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Improving Patients' Pain Management Through Proper Documentation

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Improving Patients' Pain Management Through Proper Documentation

(Prospectus Elements 1 – 10)

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University of San Francisco

NURS 653: Internship – Clinical Nurse Leader

Clinical Leadership Theme

The aim of this project is to improve pain assessment documentation on the Surgical Unit. Proper pain assessment documentation serves as a communication tool between healthcare providers and helps find effective ways to manage a patient's pain level to avoid patient harm from prolonged hospitalization stay, inadequate healing, and overall wellbeing. The role of the Clinical Nurse Leader (CNL) is defined by the *American Association of Colleges of Nursing* (AACN) as a provider and manager at the point of care, and "functions within a microsystem and assumes accountability for healthcare outcomes for a specific group of clients within a unit or setting through the assimilation and application of research-based information to design, implement, and evaluate client plans of care" (AACN, 2013). The CNL clinical leadership competency for this project focuses on Quality Improvement and Safety, while the CNL role function is that of Outcomes Manager, one who "synthesizes data, information, and knowledge to evaluate and achieve optimal client outcomes" (AACN, 2013).

Statement of the Problem

The Surgical Unit is a 32-capacity bed unit and is comprised of adults over 18 years of age. The staff consists of 80 Registered Nurses (RNs), 32 Patient Care Associates (PCAs), and 3 unit secretaries. While the majority of patients are admitted for surgical procedures, the surgical unit also accommodates trauma cases and medical patients. The facility is a 625-bed not-for-profit teaching hospital and the only level II trauma center within San Gabriel Valley, in Southern California.

Barriers that exist from proper pain assessment documentation are related to high patient census and acuity, numerous pieces of information necessary to chart for each patient, amount of pain medication a patient is given, and nurses' reports of inadequate time to complete all

required aspects of pain assessment. With the constant churn of patients being admitted, transferred from the recovery room or higher levels of care, along with inpatient discharges, nurses often feel overwhelmed with their responsibilities and workload.

Patients are often admitted to the Surgical Unit with epidural infusions that require hourly assessments for the first 24 hours after initiation. The frequency of performing hourly assessments lays a heavy burden on nurses who are already inundated with their tasks, and may be assigned to a maximum of five patients. Nurses often need to search for hospital policy and procedure as the process for epidural monitoring has varying conditions, depending on the stage from when a patient's epidural was initiated. Between the months of January to February 2016, there was a shortage of Patient Controlled Analgesia (PCA) glass vials which necessitated in RNs having to manually administer a bolus of an opioid through an IV pump every 30 minutes to 1 hour, depending on patient need or request. This extra step in practice and patient acuity added more to the nurses' workload.

Proper pain assessment documentation serves as a communication tool between nurses and healthcare providers to facilitate effective pain management and better patient outcomes. Based on an article that explored pediatric patients' unmanaged pain in the emergency department versus adults, the researchers came to a conclusion: "The relevant research supported the use of education to improve nurses' knowledge of pain, and enhance their pain assessment skills and management practices. Several studies found that pain education is an effective strategy to address the problem of inadequate pain management by improving pain documentation, prompting nurses to provide medication" (Ramira, Instone, & Clark, 2016).

Project Overview

Hospital policy requires that five essential elements are included in documenting pain assessment: pain level, type of pain scale used, functional pain goal (FPG), sedation (RASS, or Richmond-Agitation Sedation Scale), and location. Pain assessment documentation is required within 3 hours of the start of one's shift, before and after pain medication administration, and every four hours or per patient need.

The goal of this project is to improve pain assessment documentation. Patient charts will be audited on four sets of criteria: if a pain assessment was documented prior to administration of a pain medication, which required elements are missing in documentation with special attention to the RASS score, reassessment, and hourly motor/sensory function assessment of a patient with an epidural within the first 24 hours. This data will then be presented to the RN staff during their quarterly unit meetings, not as a punitive measure, but rather to heighten attention on the need for regular assessments.

By presenting relevant data to the Surgical Unit staff, appraising rationales for proper pain assessment documentation, and reviewing hospital policy and procedure for the required elements, the hope is that nursing staff will be reminded to be diligent with documentation. Collaboration will be made with the Clinical Nurse Specialist (CNS), Information Technology (IT) department, pharmacy, and the Nursing Task Force, to devise a way to simplify documentation for nurses.

The overall global aim is to enhance pain documentation, assessment, and communication between healthcare providers to better manage patients' pain, and avoid patient harm. "Pain assessment is a key step in identifying a patient's pain and measuring pain severity. Pain reassessment evaluates the adequacy of pain management interventions and identifies the

undertreated pain" (Song, Eaton, Gordon, Hoyle, & Doorenbos, 2015). Proper monitoring of a

patient's pain level fosters accountability to the caregiver to find effective pain management

strategies; this leads to optimal patient outcomes through faster healing, ability to increase

activity, and decreased hospitalization stay.

Rationale

Between January and February 2016, chart audits were performed on patients admitted

into the Surgical Unit and given pain medications or were on a continuous epidural infusion. On

5 separate dates, the audited data yielded a focus group of 72 patients. Of these patients, two

particular sets of data were collected: Number of times a pain assessment was completed before

medication administration (80%), and number of times all required elements, including RASS,

were assessed (61%). For patients who were on epidural infusions, only 25% were documented

with the required elements within the first 24 hours of initiation.

A root cause analysis was performed to determine barriers in pain documentation by

interviewing RN staff and receiving feedback. One compelling reason this improvement project

would be beneficial is due to the fact that the hospital is expecting a site visit from the Centers of

Medicare and Medicaid (CMS) within the next few months. Per CMS (2014) standards:

"Observing the effects medications have on the patient is part of the multi-faceted medication

administration process. Patients must be carefully monitored to determine whether the

medication results in the therapeutically intended benefit, and to allow for early identification of

adverse effects and timely initiation of appropriate corrective action". The Joint Commission

(2016) requires organizations that treat pain management to, "Recognize the rights of patients,

residents or clients to appropriate assessment and management of pain. Screen patients, residents

or clients for pain during their initial assessment and, when clinically required, during ongoing,

periodic assessments. Educate patients, residents or clients suffering from pain, and their

families, about pain management".

Cost Analysis

Projected cost analysis includes providing a short 15-30 minute in-service for staff

members during their quarterly staff meetings. According to the Bureau of Labor Statistics

(2014), the average hourly mean wage for Registered Nurses was $47.31. For a staff consisting

of 80 RNs, this would be an estimated cost of $1,892.40 to the unit, for a single in-service,

provided that all RN staff are able to attend.

Based on Becker's Hospital Review (2010), the average cost per inpatient day in the state

of California, non-profit hospital, is estimated at $2,590. This amount does not include the

number of days that a patient may need to stay if the reason behind their extended hospitalization

is regarding uncontrolled pain management, which is a prevailing reason why some patients

cannot be discharged home on their anticipated dates. A study done on patients who underwent

total hip arthroplasty and discovering predictors of length of stay, stated that: "Our study has

demonstrated for the first time that high preoperative pain level and patient expectation of

discharge to ECF [external care facilities] are significant predictors of increased hospitalization

based on a target LOS [length of stay] of 2 days", and " the relationship between higher pain

levels and prolonged hospitalization should come as no surprise with mounting evidence

showing LOS after implementation of multimodal analgesia protocols" (Halawi, M.J., Vovos,

T.J., Green, C.L., Wellman, S.S., Attarian, D.E., & Bolognesi, M.P., 2014).

Methodology

Kotter's Eight-Step Model of Change would be relevant to this project. "Kotter's eight

stage process of creating a major change has been recognized as one of the most well known

approaches to organizational transformation, as the mainstream wisdom for leading change, and

the most compelling formula for success in change management" (Pollack & Pollack, 2015).

This eight-stage process includes the following steps (and examples from the project):

1. Establishing a sense of urgency (recognizing the need for change)

2. Creating the guiding coalition (collaborating with unit manager and CNS/preceptor)

3. Develop a vision and a strategy

   (collaborating with stakeholders/multidisciplinary team)

4. Communicating the change vision (presenting idea to Surgical Unit at their staff

   meetings).

5. Empowering broad-based change (alterations to the eMAR will most likely go

   housewide, as it affects different departments).

6. Generating short-term wins (encouraging staff; praising their improvement)

7. Consolidating gains and producing more change (developing a plan for sustainability)

8. Anchoring new approaches in the culture (Pollack & Pollack, 2015)

Given the nature of the improvement project and the overall nursing culture on the

Surgical Unit, nurses are more likely to comply with change when they are given a rationale for

why it is being started. Interdisciplinary teams are more likely to be engaged to initiate change

once they appreciate the value of a proposed idea. Kotter's Eight-Step Model for change shall be

incorporated in the following breakdown of the planned approaches.

Collaboration with the CNS is necessary to establish contact with the stakeholders in the

IT department and Pharmacy to implement change. The Nursing Task Force comprises of four

bedside RNs who also work alongside these stakeholders as consultants for patient care, and

have been involved in the implementation of this change.

Current Documentation Process

The hospital has been using Cerner Millennium as a platform for their Electronic Health Record (EHR) system for the past 2 years. RNs who have been employed on the surgical unit after the upgrade are competent and comfortable using the system, have readily adopted to change, know where and when to and seek help as needed. The current process for documenting pain assessment includes opening a patient's chart in Cerner, navigating to the "Shift Assessment" band and selecting, "Pain Assessment". When selected, a drop-down menu prompts the RN to select if the patient has pain: "Yes" or "No". When the RN selects "Yes", several conditional fields open, allowing the RN to enter a value for Functional Pain Goal (FPG), Pain Scale Used (Numeric, descriptive, etc.), patient's reported pain level, location, quality, frequency (intermittent or constant), and level of sedation (RASS score). Currently, when a patient is given a medication indicated for pain, there is no link between the Electronic Medication Administration Record (eMAR) and assessment. In this case, after the RN administers a pain medication, he or she also needs to open the Shift Assessment band to document the patient's pain level within the time prior to (or at time of) administration of the medication. The RN must note the time the medication was given and document an assessment separately in the EHR.

The hospital instituted medication barcode scanning along with the Cerner upgrade to comply with Meaningful Use standards (HealthIt.gov, 2015). Each time a patient is given a medication, the RN scans their wristband and the medication to ensure that the patient receives the right medication ordered for them. If there are pending items to be addressed prior to administration, the medications in question are highlighted in yellow so that the RN may address these issues before saving or "signing", that the medication was given. Common yellow flags include requiring a co-signer for insulin and heparin, and volume adjustments when the indicated

dose on a medication vial does not match the ordered dose. After discussion with the CNS, IT

department, pharmacy, and Nursing Task Force, a solution that may facilitate proper

documentation includes requiring a pain assessment for every administered medication indicated

for pain after performing the barcode scan. The pain assessment piece required will ask the RN if

the patient is in pain, "yes" or "no", with the option to fill out the pain score and RASS on a

yellow highlighted medication with each administration.

 The medication would need to be classified by pharmacy as a medication prescribed for

analgesic properties, and collaboration is needed with IT to build these conditional fields into the

specific medications to be administered. This approach would be appropriate so that pain

assessments will not be missed. The stages discussed align with Kotter's change theory: (1)

Establishing a sense of urgency, (2) Creating the guiding coalition, and (3) Develop a vision and

strategy. Improving and simplifying the process by which nurses enter the information into the

EMR may facilitate proper pain documentation.

Per policy, assessments for pain, respiratory rate, pulse oximetry, and motor/sensory

function are required every hour for the first 24 hours after the initiation of a continuous epidural.

RNs who care for patients with epidurals very rarely encounter adverse effects, and although

most are aware of the hourly assessment charting requirement, documentation is often missed

due to the frequency, demanding patient assignments, and all the numerous items an RN must

document as part of regular patient care.

To address and commence this improvement project, the RNs on the Surgical Unit will

be informed of the changes to the eMAR with regards to documenting an assessment with each

medication indicated for pain. A handout will be developed, which includes a few bulletpoints on

the most pertinent information on required pain assessment documentation. On this one piece of

paper, the information will be one-sided and in landscape (horizontal) page orientation. This will

be given to the staff during their quarterly meeting in March. Simplified tables will be included

as a visual aid to remind RNs about the frequency of performing hourly assessments for patients

on epidurals, Patient Controlled Analgesia (PCA) pumps, and nerve blocks according to hospital

policy and procedure. These steps now align with Kotter's change theory: (4) Communicating

the change vision, and (5) Empowering broad-based change. Changes to the way pain is

documented in a patient's EHR will not only involved the Surgical Unit, it will extend to all

areas of the hospital that provide pain management.

To check if the project was effective, a post-implementation audit will be collected

starting a week after collaborating with IT and the required pain assessment documentation piece

is built into Cerner. By making the documentation piece required with the administration of pain

medications, it is expected that compliance with documentation will be at least 90% or higher.

Auditing charts of patients who received epidural infusions will also be screened for

documentation, with the hopes that the level of compliance will raise from 25% to at least 80%.

Data Source

A literature search was performed using the Fusion database through USF's online library.

I searched using subjects: "Pain Management", "Evidence Based Practice", and "Surgical

Patients" for my preliminary searches. While "Pain Management" was the constant subject

search, I changed the secondary subjects to be "Documentation", "Patient Safety", or "Cost

Benefit". After auditing patient charts and realizing that continuous epidural infusions are part of

pain assessment, I researched more articles using the keywords, "Epidural Analgesia",

"Monitoring", and "Motor Sensory Assessment".

The search was limited to peer-reviewed articles and available in the USF database, between the year 2011 and 2016. I performed another search through Google to access the Centers for Medicare Services (CMS), Joint Commission, Becker's Hospital Review, and the Bureau of Labor Statistics' websites.

PICO Statement

My PICO Statement was as follows:

- P: Patients admitted into the Surgical Unit, 18 years of age and older, requiring pain medication.

- I: Adding a required pain assessment piece to administration of narcotic, analgesic, opioid in a patient's eMAR. Educating staff about proper documentation; hospital policy & procedure guidelines. Reviewing the importance of hourly assessments in patients on continuous epidural infusions.

- C: Adhere to current practice, not enforcing pain assessment with medication administration.

- O: Proper pain assessment documentation compliance will be present on 90% of patients' EHR; better pain management of patients from improved communication between healthcare providers.

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Literature Review

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There are numerous studies that support the need for documentation as a communication piece to ensure proper pain management for patients. A quality improvement project by Ramira, Instone, and Clark (2016) explored the management of children's pain in the emergency department. This need was stemming from the theory that in comparison to adults, children do not receive as much analgesia compared to adults, and therefore are not adequately treated for

pain. The researchers of this article state from their research that, "evidence suggests that nurses'

lack of knowledge about pain assessment in children contributes to inadequate pain

management". From their audits alone, their studies concluded the following: "Review of

electronic health records (EMRs) for the ED revealed multiple instances when pain was not

assessed or the assessment was not documented. Data collected by the charge nurse as part of an

ED quality assurance (QA) pain initiative suggested a similar problem, particularly among

children. A review of 600 pediatric EMRs of patients seen during the prior 3 months indicated

that 60% of children had no record of pain documented at triage, 50% of children did not have

any documentation of pain assessment, and 40% did not receive pain medication. Given the lack

of pain medication administration, it is likely that the problem was primarily lack of pain

assessment, rather than simply failure to document assessment findings. The ED leadership's

commitment to improving pain assessment and management to enhance overall quality of care

and patient satisfaction made this project a priority".

Since it should not be assumed that nurses are not performing their assessments, another

study based in Seattle, WA (Song, Eaton, Gordon, Hoyle, & Doorenbos, 2015) evaluated pain

documentation and sought to modify and test an evaluation tool for nursing cancer pain

documentation in the EHR according to a patient's description of the frequency and quality of

their pain. The study results provided implications for enhancing EHR design and highlighted a

need for future research to understand the reasons for suboptimal documentation of cancer pain

management. "Although it is possible that some nursing pain management behaviors, such as

pain assessment or nonpharmacologic interventions, may have occurred without being

documented, failure to document the pain management process impedes the interprofessional

team communication critical to further medical decisions in pain management" (Song, et. al, 2016).

An article in the Association of periOperative Registered Nurses (AORN) Journal points out the importance of properly managing patient's pain: "Clinical studies have linked suboptimal quality pain management to prolonged postoperative recovery, diminished patient well-being, and an increased risk for chronic pain" (Hayes & Gordon, 2015). "Managing surgical stress and pain are key factors in decreasing patients' lengths of stay and morbidity, and ERAS (Enhanced Recovery After Surgery) programs are being used in several types of postoperative recovery situations" (Hayes & Gordon, 2015). This same article discusses the subjective value of proper pain management for a better patient experience: "Beyond the bedside challenges of optimal pain control are the financial implications for health care organizations, which rely on the scores derived from publicly reported performance pain measures associated with the Centers for Medicare & Medicaid Services (CMS) and the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). These scores are a valued component of an institution's health care report card that consumers use to evaluate hospitals and other care facilities that that institutions use for benchmark information. Driven by a need to increase patient satisfaction in a dynamic health care climate that emphasizes decreasing costs and lengths of stay and increasing patient satisfaction, hospital administrators and bedside clinicians must continue to search for strategies that optimize health care services and promote high-quality pain management. These strategies are particularly relevant in the perioperative area that encompasses preoperative assessment, intraoperative care coordination, and postoperative recovery" (Hayes & Gordon, 2015).

There is already so much pressure for nurses to document pain as frequently as it is assessed. The need to simplify the process is instrumental to success. An evidence-based practice research conducted in Korea highlights the need for changes to be made in the EHR. Their study included performing audits on 137 patient charts admitted at a cancer center and examined for nurse compliance with four audit criteria derived from best practice guidelines related to the assessment and management of pain; "Although the baseline results show that nurses have had low rates of documenting the side effects of opioids (criterion 2), using pain assessment tools (criterion 3) and handing out information materials (criterion 4), this does not necessarily indicate that nurses do not perform those actions in routine practice. After the baseline audit, we identified major gaps in nurses' awareness of EBP and practice guidelines for cancer pain management. To change nursing practices, the research team agreed that increasing nurses' awareness of the importance of those practices and pain documentation should be enhanced by providing two strategies: EBP education and an EMR environment for convenient charting" (Choi, Kim, Chung, Ahn, Yoo, Park, Woo, Kim, Kim, and Oh, 2013). After implementing a change in the EHR system to facilitate ease of charting, the authors noted: "EMR modifications to document the side effects of opioids and the use of a formalized pain assessment tool allowed nurses to more accurately and conveniently chart patient information, which led to noticeable improvements in compliance rates" (Choi, et. al, 2013). Glowacki (2015) emphasizes that, "Pain assessment is only the first step in effective pain management; what is done with that information can make a marked difference for a patient. The measurement and treatment of pain must be appropriate for each patient. The outcome of each patient's pain experience varies according to the risks and benefits associated with different analgesic administered".

Hospital policy and procedure gives clear outlines for monitoring a patient on a continuous epidural infusion. The majority of patients with epidurals are typically seen in Labor and Delivery, but there are a few that are admitted to the Surgical Unit after undergoing extensive abdominal surgery. The staff will be provided with a handout that delineates the requirements for the frequency of assessments to be performed on a patient with an epidural infusion, but to further necessitate the need for close monitoring, the following article by Schreiber (2015) would be a great reference to the rationale behind the requirement; listing the major risks for epidural analgesia as: respiratory/systemic compromise, hypotension, bleeding, hematoma formation, respiratory depression, abscess/systemic involvement, bleeding, catheter insertion problems, and unrecognized complications. "The goal for the postoperative patient using epidural analgesia includes maintaining effective pain management and safety through early detection of complications and prompt interventions. Frequent, focused assessments can help a potential problem from becoming critical" (Schreiber, 2015).

Timeline

Collaborating with the CNS, Nursing Task Force, and the IT department is crucial for implementing this change project. Consulting pharmacy is also necessary because a piece of the documentation will involve changes to the eMAR. A meeting with these stakeholders and the director for inpatient services has been set for the end of February 2016 regarding Cerner issues, and the suggestion of a pain assessment documentation piece will be introduced at this meeting. If approved, collaboration with the IT department regarding this change will take place, and should be implemented within the first week of March 2016. Staff meetings on the Surgical Unit occur on the second week of March, and the change will be communicated with the nursing staff.

Audits consisting of 6-10 random, 24-hour periods, will be conducted from mid-March to no later than April 30, 2016.

Expected Results

The Surgical Unit is known to be one of the most compliant units within the hospital and readily adapts to change. After the audits have been performed, it is interesting to note that they are 81% compliant in charting a pain assessment with each pain medication administration. I anticipate that after a change has been implemented and discussed with the staff, compliance will be over 90%. By using Kotter's Model for Change, creating a sense of urgency and rationale behind hourly assessment and documentation will prove to be beneficial.

Nursing Relevance

The result of this study will heighten awareness on the importance of proper pain assessment and monitoring. Often times, administering pain medication becomes routine for nurses who give numerous amounts to several patients in one shift, but possibly by introducing the importance of documentation as a communication piece, nurses (and physicians) will be more likely to review what the previous shifts administered to the patient to better manage their pain. By encouraging diligence in documentation, it is in the best interest of the nurse to hold accountability in ensuring safe care for their patients, but also to defend their professional practice.

Summary Report

The overall global aim of this project was to enhance pain assessment through documentation as a communication tool between healthcare providers to better manage patients' pain and avoid harm. The setting remained on the Surgical Unit, which is a 32-capacity bed unit and comprised of adults over 18 years of age, at the only level II trauma hospital within the San Gabriel Valley.

Prior to the project, an audit was performed between January and February 2016, on patients who received pain medications to determine if an assessment was performed prior to administration and after (30 minutes for intravenous injections, and 1 hour for oral preparations). An additional audit was performed to evaluate if patients on epidurals were assessed every hour within the first 24 hours of initiation for motor or sensory deficits, pain level, oxygenation, and respiratory rate.

Based on audit results, a total of 74 patients' charts were examined over 5 different 24-hour periods, prior to implementation, and found that 80% have a pain assessment documented prior to administration of pain medication, and 61% had the required elements per hospital policy: pain score and RASS level. Patients with epidurals were only being assessed (documented) 25% of the time within the first 24 hours of initiation.

To implement change, collaboration was done with my preceptor who is also a Clinical Nurse Specialist, the IT department, pharmacy, and a nursing task force (comprised of bedside nurses) that works closely with Cerner EHR development. On a meeting held in mid-February 2016, discussion was initiated regarding the need for better pain documentation. As a group, we spoke about hospital policy and procedure, the need for proper documentation, and brainstormed ways to include a required pain assessment to be documented with each administered

medication. The institution uses barcode scanning for medication administration. Prior to the change, medications indicated for pain were scanned and did not require any documentation before signing. It was the responsibility of the RN to take note of what time the medication was given, the pain level that the patient reported, and a reassessment to see if the medication was effective. Given the numerous barriers that RNs face on every shift, these assessments were probably being performed but not documented. Working with the multidisciplinary group represented at this Cerner meeting allowed for the suggestion that a required documentation piece should appear when a patient receives a medication for pain, and that the nurse asks the patient about their pain level. Within a week of this meeting, the IT department built into the eMAR a required pain documentation piece. Now, when a medication indicated for pain (designated by pharmacy) is scanned, a window will appear on the screen with a yellow highlight that the RN must click and address before signing that the medication was given. Upon clicking this highlighted field, the box will prompt the RN to answer 3 questions: "Is the patient in pain?" to which the RN will answer "Yes" or "No", followed by the patient's reported pain level and their RASS score. As the RN answers these questions, the yellow fields disappear and they are now able to save/sign that the medication was given. After a certain amount of time, the RN who checks the patient's eMAR will see a red box next to the pain medication given, which will prompt them open up to another screen that allows a place for the RN to document if the medication given was effective in lowering or bringing the patient's pain to a more manageable level. This is known as the reassessment piece.

Cerner's current system only allows pain assessment to be documented in the "iView" section, where all the routine physical assessments are documented. Now, when an RN documents the pain level in the patient's eMAR, it communicates with the iView section, thus

reducing work for the RN and facilitating easier and seamless documentation. I planned to speak

at the Surgical Unit's staff meetings on the second week of March, and spoke with the unit

manager to be placed on the agenda. Working with my preceptor, I developed a handout to be

given to the staff which consisted of a single piece of paper, in landscape orientation, to have two

columns: the left side included bulletpoints on proper pain documentation, and the right side had

3 tables that gave information on the frequency of charting for continuous pain management

routes (epidurals, PCA, and nerve blocks). I also pieced together a power point that consisted of

10 slides that guided my presentation and gave a visual aid that included bar graphs to present

the data collected.

The change to the eMAR went live near the end of February 2016, and I spoke at the

Surgical Unit's staff meetings on the 2nd week of March 2016 on both evening and day shift

sessions. Many RNs were still puzzled by this change, and I was able to address their questions

through the PowerPoint, the handout, and answering questions at the end. The staff members

were very receptive to the information and raised interesting discussions regarding patients'

sedation levels (RASS scores).

Upon performing chart audits, I am pleased to note that pain documentation (pre- and

post-medication administration assessments) have improved after making changes to the eMAR.

After implementation, an audit was performed between mid-March to mid-April 2016, on a

sample of 70 surgical patients who received pain medications. Documentation prior to

administering the medication was at 87%, a reassessment (with all required elements) and after

pain medication was 97%. Prior to implementation I was expecting that documentation (prior to

medication administration and reassessment) would be at least 90%. The surgical unit has made

a 6% improvement in documentation prior to administering pain medication, and has exceeded

the expectation with regards to reassessment. Some factors that may have interfered with the

pain assessment documentation may be attributed to two factors I considered while performing

the audits: some of the RNs who did not document the assessments were not part of the regular

Surgical Unit staff – they either floated from another unit or are RNs from a registry service.

Also, the use of CareMobiles could have been another factor in missing the required elements;

these handheld devices are used for barcode medication administration, but do not have a

component that prompts the RN for an assessment prior to administering a pain medication.

Within the audited dates, only 3 patients were found to be on a continuous epidural infusion and

the hourly assessments within 24 hours were only documented 50% of the time (original

expectation was at least 80%). RNs on the Surgical Unit are aware of the hourly assessments for

continuous epidural infusions, but have voiced concerns in completing the documentation due to

frequency and high patient acuity. In collaborating with the CNS, I am currently considering a

future plan to research evidence-based practice and see if this may be reduced to every 2 hours.

Patients who require hourly assessments are more suitable for an overnight stay in the Critical

Care Unit, however because of their hemodynamic stability, they are sent to the Surgical Unit to

allow room for more acutely ill patients to stay in CCU.

Sustainability

In relation to the Five Factors Influencing Sustainability, this project can factor in:

Modification of the program (by changes made to the eMAR), fit with the organization's

procedures (pain assessment with each pain medication given is party of policy and procedure),

perceived benefits of the staff (RNs have made positive remarks since it makes documentation

easier), and support from stakeholders (RNs are compliant, IT department always available for

support, etc.). The intervention made by this project has been standardized, since there is now a house-wide process for pain documentation with pain medication administration.

Conclusion

Pain documentation is a very well known topic amongst Surgical Unit nurses. Almost all the patients admitted to this unit are in pain either from a traumatic injury or a surgical procedure, and receive various pain medications on an as needed basis with frequencies that vary as short as every 30 minutes. RNs on this unit not only juggle between keeping patients comfortable as possible, there are many tasks to be completed with a constant churn of admissions and discharges, with an average ratio of 4 or 5 patients to one RN. To their credit, the RN staff of the Surgical Unit has done a superb job of keeping up with pain documentation. The data shows that they have even improved these numbers. The privilege of being a part of an improvement plan such as this CNL project, has given me a heightened awareness of the process that occurs with the changes made that begin in the microsystem. As a practicing RN at the bedside, I can attest to the frustrations of the nurses on the Surgical Unit, especially when we are told that we need to improve a task that we constantly do everyday. I have developed an appreciation for these improvement projects during my CNL internship experience by exploring theory, rationale, evidence-based practice outcomes, PDSA cycle, and overall nursing relevance to these improvement projects because I have observed (and participated in) how a small change can make a big difference. Beyond complying with CMS and Joint Commission standards, "doing the right thing" for our patients is what matters most. Documentation can be a burden for most nurses, but unless an intervention is charted there is no way to prove it was performed, and keeps the clinician accountable for their care.

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APPENDIX A:

Fishbone Diagram
Root Cause Analysis

ENVIRONMENT

High patient census

Frequent "churn" of patients admitted and discharged from Surgical Unit.

Maximum 5:1 patient to RN ratio on surgical unit.

RN PERCEPTIONS

"Not enough time to perform assessments and charting"

RNs concerned with accumulating overtime.

Barriers to achieving optimal pain assessment documentation.

High volume of analgesics and opioids administered.

Hourly charting/assessment for epidurals.

Numerous required elements for pain assessment per policy & procedure.

METHOD

Need to call MD for order clarification.

Problems with Cerner downtown due to upgrades.

Care mobile devices (handheld) for medication administration does not allow RASS input.

UNRESOLVED ISSUES

APPENDIX B

Process Map
Project Implementation Flow & Timeline
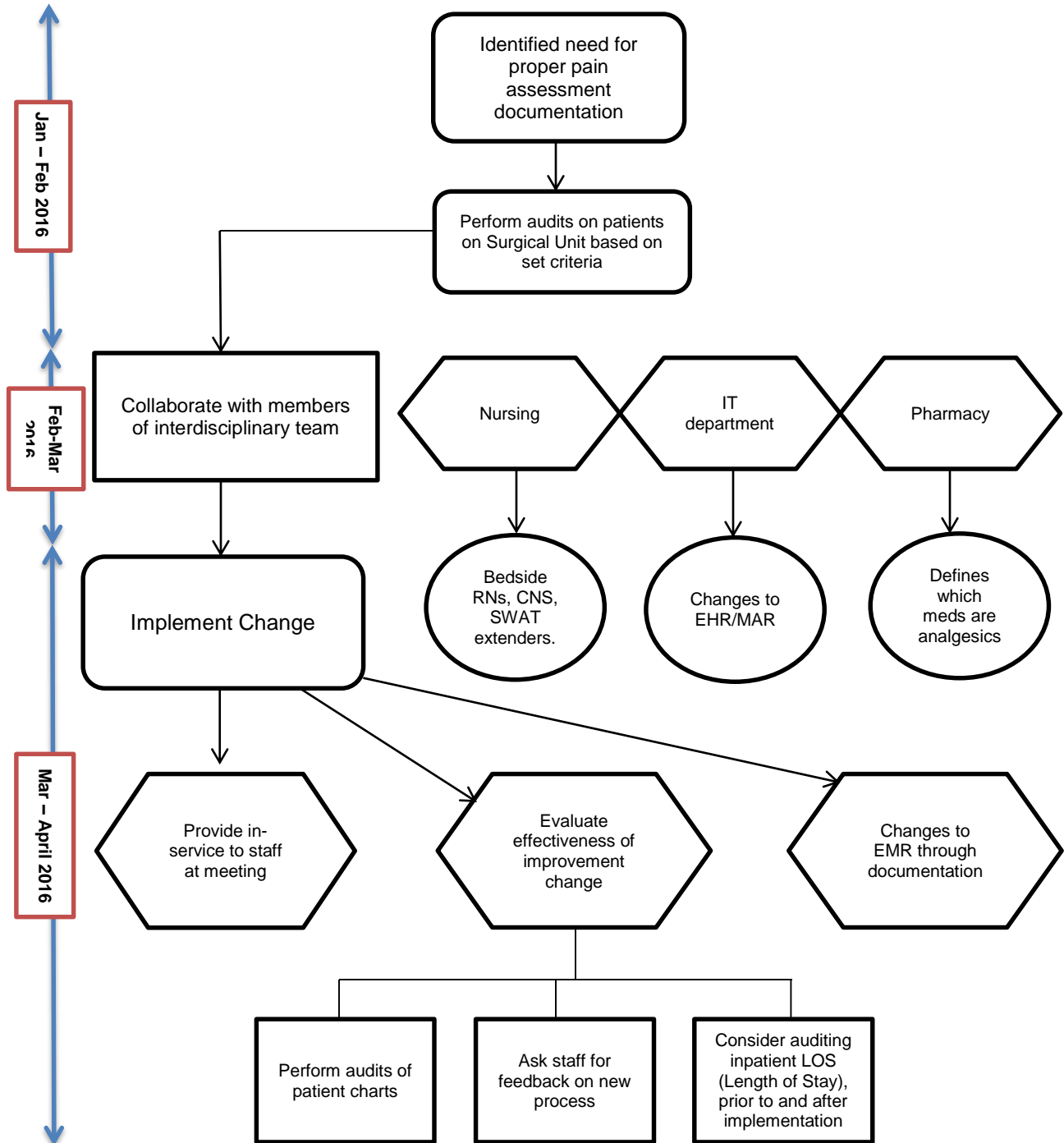
APPENDIX C

SWOT Analysis

STRENGTHS	WEAKNESSES
• Surgical unit staff readily adopts to change, complies with protocol. • Strong collaboration with CNS, IT department, pharmacy (good working relationships).	• Demands on nursing responsibility. • Current EMR/EHR system does not facilitate reminders for pain assessment documentation with each administered analgesic/opioid.
OPPORTUNITIES	**THREATS**
• Patient Controlled Analgesia (PCA) shortage replenished after recent recall from manufacturer. • Changes to Cerner (EHR) system readily achieved according to organization's needs.	• Increase in patient census. • High volume of medications administered and frequent (hourly) charting for patients on epidurals. • Hospital awaiting site visit from Centers for Medicare/Medicaid Services (CMS).

Appendix D
Handout for Surgical Unit Staff

Improving Pain Documentation

- Pain documentation is required:
  - Upon admission
  - Within first 3 hours of shift
  - Every 4 hours
  - Before and after pain medication administration.

- Required Elements:
  - Pain Level (score) **(required)**
  - RASS Score **(required)**
  - Location (required)
  - FPG (initially and prn any changes)
  - Pain scale used (initially and prn changes)

- Audits done on 5E: Jan – Feb 2016
  - Number of times an assessment was completed before medication was given: 80%
  - Number of times ALL required elements were assessed: 61%
  - Main concerns: FPG and RASS commonly missed.
  - Epidurals: Missed 75% of required documentation (q1h charting).

- Use WOWs for pain meds, not the Care Mobiles
  - Care Mobile devices do not allow RASS charting.

Epidurals				
Every 1 hour x24 hours, then q4h	**Following continuous rate increase, (but not bolus doses or PCEA doses) resume every 1 hour x4 hours, then q4h**	**Every 1 hour x4, then q4h.**	**Every 4 hours**	**Every shift and prn handoff between caregivers**
Respiratory Rate Pain Level Sedation (RASS) Pulse Oximetry	RASS Pain Level Resp Rate Pulse Oximetry	BP, HR, Sensory & Motor Function	Dressing, side effects.	Total amount infused, number of PCEA doses, number of attempts.

Nerve Blocks		
Every 1 Hour for 4 Hours	**Change to infusion rate or other changes in pain management**	**Every shift and PRN**
Pain Level Sedation (RASS) Response to therapy Neurological / Motor Function	Pain Level (within 1 hour)	Catheter site and dressing (signs of infection, leakage)

PCA: Vital signs, Pain Level, O2 sat, RASS		
Initiation	Setting Changes	Change from Continuous to demand
Within 1 hour, then q1 hour x4, then q4h	Every 1 hour x4, then q4.	Every 4 hours

Appendix E
Pain Assessment Process

```
┌─────────────────┐        ┌─────────────────┐    NO    ┌─────────────────┐
│ RN Assesses the │───────▶│ Is the patient  │─────────▶│ Continue to     │
│ patient for pain│        │ in pain?        │          │ assess every 4  │
└─────────────────┘        └─────────────────┘          │ hours           │
                                    │                     └─────────────────┘
                                    │ YES
                                    ▼
                           ┌─────────────────┐
                           │ Patient requires│
                           │ pain medication │
                           └─────────────────┘
```

┌───────────────────┐   ┌─────────────────┐   ┌─────────────────┐   ┌─────────────────────────┐
│ Pain Medication   │   │ Oral Pain   │   │ PCA (Patient   │   │ PCEA (Patient   │
│ administered   │   │ medications   │   │ Controlled   │   │ Controlled Epidural   │
│ through IV   │   │   │   │ Analgesia) Pump │   │ Analgesia) Pumps &   │
└───────────────────┘   └─────────────────┘   └─────────────────┘   │ Continuous Epidural   │
                                                                     │ Infusions   │
                                                                     └─────────────────────────┘

┌───────────────────┐   ┌─────────────────┐   ┌─────────────────┐   ┌─────────────────────────┐
│ Complete Pre-   │   │ Complete Pre-   │   │ Initiation   │   │ Assess for pain level, │
│ assessment with or│   │ assessment with │   │ (within 1 hour):│   │ respiratory rate,   │
│ before medication │   │ or before   │   │ every 1 hour x4,│   │ sedation (RASS Score), │
└───────────────────┘   │ medication   │   │ then every 4   │   │ Pulse Oximetry,   │
                        └─────────────────┘   │ hours: Pain   │   │ Motor/Sensory function │
                                              │ level,   │   └─────────────────────────┘
┌───────────────────┐   ┌─────────────────┐   │ oxygenation,   │
│ Reassess in 30   │   │ Reassess in 1   │   │ vital signs,   │
│ minutes   │   │ hour   │   │ RASS.   │
└───────────────────┘   └─────────────────┘   └─────────────────┘

        ┌─────────────────┐   ┌─────────────────┐
        │ First 24 hours │   │ > 24 hours   │
        │ of initiation   │   └─────────────────┘
        └─────────────────┘   │
                │   ▼
                ▼   ┌─────────────────┐
        ┌─────────────────┐   │ Every 4 Hours   │
        │ Hourly (every 1 │   └─────────────────┘
        │ hour) assessment│
        │ & documentation │
        └─────────────────┘

Appendix F

Pre-Implementation Pain Assessment Documentation Process

```
┌─────────────────────────┐
│  Assess and document    │
│  for pain every 4 hours  │
│  (regardless of need for │
│       medication)        │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│  Patient requires pain   │
│  medication, RN assesses │
│   pain score & RASS      │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│    RN Scans Patient      │
│   Wristband and scans    │
│       medication         │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│   RN takes note of time  │
│  medication was given    │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐        ┌──────────────────┐
│                         │        │   Open in iView  │
│      Documentation      │───────▶│                  │
│                         │        └──────────────────┘
└─────────────────────────┘                 │
                                             ▼
                                   ┌──────────────────┐
                                   │      Adult       │
                                   │    QuickView     │
                                   └──────────────────┘
                                             │
                                             ▼
                                   ┌──────────────────┐
                                   │ Pain Assessment  │
                                   │       tab        │
                                   └──────────────────┘
                                             │
                                             ▼
┌─────────────────────────┐        ┌──────────────────────────┐
│   Pain level before a    │        │  Pain level after patient │
│   medication is          │───────▶│  takes medication: 30     │
│   administered within 1  │        │  minutes for IV meds, 1   │
│   hour, or at time of    │        │  hour for PO.             │
│   administration.        │        └──────────────────────────┘
└─────────────────────────┘
```

Appendix G
Post-implementation Pain Documentation Process

Assess and document for
pain every 4 hours
(regardless of need for
medication)

Patient requires pain
medication, RN assesses
pain score & RASS

RN Scans Patient
Wristband and scans
medication

Box appears to ask RN for
patient's reported pain score
& RASS level with
administration of medication.

Implemented
Change

NEW

Documentation
automatically appears in
iView

NEW

RN checks eMAR and clicks on
red box to complete reassessment
(automatically appears in iView)

Appendix H

Pre-implementation Data Collection Audit Tool
(Pain Documentation)

Date	FIN # (visit ID)	Number of Pain Meds Given	Number of Times an Assessment was completed before administration	Number of times all required elements were RE-assessed	Missing Elements

Appendix I

Post-implementation Data Collection Audit Tool
(Pain Documentation)

Date	FIN # (Visit ID)	Pre-assessment (RASS + Pain Score)	Pain Assessed Every Four Hours?	Post-assessment of Pain med given (RASS + Pain Score)	Epidural?	Notes

Appendix J
PowerPoint Presentation to Surgical Unit staff meeting

EPIDURALS

Every 1 hour for 24 hours, then every 4 hours	Following continuous dose rate increases; resume q1h x4, then q4h	Every 1 hour for 4 hours, then q4h	Every 4 Hours	Every shift and prn handoff between caregivers
RR Pain Level Sedation (RASS) Pulse Ox	Sedation (RASS) Pain Level RR Pulse Ox	BP HR Sensory & Motor Function	Dressing Side Effects	Total amount infused # of PCEA doses # of attempts

PCA

▶ Vital Signs, Pain Level, O2 Sat, RASS score

Initiation	Setting Changes	Change from continuous to demand
Within 1 hour, then every 1 hour x4, then q4h	Every 1 hour x4, then q4h.	Every 4 Hours