Pressure Injury Documentation and Reporting: A Quality Gap

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Pressure Injury Documentation and Reporting: Improving a Quality Gap

Mary Ann Laslo

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Abstract

Problem: Inaccurate and incomplete pressure injury (PrI) assessment and documentation leads to inaccurate reporting of PrI quality reporting measures to the Centers for Medicare and Medicaid Services. Inaccurate, incomplete documentation of pressure injuries and wounds adversely affects the quality of care, financial reimbursement, and hospital reputation as well as increasing the risk of litigation to medical providers. Barriers to accurate and complete documentation by the nurses were inaccuracy in identification of PrIs Stage 1 or greater and knowing what and where to document the information in the electronic medical record.

Context: This quality improvement project attempted to improve nurse admission skin assessment and documentation skills in a 48-bed inpatient rehabilitation hospital (IRH). The IRH is a regional referral center for 22 hospitals in the health care system. It is a specialty unit caring for persons who are at high risk of developing pressure injuries due to their diagnoses of acquired brain injuries, strokes, spinal cord injuries and other neurological disorders.

Interventions: The interventions for this project were the development and implementation of an interactive wound assessment education program and wound/PrI documentation algorithm.

Measures: A bundle of three measures included accurate identification of PrI’s, complete documentation on the Shift Rehab Flow Sheet and the Wound Flow Sheet. The medical records of 100% of newly admitted patients were reviewed for accurate identification and completeness of wound and PrI documentation, as verified by 2 RNs, and confirmed by the Certified Wound Ostomy Continence nurse’s documentation.

Results: The overall goal of this quality improvement project was to have complete, accurate identification and documentation of 80% of pressure injuries by the nurse at the point of the patient’s admission to the rehabilitation unit. This quality improvement project resulted in an
increase in accurate and complete pressure injury identification and documentation to 100% for the past five months. Documentation for non-pressure related wounds rose from a baseline of 20% to 78% over a 9-month period. Using Improvement Science and Evidence Based Practice that included the implementation of an interactive education program, and the use of a Wound Documentation Algorithm, a significant improvement was seen in this unit’s accuracy and completeness of documentation.

**Conclusions:** In our environment of value-based payment and focus on patient-centered care, it is essential that nurses are knowledgeable and can competently assess and accurately document and treat pressure injuries in a timely manner. The avoidance of litigation costs and potential financial penalties imposed by regulating agencies such as the Centers for Medicare and Medicaid Services, is well worth the time and investment of this quality improvement project for the patients, nurses and IRH.
Section II: Introduction

Pressure ulcers, referred to as pressure injuries (PrIs), present a quality of care issue in healthcare and have continued to plague the system since the days of Nightingale, who in 1859 wrote, “If he has a bedsore, it’s generally not the fault of the disease, but of the nursing” (Lyder & Ayello, 2008, p. 267). The causes of PrIs may be multifactorial, but regulating agencies consider PrIs indicative of poor nursing care quality (Lyder & Ayello, 2008). PrIs are one of the nursing-sensitive measures monitored and reported to the public by the Centers for Medicare and Medicaid Services (CMS, 2018). The impact of PrIs extends beyond the suffering experienced by the patient. CMS reported quality measures, such as the number of PrIs that occur or worsen in a facility, can negatively affect the financial stability and reputation of that healthcare institution. This paper will discuss the gap in complete and accurate nursing documentation and reporting of PrIs at the point of admission to an acute rehabilitation hospital.

The rehabilitation hospital is a part of a health maintenance organization founded in 1945. It is one of the largest not-for-profit health plans in the United States, providing healthcare to over 12.2 million members (Kaiser Permanente, 2018). The hospital is a regional center for acute rehabilitation, “providing treatment for patients with acquired neurological disorders, trauma, neuromuscular and orthopedic conditions” (Kaiser Permanente, 2010, para. 1). The top four diagnoses of the population served are stroke, non-traumatic brain injuries, traumatic brain injuries, and non-traumatic spinal cord injuries (Uniform Data Systems, 2019). Given the large volume of patients admitted with cognitive and mobility issues, the unit is at high risk for incurring financial penalties, as well as a negative reputation, if the CMS required PrI documentation is incomplete and/or inaccurate. Worsening or new PrIs are reported to the public via the Inpatient Rehabilitation Facility Compare website (CMS, 2020b). If a hospital-acquired
condition, such as a PrI, occurs, Medicare reimbursement is reduced (West & Eng, 2014). The organization is an integrated care delivery system with a mission “to provide high-quality, affordable health care services” (Kaiser Permanente, 2018, para. 1). The mission is supported by this quality improvement project directed at improving the assessment and accurate documentation of wounds in compliance with CMS regulations, which promote safe, quality, patient-centered care.

Problem Description

Monitoring hospital-acquired pressure injuries (HAPIs) is not a new metric for the rehabilitation hospital, whose goal is zero HAPIs. Two HAPIs have occurred in the past four years, the most recent in 2019. Both HAPIs were medical device related PrIs that were present on admission, but not documented on the wound assessment flow sheet, and therefore not reported to CMS at the time of the patient’s admission. The quality gap emerged in the lack of documentation of these PrIs on the patient’s admission skin assessment. Audits of admission nursing PrI documentation from September 2019 through January 2020 revealed an average 32% PrI documentation completion rate. If the patient’s skin is not accurately assessed, documented, and reported to CMS at the point of admission, the facility is at the risk of incurring financial penalties, as well as the negative public perception that the hospital provides poor-quality care. Currently, there are over 130 healthcare facilities throughout the United States that were terminated as Medicare providers for noncompliance with CMS regulations, which is posted for public review on the CMS website for six months (CMS, 2020b). It is not likely that the public would choose to receive healthcare at one of these facilities.
Available Knowledge

The PICOT question for this project is: Do patients admitted to acute rehabilitation (P) have accurate and complete skin assessment documentation (O) by the nurses who have received skin assessment education and use an algorithm (I), compared to the current practice (C), at the time of admission (T)?

This question led to an initial comprehensive electronic search of literature, which was conducted in February 2019 and revisited again in January 2020, reviewing evidence involving the use of pressure ulcer education and an algorithm or template to improve the completeness of nursing documentation. The following research databases were searched: Cochrane Database of Systematic Reviews, Joanna Briggs, CINAHL, and PubMed. Articles were considered for inclusion if the intervention to improve pressure ulcer documentation and staging included documentation algorithms or templates and/or nursing education. Twenty-three articles were retrieved and 15 met the inclusion criteria. Five of the most compelling articles in support of the utilization of education and wound documentation algorithms are synthesized in this review.

The literature is consistent in identifying the need for accuracy and completeness of PrI documentation. Of significance, no randomized control studies were found in the search due to the overall poor accuracy and lack of completeness in nursing documentation (Porter-Armstrong et al., 2018). Incomplete documentation and inaccurate wound assessments are challenging, widespread problems contributing to a lack of evidence-based wound care interventions. Li, (2016), following a review of 196 patients with HAPIs in the intensive care unit setting, concluded that education is necessary to improve the accuracy and completeness of nursing documentation to support research for evidence-based interventions to advance the prevention and treatment of PrIs. Supporting this effort, in a quality improvement project, Bruce et al.
(2012) reviewed over 1,400 pressure ulcer assessments and found improved accuracy and completeness of documentation after combining routinely scheduled interactive education programming with standardization of the hospital’s wound documentation forms.

Barakat-Johnson et al. (2018) found another issue related to deficits in accuracy and reporting was the over reporting of HAPIs due to inaccurate skin assessment and documentation by nurses in 69% of patients at a large specialty hospital in Australia. This issue of inaccurate quality reporting ignited efforts by Barakat-Johnson’s team to identify the causes of this phenomenon in a quality improvement project. Causes of over reporting identified were knowledge deficits in both assessment skills and navigating the electronic medical record (EMR). The solution found to decrease inaccurate, incomplete documentation that led to the over reporting of HAPIs was a combination of education programs conducted during nursing orientation and annually, addressing the issues of poor nurse assessment skills, as well as education in knowing what and where to document in the EMR (Barakat-Johnson et al., 2018; Chavez et al., 2019).

In a PrI algorithm validation study, Rijswijk and Beitz (2015) found that algorithms were an effective way to improve the capture of “large amounts of information in a step-by-step process” (p. 148). The use of a guide, such as an algorithm, can prove useful when helping nurses capture the many characteristics of wounds, which is needed to determine the appropriate management and to support the transfer of research into clinical practice (Rijswijk & Beitz, 2015). Lowe et al. (2013) conducted a study to evaluate the effect wound care education and use of a documentation template would have on the completeness of wound care documentation. Their findings support the utilization of both education and incorporation of a documentation template, resulting in a statistically significant improvement in data capture (Lowe et al., 2013).
Although there is no one clear method to make a significant improvement in solving the issue of inaccurate and incomplete wound documentation, education and algorithm use are both supported by the literature to improve outcomes. See Appendix A for the literature evaluation.

**Rationale**

The Iowa Model of Evidence-Based Practice and Transformational Leadership Theory form the conceptual framework to guide this quality improvement project. The Iowa Model guides the team to evaluate structure, process, and outcome indicators before and after the implementation of the practice change, using the pre-pilot data to design the practice change and implementation plan (Iowa Model Collaborative, 2017; Melnyk & Fineout-Overholt, 2019). It is also a model that is widely used by healthcare institutions to guide improvements, while being intuitive to the nursing process (Brown, 2014). The Iowa Model supports the rehabilitation hospital to form a team to pursue a practice change based upon clinical research, supporting education, and use of an algorithm to improve PrIs and wound documentation. Transformational Leadership Theory supports mentorship of individuals with education to cultivate motivation in support of the objective (Liu & Li, 2018).

The goal of using this conceptual framework is to utilize a guide that is known for being user-friendly by interprofessional teams and stimulate leadership behaviors that will support staff to initiate and sustain the documentation improvements (Melnyk & Fineout-Overholt, 2019). The Iowa Model of Evidence-Based Practice and Transformational Leadership Theory are a perfect combination of inspiration and guidance to facilitate the adoption of evidence-based practice in a healthcare environment that demands quality, safety, efficiency, and patient satisfaction (Finkelman, 2015).
Specific Project Aims

Healthcare providers who are knowledgeable and able to competently assess, document, and treat PrIs in a timely fashion are in the best interest of all patients. The aim of the PrI documentation and reporting project is to improve the percentage of complete skin assessment documentation by nursing, including Stage 1 or greater PrIs, from 20% to 80% by June 2020, through an interactive education program combined with the development and implementation of a PrI/wound documentation algorithm.
Section III: Methods

Context

The mission of the acute rehabilitation hospital is to provide expert transdisciplinary, culturally competent care and rehabilitation for patients with disabling conditions (Kaiser Permanente, 2018). A microsystem assessment was completed using the Dartmouth-Hitchcock Clinical Microsystem Assessment Tool and Inpatient Workbook (2003, 2005). The rehabilitation unit has a 49-bed capacity, with an average daily census of 47 patients year-round, having served 988 patients over the last year (Uniform Data Systems, 2019). The stability of census is due to the large referral source, which includes 22 acute care hospitals and over 50 contracted skilled nursing facilities throughout the Northern California region.

Patients admitted can be as young as 14, with the mean age of the patient population served between 51 years and 65 years old (Uniform Data Systems, 2019). The top four diagnoses of this population served are stroke, non-traumatic brain injuries, traumatic brain injuries, and non-traumatic spinal cord injuries (Uniform Data Systems, 2019). These diagnoses put patients at greater risk for developing complications of immobility, such as PrIs.

According to People Pulse (Glint, 2018) scores, 87% of staff would recommend this facility as a good place to work, yet the consistent full census has contributed to staff who express some level of distress due to the pressure of this efficient pace. This stress may be evidenced by a nursing staff turnover rate of 13.3%, compared to the national average rate of 15.9% (NSI Nursing Solutions, 2020). The rehabilitation hospital admits approximately 100 patients per month. The average length of stay is 14.2 days and the discharge to community rate is 94%, well above the national and state averages (Uniform Data Systems, 2019). The patient satisfaction survey data reflects that 89.1% of patients/caregivers rate the rehabilitation hospital a
9/10 or 10/10, and the 30-day self-reported readmission rate is 6.3%, compared to the national average for all payors and causes of 7.1% (MEDTEL Outcomes, 2019). These quality measures support that quality of care has not suffered at the expense of efficiency.

The integrated delivery system is a leader in the provision of culturally competent care and support for a diverse workforce (Tervalon, 2009). The ethnic and gender breakdown of nursing staff at the rehabilitation center is 25% White, 50% Filipino, 25% other, and 15% male. In general, the nursing staff have a higher than average percentage of BSN educated, and non-U.S. educated nurses than other hospitals (McHugh et al., 2016). The nurse to patient ratio is 1:5, with additional support provided by non-licensed patient care technicians. Cultural diversity must be considered where there is a need for direct communication and leadership necessary to implement a new evidence-based intervention. For example, in the Filipino culture, the desire for process over results or finding comfort in hierarchy may be dominant, making it more challenging to encourage direct communication and to take charge (Choi et al., 2017). To affect change in the reporting and documentation of pressure ulcers at the time of admission, it will be important to first gain the trust and respect of staff, regardless of ethnicity and gender.

A SWOT analysis clearly shows this unit as high functioning, demonstrated by the high percentage of patients who transition back to the community and strong monetary support of nursing education. The rehab unit is also experiencing stressors from the pace of day-to-day operations serving a high volume of referrals in a healthcare environment that is highly regulated, demanding safety, efficiency, and patient-centric care (see Appendix B).

**Return on Investment**

As part of the Affordable Care Act, CMS initiated a program to stimulate hospitals to not only decrease costs, but also increase efficiency. This program is a value-based payment model
that affects the annual payment hospitals receive based upon their performance in quality metrics. If a hospital performs well in the areas of process of care, outcomes, patient experience, and efficiency, they are rewarded with a bonus (Bosko et al., 2016). The Hospital Readmission Reductions Program (HRRP) and the Hospital-Acquired Conditions (HAC) are programs that financially penalize a hospital for poor performance in these areas (Bosko et al., 2016). Hospitals with a high readmission rate can be penalized up to 3% of the hospital’s annual reimbursement rate and 1% for hospitals who are low performing in the HAC area for each patient. The costs for these penalties quickly add up, with the average penalty of $165,000 for HRRPs and $520,000 for HACs for FY 2015 (Bosko et al., 2016). Hospitals are hit financially, but due to the public transparency and reporting of these quality measures, patients may choose other hospitals with higher performance to provide their care (Bosko et al., 2016).

A cost-benefit analysis of the implementation of an education model and the use of an algorithm to aid the documentation of PrIs demonstrates that the minimal investment for training and time for nurses to attend the education session is far overshadowed by the potential for financial penalties imposed by CMS or litigation costs. Greater than “17,000 pressure injury-related lawsuits are filed annually in the United States” (Henry, 2019 p161). The cost-benefit analysis is based upon the avoidance of the loss of 3% of the Medicare annual payment if a hospital is found to have not reported one of the required quality measures, such as a PrI, at the time of admission. There are additional financial implications if PrIs are not reported at the time of admission. If a PrI occurs or worsens after the first documented skin assessment, the hospital is then held responsible for the PrIs and Medicare will not pay for the costs, such as additional hospital days, associated with a preventable condition (CMS, 2020a). Another issue associated
with a higher rate of PrI development compared to competing hospitals is a damaged reputation in the community, likely more difficult to recover from than financial penalties (see Appendix C)

**Study of the Intervention**

Utilizing the Institute for Healthcare Improvement: Model for Improvement: Plan, Do, Study, Act, a series of testing cycles were implemented starting in September 2019. This commenced with education to the medical and nursing staff to update them about the new CMS quality reporting measure (QRM) for PrIs required in October 2019. PrI/wound assessment data for each admission were collected and results analyzed. Staff were provided goal progress updates verbally and using display graphs. Each month, the results of each measure were reviewed, and interventions implemented to address issues. To provide standardized and accurate integumentary system assessment and documentation at the time of admission using a multidisciplinary team assessment approach for patients admitted to the rehabilitation center, the following approaches were used.

**Cycle 1**

- Intervention 1: August 2019. Education to inform physicians and nursing staff of the CMS QRM for reporting PrI changes effective October 2019.
- Intervention 2: October 2019. Dual skin assessment by the admitting physician and nurse.
- Intervention 3: October 2019. CMS QRM education to the certified wound ostomy continence nurse (CWOCN) department.

**Cycle 2**

- Intervention 1: March 2020. Interactive education program and wound documentation algorithm (see Appendix D)

The education program and algorithm were presented to the nurses in March, shortly before the outbreak of the Covid-19 pandemic. Although this event was a major concern and distraction to the nursing staff, March documentation measures reached 72% completeness. An unexpected result occurred in the first week of April data, which indicated completion of wound flow sheets of 100% and completion of the shift rehabilitation flow sheet had dropped to 0%. However, investigation of the drop in shift rehabilitation flow sheet completion identified an information technology (IT) error affecting the shift rehabilitation flow sheet. The error was reported to IT April 6 and corrected by April 17. This error was reflected in a 59% completion rate of the shift rehabilitation flow sheet for the month of April. Study of the measures week by week enabled us to identify the problem and correct it quickly.

Measurement Strategy

All admission skin assessments were reviewed for accurate and complete documentation by nursing on the shift rehabilitation flow sheet. Complete documentation includes photographs of the wounds, documentation of those findings and accurately identifying the wound type on the shift rehabilitation flow sheet integumentary assessment section, and a wound flow sheet initiated for each wound. Interventions used early in the process of addressing the inaccurate, incomplete PrIs/wound documentation by nursing included education of the CMS quality measures reporting of PrIs at staff meetings, implementation of dual skin assessment by the admitting physician and nurse, and individual mentoring of nurses with deficient documentation by the assistant nurse managers. These interventions brought modest improvement in complete
documented, 20% to 50%; therefore, additional interventions of interactive PrIs/wound assessment and PrIs/wound algorithm education were introduced (see Appendix E).

Measures

The outcome measurement is the percentage of complete and accurate documentation of PrIs at the time of admission, as verified by a CWOCN assessment. Quantification of the process to assure complete PrI documentation is determined by two widely used instruments, the European Pressure Ulcer Advisory Panel (EPUAP) and the Comprehensiveness in Nursing Documentation (CIND; Li, 2016). Use of the EPUAP and CIND instruments ensured the recommended nursing documentation of wound characteristics were present. Completion of the shift rehabilitation flow sheet indicates assessment of the patient was completed and a wound was accurately identified as surgical, non-surgical, PrI, or suspected PrI. The wound flow sheet meets all the CIND requirements for complete description of a wound. Using both flow sheets enabled the reviewers to see the nurse was able to identify the type of wound and the characteristics of wound progress over the course of the patient stay. These were two of the most common requirements lacking in nursing wound documentation noted in the research findings.

Although the accuracy and completeness of documentation were a primary goal, it was important that nurses did not perceive that their workload and documentation time were increased by use of an algorithm to aide their documentation efforts (see Appendix F).

Outcome variation in reporting was determined through interrater reliability by comparing the CWOCN assessment and the quality nurse review of both flow sheets. Two registered nurses (clinical nurse leader and clinical practice consultant) independently reviewed the CWOCN rehabilitation shift and wound flow sheets of 65 assessments, with 100% agreement. Bundled process measures consisting of the shift rehabilitation flow sheet, wound
flow sheet, and the CWOCN verification of the nursing assessment accuracy were captured in a spreadsheet each month and included the percent completion of each flow sheet for each wound. Each element is captured using yes, no, or N/A. After completion of skin assessment education and introduction to a wound documentation algorithm, the nurses’ perception of increase in their workload or time attributed to these interventions, as evidenced by an anonymous survey. Complete definitions of each measure are in Appendix E.

**Ethical Considerations**

According to nursing theorist Jean Watson (2008), “Preparing for any worthwhile endeavor requires the cultivation of skills to engage in the chosen work” (p. 47). The issue of providing the best care for patients with PrIs required research which led to the use of evidence-based interventions, including interactive education for our nurses and use of an algorithm to improve assessment skills and documentation. This project has been approved as a quality improvement project by faculty and the hospital Institutional Review Board (IRB) using quality improvement review guidelines, not requiring IRB approval. No conflicts of interest were identified in the process of improving the assessment and documentation completeness (see Appendix G and Appendix H).

Jesuit values of *Cura Personalis*, caring for the whole person with respect for a person’s physical and spiritual health, are foundational for a clinical nurse leader to possess (University of San Francisco, 2020). This improvement process has increased the awareness and responsibility of the nurse’s role in caring for the whole person and the legal responsibility to document accurately. The ANA Code of Ethics charges nurses to make care safer by promoting a culture of safety through advocacy, advancing education, and caring with compassion (Fowler, 2015). A team approach to improve nursing assessment and documentation skills resulted in increased
understanding and collaboration between physician, staff nurses, and the CWOCN specialists. Leadership style using The Transformational Leadership Theory provided the guidance for supporting the nurses through individual mentoring over the course of this quality improvement process. Through the focused efforts to improve clinical skills in assessment and accuracy in the identification of PrIs and documentation of wounds, proper and timely treatment was initiated, resulting in reduction of suffering and care costs and promotion of healing.

**Section IV: Results**

The current accuracy and completeness of all PrI and wound documentation is at 78% and demonstrated considerable improvement from where this quality improvement journey began (see Appendix I). The outcome of this project supports the research evidence that the implementation of interactive education and the use of an algorithm are beneficial. The outcome measure of accuracy of PrI identification and documentation goal, as verified by the CWOCN, was exceeded at 100% for the last four months in which patients with PrIs were present upon admission (see Appendix J). The goal of 80% to achieve accurate and complete PrI documentation was met without significant negative impact to the nurse workload. 82% of nurses responding to the post-education survey agreed that wound documentation takes less time after education and use of the wound documentation algorithm; and 84% of the nurses felt their documentation completeness improved, compared with 37% noting complete documentation of wounds prior to the interventions of education and wound documentation algorithm.

Limitations of this quality improvement project included hospital surge preparations for the COVID-19 pandemic response. These preparations affected education program implementation, as non-essential, in-person meetings were initially limited in size, then canceled.
This also affected our quality improvement team’s ease of meeting, as well. The pandemic resulted in emotional and physical distractions to the nurses’ personal and work lives; yet despite this, they demonstrated resilience to do the best for their patients, as demonstrated by the improvement in wound documentation completeness.

The need for continued reinforcement of education in assessment skills and elements of complete documentation of wound characteristics were evidenced by a decrease in percent completion of wound documentation in December and January. The plan going forward will be to present the interactive PrI/wound assessment and documentation education program annually and during new employee orientation. The Wound documentation Algorithm has been added to the assistant nurse managers nurse orientation check list to assure new nurses understand the details of wound and PrI documentation in the EMR. Sustainment of this important process will continue through monitoring of the documentation by the quality/prospective payment system clinical nurse leader during the admission data collection of CMS Quality Reporting Measures. Additional education and practice identifying pressure injuries will be provided through individual mentoring, annual education program and nurse huddle messaging, based upon the continued monitoring of measures. (See Appendix K)
**Discussion**

This project supported the findings of research that indicated accurate and complete nurse documentation is a problem that is not corrected by one general intervention. Communication of the *why* behind the increased focus on PrI assessment, reporting, and documentation by CMS has enabled the nurse to see the importance of their role in provision and documentation of accurate and complete information to the patient, the financial health, and reputation of the healthcare system they are a part of. A lesson learned is that the EMR, although beneficial, can also be a barrier to the nurses if it is not designed to be user-friendly. Any gap in nursing documentation of a patient’s care should begin with engagement of the nurses, encouraging them to share their workflow experience. The nurse feedback regarding the challenges with the wound flow sheet access and documentation at this rehabilitation unit has been communicated to the hospital IT liaisons and to the software developer, so future flow sheet versions will be less confusing to the frontline user. It is important to continue the conversation with frontline nurses to understand what the barriers are to any documentation issue. Once the barriers are understood, appropriate interventions such as those utilized in this quality improvement project, are applicable to any documentation issue.

This project has increased awareness of the importance and benefits of providing safe, quality care through our clinical skills and documentation. The importance of accurate assessment and documentation of wounds and PrI’s to each patient, as well as the rehabilitation unit, is evidenced by the leadership of this rehabilitation unit. Leadership support is essential for the continued monitoring, tracking, individual mentoring, and ongoing education efforts necessary to sustain this level of accurate and complete documentation. The support demonstrated on this rehabilitation unit is consistent with the leadership style of The
Transformational Leadership Theory. Acting out our ethical and professional duties to accurately assess and document completely, benefits the patient, nurse, and the healthcare system.
Section V: References


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https://doi.org/10.5600/mmrr.004.04.a04
Section VI: Appendices
### Appendix A. Evaluation Table

**PICOT Question:** How does the utilization of a Wound Documentation Algorithm and Wound Description Education (I) improve nursing documentation accuracy and completeness of Stage I or greater Pressure Injuries (O), compared to current practice (C), for patients admitted to an acute rehabilitation hospital (P)?

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Sample</th>
<th>Outcome/Feasibility</th>
<th>Evidence Rating</th>
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<tbody>
<tr>
<td>Chavez, M. A., Duffy, A., Rugs, D., Cowan, L., Davis, A., Morgan, S. &amp; Powell-Cope, G. (2019). Pressure injury documentation practices in the Department of Veteran Affairs a quality improvement project. <em>Journal of Wound Ostomy Continence Nursing</em>, 46(1), 18-24</td>
<td>Qualitative, Cross-sectional quality improvement project</td>
<td>62 staff nurse participants</td>
<td>Understanding of the key barriers to daily skin assessment documentation may improve validity of treatment, policy and procedure adherence. Useful to understand the main barriers to accurate documentation: lack of knowledge, poor templates and staffing issues.</td>
<td>JH III A</td>
</tr>
<tr>
<td>Li, D. (2016). The relationship among pressure ulcer risk factors, incidence and nursing documentation in hospital-acquired pressure ulcer patients in intensive care units. <em>Journal of Clinical Nursing</em>, 25, 2335-2347. DOI: 10.1111/jocn.13363.</td>
<td>Retrospective, comparative, descriptive and correlational study.</td>
<td>Convenience sample of patients admitted to 4 different ICU’s: 196 with hospital-acquired pressure ulcers and 98 patients without pressure ulcers.</td>
<td>Poor and incomplete nursing documentation affects the ability to calculate prevalence of pressure ulcers or effectiveness of evidence-based interventions. Useful to support the need for nursing accuracy in assessment and documentation to improve research and Evidence Based Interventions as well as decrease litigable risk due to inaccurate or missing documentation.</td>
<td>JH III A</td>
</tr>
<tr>
<td>Study</td>
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<td>Lowe, J.R., Rau, G.J., Reiber, G.E. &amp; Whitney, J.D. (2013). Does incorporation of a clinical support template in the electronic medical record improve capture of wound care data in a cohort of veterans with diabetic foot ulcers? <em>Journal Wound Ostomy Continence Nursing, 40</em>(2), 157-162.</td>
<td>Prospective, Consecutive, Cohort Study</td>
<td>Historic control cohort: n = 27 Intervention group: n = 49</td>
<td>Documentation of important variables improved with the incorporation of a template. Documentation Templates are one way to improve data capture. Useful to support the helpfulness of using templates or other tool to guide the capture of complete wound assessment.</td>
<td>JH III B</td>
</tr>
<tr>
<td>Barakat-Johnson, M., Lai, M., Barnett, C., Wand, T., Wolak, D. L., Chan, C., …White, K. (2018). Hospital-acquired pressure injuries: Are they accurately reported? A prospective descriptive study in a large tertiary hospital in Australia. <em>Journal of Tissue Viability, 27</em>, 203-210. DOI: 10.1016/j.jtv.2018.07.003</td>
<td>Prospective Descriptive Study</td>
<td>417 patients reported to have a Hospital Acquired Pressure Injury</td>
<td>Inaccuracies in diagnosing, classifying and reporting injuries in 69% of patients reported to have HAPI’s. This led to inaccurate reporting and management. Outcomes: PI validation and mandatory education Useful to support nursing education to improve accuracy in assessment, documentation and management of wounds.</td>
<td>JH III B</td>
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<td>Bruce, T.A., Shever, L.L., Tschamten, D. &amp; Gomber, J. (2012). Reliability of pressure ulcer staging a review of literature and 1 institution’s strategy. <em>Critical Care Nursing, 39</em>(1), 85-101.</td>
<td>Part 1: Literature Review Part 2: Descriptive Comparative and Retrospective Review</td>
<td>Part 1: Literature Review: 10 Full text articles included for the final review. Part 2: Large tertiary care setting: 1488 patient visits with 1499 pressure ulcer assessments</td>
<td>The Literature review and the Observational Study both reveal that there are great inconsistencies in nurse’s accuracy of identification and staging pressure wounds. Clearly outlines the impact on patient care outcomes and healthcare cost and reimbursement. Useful to support the use of an education program and standardized documentation form to increase nursing accuracy in identifying pressure ulcers and staging.</td>
<td>JH V B</td>
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</tbody>
</table>
Appendix B. SWOT Analysis

**SWOT Analysis:**

**Strengths**
1) Long history of leading research and provision of acute rehabilitation services.
2) The rehabilitation center includes a division of research.
3) Generous financial support to advance nursing education.
4) High percentage of patients discharged to community settings.
5) High cultural diversity amongst staff and patients.

**Weaknesses**
1) Fast paced patient throughput.
2) Limited Bed availability compared to the need from a large referral base.

**Threats**
1) Prospective Payment System (PPS) which is highly regulated to reduce payment to hospitals not reporting Quality Measures.
2) Liability risk to nurses who do not document accurately and completely.

**Opportunities**
1) Decreased accuracy of Pressure Injury Identification.
2) Low percentage of PrI/Wound Documentation completeness.
3) Coaching & Mentoring of nurses.
Appendix C. Cost-Benefit Analysis

**Pressure Injury/Wound Documentation Quality Improvement Program Costs**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Number</th>
<th>Hourly Rate</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNL</td>
<td>1</td>
<td>75</td>
<td>20</td>
<td>$1,500</td>
</tr>
<tr>
<td>CWOCN</td>
<td>1</td>
<td>75</td>
<td>10</td>
<td>$750</td>
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</tbody>
</table>

**QIP Team Meeting (3 Mtgs)**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Number</th>
<th>Hourly Rate</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>RN</td>
<td>9</td>
<td>67.61</td>
<td>3</td>
<td>$1,825</td>
</tr>
<tr>
<td>Program Improvement Advisor</td>
<td>1</td>
<td>50</td>
<td>3</td>
<td>$150</td>
</tr>
</tbody>
</table>

Lunch Costs ($200/3 Mtgs) $600

Cost $2,575

**Wound Assessment & Algorithm Education (1 Hour/6 Classes)**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Number</th>
<th>Hourly Rate</th>
<th>Hours</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNL</td>
<td>1</td>
<td>75</td>
<td>6</td>
<td>$450</td>
</tr>
<tr>
<td>CWOCN</td>
<td>1</td>
<td>75</td>
<td>6</td>
<td>$450</td>
</tr>
<tr>
<td>RN Staff</td>
<td>30</td>
<td>67.61</td>
<td>1</td>
<td>$2,028</td>
</tr>
</tbody>
</table>

Cost $2,928

**Total QIP Costs** $7,754

**Potential Cost Avoidance**

<table>
<thead>
<tr>
<th>Regulatory Program</th>
<th>Average Penalty Cost</th>
<th>QIP Costs</th>
<th>Cost Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Acquired Condition</td>
<td>$520,000</td>
<td>$7,754</td>
<td>$512,246</td>
</tr>
</tbody>
</table>
Appendix D. Wound Documentation Algorithm
Appendix E. Project Charter

Project Charter: Improving Pressure Injury Reporting and Documentation

Global Aim: To standardize the process of Integumentary System Assessment and Documentation based upon current CMS regulations and criteria for Pressure Injury Reporting by June 2020 in an acute rehabilitation unit.

Specific Aim: To improve the % of complete pressure injury documentation to 80% from a baseline of 20% of patients who have pressure injuries upon admission.

Background: Pressure injuries present a quality of care issue in health care. The causes of pressure ulcers are multifactorial but are considered indicative of nursing care quality (Lyder & Ayello, 2008). Pressure Ulcers (PrU’s) are one of the nursing-sensitive measures monitored and reported to the public by The Centers for Medicare and Medicaid Services (CMS). Two Hospital-Acquired Pressure Injury’s (HAPI’s) have occurred in the past 4 years, the most recent in 2019. Both HAPI’s were medical device related pressure injuries that were present on admission, but not documented on the wound assessment flow sheet, and therefore not reported to CMS at the time of the patient’s admission. The quality gap emerged in the lack of documentation of the patient’s admission skin assessment. The impact of PrU’s extends beyond the suffering experienced by the patient. The financial stability and reputation of healthcare institutions are also negatively affected through public reporting of quality measures in the CMS website available for public review. Given the high volume of patients admitted with cognitive and mobility issues, the acute rehabilitation unit is at high risk for incurring financial and reputation penalties if the CMS required pressure injury documentation is incomplete and not reported accurately.
**Sponsor:** Director of Operations

**Goals:**

To provide standardized and accurate Integumentary System assessment and documentation at the time of admission using a multidisciplinary team assessment approach for patients admitted to an acute rehabilitation unit using the following approach:

1. Integumentary System assessment, wound description and Documentation Algorithm education for nursing staff.
2. Identification of and education for Rehabilitation Nurse Champions.
3. Development and implementation of an algorithm tool for assessment, documentation and reporting process of pressure injuries.

**Measures:**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>% patients with complete accurate documentation of Pressure Injuries upon admission as verified by the Certified Wound Ostomy Continence Nurse (CWOCN)</td>
<td>Chart Review of nursing documentation compared with the CWOCN documentation-Health connect</td>
<td>80%</td>
</tr>
<tr>
<td>% complete documentation by nursing on the Rehab Shift Flow Sheet</td>
<td>Chart review of wound photograph and Rehab Flow Sheet-Health connect</td>
<td>80%</td>
</tr>
<tr>
<td>% complete Pressure Injury documentation by nursing on the Wound Flow Sheet</td>
<td>Chart Review-Health connect</td>
<td>80%</td>
</tr>
<tr>
<td>No perceived increase in workload or time attributed to use of Pressure Injury Algorithm during Admission Integumentary Assessment documentation process</td>
<td>Nursing Survey</td>
<td>0% increase negative perception of workload or documentation time</td>
</tr>
</tbody>
</table>
Team

<table>
<thead>
<tr>
<th>Role</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Champion &amp; Team Lead</td>
<td></td>
</tr>
<tr>
<td>Rehab Nurse Educator</td>
<td>MSN, CRRN</td>
</tr>
<tr>
<td>Team Member</td>
<td>Quality Nurse, CNL</td>
</tr>
<tr>
<td>Nurse champion</td>
<td>Staff Nurse</td>
</tr>
<tr>
<td>Team Member</td>
<td>Nursing Manager</td>
</tr>
<tr>
<td>Team Member</td>
<td>Nurse Manager CNL</td>
</tr>
<tr>
<td>Team Member</td>
<td>Assistant Nurse Manager</td>
</tr>
<tr>
<td>Team Member</td>
<td>Certified Wound Ostomy Continence Nurse</td>
</tr>
<tr>
<td>Team Member</td>
<td>Recuperative Skills Wound Nurse</td>
</tr>
<tr>
<td>Team Member</td>
<td>Improvement Advisor</td>
</tr>
</tbody>
</table>

References


Appendices:

Measurement Strategy:

**Background (Global Aim)** To standardize the process of Integumentary System Assessment and Documentation based upon current CMS Quality Reporting Measures for Pressure Injury Reporting by June 2020 in an acute rehabilitation hospital.

**Population Criteria:** Patients admitted to the acute rehabilitation unit.

**Data Collection Method:** Data will be obtained from chart review from a sample of 100% of patient records with identified wounds to establish a baseline for 4 months (9/2019 through 12/2019). After baseline data is collected, 100% of patient records with wounds will be measured monthly for project measures for Q1, 2020. Data plan will be re-evaluated q month based upon results.

**Data Definitions**

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Pressure Injury Documentation of Admission Skin Assessment</td>
<td>Photograph(s) match the complete documentation on the Rehab Shift Integumentary Assessment &amp; Wound Flow Sheet upon admission</td>
</tr>
<tr>
<td>Pressure Injury Stage as defined by CMS</td>
<td>See attachment A</td>
</tr>
<tr>
<td>Rehab Shift Assessment Flow Sheet</td>
<td>Health Connect: Rehab Nursing Shift Flow Sheet: Integumentary Assessment</td>
</tr>
<tr>
<td>Wound Flow Sheet</td>
<td>Health Connect: Wound Flow Sheet</td>
</tr>
<tr>
<td>Pressure Injury description verified by CWOCN</td>
<td>Nursing documentation will be compared with the CWOCN documentation in Health connect</td>
</tr>
</tbody>
</table>
### Measure Description

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measure Definition</th>
<th>Data Collection source</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>% complete documentation by nursing on the Rehab Nurse Shift Flow Sheet</td>
<td>$N = #$ patients with skin description documented in medical record, $D=#$ patients admitted with wound/pressure injury</td>
<td>Chart Review</td>
<td>80%</td>
</tr>
</tbody>
</table>

| % complete documentation of Pressure Injuries, Stage 1 or greater on the Wound Flow Sheet | $N = \#$ patients with accurate wound description, $D=\#$ patients admitted with wound/pressure injury | Chart review           | 80%   |

### Driver Diagram

**AIM**

To improve the accuracy of assessment and completeness of pressure injury documentation by Nursing to 80% from a baseline of 20% in patients who have pressure injuries present upon admission by June, 2020

**Primary Drivers**

- Staff Education
- Accurate Pressure Injury Assessment
- Complete Pressure Injury Documentation

**Secondary Drivers**

- Education on CMS regulatory changes on Pressure Injury reporting
- Assess staff baseline knowledge of Pressure Injury staging and wound description
- Staff education on the components of complete Pressure Injury documentation

**Change Ideas**

- Staff Meeting to inform of CMS Pressure Injury Reporting and documentation requirements
- Staff Meeting to include interactive education module: Wound/Pressure Injury description, what information and where to document wounds/pressure injuries in Health Connect.
- Chart audits of patients admitted with Wounds/Pressure Injury with RN Pressure Injury wound description verified by CWOCN
- *Staff Meeting to include: Complete Pressure Injury Documentation components
- *Chart audits of patients admitted with Wounds/Pressure Injury with RN photo matching the description of the wound/Pressure injury
- *Education on use of Wound/Pressure Injury Algorithm Documentation aide
Changes to Test:

<table>
<thead>
<tr>
<th>Intervention</th>
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<tbody>
<tr>
<td>1. Education Module: Pressure Injury Reporting Changes, Wound Description</td>
</tr>
<tr>
<td>2. Wound/Pressure Injury Algorithm Documentation Aide</td>
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<tr>
<td>3. Pressure Injury included in the multidisciplinary rounds (MDR) daily and</td>
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<td>at nurse knowledge exchange (NKE) every shift.</td>
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<td>4. RN report of Pressure Injury status at Weekly Interdisciplinary Team</td>
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<tr>
<td>Meeting and Weekly Team Huddle.</td>
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Project Timeline:

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<td>Finalize Charter and Identify Team</td>
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<tr>
<td>Pressure Injury QI Kick-off Meeting</td>
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<td>Algorithm PrI Tool Development</td>
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<tr>
<td>Develop Education Plan</td>
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<tr>
<td>Staff Training</td>
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</table>
CNL Competencies:

The Clinical Nurse Leader will demonstrate organizational and systems leadership, quality improvement and safety, Informatics and Healthcare Technology through:

1. Demonstration of knowledge of the healthcare system and its component parts through performing a comprehensive and systematic microsystem assessment of the Rehabilitation Hospital.
2. Collaboration with a healthcare professionals’ team, to plan, implement and evaluate an improvement opportunity using datasets and metrics that matter within the microsystem.
3. Development and implementing teaching and documentation algorithm to promote health, safety and quality care to our patients as evidenced by accurate and complete wound/Pressure Injury documentation.

Charter Attachment: A
Centers for Medicare & Medicaid Services Wound Definitions 1

**Stage 1:** Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have a visible blanching; in dark skin tones only, it may appear with persistent blue or purple hues.

**Stage 2:** Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.

**Stage 3:** Full thickness tissue loss. Subcutaneous fat may be visible, but bone, tendon or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.

**Stage 4:** Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.

**Unstageable- Non-removable dressing/device:** Known but not stageable due to non-removable dressing/device.

**Unstageable – Slough and/or eschar:** Known but not stageable due to coverage of wound bed by slough and/or eschar.

**Unstageable – Deep Tissue Injury**
### Appendix F. Process Measures

<table>
<thead>
<tr>
<th>Process</th>
<th>Objective Description</th>
<th>Method of Measurement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chart Review of nursing documentation compared with the CWOCN documentation-Health connect</td>
<td>% patients with complete accurate documentation of Pressure Injuries upon admission as verified by the Certified Wound Ostomy Continence Nurse (CWOCN)</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Chart review of wound photograph and Rehab Flow Sheet-Health connect</td>
<td>% complete documentation by nursing on the Rehab Shift Flow Sheet</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Chart Review-Health connect</td>
<td>% complete Pressure Injury documentation by nursing on the Wound Flow Sheet</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Nursing Survey using “Pole Everywhere” at April Staff Meeting</td>
<td>No perceived increase in workload or time attributed to use of Pressure Injury Algorithm during Admission</td>
<td>0% increase negative perception of workload or documentation time</td>
<td></td>
</tr>
</tbody>
</table>

Balancing
Appendix G. Statement of Non-Research Determination

CNL Project: Statement of Non-Research Determination Form

Student Name: Mary Ann Laslo

Title of Project: Pressure Injury Documentation and Reporting: Improving a Quality Gap

Brief Description of Project:

A) Aim Statement: To improve the % of complete pressure injury documentation to 80% from a baseline of 20% of patients who have pressure injuries upon admission.

B) Description of Intervention: To provide standardized and accurate Integumentary System assessment and documentation at the time of admission using a multidisciplinary team assessment approach for patients admitted to the Kaiser Foundation Rehabilitation Center using the following approach:
   1. Integumentary System assessment, wound description and documentation algorithm education for nursing staff.
   2. Identification of and education for Rehabilitation nurse champions.
   3. Development of an algorithm tool to aid documentation and reporting process of pressure injuries.

C) How will this intervention change practice? Through education and use of a Wound/Pressure Injury Algorithm Documentation aide, the nurses will be able to accurately assess and document completely the wounds and pressure injuries of patients admitted to the rehabilitation hospital. The accurate and complete wound/Pressure Injury documentation will then ensure accurate reporting of the Pressure Injury Quality Measure to the Centers for Medicaid and Medicare Services.

D) Outcome measurements: 80% of patients will have complete and accurate documentation of Pressure Injuries upon admission as verified by the Certified Wound Ostomy Continence Nurse.

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

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

Comments:

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

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

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

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):
Mary Ann Laslo

Signature of Student: ________________________________ DATE 3/15/20

SUPERVISING FACULTY MEMBER NAME (Please print):

Signature of Supervising Faculty Member ____________________________ DATE ______________________

Appendix H. KP Non-Research Determination

December 20, 2019

Subject: RDO KPNC 19 - 173
Title: Improving Pressure Injury Assessment Accuracy and Documentation

Dear Ms. Laslo:

As a Research Determination Official (RDO) for the Kaiser Permanente Northern California region, I have reviewed the documents submitted for the above referenced project. The project does not meet the regulatory definition of research involving human subjects as noted here:

[ ] Not Research
   The activity does not meet the regulatory definition of research at 45 CFR 46.102(d):
   Research means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

[X] Not Human Subject
   The activity does not meet the regulatory definition of human subjects at 45 CFR 46.102(f):
   Human subject means a living individual about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information.

Therefore, the project is not required to be reviewed by a KP Institutional Review Board (IRB). This determination is based on the information provided. If the scope or nature of the project changes in a manner that could impact this review, please resubmit for a new determination. Also, you are responsible for keeping a copy of this determination letter in your project files as it may be necessary to demonstrate that your project was properly reviewed.

Provide this approval letter to the Physician in Charge (PIC), your Area Manager, and Chief of Service, to determine whether additional approvals are needed.

Sincerely,

David C. Motetanz

Director
Research Compliance and IRB Administration
Financial Conflict of Interest Officer
Kaiser Permanente
NCAL Regional Compliance, Ethics, & Integrity Office
1800 Harrison St., 10th Floor, Oakland, CA 94612
Appendix I. Complete Skin Assessment Documentation
## Appendix J. Process Outcome Measures

### Pressure Injury/Wound Documentation Measures

![Pressure Injury/Wound Documentation Measures](image)

<table>
<thead>
<tr>
<th>Month</th>
<th>Rehab Lvl 1 Site Assessment Complete</th>
<th>Wound Sheet Complete</th>
<th>Accurate PH Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep-19</td>
<td>n=5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-19</td>
<td>n=23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov-19</td>
<td>n=14</td>
<td></td>
<td></td>
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<tr>
<td>Dec-19</td>
<td>n=4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-20</td>
<td>n=25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-20</td>
<td>n=36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-20</td>
<td>n=22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-20</td>
<td>n=34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: Data represents monthly trend from September 2019 to May 2020.*
## Appendix K. Results: Process Measure Outcomes

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Goal</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patients with complete accurate identification and documentation of Pressure Injuries by the admitting nurse.</td>
<td>Chart review of nursing documentation compared to the Certified Wound Ostomy Nurse (CWO) documentation in Health Connect</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>% of complete documentation by Nursing on the Shift Rehab Flow Sheet</td>
<td>Chart review of admission wound photo and Shift Rehab Flow Sheet in Health Connect</td>
<td>80%</td>
<td>78%</td>
</tr>
<tr>
<td>% of complete documentation by Nursing of each Wound or Pressure Injury on the Wound Flow Sheet</td>
<td>Chart review of the Wound Flow Sheet in Health Connect</td>
<td>80%</td>
<td>97%</td>
</tr>
<tr>
<td>No perceived increase in workload or time attributed to the use of Wound Documentation Algorithm</td>
<td>Nursing Survey</td>
<td>0%</td>
<td>11%</td>
</tr>
</tbody>
</table>