Pain Assessment and Reassessment Documentation Improvements in Medical-Surgical Units

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Pain Assessment and Reassessment Documentation Improvements in Medical-Surgical Units

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N670 ME-MSN Internship

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Abstract

Problem Pain management is essential when providing quality care, and adequate documentation of pain assessment and reassessment with administration of opioid pain medications by nurses is necessary for patient safety and satisfaction. Context Nurses play a pivotal role in providing safe and effective administration of opioid pain medication and documentation of pain assessments. This quality improvement (QI) project aimed to increase opioid medication administration assessment and documentation compliance rate for nurses to 90% or greater in two medical-surgical units. Intervention A knowledge check survey was utilized to assess nurse understanding of required data needed to document, and timing for documentation to meet compliance. Interventions included visual reminders, informational posters, and instructions on how to access individual compliance reports. Measures A post-intervention survey was used to collect nurse feedback on effectiveness of interventions and to gather further suggestions. Quarterly compliance rate data was obtained to identify if improvements in compliance rates were achieved. Results Unit A scored 62% for pre-assessment compliance, and 90% for reassessment compliance. Unit B scored 77% for pre-assessment compliance and 89% for reassessment compliance. Conclusions Providing visual aids as reminders for completing pain assessment and reassessment documentation and expanding nurse education on current self-compliance rates are useful for increasing nurse documentation compliance rates in medical-surgical units. Further evaluation of pain assessment and reassessment documentation compliance rates are required to identify sustainability and opportunities for greater improvements.

Keywords: pain assessment, reassessment, documentation, quality improvement, medical-surgical, compliance
Pain Assessment and Reassessment Documentation Improvements in Medical-Surgical Units

Pain, the fifth vital sign, is subjective and can be complex. In an inpatient setting, pain is common and the need to address it should be a priority for healthcare providers. Pain can be assessed in several ways, and effective pain management requires regular pain assessment often using a self-reporting scale, when possible, to help identify the most appropriate intervention. In fact, a structured pain assessment, often conducted by nursing staff, should be used to help identify the type, and possible causes of a patient’s pain, and to help evaluate the effectiveness of the intervention utilized (Cox, 2022). Additionally, for patient safety reasons, when using opioids for treating pain, pain assessments are particularly important in preventing opioid-induced ventilatory impairment, which is categorized by respiratory depression and a decreased level of consciousness (Cox, 2022). Ultimately, pain assessments are important for identifying baseline data to help evaluate interventions taken to treat pain, and adequate documentation helps aid in the comprehensive treatment of a patient’s pain and creates better patient outcomes.

Problem Description

The quality improvement project focuses on two medical-surgical units at Hospital A in the Bay Area. The patient population consisted of adults from diverse ethnic and racial backgrounds and different socio-economic groups. It is important to acknowledge that patients admitted to these medical-surgical floors were there for a wide array of medical issues that ranged in level of acuity. The nurse-to-patient ratio on these floors is typically 1:4, but can sometimes be 1:5 depending on patient acuity. Nurses are responsible for completing several tasks in a fast-paced environment, while ensuring safe and efficient patient care. There are a total of 100 nurses combined on both units. Pain assessments are conducted by nurses on the units
every time before administration of pain medication. Specifically, for opioid pain medication
administration, according to hospital policy, required pain assessment documentation criteria
includes respiratory rate, oxygen saturation, pain score, and sedation scale. Additionally,
reassessments should take place within a required time frame after administration of medication
dependent on route administered. For intravenous (IV) medications reassessments are to be
conducted within 30 minutes, and for oral (PO) medications within 60 minutes.

Results from monthly data collected for pain assessment and reassessment documentation
compliance revealed unsatisfactory compliance rates in both medical-surgical units at Hospital
A. The baseline data indicated that compliance was consistently below the acceptable 90% rate,
with ratings at 69% on unit A and 70% on unit B for pain assessments at time of medication
administration, and 89% on unit A and 85% on unit B for reassessments. Based on the data, it
can be concluded that if pain assessments are not being documented, then they are not being
performed. This data poses a problem on the medical-surgical units at Hospital A regarding
adequate pain assessment and reassessment documentation that required further investigation to
identify the true root causes of the issue. It is imperative that adequate pain assessment
documentation be conducted for both patient safety, and satisfactory patient outcomes regarding
pain management.

Available Knowledge

PICOT Question

This quality improvement project aims to address the following problem/population,
intervention, comparison, and time (PICOT) question: “For nurses on a medical-surgical unit (P),
does education (I) about best practices for opioid medication administration assessment and
documentation, compared with no education (C), lead to increased pain assessment
documentation compliance (O) over two months (T)?”. The PICOT question serves as a guide to help find relevant literature that may be used and referenced to conduct the project. Additionally, the PICOT question will aid in focusing the efforts of the intervention used to carry out the improvement project.

**Search Methodology**

Led by the PICOT question, a literature review was conducted using the online search method including CINAHL, Scopus, and PubMed databases. The most helpful keywords used to find literature included *pain, practices, nursing, education, pain assessment, and pain documentation*. Using the search criteria, over 200 articles resulted that related to the desired topic of pain assessment documentation. Upon thorough analysis of the literature, a total of ten articles were selected using the Johns Hopkins Evidence Appraisal Tool to categorize each by level of quality (see Appendix A). The level of evidence of the ten articles chosen ranged to include all levels and good quality (Dang & Dearholt, 2018). Out of the ten articles, two are considered level I, two are level II, four are level III, one is a level IV, and one article is a level V. Inclusion criterion consisted of publications within a range of the last ten years and a focus on an adult population. Exclusion criteria included pediatric and neonatal populations. The focus of the quality improvement project was to ensure adequate documentation of pain assessment using the electronic medical record (EMR). The goal of the quality improvement project was to improve nurse pain assessment documentation compliance rates.

**Literature Review**

**Educational Interventions**

To begin, a randomized controlled trial by Grommi et al. (2021), was conducted in Finland where 50 Registered Nurses (RNs) were randomly assigned to an intervention and
control group. The intervention group was exposed to a short 45 minute, 21 slide, educational PowerPoint lecture related to pain nursing guidelines, and the control group was not. A pre- and post-intervention knowledge check survey was administered to both intervention and control groups. The result of the study showed no significant change in knowledge between intervention and control group and, furthermore, indicated that the educational intervention proved ineffective in improving documentation, as those in the intervention group had worse documentation skills than those in the control group (Grommi et al., 2021). Although this study indicates that providing education on pain assessment and management had no benefit on documentation, it is important to consider that this study could prove beneficial when planning the type of education to be provided to nurses, which may offer different results. Furthermore, a randomized controlled trial performed by Gunnarsdottir et al. (2017), aimed to identify the effectiveness of the Pain Resource Nurse program, an evidence-based educational course developed by experts on pain management, on hypothesized improvements in nurse knowledge, attitudes and assessment practices, adequacy of pain management and severity, and time spent in severe pain. The study was conducted in a 650-bed hospital in Iceland where 23 inpatient medical and surgical units formed the study sample. Twelve units were randomly assigned to receive the Pain Resource Nurse program, and the remaining eleven units formed the control group. The study results indicated that the only improvement after intervention of the Pain Resource Nurse program was an increase in pain assessment documentation from 13% to 25% (Gunnarsdottir et al., 2017). Ultimately, this study demonstrates that a well-developed educational program can be effective in increasing pain assessment documentation rates.

*Education in Conjunction with Dashboards and Audits*
Jungquist et al. (2020), discuss revisions to the American Society for Pain Management Nursing (ASPMN) guidelines for opioid-induced advanced sedation and respiratory depression, which states that patients receiving systemic opioids for pain management are at increased risk for oversedation and respiratory depression. Therefore, it is recommended that hospital policies and procedures reflect the need for all patients receiving opioids to be assessed before opioid therapy and reassessed as needed (Jungquist et al., 2020). Similarly, Ho and Burger (2020), performed a non-experimental study aimed at improving medication scanning and pain reassessment rates in a 167-bed acute-care community hospital in Central California, which highlights the importance of conducting assessments and reassessments prior to and post-pain medication administration to help in identifying the appropriate therapy required for pain management, and to reduce the risk of opioid-related respiratory depression and death. In the study, a stakeholder meeting took place which provided feedback that guided three rapid Plan, Do, Study, Act (PDSA) cycles that included interventions such as weekly dashboards for data transparency, addressing documentation barriers, providing education, and developing non-compliance user dashboards. The study determined that developing weekly audit dashboards proved most effective in improving pain reassessment with a 29% improvement (Ho & Burger, 2020). These results reflect similar results from a quality improvement project performed by Wissman et al. (2020), that took place in the emergency department of a 26-bed community teaching hospital in Pittsburgh, Pennsylvania, where the goal was to improve pain reassessment rates. The intervention included providing education on the importance of pain reassessment to improve pain management, daily audits to provide constructive feedback, and weekly newsletters that shared department-wide rates of pain reassessment. The results of this study showed a 26%
increase in pain reassessment and documented rates from pre-intervention period to post-intervention period (Wissman et al., 2020).

Comparably, Hogan et al. (2016), conducted a quasi-experimental study aimed at assessing the effectiveness of education and a quality improvement (QI) program on pain management in older adults in an urban academic emergency department that serves approximately 60,000 adults annually. It was affirmed that incorporation of education, QI techniques, and weekly reports detailing staff performance on timing of assessments and reassessments helped improve average time to reassessment after analgesic from 86 to 65 minutes, and increased pain reassessment rates from 51.9% to 82.5% (Hogan et al., 2016).

Finally, Grommi et al. (2023), conducted a systematic review and meta-analysis of 23 articles obtained from four data sources, and aimed to identify the effect of pain education interventions on nurse’s pain management. The articles ranged in type of education intervention, intervention duration, sample, and setting, with some articles lacking a control group. The result of the review concluded that all educational interventions showed positive outcomes, with continuous auditing and feedback for nurses resulting in the most effective change in pain management and assessment practices (Grommi et al., 2023). Based on the results of these articles, they all suggest that a combination of education on pain management and consistent feedback on pain reassessment performance rates through dashboards or weekly compliance rate reports are effective in improving pain reassessment and documentation rates.

Other Methods to Consider for Improving Pain Assessment Documentation

A cross-sectional study was conducted from 2006 to 2012 in an adult emergency department at a public urban teaching hospital in Stockholm by Sturesson et al. (2016), with the purpose of identifying the frequency of pain assessment documentation. The interventions
throughout the study included education on pain assessment and documentation, standardizing pain scale used, and creating visible reminders for pain assessments in the patient’s medical records, none of which proved effective until pain assessment documentation became mandatory and computerized in 2010, at which point pain assessment documentation improved (Sturesson et al., 2016). It is, however, important to note that during the study there was no documentation for reassessment of pain found.

A non-experimental observational study was conducted by Ross et al. (2017), to assess pain reassessment workflow and recommend improvements in policies at a large military clinic. The pain reassessment process was evaluated using the EMR to identify documentation practices, and through observation of the clinic workflow. The results of the observations revealed that out of 151 cases, the overall compliance of all requirements for pain reassessment documentation was 28%. The project improvement team recommended that the pain reassessment policy be reviewed and updated to better reflect the organizational goals and objectives for pain management, as well as to provide a standardized template in the EMR for better efficiency in pain reassessment documentation (Ross et al., 2017). The recommendations serve as a guide for improvement in pain reassessment documentation that can be implemented in other hospital settings that may result in successful increases in pain reassessment documentation compliance.

Finally, a pilot study by Samuels and Eckardt (2014), gathered clinical documentation from three community hospitals to examine the impact of pain assessment and reassessment documentation on postoperative pain severity trajectories (PST). Based on the data collected, the results of the study demonstrate that despite low adherence rate, reassessment within one-hour after intervention resulted in more favorable PST (Samuels & Eckardt, 2014). The results of the
study demonstrate that pain assessment and reassessment documentation are essential for adequate pain management.

**Summary of Literature**

In summary, the literature states that pain assessments and reassessments are necessary for patient safety as well as patient satisfaction regarding effective pain management. Additionally, the literature suggests that education and methods to create accountability, such as a visual dashboard or weekly notices of documentation compliance, can be effective in improving pain assessment and reassessment rates. It is important to consider these points when attempting to implement an improvement project regarding pain assessment documentation.

**Rationale/Framework**

Quality improvement in healthcare is essential to providing the best patient care, and change theories serve as a framework to provide guidance on methods to implement improvement changes effectively and efficiently. Roger’s five stage change theory includes: knowledge of the change, persuasion towards the change, decision to adopt the change, implementation of the change, and confirmation by continuing to use the change (McDonald et al., 2004). Roger also acknowledges that change is more likely to occur when it aligns with the current values and beliefs of the organization (McDonald et al., 2004). The medical field has become a catalyst for change and welcomes it when proven to be effective and beneficial, a concept that catapults Roger’s change model to success when utilizing it to promote change among individuals in healthcare.

When introducing change to improve pain assessment and reassessment in a medical-surgical unit, Roger’s five-step change method can be applied to help successfully implement the desired change. After adequate analysis of the microsystem to understand the culture, values, and
beliefs of the unit, a change recommendation will be identified by conducting extensive research on best practices for reassessing pain. The knowledge about the desired change will then be disseminated to all stakeholders in an effort to persuade the desired improvement implementation. Once the change has received adequate support from stakeholders it will be fully adopted and implemented into practice, at which point Plan Do Study Act (PDSA) cycles will be utilized until the change proves effective to implement permanently. Finally, the change will be confirmed by continuing to implement it, making it a part of the new workflow among the microsystems. Ultimately, Roger’s change theory fits best to properly study and identify the desired implementation that may work best for the medical-surgical microsystem by breaking down the process of natural change step-by-step to ensure efficacy and improve documentation of pain assessment and reassessment.

**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 (see Appendix B) followed by a review and approval by University of San Francisco School of Nursing and Health Professions clinical faculty. The project described received no funding and the project group members declare no conflict of interest for the project.

According to the American Nurses Association (ANA) Code of Ethics (2015), provision 2.1: Primacy to the patient’s interests, this provision emphasizes that each plan of care must reflect the fundamental commitment of nursing to the uniqueness, worth and dignity of the patient, and that nurses provide patients with the opportunity to participate in planning and implementing care and support that is acceptable to the patient. This provision is particularly
applicable to the project of improving pain assessment and reassessment documentation because by carrying out adequate documentation of pain progression and encouraging patients to participate in their treatment of pain, it creates a better opportunity to provide appropriate pain management and individualize the care to each patient, ultimately creating better patient outcomes. In addition, the Jesuit value of nurturing the whole person (mind, body, and spirit) applies to the project because ensuring satisfactory pain assessment and reassessment documentation guarantees that patients are being taken care of appropriately. Addressing a patient’s pain is a way of healing and nurturing the whole person, as experiencing pain affects almost every aspect of a person’s life, leading to impaired physical functioning, poor mental health, and reduced quality of life, and contributes to substantial morbidity each year (Dowell et al., 2022). Overall, it is essential that nurses understand the ethical implications associated with proper documentation of pain assessment in providing patient care and apply the value of caring for the whole person to successfully individualize every patient’s treatment.

**Project AIM**

The aim of this project is to increase nurse pain assessment documentation prior to administration of opioid pain medication by 21% for unit A and 20% for unit B, and reassessment documentation by 1% for unit A and 5% for unit B on the medical-surgical units to reach an acceptable standard compliance rate of 90% or greater by the end of April 2024. Successful attainment of this goal will better ensure patient safety by allowing accessibility to data that can help guide appropriate individualized treatment methods for pain, while attempting to eliminate any adverse effects that can result from opioid pain medication treatment. Additionally, adherence to patient pain assessment documentation by nurses provides a method to evaluate the effectiveness of patient specific treatment methods for pain to more efficiently
help in identifying what methods work best for providing each individual patient proper pain management. Ultimately, increasing compliance rates for pain assessment and reassessment documentation in the medical-surgical units benefits both patients and providers by delivering and maintaining a safe and effective form of pain management that can easily be accessed and monitored.

Methods

Context

This quality improvement project took place at a hospital in the Bay Area. The microsystem was assessed using the five Ps: Purpose, Patients, Professionals, Processes, and Patterns. This project specifically focused on two medical-surgical units (unit A and unit B) of Hospital A where the purpose is to provide care to a diverse patient population with a wide variety of acute and chronic conditions, many of whom may be receiving opioid pain medication to treat acute pain. The professionals that form part of the microsystem consist of clinical nurses, nurse leaders such as charge nurses and managers, doctors, nurse assistants, unit secretaries, pharmacists, case managers, social workers, and occupational and physical therapists. The processes that take place include nursing assessments, education, medication administration, pain management, obtaining and monitoring vital signs, and interdisciplinary communication and patient advocacy to achieve the best patient outcomes. Finally, some patterns that characterize the microsystem functioning consist of teamwork and collaboration, policies and procedures, effective leadership, successful communication, and adequate time management.

Upon sufficient microsystem analysis, a Gannt chart containing a timeline of tasks to complete for successful project implementation was created (see Appendix C). Additionally, after critically observing the microsystem a fishbone diagram was utilized to visually recognize
potential root causes to the identified problem of lack of pain assessment documentation (see Appendix D). Moreover, a strengths, weaknesses, opportunities, and threats (SWOT) analysis contains crucial information that was gathered based on microsystem analysis to consider while identifying an appropriate intervention (see Appendix E). Finally, a cost benefit analysis was produced to identify costs and potential savings as a result of the implementation of the intervention (see Appendix F). All these tools were applied to support the organization, planning, and effective execution of the proposed intervention for this quality improvement project.

**Intervention**

The intervention consisted of educational materials on workflow recommendations, reassessment reminders, and compliance tracking tools. To begin, a knowledge check survey was conducted to determine if there were any gaps in knowledge for nursing staff regarding proper criteria and timing required to meet compliance for pain assessment and reassessment documentation (see Appendix G). The survey consisted of a total of seven questions, five of which were multiple choice answers, and two short answers. A total of 50 responses were collected. The survey helped guide the direction of the intervention and helped determine that reminders about timely pain assessment and reassessment documentation, as well as education on more efficient workflow for documentation could potentially help increase compliance ratings. Small reminder cards were placed on the computers used in patient rooms, as well as some nursing station computers, along with flyers posted in staff bathrooms and breakrooms containing information about pain assessment and reassessment compliance requirements which includes pain score, sedation scale, oxygen saturation, and respiratory rate (see Appendix H). Additionally, a comprehensive poster board was placed in both medical-surgical unit breakrooms which contained more in-depth information regarding current compliance rates and goals,
instructions for access to self-compliance reports, documentation criteria, timing for
documentation, and helpful tips (see Appendix I). The tools for the intervention were developed
by a group of six nursing students and were reviewed by the hospital nurse educator and the
medical-surgical unit managers, who provided feedback and approval for the materials to be used
and posted.

Study of the Intervention

Once implemented, the intervention required future studying to recognize any potential
changes that needed to be made. The Plan Do Study Act (PDSA) cycle was utilized to aid in
studying the implementation of the intervention and evaluating its effectiveness or need for
change (see Appendix J). When planning the intervention, the required criteria that meets pain
assessment and reassessment compliance was identified, the hospital policy was reviewed, and
quarterly data was examined. Next, the surveys collected, and observations made on the units
helped in obtaining baseline nurse knowledge data and studying the microsystem. For study,
quarterly data was compared to observations, past similar projects were studied, and a literature
review was conducted to determine best practices. Finally, education on workflow was
implemented, data was assessed through manual chart audits, and an evaluation of the
intervention was performed. Future PDSA cycles can be useful in making small changes in the
intervention as needed until proven to be effective. Additionally, a post-intervention survey for
nurses was used to assess the effectiveness of the intervention and obtain feedback for
improvement (see Appendix K). This survey helped in recognizing if nursing staff was satisfied
with the intervention and if any improvements in pain assessment and reassessment can truly be
attributed to the intervention. Moreover, manual chart audits were conducted for the first two
weeks of April 2024 to observe if compliance rate progress was made, and pain assessment and
reassessment documentation compliance increased. Currently, a third-party data analyst is responsible for gathering the data on compliance rates for pain assessment and reassessment and creating monthly reports for all hospital units. Therefore, conducting manual chart audits allowed for compliance rates to be calculated in real time according to the required documentation criteria from the hospital policy. Further investigation may be warranted to ensure adequate understanding of compliance requirements from both the data collection and nursing perspective.

**Outcome Measures**

This quality improvement project will measure success by tracking monthly pain assessment and reassessment documentation compliance rate. The outcome measure for compliance rate will be collected by a third-party data analyst. Compliance rate reports are typically available at the beginning of every month and sent out via email to each unit in the hospital. Every nursing staff member should receive these emails and have access to the reports as soon as they become available. A compliance rate of 90% or greater is desired for initial pain assessment and reassessment on both medical-surgical units at Hospital A.

**Results**

The quarterly results for April 2024 helped indicate if the project was successful in increasing pain assessment and reassessment documentation compliance rates. According to the results, unit A scored 62% for pre-assessment compliance, and 90% for reassessment compliance. Unit B scored 77% for pre-assessment compliance and 89% for reassessment compliance. Therefore, the compliance rates did in fact increase with the exception of unit A’s pre-assessment score, which decreased by 7% from 69% to 62%. Although unit A’s pre-assessment compliance rate decreased, the reassessment score was the only one that did meet the goal of 90% compliance rate. Moreover, Unit B improved by 7% on pre-assessment and 4% on
reassessment indicating overall improvements in compliance rates for both pain pre-assessment and reassessment. Therefore, any increase in compliance rates could indicate that the intervention may have been successful given the short period of time for implementation. As a result, it can be determined that patients are being better monitored and assessed for pain by nurses leading to improvements in pain management and patient safety.

Discussion

Summary

This quality improvement project was intended to bridge the gap between nurses assessing for pain and adequately documenting their assessments. After conducting a microsystem analysis, it was determined that there was a need to increase pain assessment and reassessment documentation rates on two medical-surgical units in hospital A. An initial knowledge check survey identified that there was not a gap in knowledge for nurses, rather there were time constraints and workflow barriers identified. Therefore, the intervention focused on providing nurses with visual aid reminders and suggestions for workflow improvements to help increase compliance rate scores. Based on the quarterly data obtained for the month of April it was determined that some improvements were made in compliance rates, which indicated that the interventions were somewhat successful. Although unit A’s reassessment compliance rate was the only one to meet the intended goal of 90%, it is important to acknowledge the overall improvements in compliance considering that this project faced time constraints. Therefore, an important lesson learned from this project was that timelines are important to create, keep track of, and meet when facing time constraints. However, this can be difficult to accomplish when it requires communication and collaboration with other sources such as unit leaders, third party data analysts and busy nurses on the floors.
Nevertheless, the success of this project can be attributed to the observations obtained from conducting the microsystem analysis and the determination to help create improvements. Additionally, some strengths of this project include the discovery of inconsistencies with pain assessment documentation practices and hospital policy, as well as how the data is collected and interpreted by the third party data analyst. This creates an opportunity to further investigate any changes that may need to be made to the policy or data collection practices. Finally, this project allowed for an educational moment for nurses to learn more about tools provided to track their own compliance scores, which helps in providing nurse accountability for pain assessment compliance performance.

Limitations

Although some improvements in compliance rates for pain pre-assessments and reassessments were achieved, this improvement project faced some limitations. To begin, resistance to change by nurses on the units was difficult to overcome. It was challenging to achieve stakeholder buy-in to help improve pain assessment and reassessment documentation compliance rates making it difficult to implement the desired teaching. Additionally, a lack of communication with the third party data analyst created difficulties in identifying how and what data specifically was gathered to obtain compliance rates. This was particularly important to the success of this project given that there appeared to be prior inconsistencies with data collection and hospital policy requirements. Further investigation and communication would be needed to truly identify what, if any, informatics or policy changes would need to be made. Moreover, considering the short amount of time given to implement and evaluate the effectiveness of the intervention, this created a limitation as there was a missed opportunity to address any changes to the intervention after implementation that may have been helpful for improving compliance
rates. Finally, a lack of clarity on what criteria was required and what specific documentation timing was needed to meet compliance for pre-assessment according to the hospital policy contributed to a lack of success in improving pre-assessment compliance rate. The unclear policy created confusion in providing nurse education on workflow recommendations for documentation of pain pre-assessments which could have led to undesirable decreases in compliance rate scores for unit A’s pre-assessments.

**Conclusion**

In conclusion, this quality improvement project focused on investigating the effectiveness of providing visual reminders and education on access to self-report tools to improve pain assessment and reassessment documentation rates for nurses in two medical-surgical units. Given the time constraints faced by this project, it is unclear if the implementation of this project is sustainable and generalizable. Further assessment would be required to evaluate the long-term success of this project. Additional recommendations provided by nurses to consider for improving compliance rates are to create informatic improvements such as implementing a hard stop in the EMR for pain assessment criteria at time of medication administration. Furthermore, better communication between unit leaders, data analysts, and nurses are encouraged to ensure clarity of expectations regarding pain assessment and reassessment compliance. Ultimately, this project demonstrated that providing reminders, keeping nurses accountable, and ensuring timely feedback and clear communication can lead to improved pain assessment and reassessment documentation compliance.
References


## Appendix A

### Johns Hopkins Evidence Appraisal Table

<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>
<tbody>
<tr>
<td>1</td>
<td>Grommi, S., Vaajoki, A., Voutilainen, A., &amp; Kankkunen, P. (2023). Effect of pain education interventions on registered nurses' pain management: A systematic review and meta-analysis. <em>Pain Management Nursing</em>, 24(4), 456-468. <a href="https://doi.org/10.1016/j.pmn.2023.03.004">https://doi.org/10.1016/j.pmn.2023.03.004</a></td>
<td>Systematic review and meta-analysis</td>
<td>23 articles regarding pain education interventions and the effect on registered nurse’s pain management were thoroughly reviewed. Four data sources were used including PubMed, Scopus, CINAHL, and ERIC.</td>
<td>Based on the articles reviewed it could be concluded that a combination of methods including nursing education interventions, auditing of pain nursing and documentation, and feedback can be effective in improving pain management, assessment practices, and patient satisfaction. The review of articles provides information on successful interventions that aim to improve assessment practices, among other outcomes related to pain, which directly addresses the problem.</td>
<td>Level III / B Good quality</td>
<td>Limitations: There exist confounding factors in all studies and lacks a control group, making it difficult to assess the studies and make direct comparisons. This also presents the issue of lack of generalizability. Based on the studies reviewed, it is unclear if one particular method of intervention directly correlates with improvements in pain management or pain assessments. Outcome: Pain education interventions and protocols influenced pain documentation, pain assessment, pain reassessment, and patient satisfaction.</td>
</tr>
<tr>
<td>2</td>
<td>Grommi, S., Voutilainen, A., Vaajoki, A., &amp; Kankkunen, P. (2021). Educating registered nurses for pain knowledge and documentation management: A randomized controlled trial. <em>International Journal of Caring Sciences, 14</em>(2), 919–929.</td>
<td>Randomized control trial</td>
<td>Central hospital in Finland. 50 RNs from three different specialized surgical wards were randomly assigned to intervention and control groups.</td>
<td>The intervention consisted of a 21-slide educational lecture implemented on a single day. Nurses were asked to complete an Acute Postoperative Pain Knowledge Test before the education was provided and three months after the intervention to assess for knowledge retention. Documentation auditing was conducted retrospectively. In the Intervention group there showed a knowledge increase from pre- to post-knowledge test. However, there were no significant changes in knowledge of pain management and postoperative documentation skills. There also showed no difference in knowledge retention between intervention and control.</td>
<td>Level I / B Good quality</td>
<td>Limitations: Long-term effects of knowledge impacts were limited, requiring a replicate of this study with a recommended larger sample. Outcomes: The education lecture intervention proved ineffective in changing nurse knowledge and changes to documentation effectiveness resulted even lower. The knowledge test and documentation audit results were contradictory in that nurses that had low scores on the knowledge test implemented documentation better than those with an average score.</td>
</tr>
</tbody>
</table>
| 3 | Gunnarsdottir, S., Zoëga, S., Serlin, R. C., Sveinsdottir, H., Hafsteinsdottir, E. J. G., Fridriksdottir, N., Gretarsdottir, E. T., & Ward, S. E. (2017). The effectiveness of the Pain Resource Nurse Program to improve pain management in the hospital setting: A cluster randomized controlled trial. *International Journal of Nursing Studies, 75*, 83–90. [https://doi.org/10.1016/j.ijnurstu.2017.07.009](https://doi.org/10.1016/j.ijnurstu.2017.07.009) | Cluster randomized control trial | 650-bed university hospital in Iceland. Sample included patients ages 18 and older, native speaking, hospitalized for at least 24 hours, and registered nurses on participating units. 23 medical and surgical units were randomly assigned to the Pain Resource Nurse Program (n=12) or wait-list control (n=11). Data was collected simultaneously on all units on two days, a week apart. Survey questionnaires were then sent to all nurses on participating units. Units were then randomized to receive the Pain Resource Nurse Program (intervention) or control. Ten months later follow-up data was collected from patients and nurses using the same protocol. The Pain Resource Nurse Program is an evidence-based educational course in pain management with a follow-up plan to support Pain Resource Nurses in their role. Education includes nine modules through slide presentation.

The results of the study indicated that documentation of pain assessment improved from 13% to 25% on the intervention units and decreased from 21% to 16% on the control units. | Level I / B Good quality | Limitations: Some changes in the clinical environment could not be controlled such as temporary merging of units, which could have caused contamination between conditions. There was a low response rate of nurses for survey questionnaires. Outcomes: The Pain Resource Nurse Program successfully improved pain assessment practices among those in the intervention group, while those in the control group saw a decrease in pain assessment practices. |
<p>| 4 | Ho, J., &amp; Burger, D. (2020). Improving medication safety practice at a community hospital: A focus on barcode medication administration scanning and pain reassessment. <em>BMJ Open Quality</em>, 9(3), e000987. <a href="https://doi.org/10.1136/bmjoq-2020-000987">https://doi.org/10.1136/bmjoq-2020-000987</a> | Non-experimental study | Sierra View Medical Center (SVCM) a 167-bed acute-care community hospital located in Central California. | At baseline pain reassessment rates were at 41% and bedside barcode medication administration (BCMA) was at 81%. The goal was to reach 90 and 95% compliance rate respectively. Performing pain assessments and reassessments is crucial to help determine the adequate level of therapy and to achieve appropriate pain management while also providing patient safety and reducing adverse effects related to opioid use. Three rounds of PDSA cycles were performed to help identify best interventions for improving and sustaining compliance. Ultimately, visual dashboards which included graphs depicting level of compliance for reassessments resulted in a successful increase in pain reassessment compliance. | Level III / B Good quality | Limitations: This study may not be generalizable considering the amount of work that went into completing each PDSA cycle and the creation of the dashboards and weekly updates sent out by leadership. Outcomes: BCMA scanning rates improved by 14% to a total 98%, exceeding the goal of 95%. Pain reassessments one-hour post-opioid administration improved by 50% to a total of 91% compliance. Improvement was sustained over 17 months after implementation of both projects. |</p>
<table>
<thead>
<tr>
<th>5</th>
<th>Hogan, T. M., Howell, M. D., Cursio, J. F., Wong, A., &amp; Dale, W. (2016). Improving pain relief in elder patients (I-PREP): An Quasi-experimental study</th>
<th>Urban academic ED. Focused on individuals aged 65 and older experiencing moderate to severe pain.</th>
<th>A study was conducted to identify if standardized education and continuous quality improvement for staff in the ED resulted in improved pain management.</th>
<th>Level II / B Good quality</th>
<th>Limitations: The study was conducted at one hospital and in one unit, limiting the results to that particular setting and putting into question the generalizability of the findings.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Ross, A., Feider, L., Nahm, E. S., &amp; Staggers, N. (2017). An outpatient performance improvement project: A baseline assessment of adherence to pain reassessment standards. <em>Military Medicine</em>, 182(5), e1688–e1695. <a href="https://doi.org/10.7205/MILMED-D-16-00104">https://doi.org/10.7205/MILMED-D-16-00104</a></td>
<td>Non-experimental observational study</td>
<td>N=151 patients who received Toradol between February 1 and May 30, 2013. Large military primary care outpatient clinic</td>
<td>Chart audits were conducted to identify gaps in pain reassessment documentation. Workflow was observed including compliance of adequate pain reassessment documentation and barriers to proper documentation. Observations revealed low overall pain reassessment compliance rates for the 30-minute time requirement outlined in the clinic policy, heavy patient load and relying solely on memory, making it difficult to keep up with documentation, and lack of standardized procedures in the EMR design and clinic workflows. Recommendations include creating a pain reassessment template for the EMR, standardization of patient movement</td>
<td>Level III / B Good quality</td>
</tr>
</tbody>
</table>
|   | Samuels, J. G., & Eckardt, P. (2014). The impact of assessment and reassessment documentation on the trajectory of postoperative pain severity: A pilot study. *Pain Management Nursing: Official Journal of the American Society of Pain Management Nurses, 15*(3), 652–663. [https://doi.org/10.1016/j.pmn.2013.07.007](https://doi.org/10.1016/j.pmn.2013.07.007) | Qualitative quasi-experimental pilot study | 3 community hospitals and 146 adult patients who underwent a general, orthopedic, or gynecological surgical procedure with a hospital stay of 12 hours or more. | Pain severity trajectory (PST) can help clinicians identify best methods for therapy. One way to measure PST is through documentation of pain assessment and reassessment post-medication intervention. Reassessment within one hour of intervention resulted in more favorable PST and the association between reassessment and PST may be most useful in determining future documentation policies and identifying effective research. | Level II / B | Limitations: Data entry may have been compromised due to a large amount of data needing to be imputed manually. Reassessment documentation errors may have occurred but may not have been accounted for leading to variations and unreliability of data. This study may not be generalizable due to the differences in the nature of the unit's workflows from which the data was collected. 
Outcomes: The study revealed that pain management documentation (PMD) can influence practice and impact outcomes. Adequate documentation can lead to appropriate pain management, and there should be consistency in what is being documented to be able to pull that data more efficiently, which has the potential to assist in future studies and research. |
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Sturesson, L., Lindström, V., Castrén, M., Niemi-Murola, L.,</td>
<td>Cross-sectional Study</td>
<td>From 2006 - 2012 patients with wrist/arm</td>
<td>The current protocol states that nurses should be assessing a patient's</td>
<td>Level III / B</td>
<td>Limitations: Only the documentation of pain assessment was</td>
</tr>
<tr>
<td>&amp; Falk, A.-C. (2016). Actions to improve documented pain assessment in adult patients with injury to the upper extremities at the Emergency Department – A cross-sectional study. <em>International Emergency Nursing, 25</em>, 3–6. <a href="https://doi.org/10.1016/j.ienj.2015.06.006">https://doi.org/10.1016/j.ienj.2015.06.006</a></td>
<td>fractures or soft tissue injuries in an adult ED of a public urban teaching hospital in Stockholm. Individuals aged 15 years and greater are treated at the ED. 120 patient medical records per year were utilized for data collection.</td>
<td>Good quality</td>
<td>studied, excluding the observation of physical assessments that may have occurred. Results of this study may not be generalizable due to the uniqueness of the setting. The extent to which triage nurses administer analgesics was unknown leading to a potential gap in data.</td>
<td>10 Wissman, K. M., Cassidy, E., D’Amico, F., Hoy, C., Vissari, T., &amp; Baumgartner, M. (2020). Improving pain reassessment and documentation rates: A quality improvement project in a teaching hospital’s Emergency Department. <em>Journal of Pre-post interventional quality improvement project</em></td>
<td>Community hospital emergency department. Six focus groups of emergency nurses. Baseline pain score reassessment and documentation rates were 36.2% in the ED. Post-intervention rates increased to 62.3% during the 3-month post intervention period. Three interventions were implemented to improve pain using a pain rating scale (NRS) and should include documentation of pain assessment before and after administering analgesics. From 2002 - 2010 there were several changes to the pain assessment and administration protocol. In 2010 pain assessment became mandatory. Beginning in 2006, guidelines for pain assessment began to be implemented, but were not properly being followed. It was not until 2010, when pain assessment became mandatory, that pain assessment documentation improved. However, there was no documentation of reassessment of pain found despite administration of analgesics. Level V / B Good quality Limitations: The length of the post-intervention period may have been too short to determine a significant and sustainable improvement in pain score reassessment and documentation. The interventions only applied to the current staff that was available, therefore not</td>
<td></td>
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<tr>
<td>pain reassessment documentation including 6 focus groups of an average of 3 nurses to identify any barriers and provide education on the importance of pain reassessment for providing appropriate pain management, daily audits to provide immediate feedback and encouragement, and weekly newsletters to provide continuing education and department-wide rates of pain reassessments for comparison. The interventions proved successful in improving pain reassessment documentation rates in the ED.</td>
<td></td>
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<tr>
<td>reaching every staff member potentially creating gaps in education for staff. Outcomes: Pain reassessment and documentation rates increased by 26% by the post intervention period as the result of using education for focus groups, daily audits, and weekly newsletter communication to staff.</td>
<td></td>
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</tr>
</tbody>
</table>
Appendix B

Statement of Non-Research Determination

Project: Statement of Determination and Non-Research Determination Form

Student Name: Alicia Espinoza

Title of Project: Improving Pain Assessment and Reassessment Documentation in Medical-Surgical Units

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 the Bay Area prompted a need for improvement from the January 2024 quarterly report indicating 89%. 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 to reach a total of 90% compliance.

• Description of Intervention(s)
  o Surveys on the current knowledge of pain assessment and reassessment of hospital policy
  o Investigating current policy and whether it aligns with current practice
  o Education on the current policy
  o Weekly newsletters
  o 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 implementation of surveys, the QI team aims to examine the quarterly annual rate provided by the nurse educator in mid-April to assess whether a productive change in chart documentation for pre- and post-assessment was made.

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: 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.</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.

| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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.” |

**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):

__________________________
Alicia Espinoza

Signature of Student:

__________________________
Alicia Espinoza

DATE 3/8/2024

SUPERVISING FACULTY MEMBER NAME (Please print):

__________________________
Jennifer Zesati

Signature of Supervising Faculty Member:

__________________________
Jennifer Zesati

DATE 3/21/2024
### GANTT Chart

#### Appendix C

**GANTT CHART**

<table>
<thead>
<tr>
<th>Task Title</th>
<th>Start Date</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Initiation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoping</td>
<td>1/31/24</td>
<td></td>
</tr>
<tr>
<td>PA's</td>
<td>2/1/24</td>
<td>2/4/24</td>
</tr>
<tr>
<td>Microsystem analysis</td>
<td>1/31/24</td>
<td>2/14/24</td>
</tr>
<tr>
<td>Address stakeholders</td>
<td>1/31/24</td>
<td>2/16/24</td>
</tr>
<tr>
<td>Guidelines (analysis &amp; presentation)</td>
<td>1/31/24</td>
<td>2/9/24</td>
</tr>
<tr>
<td>AMR PECO plan</td>
<td>2/8/24</td>
<td>2/11/24</td>
</tr>
<tr>
<td>Gantt chart</td>
<td>2/2/24</td>
<td>2/18/24</td>
</tr>
<tr>
<td><strong>Project Planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzing obtained data</td>
<td>2/18/24</td>
<td>2/23/24</td>
</tr>
<tr>
<td>Evidence approval table</td>
<td>2/18/24</td>
<td>2/26/24</td>
</tr>
<tr>
<td>Literature review</td>
<td>2/18/24</td>
<td>2/26/24</td>
</tr>
<tr>
<td>Budget planning</td>
<td>2/26/24</td>
<td>3/1/24</td>
</tr>
<tr>
<td>Risk analysis</td>
<td>2/26/24</td>
<td>3/1/24</td>
</tr>
<tr>
<td>Structuring education training</td>
<td>2/26/24</td>
<td>3/1/24</td>
</tr>
<tr>
<td>Supplementary teaching sets</td>
<td>2/23/24</td>
<td>3/8/24</td>
</tr>
<tr>
<td>Statement of non-renewable determinants</td>
<td>3/8/24</td>
<td></td>
</tr>
<tr>
<td><strong>Project Implementation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct a meeting w/ clinical instructor to approve the educational training materials</td>
<td>3/11/24</td>
<td>3/15/24</td>
</tr>
<tr>
<td>Providing education to the staff nurses</td>
<td>3/18/24</td>
<td>3/22/24</td>
</tr>
<tr>
<td>Utilizing the collected materials on the unit floor</td>
<td>3/18/24</td>
<td>3/22/24</td>
</tr>
<tr>
<td>Project Performance evaluation</td>
<td>3/18/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td>Paper draft 1</td>
<td>3/18/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td>Microsystem assessment (draft feedback/ revisions)</td>
<td>3/25/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td>PDSA Cycle</td>
<td>3/25/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td>Proposal updates from the educator</td>
<td>3/25/24</td>
<td>3/29/24</td>
</tr>
<tr>
<td><strong>Project Evaluation and Synthesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chart auditing assessment</td>
<td>4/1/24</td>
<td>4/1/24</td>
</tr>
<tr>
<td>Paper draft 2</td>
<td>4/1/24</td>
<td>4/1/24</td>
</tr>
<tr>
<td>Poster submission</td>
<td>4/1/24</td>
<td>4/24/24</td>
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<tr>
<td>Final paper</td>
<td>4/1/24</td>
<td>4/24/24</td>
</tr>
<tr>
<td>Poster presentations</td>
<td>4/20/24</td>
<td>5/3/24</td>
</tr>
</tbody>
</table>

**Timeline:**
- **Week 1 (1/1-1/4)**
- **Week 2 (1/5-1/8)**
- **Week 3 (1/9-1/13)**
- **Week 4 (1/14-1/17)**
- **Week 5 (1/18-1/21)**
- **Week 6 (1/22-1/25)**
- **Week 7 (1/26-1/29)**
- **Week 8 (2/1-2/4)**
- **Week 9 (2/5-2/8)**
- **Week 10 (2/9-2/12)**
- **Week 11 (2/13-2/16)**
- **Week 12 (2/17-2/20)**
- **Week 13 (2/21-2/24)**
- **Week 14 (2/25-2/28)**
- **Week 15 (3/1-3/4)**
- **Week 16 (3/5-3/8)**
- **Week 17 (3/9-3/12)**
- **Week 18 (3/13-3/16)**
- **Week 19 (3/17-3/20)**
- **Week 20 (3/21-3/24)**
- **Week 21 (3/25-3/28)**
Appendix D

Fishbone Analysis

[Image of Fishbone Diagram]

- **People**
  - Unstandardized education
  - Minimal leadership involvement
  - Nurse turnover rates
  - Inefficient time management
  - Prioritize patients' uninterrupted sleep
  - Policy not adequately emphasized during in-unit trainings
  - Ineffective / lack of education
  - Policy has not been revisited

- **Culture**
  - Quick hand-off during breaks
  - Pain re-assessment not prioritized during break hand-off
  - Distractions
  - Flowsheet vs MAR
  - Lack of clarity in qualifications of document compliance

- **Environment**
  - Workload / high nurse patient ratio
  - Nursing shortage
  - Lack of reminders
  - Isolation Room
  - WOWs unavailable / computers
  - Knowledge gap of pre-assessment policy
  - Lack of clear policy guidelines for preassessment

- **Methods**
  - Policy / Procedure

- **Lack of pain assessment documentation in EPIC**
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

### Budget Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td><strong>Implementation Cost</strong></td>
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<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 (per year)</td>
<td>$171,288</td>
</tr>
<tr>
<td>Cost for med-surg y to remain at 90% compliance (per year)</td>
<td>$197,640</td>
</tr>
<tr>
<td><strong>Total Cost of Implementation</strong></td>
<td><strong>$23,473.04</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefit/Savings</strong></td>
<td></td>
</tr>
<tr>
<td>Cost of Code Blue</td>
<td>$366</td>
</tr>
<tr>
<td>Cost for med-surg x to remain at average 78% compliance (per year)</td>
<td>$376,834</td>
</tr>
<tr>
<td>Cost for med-surg y to remain at average 78% compliance (per year)</td>
<td>$434,808</td>
</tr>
<tr>
<td><strong>Total Cost for both med-surg units to remain at 78% compliance (per year)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost for both med-surg units to remain at 90% non-compliance (per year)</strong></td>
<td></td>
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<tr>
<td><strong>Cost Avoidance</strong></td>
<td><strong>$442,714</strong></td>
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<tr>
<td><strong>Net Savings</strong></td>
<td><strong>$419,241</strong></td>
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</table>
Appendix G

Knowledge Check Survey

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

Which required fields must be filled out when charting pain assessments and re-assessments according to the policy?
50 responses
When should reassessment be conducted for PO opioid pain medications?
50 responses

98% within 15 minutes

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

98% within 30 minutes

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

96% Yes
What are the barriers to completing the pain assessment/reassessment in a timely manner? (ex: lack of time, lengthy charting)

32 responses

- Couldn’t keep track with patient...: 1 (1%)
- Lack of time, patient not back to pa...: 2 (6%)
- Not getting back to patient when needed...: 2 (6%)
- Sometimes forgetting to reassess...: 2 (6%)
- Patient behavior, if they aren’t coop...: 2 (6%)
- We need a system reminder...: 1 (3%)
- Lengthy charting: 3 (1%

Please provide any suggestions to improve pain assessment/reassessment in your unit.

12 responses

- N/A
- None
- It is fine the way it is
- Dashboard reminder
- We have excellent pain assessment and reassessment in our unit.
- no
- none
- It’s okay how it is right now
Appendix H

Small Reminder Cards and Flyers

Small Reminder Cards

Flyers
Appendix I

Poster Board

**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 Feb 2024 are: [Pre-assessment 68.5% / Reassessment 89.1%]. Compliance rates for B6- Feb 2024 are: [Pre-assessment 70.4% / Reassessment 86.2%].

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

**SELF-REPORT INSTRUCTIONS**

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

This will ensure your compliance on EPIC

**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**

- 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
Appendix J

PDSA Cycle

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

**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

**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

**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
Appendix K

Post-Intervention Survey

Did you find the pain assessment and reassessment reminders helpful? *

- Yes
- No
- I was unaware of this material

Which reminders did you find the most helpful?

- Small cards on the working stations
- Flyers in the bathrooms
- Poster board in the breakroom
- Shift huddle announcement

Were you able to access your own pain compliance report following the poster board instructions? *

- Yes
- No
- The instructions were not clear

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

Your answer