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### HAPI Prevention Bundle: An Initiative to Prevent Hospital-Acquired Pressure Injuries

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**HAPI Prevention Bundle**

**An Initiative to Prevent Hospital-Acquired Pressure Injuries**

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N653: Internship

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## **I. Abstract**

**Problem:** Hospital-Acquired Pressure Injuries (HAPI) are a serious health problem as they increase patient morbidity and mortality. They are detrimental to patients, families, and healthcare systems. **Context:** Research supports HAPI prevention bundles are a way to standardize care processes and reduce the incidence of pressure injuries. This evidence-based practice intervention was initiated to develop a HAPI prevention bundle in an adult Medical-Surgical Telemetry unit. A literature review was conducted to identify the best HAPI prevention practices. **Intervention:** The evidence-based pressure injury preventive bundle includes interventions consistent with proper skin assessments and documentation, patient risk identification, development of Wound Care Champions, routine huddle attendance, proper education, and continuous training. **Measures:** Wound, ostomy, and continence nurses, bedside nurses, nurse leaders, and Quality Improvement (QI) specialists participated in the development of the bundle. Nursing questionnaires, chart audits, and interviews were conducted. Pre-implementation HAPI incidences and sentinel events were reviewed. **Results:** Post-implementation findings will be conducted at 12 months after bundle implementation to determine a significant reduction of HAPI incidence. **Conclusion:** An evidence-based bundle initiative was developed in an adult Medical-Surgical Telemetry unit to reduce the incidence of HAPIs and standardize the process for pressure injury prevention. Staff engagement and leadership involvement are essential to the success of this EBP intervention. The goal is to integrate the bundle and decrease the number of HAPIs in the unit.

## **II. Introduction:**

Hospital-Acquired Pressure Injuries (HAPI) are becoming increasingly alarming for U.S Healthcare systems and for patient outcomes. A HAPI is defined as any injury to the skin or

underlying tissue that develops during a hospital admission (Rondinelli, et. al, 2018). These lesions can be extremely painful and cause serious infections. As a result, pressure injuries lead to increased morbidity and mortality rates among those affected. HAPIs result in unnecessary healthcare costs and increased length of hospitalization. Moreover, more than 2.5 million individuals develop a HAPI and nearly 60,000 patients die each year from complications resulting from pressure ulcers (Agency for Healthcare Research and Quality, 2014). Furthermore, the Centers for Medicare & Medicaid (CMS) considers any pressure injuries at stages 3 or 4 which develop during hospitalization as a “never event” and does not provide additional reimbursement to hospitals for the care of those patients (Rondinelli, et. al, 2018) Thus, HAPI preventive measures are crucial for hospitals and positive patient outcomes.

The prevention of Hospital Acquired Pressure Injuries necessitates an interdisciplinary approach to patient care. Successful interventions require a hospital culture that encourages effective communication, collaboration, and professional expertise from different areas. This includes wound care nurses, nutritionists, physicians, nurse management, and Quality Improvement professionals. The Agency for Healthcare Research and Quality suggests that participation and engagement from members of the team contribute to a culture of excellence and patient safety. Furthermore, leadership involvement is necessary to provide ongoing support and to ensure staff accountability. Evidence indicates that support is necessary from top-level administration and frontline workers at the bedside to decrease the incidence of pressure injuries (Agency for Healthcare Research and Quality, 2014). Additionally, a uniform process for the prevention of HAPIs is also necessary to promote accountability from all members of the team. Research suggests that a standardized bundle can provide specific interventions to reduce the development HAPIs.

## **Problem description**

A recent study was conducted to describe this particular healthcare system's Hospital Acquired Pressure Injury incidence, risk factors, and risk-adjusted variation in HAPI incidence within 35 of its hospitals in California. This retrospective cohort study analyzed 728,266 hospitalization cases from January 1, 2013, and June 30, 2015. The overall HAPI incidence rate was 3.7 cases per 1,000 patients which includes all HAPI stages (Rodinelli et al., 2017). Our targeted microsystem and the unit of focus for our proposed intervention is the Medical-Surgical Unit at Hospital K which is comprised of 20 Hospital beds. From December 2020 until November 2021, a total of 7 HAPIs stage 2 or above have been reported in the Medical-Surgical Telemetry Unit.

We began with an effort to understand why patients were experiencing Hospital Acquired Pressure Injuries. Our efforts focused on understanding gaps in knowledge and attitude from frontline workers including nurses and patient care assistants. Through nursing questionnaires, chart audits, and collaboration with interdisciplinary team members, we learned more about the multidimensional root causes of increased HAPI rates. This led to the development of an Evidence-Based Practice (EBP) bundle to aid in the prevention of pressure injuries. This EBP intervention was guided by the following **PICOT question:** In adult patients in the Medical-Surgical Telemetry Unit, does a Hospital Acquired Pressure Injury (HAPI) prevention bundle, compared to routine pressure injury care, reduce the incidence of pressure injuries, within 12 months?

## **Literature Review**

The Agency for Healthcare Research and Quality provides a comprehensive bundle to standardize care processes to integrate into a healthcare system and improve health outcomes.

The purpose of this toolkit is to assist hospitals in implementing HAPI prevention measures using an interdisciplinary approach.

Castaldi et al., describe a Leadership Safety Huddle initiative to improve communication and promote a culture of safety in a designated hospital. Metrics regarding the effectiveness of huddles were analyzed. Results indicate a 75% positive response to improved communication, patient safety, transparency, and time of conflict resolution. There was a 28% reduction in bladder catheter days ( $P = .011$ ), and 10% decrease in continuous observations ( $P = .008$ ). As a result, this institution saw a 24% cost reduction ( $P = .001$ ) with \$139,107.00 of quarterly savings.

King et al., describe the Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) as an Evidence-Based approach developed by the Department of Defense and the Agency for Healthcare Research and Quality to improve communication and teamwork skills among healthcare professionals. Numerous institutions have adopted this approach to improve patient outcomes, safety, and quality of care delivery. Evidence indicates that the knowledge, skills, and attitudes of the TeamSTEPPS program, can improve patient safety and outcomes. The TeamSTEPPS initiative includes a Daily Safety Patient huddle which improves team communication and patient safety.

Aldawood et al., conducted a quasi-experimental study design by implementing a Daily Safety Huddle tool from the TeamSTEPPS evidence-based approach developed by the US Agency of Healthcare Research and Quality. With 97% compliance of the safety huddle, the institution addressed 340 issues pertaining to patient safety. Results indicate that huddles are a powerful tool in addressing patient safety concerns.

Odumero et al., illustrates the impact of transformational leadership in the healthcare setting. This type of leadership is essential in creating and sustaining positive change and keeping team members motivated and accountable.

Tayyib and Coyer, conducted a systematic review of 25 studies and a meta-analysis to determine the best evidence-based practices regarding the effectiveness of measures to reduce HAPIs in the intensive care unit setting. Three studies reported that the prophylactic application of a silicone foam dressing reduced the incidence of sacral pressure ulcers. The overall effect across the research studies was 0.12 (95% CI, 0.05-0.29;  $P < .00001$ ).

Taggart et al., implemented a quasi-experimental design and evidence-based intervention by developing unit champions to provide assistance with wound, ostomy, and continence care and thus decrease pressure ulcers. The development of unit champions is critical in the success of quality improvement initiatives and positive patient outcomes. Post-intervention data reveals that the incidence of hospital-acquired pressure ulcers in the institution of focus decreased from 7% to 4% in the following fiscal year.

### **Conceptual Framework: Leadership Theory**

Leadership is a contributing factor that reflects the well-being of institutions and an overall culture of safety and excellence. Several theories have been proposed to describe leadership effectiveness. One of the most prominent nurse leadership theories is Transformational leadership. A transformational leader is someone who inspires followers to accomplish extraordinary outcomes (Robbins, 2007). They tap into the intrinsic motivation of their team members by connecting them to their sense of self and their identity to the overall values of the organization. This type of leadership empowers followers to take charge of their

work by understanding the weaknesses and strengths of each individual (Odumeru, 2013). Leaders help create positive change by focusing on helping every member of their team succeed.

This leadership theory is utilized to guide the implementation of this EBP project. The type of leadership in institutions reflects largely on the overall nursing satisfaction and the quality of care provided to patients. Successful organizations have competent leaders who are concerned not only with their staff, but that is also involved in the process of creating change. In addition, high-quality interventions require a hospital culture that encourages effective communication, team-based collaboration, and expertise. Change happens when frontline workers and leadership are both highly engaged in problem-solving and transforming care processes. It is crucial to ensure that leadership members share the urgency of changing pressure ulcer practices and provide continual support in this effort. For this reason, an interdisciplinary team approach is necessary to create and sustain the necessary efforts of HAPI prevention.

### **Specific Project Aim**

The purpose of initiating this Evidence-Based Practice intervention is to reduce HAPIs in the Medical-Surgical Telemetry Unit by 10% within 12 months of implementing the bundle. This will be achieved by developing and implementing a standardized HAPI prevention bundle that includes team-based communication through Daily Safety Huddle attendance, front-line worker engagement through the development of Unit Champions and Turn Teams, a standardized documentation, assessment, and escalation process through an algorithm, and evidence-based HAPI Prevention measures (Turning Q2h, skin assessment, silicone foam dressings over bony prominences, pillows to off-weight pressure from heels, foam strips on nasal cannulas to protect behind ears and over the bridge of nose for the O2 and BiPAP masks, mineral-based elastomer and foam dressings beneath tracheostomies).

### **III. Methodology**

#### **Microsystem Assessment (5Ps)**

The designated institution, Hospital K, is located in Fremont, CA and its mission statement is to “provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.” Hospital K provides a range of services including specialty care, cardiology, inpatient surgery, emergency medicine, hemodialysis, and radiology. A microsystem assessment was completed in the 2 North Medical-Surgical Telemetry unit which serves patients that previously experienced cardiovascular incidents, such as strokes or heart attacks. These patients are in constant observation until they recover.

Clinical microsystems exist to focus specialized care to specific patient populations by interdependent healthcare professionals. The skilled team of healthcare professionals within this microsystem includes nurses, physicians, social workers, respiratory therapists, physical therapists, occupational therapists, case managers, patient care assistants, dietitians, interpreter services, among others. The purpose of this microsystem assessment is to determine the quality-of-care delivery through HAPI prevention measures and treatment.

Processes involved in the prevention of HAPI include thorough skin assessments by two nurses upon admission, discharge, transfer, and change-of-shift. Nurses are required to complete the skin assessment and provide detailed documentation on the patient’s charts. Thorough documentation includes adding a photograph of the pressure injury on the patient’s chart. If a change in skin integrity occurs, nurses must escalate the patient to the Wound Ostomy Care Nurse by placing an order. They must also notify the provider, the Assistant Nurse Manager, and the Respiratory Therapist if necessary. Nurses must assess patients at risk for developing a

pressure ulcer including those with impaired skin integrity, limited mobility, excess moisture to high-risk areas, Braden score of 18 or less, high-risk nutritional status, and risk for medical device pressure such as nasal cannulas or respiratory devices.

Patterns seen in the Medical-Surgical Telemetry unit include hand-off at every change-of-shift, non-mandatory huddles (after change-of-shift), and multidisciplinary rounds to review patients' progress and care plans. There is effective patient and staff interaction. Nurses and Patient Care Assistants are well informed about hospital policies on wound care escalation. They are knowledgeable about turning the patient every two hours, using protective devices on bony prominences, nutritional needs, and collaborating with interdisciplinary team members to deliver quality, patient-centered care. An illustration of the microsystems analysis is located in Appendix A.

### **Root Cause Analysis**

We conducted a Root Cause Analysis to determine factors involved in the development of Hospital Acquired Pressure Injuries. A Root Cause Analysis serves to identify problems and develop an approach for responding to them and preventing them. We attended weekly meetings with the Quality Improvement experts at Hospital K to learn about previous pressure ulcer cases that became sentinel events. According to the Joint Commission, a "sentinel event is a patient safety event that results in death, permanent harm, or severe temporary harm." Sentinel events are detrimental to patients and health institutions. Through weekly meetings, we learned about factors involved in the development of pressure ulcers. These are listed in Appendix B Root Cause Analysis: Fishbone Diagram. Additionally, chart audits were conducted to assess gaps in documentation and wound care referral.

In addition to meeting with the Quality Improvement team and reviewing past cases, we interviewed the Wound Care Ostomy Nurse to better understand some of the common patterns and hindrances observed regarding HAPI prevention. Major themes include non-compliance from staff, decreased staffing, inconsistent methods of charting, and inadequate escalation, especially during the weekends.

Lastly, we conducted a questionnaire to determine the challenges faced by bedside nurses when it comes to preventing Hospital Acquired Pressure Injuries. It's imperative to understand these hindrances directly from members of the team who work with patients at risk to better understand their perspectives. The objective of the nurse questionnaire is to learn about two domains: knowledge and attitude pertaining to HAPI prevention measures.

The nursing questionnaire was developed from the Pressure Ulcer Knowledge Test and Staff Attitude Scale. This tool is used to assess staff knowledge on pressure ulcer prevention, staging, and wound description. Validation research shows a Cronbach  $\alpha$  of 0.91 for this particular tool (Barakat-Johnson, et al., 2018). Therefore, this indicates a high internal consistency and reliability. The 47-item test is found on the Agency for Healthcare Research and Quality Pressure Ulcers in Adult Prediction and Prevention guideline. To impart conscientiousness about the busy nature of health care and limited time to participate in surveys, we employed fewer questions. The nurses were invited to complete the questionnaire online or on paper. The modified nurse questionnaire is visible on Appendix C .

The Root Cause Analysis transpired over one month. The results are illustrated on the Fishbone Diagram in Appendix B. Major findings include an overarching theme to encourage and sustain a culture of safety and excellence. For example, environmental factors involved in HAPI development include nurse-patient ratios, staff complacency, heavy workload, and

inconsistent documentation. Patient-related factors include limited mobility, presence of comorbidities, nutritional deficiencies, pain management, heavy patients, and failure to turn. In regard to processes, factors involved are lack of morning huddle attendance, inadequate documentation of skin assessments, and prompt referral to wound care nurse. As seen in Appendix B, the Root Cause Analysis, a variety of factors influence the development of Hospital Acquired Pressure Injuries. These causative factors serve to develop strategies and techniques to prevent HAPIs while improving patient outcomes and reducing unnecessary hospital expenses.

### **SWOT Analysis**

To help direct this quality improvement project and guide specific strategies aimed at reducing Hospital Acquired Pressure Injuries, a SWOT analysis was employed on the Medical-Surgical Telemetry unit. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. This analysis reveals areas that are successful in the unit and those that have room for improvement. Strengths include those activities or processes that are done particularly well. In the Medical-Surgical Telemetry unit, these include the resources and materials about pressure injuries, prevention, and treatment. Another important strength is the presence of a skilled and knowledgeable Wound Ostomy Care Nurse (WOCN) onsite. The WOCN provides staff with the tools and education needed to prevent Hospital Acquired Pressure Injuries.

Weaknesses in the unit are areas that call for improvement, including people, resources, systems, and processes. For example, some resources about HAPI prevention are outdated, not easy to read, and are not visually appealing. Another crucial area that requires improvement is accurate documentation and referral to the WOCN, especially on the weekends when the WOCN is not available. Staff must escalate patient concerns to a WOCN in a different Hospital K

location. Patient comorbidities that slow treatment progress is also a major downside. Patient conditions that affect healing and increase pain can hinder any interventions geared towards preventing pressure ulcers. After conducting the Root Cause Analysis, we determined that patients are not turned every two hours, there is inadequate charting or a lack of detailed skin assessments of patients with impaired skin integrity.

Opportunities for improvement include enforcing the two-hour repositioning schedule for every shift, documenting skin assessments to prevent further complications from existing lesions, and thus promote the healing of wounds by providing better blood flow to the affected area. Proper escalation helps maintain accountability and develop a consistent process for treating HAPIs. With a successful plan and intervention aimed at preventing HAPIs, many benefits arise including reduced hospital costs, improved patient outcomes and satisfaction, and better team dynamics.

Lastly, the threats section of the SWOT analysis includes anything that can negatively affect our goals to decrease HAPIs. Staff complacency is a major threat. In order to successfully implement change, team-based collaboration is key to creating tangible changes in care. Staff may also be overwhelmed with the amount of work they have to complete in addition to actively participating in the proposed intervention. The SWOT analysis in Appendix D depicts major strengths and opportunities for improvement.

### **PDSA: Plan, Do, Study, Act**

To decrease the occurrence of HAPIs on the Medical-Surgical Telemetry unit, it becomes essential to create the necessary tools to properly design and implement this proposed change. A Plan Do Study Act (PDSA) cycle delineates the recommended interventions. The PDSA

provides guidelines and an actionable framework that is expected to make changes within this microsystem (Appendix E). This Quality Improvement project will continue over a twelve-month span with the goal of understanding the root causes from an interdisciplinary perspective, developing interventions geared towards reducing HAPIs. In order to decrease HAPIs, it is necessary to delve into the details of the proposed PDSA model (Appendix E).

This action plan draws upon Lippincott's recommendations for HAPI prevention while tailoring the strategies to the patients and staff members of the Medical-Surgical Telemetry unit. During the *planning phase*, the goal is to gain a better understanding of the areas that need improvement through collaboration with the Quality Improvement team, WOCN, nurse managers, and bedside nurses. This phase also includes revising the unit's policies, procedures, and conducting chart audits. Additionally, the Root Cause Analysis, Microsystems Assessment, and Nursing Questionnaire will be implemented during this phase.

The *do phase* requires actionable items such as Evidence-Based Practice recommendations including huddle attendance, reinforcing HAPI prevention measures (Turning Q2h, skin assessment, education, and training), the development of Wound Care Champions, and documenting barriers and solutions. We will also implement a HAPI Prevention Algorithm to illustrate a clear process for wound care nurse referral and proper documentation. This algorithm is found in Appendix G, and it will be used as a visual guide for nurses to properly escalate and document patients at risk for pressure injuries.

During the *study phase*, the collected data will be analyzed and assessed for changes in HAPI rates. We will also interview staff members on the implemented changes and for feedback to improve the intervention. Lastly, the *act phase* entails working with nurses, management and organization leaders to determine what course of action will take place next to help sustain the

benefits of the intervention. This Plan Do Study Act (PDSA) cycle will be used to carry out the change and the process can be visualized by Gantt chart (Appendix F).

### **Intervention**

After the completion of the literature review, a Root Cause Analysis, and consideration of clinical expertise and patient values, an Evidence-Based Practice Prevention Bundle was developed. The Institute for Healthcare Improvement (IHI) defines a bundle as a standardized way to deliver care and improve patient outcomes. Our recommendations for a HAPI prevention bundle include the following best evidence-based practices. The first measure is to implement Daily Safety Huddles. Huddles improve communication and promote a culture of safety (Castaldi et al., 2019). Research indicates huddles can decrease the incidence of HAPIs while enhancing teamwork and prompt responsiveness to safety events. Second, the bundle will include the development of Unit Champions. This is an evidence-based intervention to provide assistance with wound, ostomy, and continence care and decrease pressure ulcers. The development of unit champions is a critical factor in the success of quality improvement initiatives and positive patient outcomes. The Wound Care Champions can assist patients with skincare needs. In addition, they can work as liaisons with the Nurse Quality department and Wound Care Nurse. Ideally, monthly educational meetings for Wound Care Champions would allow the provision of evidence-based education, practices, case analysis, products, and recommendations. The Wound Care Champions can disseminate this information to their unit, educate their peers, and assist with observation and/or data collection to ensure the adoption of new practices. Third, the standardization of skin assessment, identification of patients at-risk, and

proper escalation are essential measures in the prevention of HAPIs. To achieve this, an algorithm (Appendix G) was created to guide bedside nurses on proper escalation.

### **Measures**

Data collected prior to the implementation of this bundle included chart audits and the incidence of HAPI cases and sentinel events. This data was collected by the Quality Improvement team. Data collected revealed an urge to create change in the institution. Other collected data includes qualitative data, interviews, and questionnaires conducted on the nursing units. The purpose of the questionnaire was to determine the challenges faced by bedside nurses and patient care assistants in the prevention of pressure injuries. Appendix H illustrates questions and answers that comprised the survey. To assess the effectiveness of this HAPI bundle, further chart audits, surveys, and an overall decreased trend in HAPI incidence are expected.

### **IV. Results**

Results of this Evidence-Based Practice Bundle will be measured 12 months after its implementation date. Results of the chart audits provide essential information about gaps in knowledge related to skin assessment, documentation, and proper escalation of at-risk patients. These gaps are critical in addressing the need for a standardized process. In addition, the results of the nursing questionnaire are pictured below in Appendix H. This questionnaire was designed to reveal challenges faced by frontline staff regarding the prevention of Hospital Acquired Pressure Injuries. It is based on two domains: knowledge and attitude pertaining to HAPI prevention measures. The nursing questionnaire was developed from the Pressure Ulcer

Knowledge Test and Staff Attitude Scale. This tool is used to assess staff knowledge on pressure ulcer prevention, staging, and wound description.

We received survey responses from a total of 12 nurses. This surpassed our initial goal of a 50% response rate-- each unit approximately has 18 nurses for day and night shift. Given the busy nature of healthcare and patient prioritization, it is imperative to note that not every question was answered. Questions 1, 2, 4, and 5 are knowledge-based questions based on The Agency for Healthcare Research and Quality. Results indicate that most nurses show a high level of understanding of HAPI prevention measures. Furthermore, nurses were asked about documentation and positional changes. Results indicate mixed responses from the team, thus the focus on the HAPI prevention Bundle is to standardize documentation and escalation.

Other questions in the survey provide an opportunity for staff to share their personal experiences and obstacles they face when preventing HAPIs. There is a common theme surrounding lack of proper staffing, uncooperative patients, pain management, and unavailable equipment for transferring heavy patients. With the implementation of a standardized HAPI prevention bundle, we expect to see a reduction of 10% HAPI incidences within 12 months of implementation.

## **V. Discussion**

### **Summary**

The implementation of a HAPI prevention bundle for Hospital K is consistent with what is noted in the literature. To ensure the success of this implementation, it is necessary to adopt an interdisciplinary approach to patient care. Effective interventions require a hospital culture that encourages effective communication, collaboration, and professional expertise from different

areas. Thus, it is imperative to engage leaders and key stakeholders in the implementation of this HAPI prevention bundle. Additionally, a standardized process is necessary to provide specific interventions across patient care and to reduce the development of HAPI. After a thorough literature review on the best care practices, a root cause analysis, chart auditing, nurse interviews, and collaboration with QI leaders, bedside nurses, and wound care nurses, we developed a HAPI prevention Bundle. The Bundle incorporates the best practices and addresses the needs and challenges relevant to the Med-Surg Telemetry Unit in Hospital K. The standardized HAPI prevention bundle includes the participation of Wound Care Champions, increased communication through Daily Safety Huddles, standardized documentation and escalation processes delineated by an algorithm, and reinforcing HAPI prevention measures. The objective of this Evidence-Based Practice intervention is to reduce HAPIs in the Medical-Surgical Telemetry Unit by 10% within 12 months of implementing the prevention.

## **Conclusions**

Healthcare professionals share a common goal to provide excellent patient care. Our recommendations extend beyond the HAPI bundle-- ongoing support, communication, and collaboration that is necessary to ensure a culture of safety. Engagement from members of the team is not only essential to the success of this EBP intervention, but it is also necessary to sustain a culture of excellence and patient safety. Leadership involvement is also crucial in providing ongoing support and ensuring staff accountability. The purpose of this HAPI prevention Bundle is to reduce HAPIs in the adult Med-Surg Telemetry Unit, to standardize strategies, and to improve team communication and engagement. After 12 months of

implementation, positive results will dictate whether this bundle can be applied to other units of Hospital K.

Decreasing HAPIs and sustaining new practices are ongoing challenges. Further research such as meta-analyses of randomized control trials is necessary to increase the levels of evidence of a HAPI prevention bundle. Integration of this HAPI prevention bundle into practice will reveal changes in the incidence of pressure injuries. The key to creating and sustaining change will be to use these measures on a regular basis until it engrains in the daily habits of front-line staff, and in the hospital's culture. While the bundle builds upon existing practices, it may need to be tailored to meet the demands of changing health care environments.

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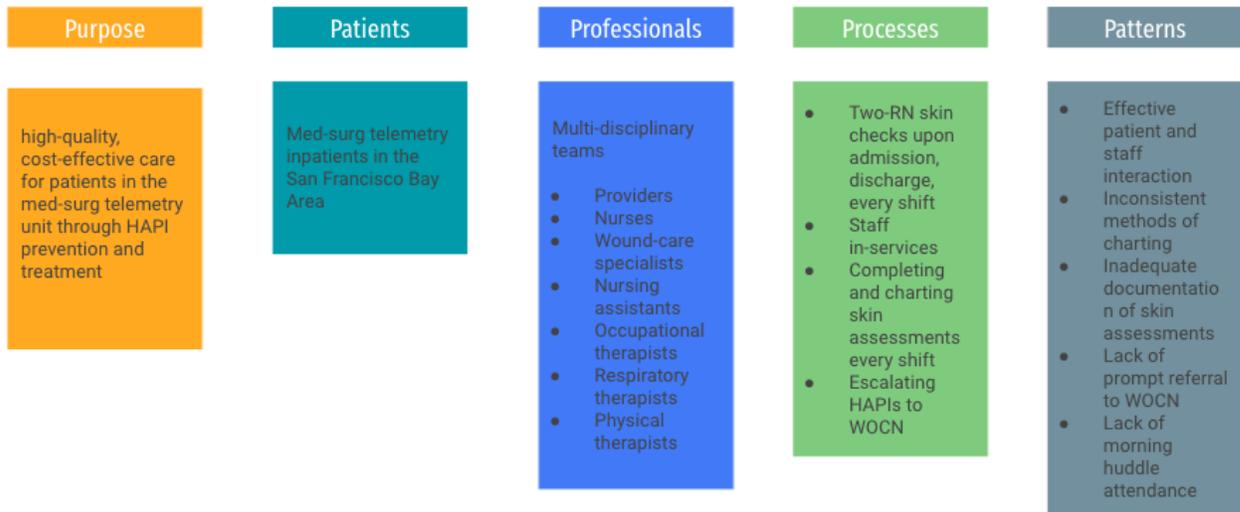
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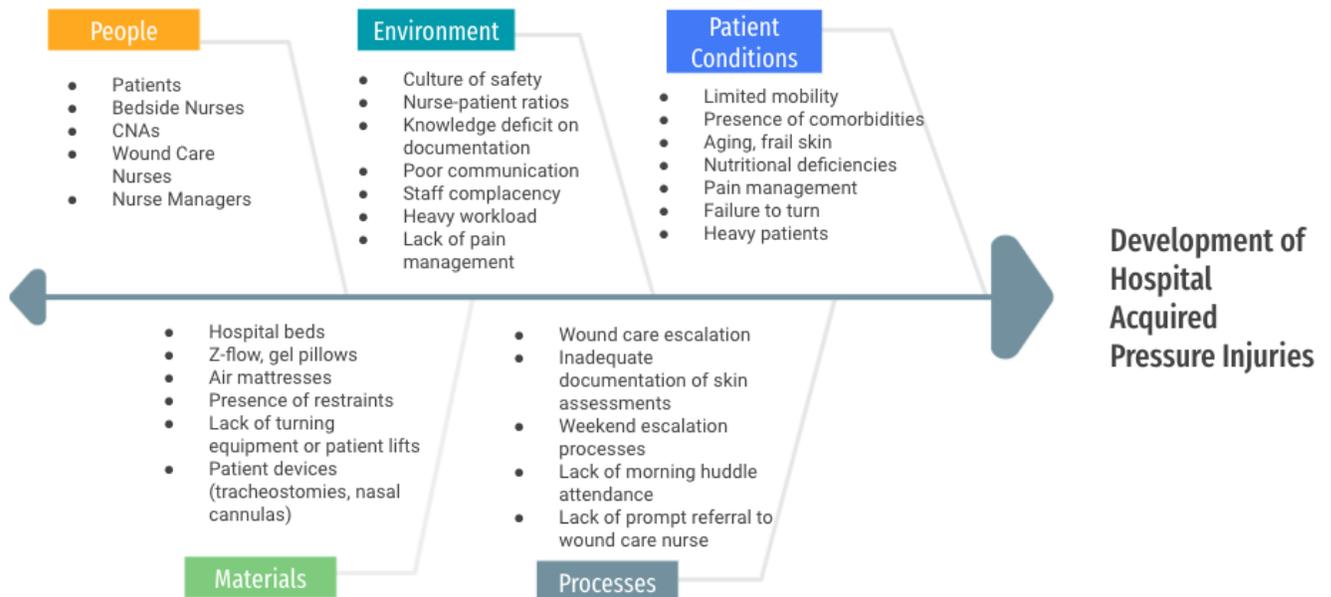
## **Appendix A:**

## 5 P's Microsystem Assessment



### Appendix B:

## Root Cause Analysis: Fishbone Diagram



## Appendix C: Nursing Questionnaire

### HAPI Questionnaire

The purpose of this questionnaire is to gather information from the perspective of bedside nurses in regards to Hospital Acquired Pressure Injuries (HAPI). All answers provided will be anonymous. This is critical in identifying opportunities to improve education and practice. Thank you for your participation!

1. 1. How often do you, the RN, assess and document skin condition?

*Mark only one oval.*

- Daily
- Once a shift
- Upon admission and discharge, every shift, and as patient condition warrants
- Upon admission and discharge

2. 2. Who is the primary person accountable for a patient's skin assessment, pressure ulcer prevention, and documentation every shift?

*Mark only one oval.*

- WOC Nurse
- RN
- Nursing assistant
- All of the above

3. 3. My documentation on positional changes or 'up ad lib' is (select all that apply)

*Check all that apply.*

- Very Accurate
- Accurate for the most part
- I sometimes forget to document how often my patient changes positions
- I am focused on other achieving other tasks and overlook documenting positional changes
- The patient may change positions and I might not be aware of this

4. 4. To help prevent pressure injury/ulcers, the head of the bed should be elevated at a 45-degree angle or higher.

*Mark only one oval.*

- True  
 False

5. 5. Early changes associated with pressure injury/ulcer development may be missed in persons with darker skin tones.

*Mark only one oval.*

- True  
 False

6. 6. How prepared do you feel in the prevention of Hospital Acquired Pressure Injuries?

*Mark only one oval per row.*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My institution prepares me well in the prevention of HAPIs	<input type="radio"/>				
I know how to reach the WOCN	<input type="radio"/>				
I know who to contact during the weekends for wound care support	<input type="radio"/>				
My skincare documentation is accurate	<input type="radio"/>				
I feel supported in the prevention of HAPIs	<input type="radio"/>				
I am familiar with the escalation process when HAPIs are suspected?	<input type="radio"/>				

8. 8. What obstacles do you face when it comes to preventing and/or treating HAPIs?

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9. 9. Do you have any additional comments?

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## Appendix D

### SWOT Analysis

#### Strengths

- Availability of resources about pressure injuries, prevention, and treatment
- WOCN onsite
- WOCN provides staff education

#### Weaknesses

- Some resources are outdated and not easy to read
- Only one WOCN on site, no WOCN on site on the weekends
- Patient comorbidities that slow treatment progress

#### Opportunities

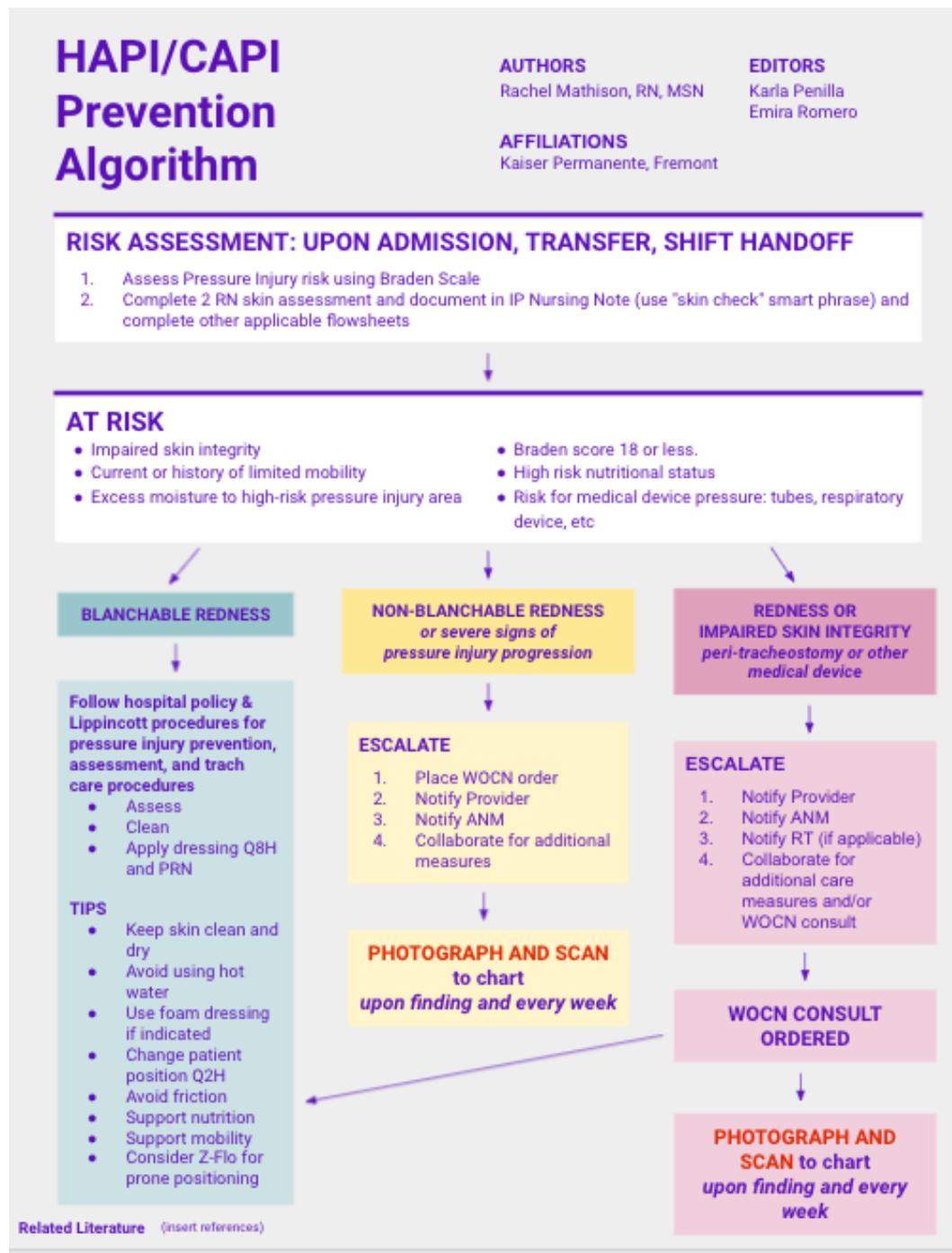
- Improved team dynamics
- Reduced hospital costs
- Increased patient satisfaction

#### Threats

- Increased costs
- Staff overwhelmed, staff complacency
- Decreased patient satisfaction



## Appendix G: Standardized Algorithm



### HOSPITAL POLICY AND LIPPINCOTT PROCEDURES

- Pressure Injury Prevention and Treatment NCAL Regional Policy (170609\_0)
- Lippincott Procedures - Pressure injury prevention (lww.com)
- Lippincott Procedures - Tracheostomy tube cannula and stoma care (lww.com)

### RN to assure WOCN assesses within 48 hours of consult order

#### Interim measures when no WOCN onsite

- 1) M-F: contact KSL WOCN
- 2) Weekends or no wocn at wither facility: consult with provider

#### Documentation:

- 1) MS Shift Flowsheet Q8H and PRN
- 2) IP Nursing note smartphrase "SKINCHECK" on admission, transfer, and shift NKE
- 3) Wound flowsheet (see below)
  - a) Sections: integumentary, Braden Scale, Skin Interventions, Activity/Mobility, Positioning, Respiratory Devices (if applicable)
  - b) Select "Non-Surgical Wound" on integumentary flowsheet (not pressure injury) **until confirmed by WOCN**
  - c) Do not document yes - "Pressure Injury" on MS Shift Assessment **until confirmed by WOCN**

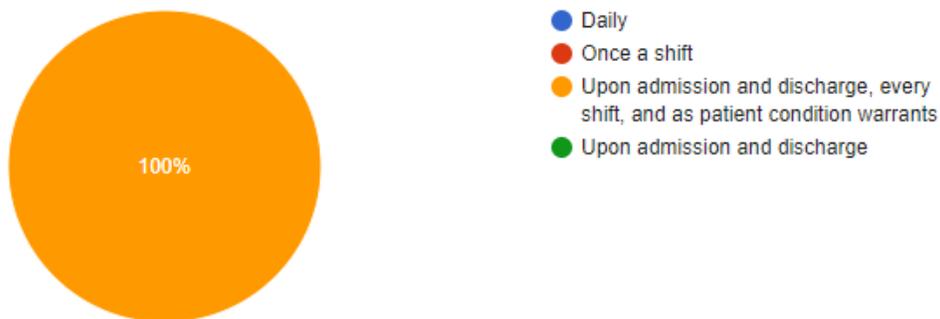
#### Wound Flowsheet Documentation

- 1) Open "Wound Other" on Wound Flowsheet - Only WOCN to stage and open "Pressure Injury" flowsheet
- 2) **If CAPI**, be sure to answer yes for "present on hospital admission" section and complete all sections
- 3) **If CAPI** progresses 2 or more stages while patient hospitalized, consider HAPI - HARM to patient while hospitalized

## Appendix H: Survey Results

1. How often do you, the RN, assess and document skin condition?

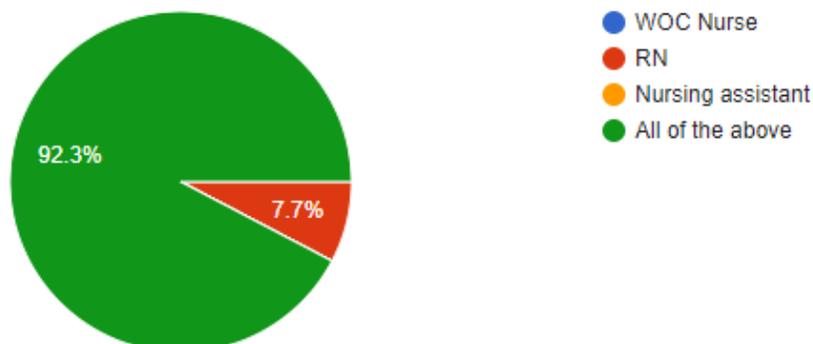
10 responses



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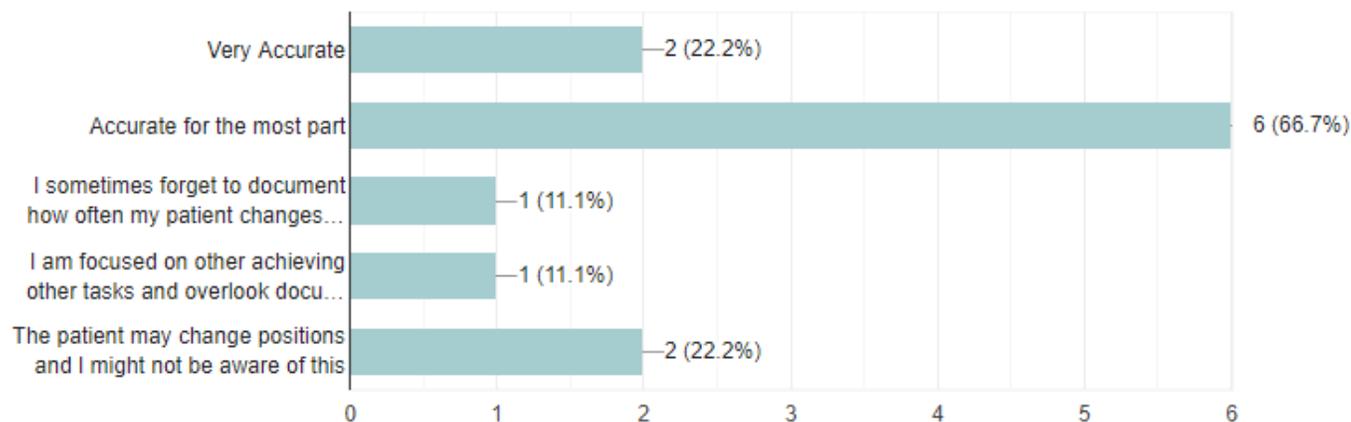
2. Who is the primary person accountable for a patient's skin assessment, pressure ulcer prevention, and documentation every shift?

13 responses



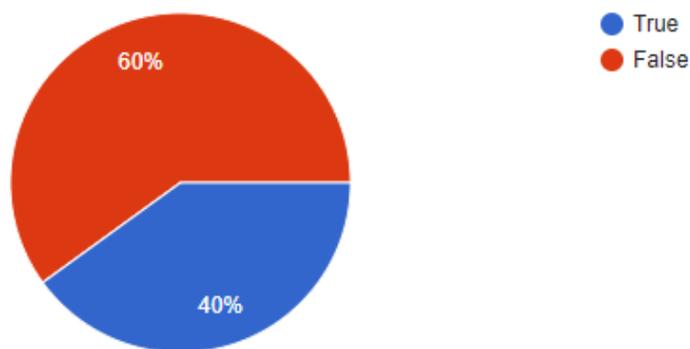
3. My documentation on positional changes or 'up ad lib' is (select all that apply)

9 responses



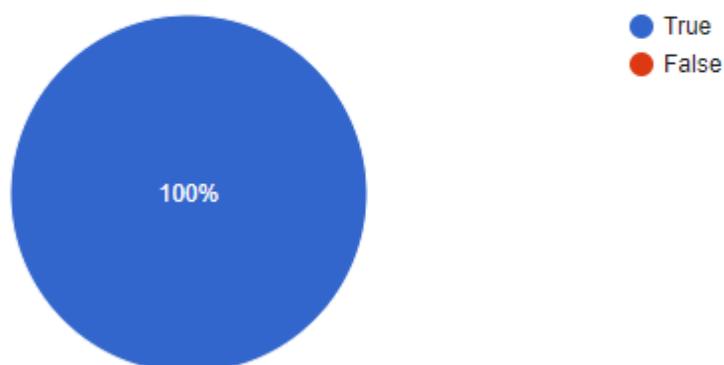
4. To help prevent pressure injury/ulcers, the head of the bed should be elevated at a 45-degree angle or higher.

5 responses



5. Early changes associated with pressure injury/ulcer development may be missed in persons with darker skin tones.

5 responses



## How prepared do you feel in the prevention of Hospital Acquired Pressure Injuries?

