administration, and care coordination accounted for nurses’ time. Transition of patients from unit to unit made patients more vulnerable to untreated pain. Nurses can only intervene as analgesic order verification is completed and available in the setting between the transition of patients from the PACU to postsurgical units. In this setting, nurses gave PRN orders for pain meds on a scheduled basis to prevent and treat postsurgical pain immediately. Tasks that could be delegated to ancillary staff often increase perceived workload of nurses and can delay analgesic med administration and impede care. This study considers many factors that contribute to the delay or untreated acute pain. It helps understand the complexity of a nurses’ role on a post surgical unit to consider any limitations for our own project regarding pain assessment. It provides insight to come up with unit specific solutions. |
that depicted the interaction between nurses, patients, family members, and other healthcare providers during pain assessment and intervention.

| 7 | Morris, J. L., Bernard, F., Bérubé, M., Dubé, J. N., Houle, J., Laporta, D., Morin, S. N., Perreault, M., Williamson, D., & Gélinas, C. (2021). Determinants of pain assessment | Descriptive-correlational retrospective study design | 345 medical charts of the ICU from 5 teaching hospitals between 2017-2019 | Problem: Underassessment of pain as a barrier to effective pain management | Level III/B Clear aims and objectives, sufficient sample size for the study design, consistent recommendations and discusses limitations | Gold standard - pain self report - intensity, location, quality - however it may not be possible in the setting of the ICU. Use of other pain assessment tools for communicative and noncommunicative patients (Behavioral Pain Scale or Critical Care Pain Observation Tool) ** Are all specialty nurses trained on these??** Site contextual factors, standardized documentation, access to tools and protocols, and staff training Findings: Behavioral pain assessment tools are not widely implemented (Less than ¼ of documented pain assessments used the CPOT The frequency of pain assessments increased when the patient was close to awake or fully awake. By the same manner, pain assessment is less frequent for those unable |
ENHANCING PAIN DOCUMENTATION IN MEDICAL SURGICAL UNITS

<table>
<thead>
<tr>
<th>documentation in intensive care units.</th>
<th>and management in five Quebec ICUs</th>
<th>to self report and behavioral pain scales are underutilized in clinical practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinants de la documentation de l’évaluation de la douleur dans les unités de soins intensifs.</td>
<td>2) to describe their practices in documenting pain assessments</td>
<td>The frequency of pain assessment/reassessment post opioid administration is still suboptimal</td>
</tr>
<tr>
<td>Canadian journal of anaesthesia = Journal canadien d’anesthésie, 68(8), 1176–1184.</td>
<td>3) to identify sociodemographics and clinical determinants that are correlated with pain assessment documentation</td>
<td>Documentation pain assessments were below the minimum recommended frequency that may be attributable to high variation in the implementation of pain assessment tools across sites</td>
</tr>
<tr>
<td><a href="https://doi.org/10.1007/s12630-021-02022-1">https://doi.org/10.1007/s12630-021-02022-1</a></td>
<td></td>
<td>Limitations: retrospective design limits choice of variables to those documented in medical charts. Socio demographics can also limit pain assessment and were also not consistently recorded in the EHR. Delirium was not considered which is pertinent to the ICU. Pain may be assessed but failed to be documented at times.</td>
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<td></td>
<td></td>
<td>This article highlights the importance of using a pain scale that fits the current patient needs. It underscores whether there is a need to revise the current pain scale protocol or close the gap in nurses knowledge on the different pain scales available if their patient is nonverbal, asleep, etc.</td>
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<tr>
<td><strong>Program evaluation using a Knowledge to Action Framework</strong></td>
<td>44-in-patient wards at 3 hospitals during a 12 month period</td>
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<tr>
<td>2002 patient medical records</td>
<td></td>
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<tr>
<td>1432 patient surveys - majority which reported pain during hospitalization</td>
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<tr>
<td>Implementation of new pain assessment routines established in an education and support programme for nurses and nurse assistants working in in-patient wards</td>
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<tr>
<td>Evaluation of the situation at baseline 6-month follow up 12-month follow up Using a documentation survey of the medical records and a patient survey</td>
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</tr>
<tr>
<td>Level V /B Clear aims and objectives, formal QI method used, comprehensive literature review, reasonably consistent recommendations</td>
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</tr>
</tbody>
</table>
| Research group gathered feedback from the Pain Resource Nurses (PRNs) for three hospitals in Östergötland County that included information about barriers to implementation of regular pain assessment. This feedback helped design the education and support programme for the unit. Evaluation of the outcomes of pain assessment were obtained through medical records and short patient questionnaires. Findings: Pain assessments using Numeric Scale rating and any other pain scale increased significantly according to surveys at 6m and 12m follow up Documentation of reassessment after receiving rescue medication remained low A large discrepancy between management and documentation of transient pain was found Systematic pain assessment increased, however reassessment related to rescue medication was not satisfactory. May be good to add physicians input to patient assessment and increase interactivity and support This article serves as an example of an implementation initiative that leverages feedback from the unit to
evaluate obstacles and devise tailored solutions for pain assessment. The use of the numeric rating scale, currently in place at the site of interest, is part of the project. In addition, medical record audits and patient questionnaires could serve as supplementary sources of data to evaluate patient’s perceived pain relief within the studied unit.

|   | Phillips, M. E., Gilmore, R. A., Sheffield, M. C., & Phan, S. V. (2019). Pain assessment documentation after opioid administration at a community teaching hospital. *Journal of pharmacy practice, 32*(2), 179–185. https://doi.org/ | Retrospective randomized pre-and post intervention study | 320 patient chart reviews - 160 patients per group | Purpose: To assess pain assessment documentation frequency before and after nurse education intervention in patients that received opioid therapy. Nurse training intervention on how to appropriately reassess pain within time frame based on route of med admin and medication pharmacokinetics (6-15 min for IV, 15-30 min for IM) | Level III/ B Reasonably consistent results and recommendations, sufficient sample size for the study design | Education training was made via hospital intranet electronically and included a brief assessment quiz. Standardized close monitoring for patients with dosing changes or at the beginning of opioid therapy to minimize confusion about which parameters to monitor. Primary outcome measure: comparing frequency by which nurses documented pain scores according to medication route. Secondary outcome measure: time and date of each assessment of vital sign, sedation level, respiratory status. Efficacy of assessments via documented pain scores increased significantly after the nurse education intervention.

- April data set- 32.9% of 1890 opioid administrations had a pain score recorded post dose within appropriate time frame.
- October data set- 37.8% of 1446 opioids administered
  - statistically significant P= 0.003
  - efficacy assessments increased by 4.9%
ENHANCING PAIN DOCUMENTATION IN MEDICAL SURGICAL UNITS

| 10 | Wissman, K. M., Cassidy, E., D'Amico, F., Hoy, C., Vissari, T., & Baumgartner, M. (2020). Improving pain reassessment | 8-month Pre-post interventional study | - 581 patient encounters in a 26-bed community teaching | Problem: 1-month sample audit of the ED with patients with extremity pain showed a pain score assessment compliance only occurring 33% of time | Level V/B Clear objective, consistent results in a single setting | 57 nurses- pre intervention period 52 nurses- intervention period 59 nurses- post intervention period Sensitivity analysis for all 3 periods |

Parameters to be assessed following opioid admin
Where the EMR documentation should be placed
Med times were determined by hospital policy since no consistent recommendations in place by literature

- Difference in pain score documentation frequency between IV (4.4%) and oral administration (8.3%)

Limitations: very few patients received IM injection and others only received opioids on an “as needed” basis so subsequent monitoring efficacy and safety was not always consistently documented

The current study's significance lies in the potential advantages of employing an educational intervention through a pre-post-intervention study design and considered PRN medications. This is of importance because medical surgical floors like the ones included in this project care for patients where pain medications are not scheduled regularly and/or pain is not the main focus of their admission.
Enhancing pain documentation in medical surgical units

Hospital emergency department reassessment and documentation:

- 6 focus groups, each with an average of 3 nurses, were conducted to identify nursing barriers and deliver education on the importance of pain reassessment for enhancing pain management.
- Performed daily audits to convey positive reinforcement and offer constructive feedback to emergency nurses versus only those emergency nurses who participated in all 3 periods to compare pre intervention period 37.9% post intervention 60.1%

Each individual variable consistently had a 25-30% increase in pain reassessment and documentation rates from pre and post intervention periods.

Findings: daily audits and weekly newsletters can have a significant impact on current pain assessment and reassessment documentation rates.

Consideration to monitor for longer periods of time for sustained improvement.

Limitations: Brief post-intervention period to assess whether the notable rise in pain score reassessment and documentation rates remained consistent or returned to baseline.

The attrition rate at this hospital is substantial, as only 37 out of the 76 nurses were employed throughout the entire 8-month-study period.

This article is pertinent to the quality improvement under consideration as it incorporates education as an intervention and leadership support through weekly newsletters. The significant impact of these newsletter lies in effectively communicating the evolving pain.

<table>
<thead>
<tr>
<th>individual nurses</th>
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<tbody>
<tr>
<td>• Weekly newsletters as a means of continual education and provide continuous feedback to the entire department on the rate of pain</td>
</tr>
</tbody>
</table>

Assessment/reassessment scores to the unit, involving everyone in the improvement plan.

Abbreviations: PRN- as needed.


Key words: pain assessment education, pain reassessment, documentation compliance, opioid administration documentation,

Resources used: CINAHL, Google Scholar, PubMed
**Project: Statement of Determination and Non-Research Determination Form**

**Student Name:** Mariana Arias

<table>
<thead>
<tr>
<th><strong>Title of Project:</strong> Improving Opioid Pain Assessment and Reassessment Documentation in Medical-Surgical Units</th>
</tr>
</thead>
</table>

**Brief Description of Project**

- **Data that Shows the Need for the Project**
  Patient assessment and reassessment documentation compliance rates for two medical-surgical units at a 244-licensed-bed hospital in Northern California prompted a need for improvement from the February 2024 quarterly report indicating a pre-assessment documentation rate of 68.5% for unit A and 70.4% for unit B, and a post-assessment documentation rate of 89.1% for unit A and 85.2% for unit B. With the acceptable compliance rate at 90%, current pain assessment and reassessment compliance data remained inadequate.

- **Aim Statement**
  By April 30, 2024, our mission is to improve nurses' pain pre and post-reassessment documentation on the medical-surgical floor, which will increase to reach a total of 90% compliance.

- **Description of Intervention(s)**
  - Surveys on the current knowledge of pain assessment and reassessment of hospital policy
  - Investigating current policy and whether it aligns with current practice
  - Monthly newsletter - Include education on how to check their own compliance
  - Workflow wisdom pearls & shout outs for excellent compliance
  - Pain assessment reminders during huddles, as well as display of posters
and physical reminders on workstations

- **Desired Change in Practice**
  The desired change in practice would include increased pain assessment and reassessment documentation. Specifically, both units of the medical-surgical floors would have a satisfactory rate of 90% or greater for both pre-and post-pain assessment. In addition, the nurses would be more aware of the four specific criteria of oxygen saturation, pain level, respiratory rate, and sedation level that are needed to fulfill the assessment requirement.

- **Outcome measurement(s):**
  After the intervention phase of educating nurses with a standardized workflow, posting reminders on computers and bathrooms, and adding reminders to huddle blurbs, the Quality Improvement (QI) team aims to manually audit pain pre-assessment and post-assessment documentation performance in April to assess whether a productive change in chart documentation for pre- and post-assessment was made. The quarterly results of pain pre- and post-assessment documentation rates from quality would be the objective result of the interventions implemented.

**Beginning of Abstract:**

This Quality Improvement (QI) project aims to address the suboptimal pain assessment and reassessment documentation compliance rates in two medical-surgical units of a 244-licensed-bed hospital in Northern California. The February 2024 quarterly report highlighted the inadequacy, with rates falling below the acceptable 90% threshold. This project will be accomplished by April 30, 2024, focusing on implementing a multifaceted intervention plan. This plan involves conducting surveys to gauge current knowledge, assessing policy alignment with practice, and providing education on updated policies and workflow. The education will be disseminated through small reminders posted on computers used for charting, flyers in the bathroom and break rooms, and a comprehensive poster highlighting the workflow process. Physical reminders from the charge nurses during huddles will also be utilized to optimize these efforts. The desired change encompasses achieving and sustaining a 90% or greater for pre- and post-pain assessments. The project's success will be measured through quarterly report cards, evaluated by the nurse educator at the end of April, to determine the effectiveness of the interventions and the achievement of productive changes in chart documentation.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used:
(http://answers.hhs.gov/ohrp/categories/1569)
This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

Instructions: Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>YES</td>
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</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive standard of care.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP. The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.</td>
<td>YES</td>
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</table>
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”

| YES |  |

**ANSWER KEY:** If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

**STUDENT NAME (Please print):** Elba Mariana Arias

__________________________
Signature of Student:

__________________________ DATE __3/8/24__
## Appendix C

### GANTT CHART

**Project Title:** Enhancing Pain Assessment and Reassessment Documentation in a Medical Surgical Unit  
**Project Members:** Martina Amari, Megha Baranapal, Aftab Esmail, Helen Heering, Katherine Luna, Isabell Serrill  
**Project Timeline:** 4/3/20 to 6/3/24

<table>
<thead>
<tr>
<th>Task Title</th>
<th>Start Date</th>
<th>Due Date</th>
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</thead>
<tbody>
<tr>
<td><strong>Project Initiation</strong></td>
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<tr>
<td>Scheduling</td>
<td>4/1/24</td>
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<tr>
<td>Misson analysis</td>
<td>4/1/24</td>
<td>4/3/24</td>
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<tr>
<td>Address stakeholders</td>
<td>4/1/24</td>
<td>4/3/24</td>
</tr>
<tr>
<td>Guidelines (policy &amp; procedure)</td>
<td>4/1/24</td>
<td>4/3/24</td>
</tr>
<tr>
<td>AMI PCIO Statement</td>
<td>4/3/24</td>
<td>4/11/24</td>
</tr>
<tr>
<td>Gantt chart</td>
<td>4/21/24</td>
<td>4/18/24</td>
</tr>
<tr>
<td><strong>Project Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzing obtained data</td>
<td>4/16/24</td>
<td>4/23/24</td>
</tr>
<tr>
<td>Evidence appraisal table</td>
<td>4/16/24</td>
<td>4/23/24</td>
</tr>
<tr>
<td>Literature review</td>
<td>4/16/24</td>
<td>4/23/24</td>
</tr>
<tr>
<td>Budget planning</td>
<td>4/26/24</td>
<td>4/31/24</td>
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<tr>
<td>Posterior analysis</td>
<td>4/26/24</td>
<td>4/3/24</td>
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<tr>
<td>Structuring education training</td>
<td>4/26/24</td>
<td>4/3/24</td>
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<tr>
<td>Supplementary teaching aids</td>
<td>4/26/24</td>
<td>4/3/24</td>
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<tr>
<td>Statement of research determination</td>
<td>4/3/24</td>
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<tr>
<td><strong>Project Implementation</strong></td>
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<tr>
<td>Conduct a meeting w/ clinical/instructor to approve the educational/training material</td>
<td>4/11/24</td>
<td>4/15/24</td>
</tr>
<tr>
<td>Providing education to the staff nurse</td>
<td>4/13/24</td>
<td>4/23/24</td>
</tr>
<tr>
<td>Utilizing the collected materials on the unit floor</td>
<td>4/13/24</td>
<td>4/23/24</td>
</tr>
<tr>
<td>Project Performance evaluation</td>
<td>4/18/24</td>
<td>4/22/24</td>
</tr>
<tr>
<td>Paper draft #1</td>
<td>4/18/24</td>
<td>4/24/24</td>
</tr>
<tr>
<td>Microsystem reassessment [still feedback/questions]</td>
<td>4/25/24</td>
<td></td>
</tr>
<tr>
<td>HOSA Cycle</td>
<td>3/5/24</td>
<td>3/19/24</td>
</tr>
<tr>
<td>Project updates from the educator</td>
<td>3/5/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td><strong>Project Evaluation and Synthesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chart building reassessment</td>
<td>4/1/24</td>
<td>4/15/24</td>
</tr>
<tr>
<td>Paper draft #2</td>
<td>4/9/24</td>
<td>1/14/24</td>
</tr>
<tr>
<td>Peer review submission</td>
<td>4/9/24</td>
<td>4/29/24</td>
</tr>
<tr>
<td>Final paper</td>
<td>4/22/24</td>
<td>4/29/24</td>
</tr>
<tr>
<td>Peer presentations</td>
<td>4/22/24</td>
<td>4/30/24</td>
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</tbody>
</table>
Appendix E - SWOT Analysis

**STRENGTHS**
- Previous project done to enhance pain documentation
- Accessibility to compliance tracking tool
- Post-Assessment percentage meets standard
- EPIC user interface
- Prior quality charge RN

**WEAKNESSES**
- Slow-acting change occurs on the floor.
- Lack of management/charge leadership in one unit
- Staff RN resistance
- Not using the compliance tracking well
- Pre-assessment is not doing as well as post-assessment
- A wide variety of patient needs
- No access to the quality stand-view
- Quality department not accessible

**OPPORTUNITIES**
- Magnet Institution (value education and growth)
- The Joint encouraged enhancing pain assessment and documentation to avoid opioid related sentinel events

**THREATS**
- Unclear policy information specific to pre-assessment timing
- Inconsistent Quality reporting
## Appendix F

### Implementation Cost

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Supplies</td>
<td>$73.04</td>
</tr>
<tr>
<td>CNL Cost</td>
<td>$23,400.00</td>
</tr>
<tr>
<td>Cost for med-surg x to remain at 90% compliance</td>
<td>$171,288</td>
</tr>
<tr>
<td>(per year)</td>
<td></td>
</tr>
<tr>
<td>(390 [average number of pts with opioid administration cencus per year x 0.10 [10% non-compliance rate]) x 366 (cost of code blue) x 12 (months in one year)</td>
<td></td>
</tr>
<tr>
<td>Cost for med-surg y to remain at 90% compliance</td>
<td>$197,640</td>
</tr>
<tr>
<td>(per year)</td>
<td></td>
</tr>
<tr>
<td>(450 [average number of pts with opioid administration cencus per year x 0.10 [10% non-compliance rate]) x 366 (cost of code blue) x 12 (months in one year)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost of Implementation</strong></td>
<td>$23,473.04</td>
</tr>
</tbody>
</table>

### Benefit/Savings

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Code Blue</td>
<td>$366</td>
</tr>
<tr>
<td>Cost for med-surg x to remain at 78% compliance</td>
<td>$376,834</td>
</tr>
<tr>
<td>(per year)</td>
<td></td>
</tr>
<tr>
<td>(390 [average number of pts with opioid administration cencus per year x 0.22 [22% non-compliance rate]) x 366 (cost of code blue) x 12 (months in one year)</td>
<td></td>
</tr>
<tr>
<td>Cost for med-surg y to remain at 78% compliance</td>
<td>$434,808</td>
</tr>
<tr>
<td>(per year)</td>
<td></td>
</tr>
<tr>
<td>(450 [average number of pts with opioid administration cencus per year x 0.22 [22% non-compliance rate]) x 366 (cost of code blue) x 12 (months in one year)</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost for both med-surg units to remain at 78% compliance (per year)</strong></td>
<td>$811,642</td>
</tr>
<tr>
<td><strong>Total Cost for both med-surg units to remain at 90% non-compliance (per year)</strong></td>
<td>$368,928</td>
</tr>
<tr>
<td><strong>Cost Avoidance</strong></td>
<td>$442,714</td>
</tr>
<tr>
<td><strong>Net Savings</strong></td>
<td>$419,241</td>
</tr>
</tbody>
</table>

Cost-benefit Analysis
ENHANCING PAIN DOCUMENTATION IN MEDICAL SURGICAL UNITS

Appendix G

When was the last time you reviewed the policy for pain assessment and re-assessment?
50 responses

- ONLY Upon hire/ New-hire orientation: 30%
- 2+ years ago: 24%
- 1-2 years ago: 14%
- 6-12 months ago: 20%
- 1-6 months ago: 2%

Which required fields must be filled out when charting pain assessments and re-assessments according to the policy?
50 responses

- Respiratory Rate: 48 (96%)
- O2 Saturation: 48 (96%)
- Pain Score: 48 (96%)
- Sedation Score: 47 (94%)
- Pain Scale Used: 43 (86%)
- Depend on if they’re opioids: 1 (2%)
- Intervention: 1 (2%)
- Response to intervention: 1 (2%)

When should reassessment be conducted for PO opioid pain medications?
50 responses

- Within 15 minutes: 100%
- Within 30 minutes: 0%
- Within 60 minutes: 0%
- There is no time limit: 0%

When should reassessment be conducted for IV/IM opioid pain medications?
50 responses

- Within 15 minutes: 98%
- Within 30 minutes: 2%
- Within 60 minutes: 0%
- There is no time limit: 0%

Do you find the current pain assessment and reassessment policy efficient and reasonable?
50 responses

- Yes: 98%
- No: 2%
- Not familiar with the current policy: 0%

What are the barriers to completing the pain assessment/reassessment in a timely manner? (ex: lack of time, lengthy charting)
32 responses

- Lack of time: 31 (96.9%)
- Patient behavior, if the patient is unavailable: 3 (9.4%)
- Not steady back to pain: 2 (6.2%)
- Lengthy charting: 2 (6.2%)
- Sometimes forgetting: 2 (6.2%)
- Need a set system: 2 (6.2%)
Please provide any suggestions to improve pain assessment/reassessment in your unit.

12 responses

<table>
<thead>
<tr>
<th>Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>It is fine the way it is</td>
</tr>
<tr>
<td>Dashboard reminder</td>
</tr>
<tr>
<td>We have excellent pain assessment and reassessment in our unit.</td>
</tr>
<tr>
<td>no</td>
</tr>
<tr>
<td>none</td>
</tr>
<tr>
<td>It's okay how it is right now</td>
</tr>
</tbody>
</table>

Pre-Intervention Survey
Appendix H

IMPROVING CHART DOCUMENTATION FOR PRE & POST PAIN ASSESSMENT

Did you know you can keep track of your OWN pain assessment compliance reports? Take a look at your progress and see how YOU contribute to the next quarterly report! Assess, Track, Elevate!

AFFILIATION
University of San Francisco

TIPI
Add “Reassess Pain” tab on Patient Lists

PURPOSE/GOAL
Compliance rates for B4- Feb 2024 are: [Pre-assessment 68.5%/ Reassessment 89.1%]. Compliance rates for B5- Feb 2024 are: [Pre-assessment 70.4% / Reassessment 85.2%].

Our goal is to achieve and maintain a 90% or above by next quarterly report for April.

SELF-REPORT INSTRUCTIONS
One of Epic’s features allows nurses to check Opioid documentation compliance!
1. Sign in to Epic
2. Click the Bar graph
3. Click Nurse Learning Home
4. In the Search bar type: Nursing- My Impact
5. Click the star to save this report to your Dashboard!

CRITERIA
For pre-assessment chart within MAR:
- Respiration Rate
- Oxygen Saturation
- Pain Level
- Sedation Level
For re-assessment chart within FLOWSHEET

PRE-ASSESSMENT
Although the policy does not specify the timing for pre-assessment, the initial assessment for pain is required along with the four qualifying factors (RR, O2, Pain level, and Sedation level) prior to the administration of opiates.

RE-ASSESSMENT
JMC Policy states:
- PO: assess within 1 hour
- IV & IM: assess within 15-30 mins

TIPI
Remember to include pending pain assessments during hand-off reports

Educational Poster
Assess & Reassess.

Document all four criteria before and after administering narcotics:

- SpO2
- Respiratory rate
- Sedation scale
- Pain score

PAIN ASSESSMENT CHECKLIST

- SpO2
- Respiratory Rate
- Pain Score
- Sedation Scale

Bathroom Flyers

Small Cards
## Appendix I

### Do you have any feedback on how to improve pain assessment and reassessment documentation compliance?

<table>
<thead>
<tr>
<th>Feedback</th>
<th>22 responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>In the nar, the RR and SpO2 will not automatically insert when I try to click it in when documenting the full pain assessment. It has to be documented manually if this can be fixed</td>
<td></td>
</tr>
<tr>
<td>I already like the reminder given on epic. I am a traveler but I rely on this already because it tells you what to enter</td>
<td></td>
</tr>
<tr>
<td>Unaware that we could access our own reports. But epic reminder for pain reassessment is helpful enough</td>
<td></td>
</tr>
<tr>
<td>There should be a hard stop reminder on the pre-assessment to ensure we get the required criteria so are not getting flagged for compliance</td>
<td></td>
</tr>
<tr>
<td>I did not see the poster in the break room. Or at least didn’t notice it.</td>
<td></td>
</tr>
</tbody>
</table>

### Helpful information and reminders

<table>
<thead>
<tr>
<th>Feedback</th>
<th>44 responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual aids were helpful</td>
<td></td>
</tr>
<tr>
<td>Visually are helpful</td>
<td></td>
</tr>
<tr>
<td>Epic reminders are helpful</td>
<td></td>
</tr>
<tr>
<td>Huddle reminder was not consistent</td>
<td></td>
</tr>
<tr>
<td>Epic is helpful</td>
<td></td>
</tr>
<tr>
<td>N/a</td>
<td></td>
</tr>
<tr>
<td>Reminders on the brain as well as patient list</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Make a reminder on my SBAR to reaccess pain.</td>
<td></td>
</tr>
<tr>
<td>More accurate reporting for change of shifts</td>
<td></td>
</tr>
</tbody>
</table>
Appendix J

**ACT**
- Implement education and supplemental resources
- Assess data after intervention
- Collect feedback from stakeholders
- Evaluate the effectiveness of intervention

**STUDY**
- Compare pain assessment and reassessment dashboard data to observations and prediction
- Review past projects to gain insights
- Conduct research on relevant literature and latest evidence-based practice

**PLAN**
- Identify what required criteria is needed to meet compliance for pain assessment and reassessment
- Review hospital policy to ensure it aligns with current practice
- Obtain quarterly data to identify a need for improvement

**DO**
- Collect surveys to identify barriers for timely documentation
- Analyze data from surveys
- Conduct microsystem analysis by observing the units
- Obtain feedback and approval from unit managers to proceed with interventions

PDSA Cycle
Appendix K

Quality Data Report April 2024