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It's HAPI Hour: An Action Plan on Preventing Hospital-Acquired Pressure Injuries

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It's HAPI Hour:

An Action Plan on Preventing Hospital-Acquired Pressure Injuries

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N653: Internship

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December 13, 2021

Abstract

Hospital-Acquired Pressure Injuries (HAPIs) are detrimental to both the hospital and the patient as they are costly, painful, and can lead to further infection and an increased length of stay. Although this problem is seen across the country, this action plan focuses on a microsystem (i.e. medical-surgical telemetry unit) in Hospital A in the San Francisco Bay Area. The target population includes medical-surgical telemetry patients at high risk for HAPIs (i.e. Braden score <18, moisture/mobility scores <2, patients with devices at risk for device-related pressure injuries). The proposed intervention is an evidence-based HAPI prevention bundle that includes utilization of wound care champions and turn teams, increasing attendance of daily huddles, implementing a standardized algorithm for escalation and documentation, and reinforcement of evidence-based HAPI prevention measures. Effectiveness of this bundle will be measured through chart audits, nursing questionnaires, and staff interviews. These measures will be conducted 12 months post-implementation and findings will be compared to the baseline data in order to investigate whether there is a reduction in HAPI incidence. Since this project is currently in the Study phase of the proposed Plan, Do, Study, Act (PDSA) cycle, this action plan concludes with recommendations of how the team can continue to move forward in addressing the project's specific aim.

Keywords: hospital-acquired pressure injury (HAPI), bundle, culture, teamwork

It's HAPI Hour: An Action Plan on Preventing Hospital-Acquired Pressure Injuries

Introduction

Hospital-Acquired pressure injuries (HAPIs) refer to any injury to the skin or underlying tissues that develops during inpatient hospitalization (Mayo Clinic, 2020). These pressure injuries often result from prolonged pressure over bony prominences in combination with factors such as older age, immobility, nutritional status, certain medications, severity of illness, and comorbidities (Rondinelli et al., 2018).

In the United States, an estimated 2.5 million individuals develop pressure injuries each year, with over 65% of these cases forming in the hospital and in patients 65 and older with functional limitations (Diaz-Caro & Garcia Gomez-Heras, 2020). Thus, it is no surprise that these preventable conditions are costly. Moreover, HAPIs that reach Stage 3 or Stage 4 must be reported to the Centers for Medicare and Medicaid Services, resulting in limited reimbursement for this hospital (Rondinelli et al., 2018). As such, each HAPI occurrence can cost hospitals between \$10,000 to over \$70,000 (Padula & Delarmente, 2019). In addition to increased costs, HAPIs can also result in more pain, infection, and increased length of stay (Padula & Delarmente, 2019). Due to the multitude of detrimental effects to the patient and the hospital, this quality improvement project will focus on the prevention of HAPIs. By doing so, the hospital can fulfill its goal of improving patient outcomes through high-quality and cost-effective care.

Problem Description

In Hospital A, a short term acute care hospital in the San Francisco Bay Area, there have been 15 HAPIs from December 2020 to November 2021. Seven of these HAPIs occurred in the

20-bed medical-surgical telemetry unit in this hospital. For this reason, this unit will be the microsystem that this quality improvement project will focus its initial efforts on.

Literature Review

In order to guide the goals of this project as well as prevent scope creep, it is imperative to begin by defining the PICOT question. After consideration of the initial metrics and data provided by the quality team at Hospital A, the PICOT question is as follows: in adult patients in the medical-surgical telemetry unit, does implementation of a HAPI prevention bundle, compared to routine pressure injury care, reduce the incidence of HAPIs within 12 months?

According to the Agency for Healthcare Research and Quality, implementation of a comprehensive bundle can help improve patient outcomes by standardizing care processes, lessening the risk for errors. For this reason, the proposed HAPI prevention bundle is based on evidence from the current literature.

Based on studies done by Castaldi et al. (2019), implementation of leadership safety huddles led to cost savings as well as improved quality of care. These huddles also provided leadership with the opportunity for more transparent communication in which they were able to identify and discuss safety issues together. In fact, 75% of the responses to the huddles were positive because of improved communication, time to conflict resolution, and having a space to voice concerns (Castaldi et al., 2019). Through the avenue of huddles, a culture of safety can be further maintained.

Moreover, in an improvement project focused on developing teamwork, communication, and prompt response to patient safety issues, Aldawood et al. (2020) found that a daily safety huddle tool was effective in providing a space in which the staff felt they could freely express their concerns regarding patient safety. During the nine month project period, the interaction

between leadership and frontline staff increased by 24% and 340 safety issues were addressed (Aldawood et al., 2020). Thus, this tool improved communication and built trust between the staff, promoting a culture of safety in which safety issues could be addressed immediately.

Another intervention that proved to be effective in HAPI prevention was the Turn Team Program. This program utilized turn teams that consisted of two nurses assigned to one or two shift windows to turn patients (Cyriacks, 2019). The two nurses worked together to reposition the identified high-risk patients at their assigned time. After, they would chart the intervention and communicate with the rest of the staff. The entire process takes about 15 minutes and the cycle repeats every two hours with a new pair. By organizing the turning times, patients were more likely to be turned within their standard care timeframes and nurses were able to plan their shifts around these windows (Cyriacs, 2019). During busier times, the nurse workload can be alleviated with help from the charge nurses or other staff members.

Taggart et al. (2012) share another potential aspect of the proposed HAPI prevention bundle - wound ostomy continence (WOC) unit champions. Through their quality improvement program, they found that utilizing WOC unit champions as experts in skin, wound, ostomy, and continence care helped in improving patient outcomes and reducing HAPIs (Taggart et al., 2012). These individuals were readily available on the units and acted as a resource for other nurses by assisting with managing patients with skin care needs. According to their findings, implementation of the unit champions decreased the incidence of HAPIs from 7% to 4% (Taggart et al., 2012). Additionally, the overall improvement was maintained for the next two years (Taggart et al., 2012).

As for the reinforcement of HAPI-based intervention measures and products, Thomas et al. (2020) suggest that the most vital component of HAPI prevention is consistent turning and

repositioning as well as support surfaces that assist with pressure redistribution. For this reason, they created a HAPI prevention bundle, and it proved to be effective with a decrease in HAPI prevalence from 5.5% in 2014 to 0.29% in 2019 (Thomas et al., 2020). The products in this bundle included wedge pillows, multilayered silicone foam dressings for bony prominences, pillow and heel booties for heel off-loading, and moisture barrier ointment. Their bundle also included items aimed at preventing device-related HAPIs. These items included foam strips for the nasal cannula and mineral-based elastomer gel.

Furthermore, Tayyib and Coyer (2016) argued that although there is a wide array of published HAPI prevention strategies, there is little evidence as to which strategies can be actually incorporated into routine care while also having an impact on HAPI prevention. As such, Tayyib and Coyer (2016) conducted a systematic review of randomized controlled trials, quasi-experimental studies, and comparative studies. They found that silicone foam dressings had a statistically significant effect on reducing HAPI incidence, especially for HAPIs that occurred on the sacrum or heels (Tayyib & Coyer, 2016).

Rationale

A change theory framework can help guide an action plan, as it promotes planned change while eliminating and addressing potential barriers, ultimately increasing the likelihood for success (Mitchell, 2013). While many theory frameworks exist, this action plan will be guided by Roger's Five-Stage Change Theory since its methodology is best suited for the intended change in this microsystem.

With this framework, Roger uses five phases (i.e. awareness, interest, evaluation, trial, and adoption) to address how and why changes occur (Mitchell, 2013). The first stage, awareness, refers to how the individuals affected by this action plan need to understand why

changes are being made, what the change is, and how it will be made (Hawkes & Hendricks-Jackson, 2017). This stage will help increase stakeholders' awareness of the issue regarding HAPIs as well as how and why the HAPI prevention bundle is being implemented. The second stage involves the dissemination of essential evidence-based information so that the staff is more likely to accept the change (Hawkes & Hendricks-Jackson, 2017). This stage will further increase buy-in. The third stage coincides with the second and third phases of the PDSA cycle - during this time, data is analyzed and the trial is implemented in order to help decide whether the change, in this case, the HAPI prevention bundle, should be adopted (Hawkes & Hendricks-Jackson, 2017). The fourth stage is similar to the fourth phase in the PDSA cycle as this is when the organization makes adjustments to accommodate the change so that the change can be implemented on a more permanent basis (Hawkes & Hendricks-Jackson, 2017). In the final stage, the staff will confirm the adoption of the change.

Specific Project Aim

This action plan proposes implementation of an evidence-based HAPI prevention bundle to reduce the incidence of HAPIs in the medical-surgical telemetry unit by 10% within 12 months of implementation.

Methods

In order to provide effective interventions for quality improvement, it is imperative to gain a better understanding of the microsystem of focus at Hospital A. After gathering information from the following analyses, the evidence-based practice from the literature review along with the recently collected information will be used to create a bundle for implementation in the described microsystem.

5 P's Microsystem Assessment

One method of assessing the microsystem is through the 5 P's Microsystem Assessment, in which the purpose, patients, professionals, processes, and patterns are analyzed in the context of this quality improvement project (Appendix A). The purpose is to provide high-quality and cost-effective care for patients in the medical-surgical telemetry unit through HAPI prevention and treatment. The patients in this microsystem are medical-surgical telemetry inpatients from the San Francisco Bay Area. According to the primary data collection through chart audits, the incidence of HAPIs among patients has increased within the last year. The professionals involved include multidisciplinary teams of providers, registered nurses, wound-care specialists, nursing assistants, occupational therapists, respiratory therapists, and physical therapists. The processes regarding HAPI prevention include the two-RN skin checks upon admission, discharge, and every shift. Other processes include staff in-services, completing and charting skin assessments every shift, and escalating HAPIs to the wound-care nurse. Patterns include effective patient and staff interaction as well as inconsistent methods of charting, which may reveal gaps in staff education or unclear protocols.

Root Cause Analysis

After assessing the microsystem, a root cause analysis (RCA) can be conducted to determine the various factors that lead to HAPIs (Appendix B). These factors include the people, environment, patient conditions, materials, and processes. The RCA is derived from information collected from chart audits, interviews with staff, and staff questionnaires.

Some of the people involved in the development of HAPIs include patients, nurses, nursing assistants, wound care nurses, and nurse managers. In regards to the environment, some of the contributing factors include nurse-patient ratios, deficits of proper knowledge in regards to HAPI prevention and treatment, poor communication, and ineffective pain management. Some

contributing patient conditions include limited mobility, presence of comorbidities, and nutritional deficiencies. In terms of materials, lack of equipment or inappropriate use of equipment can lead to the development of HAPIs. As for processes, unclear wound care escalation protocols, inadequate documentation of skin assessments, lack of morning huddle attendance, and lack of prompt referral of cases to the wound care nurse lead to the progression of HAPIs.

SWOT Analysis

Another method of understanding this microsystem at Hospital A is through a SWOT analysis in which the strengths, weaknesses, opportunities, and threats are examined (Appendix C). The strengths seen in this hospital include the resources that are currently available for pressure injury prevention and treatment. For instance, there is a collection of protocols and binders of information for further reference that is available on the unit. There is also a Wound, Ostomy, Continence Nurse (WOCN) on site that is available for assessment and questions. The WOCN also provides staff education to promote best evidence-based practice among the staff. Despite these strengths, the microsystem also comes with its weaknesses. Although there are resources available on the unit, some of these resources are outdated and uneasy to read. Additionally, there is only one WOCN on site during the weekdays and no WOCN on site during the weekends. Lastly, the presence of patient comorbidities can slow the progression of treatment. After comparing the strengths and weaknesses, the opportunities for improvement become more apparent. The interventions proposed with this project can lead to improvement in various aspects of the unit, such as improved team dynamics, reduced hospital costs, and increased patient satisfaction. Some of the associated threats with the implementation of the proposed interventions include an initial increase in costs, overwhelmed staff, and staff

complacency. If the interventions are not implemented, then the microsystem may face the threat of decreased patient satisfaction and worsening patient outcomes.

Action Plan: PDSA Cycle and Gantt Chart

The culmination of these analyses is the following Action Plan, guided by Roger's Five-Stage Change Theory, and illustrated through the described Plan-Do-Study-Act (PDSA) cycle (Appendix D) and Gantt chart (Appendix E).

The Plan phase lasts from Weeks 1-5 and it incorporates Roger's awareness phase, as it increases the stakeholders' awareness of the issue. It begins with understanding the risk factors for HAPIs. This is done through chart audits, surveying nurses and nursing assistants to better understand the challenges they face in HAPI prevention, and collaborating with the interdisciplinary care team. This information can help in assessing the microsystem and completing a RCA. In Weeks 4-9, a literature review is done to learn more about the best evidence-based practice in regards to HAPI prevention and treatment. Weeks 8-11 are dedicated to creating and collecting responses from the evidence-based HAPI questionnaire, a survey that consists of both knowledge-based questions and attitude-based questions. The purpose of this questionnaire is to learn more about the challenges that the nurses face in HAPI prevention and treatment, and what their current practice is like.

The Do phase encompasses the analysis of survey results, development of the intervention bundle, and implementation of the bundle. This phase lasts from Weeks 10-16 and it incorporates Roger's interest phase, as this is when the importance of the interventions are shared with the staff, with the hope that the audience will be interested and buy-in is successful. Weeks 12-13 are dedicated to compiling data from the questionnaires, analyzing those results, and sharing it with stakeholders (e.g. Quality Improvement (QI) team). Thus, this phase also includes

Roger's evaluation phase. During Weeks 10-15, the intervention bundle is developed according to the literature review and survey results. The bundle is implemented during Weeks 15-16.

Next, the Study phase is initiated during Week 17. This time is dedicated to evaluating the effectiveness of the bundle. Chart audits are conducted again to assess for changes in documentation and HAPI rates compared to baseline data. Staff are also interviewed for feedback on the implemented changes.

At the end of Week 17, the Act phase begins, and the QI team will collaborate with stakeholders to decide how to proceed forward in regards to the HAPI bundle. This phase is guided by Roger's trial phase, as it focuses on making adjustments so that the change can be implemented in a more permanent setting and in other microsystems as well. With successful integration, the changes are adopted, following Roger's adoption phase.

Intervention

The proposed intervention to decrease the incidence of HAPIs is an evidence-based HAPI prevention bundle, in which each component is supported by the literature review and the analyses described above. Since the RCA revealed issues stemming from the current culture of the microsystem, this bundle is aimed at strengthening the culture of the unit so that it is focused on teamwork, safety, and excellence. In order to achieve this culture, the following interventions are to be implemented as a part of this bundle: utilization of wound care champions and turn teams, increasing attendance of daily huddles to encourage team-based communication as well as provide an avenue for easier and more efficient dissemination of information, implementation of an algorithm to standardize proper escalation and documentation, and reinforcement of evidence-based HAPI prevention measures.

The literature review above provides more detail as to how these components can be implemented in the microsystem (i.e. how to incorporate wound care champions, turn teams, and huddles; what support devices to incorporate or sustain, such as foam strips). As for the algorithm (Appendix F), the current policy was reviewed with the quality team and the WOCN, and edits were made to create an easy-to-read guide that was more accessible and readily available in the unit.

Study of the intervention and Measures

As mentioned in the Study phase of the PDSA cycle (i.e. the phase that the project is currently in), the effectiveness of this intervention bundle will be assessed through continued chart audits and staff interviews.

The chart audits conducted by Hospital A's QI team before implementation of the bundle revealed a need for a change in the microsystem to decrease the incidence of HAPIs. In Hospital A, there were 15 HAPIs that occurred between December 2020 to November 2021. Seven of the 15 HAPIs occurred in the microsystem of focus. With an evidence-based bundle, we expect the continued chart audits to reveal a decrease in HAPI incidence in the microsystem.

The initial staff interviews and questionnaire results before bundle implementation gave information about the struggles and barriers that the nurses and rest of the staff face in HAPI prevention. These results will be further discussed in the Results section below. With the implementation of the bundle and post-implementation interviews and questionnaires, we expect to see increased staff satisfaction in regards to HAPI prevention, coupled with the downward trend of HAPI incidence.

Results

The results from the nursing questionnaire (Appendix G) and interviews from the time before implementing the bundle are shown in Appendix H. Since there are about six nurses on the unit per shift, with a total of three shifts, we approximated a total of 18 nurses per unit. Depending on acuity and staffing needs, some nurses may float from other units, which may alter the number of nurses on the unit at any given time. For this reason, we decided that in order to obtain feedback from at least 50% of the nurses for one shift, our goal was to receive feedback from 11 nurses. We were able to surpass this goal and collect 12 responses. It is important to note that some nurses did not answer every question in the questionnaire or interview.

Questions 1, 2, 4, and 5 were knowledge-based questions. These questions were based on the pressure ulcer prevention tools and resources from the Agency for Healthcare Research and Quality. These questions were included to assess the current knowledge regarding pressure injury prevention and treatment. According to the results, most nurses share an accurate understanding regarding pressure injury prevention. For this reason, the bundle does not focus on knowledge-deficit types of interventions.

When asked about documentation on positional changes, there were mixed responses in regards to how nurses felt about the accuracy of their documentation. Most felt that their documentation was accurate for the most part. In another question, the nurses were asked about how prepared they felt in preventing HAPIs. Their answers showed that although they feel well prepared by Hospital A, there is still some confusion around the escalation protocol on the weekends when the WOCN is not on site. For these reasons, the bundle's algorithm is focused on accurate documentation and escalation.

The remaining questions are open-ended. One of these questions encourages the nurses to share the interventions they take when they have a patient with non-blanchable skin redness. The

answers to these questions gave consistent information with the previous questions - the nurses had a general shared idea of what was supposed to be done. An algorithm will further strengthen uniformity in the standard of work. Another question asked the nurses to share any obstacles they may face when it comes to HAPI prevention. Their concerns can be categorized into staffing, inadequate pain management, uncooperative patients, and unavailable equipment for heavy patients.

This same questionnaire can be utilized after implementation of the bundle to assess whether the changes were effective. Continued chart audit efforts by the QI team will also show trends in HAPI prevention documentation and HAPI incidence post-bundle implementation. We expect to see the incidence of HAPIs to decrease by 10% within the next year. We also expect to see that the nurses are reporting that they are more familiar with documentation and protocol escalation in relation to HAPIs. The intent of these changes is to minimize the obstacles to HAPI prevention, as reported by the staff, in order to help achieve better patient outcomes.

Unintended consequences that may arise during this process may include initial increased costs and overwhelmed staff. There may be an increased cost associated with printing and updating of the algorithm, but the effect of decreasing HAPI incidence will save Hospital A more money over time, and is thus more cost-effective. The staff may be overwhelmed with multiple changes proposed from the bundle, but to combat this, the champions will act as the early adopters. Their actions, expertise, and dedication will show how these changes (i.e. huddle attendance and utilization of algorithm) are effective, and this can influence the other nursing staff to follow.

Discussion

Summary

After defining the PICOT question, exploring the literature for evidence-based practice, and conducting microsystem assessments, we were able to propose a PDSA cycle for this action plan. We have carried out the Plan and Do phases of the cycle, and the project is currently in its Study phase.

The Plan phase was mainly characterized by the literature review and nursing questionnaire, which identified evidence-based suggestions for best practice in regards to HAPI prevention as well as perceived barriers in the current HAPI prevention processes in the unit (e.g. staffing, pain management challenges, uncooperative patients, and availability of equipment for heavy patients). With the information and data gathered during these phases, we proposed the aforementioned HAPI prevention bundle as an attempt to address our PICOT question (i.e. in adult patients in the medical-surgical telemetry unit, does a HAPI prevention bundle, compared to routine pressure injury care, reduce the incidence of pressure injuries, within 12 months?) and work toward the specific aim of reducing the incidence of HAPIs in this microsystem by 10% within 12 months of implementation.

With a bundle geared toward strengthening the current culture of the unit so that it is more focused on teamwork, safety, and excellence, this action plan is guided by Roger's Five-Stage Change Theory and also encourages the use of wound care champions on the unit to act as early adopters of the change to influence and assist other staff members. As a result, this project is more likely to meet success in implementation of the bundle (i.e. wound care champions, turn teams, daily huddles, algorithm, HAPI prevention measures).

Conclusions

In all, the HAPI prevention bundle proposed within this action plan is aimed at decreasing the HAPI incidence in this microsystem. After successful implementation and

evaluation, the proposed bundle can be used as a guide for other microsystems, and can ultimately be used at the macrosystem level.

In order to determine effectiveness and sustainability of the change strategy, the outcomes and measures should be evaluated. This change strategy is considered effective if the incidence of HAPIs in this microsystem drops by 10% within 12 months of bundle implementation. Similarly, the change strategy is considered sustainable if the staff buys-in to the changes. With buy-in, the staff are more accepting of the change as they are convinced that the bundle will work. As a result, patient outcomes and job satisfaction are likely to improve, and the resulting attitudes can influence the culture of the unit, helping sustain the change's longevity.

For these reasons, the following next steps are recommended: continue chart audits to evaluate effectiveness of the bundle by assessing for changes in documentation and HAPI rates compared to baseline data, interview staff for feedback on the changes and/or conduct a post-implementation survey, and finally, make any necessary changes according to the evaluation and feedback. These recommendations conclude the proposed PDSA cycle in this action plan, and can lead to a second PDSA cycle in which the bundle can be revised and/or implemented in different microsystems.

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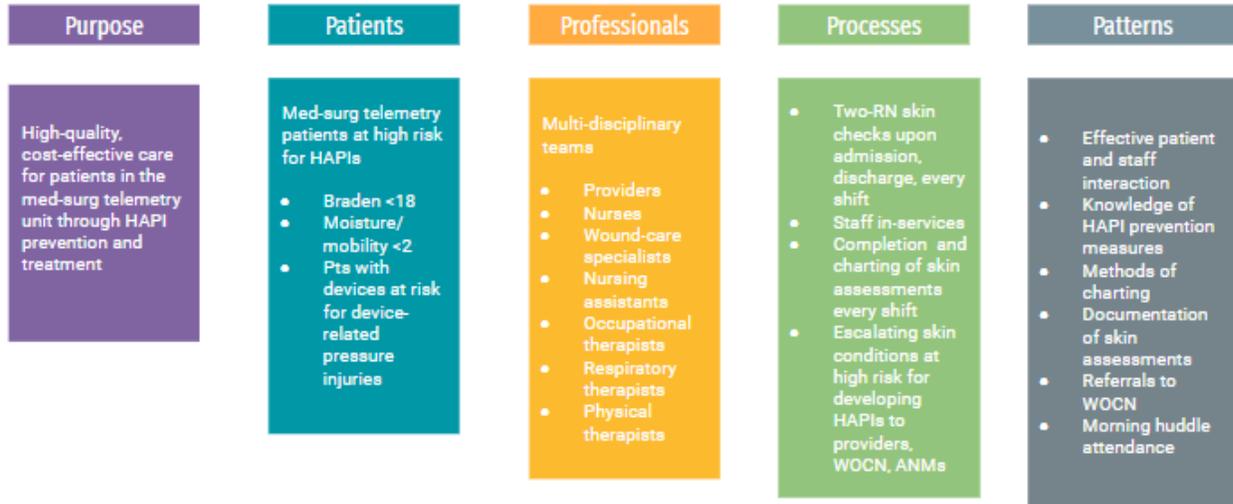
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Appendices

Appendix A: 5 P’s Microsystem Assessment

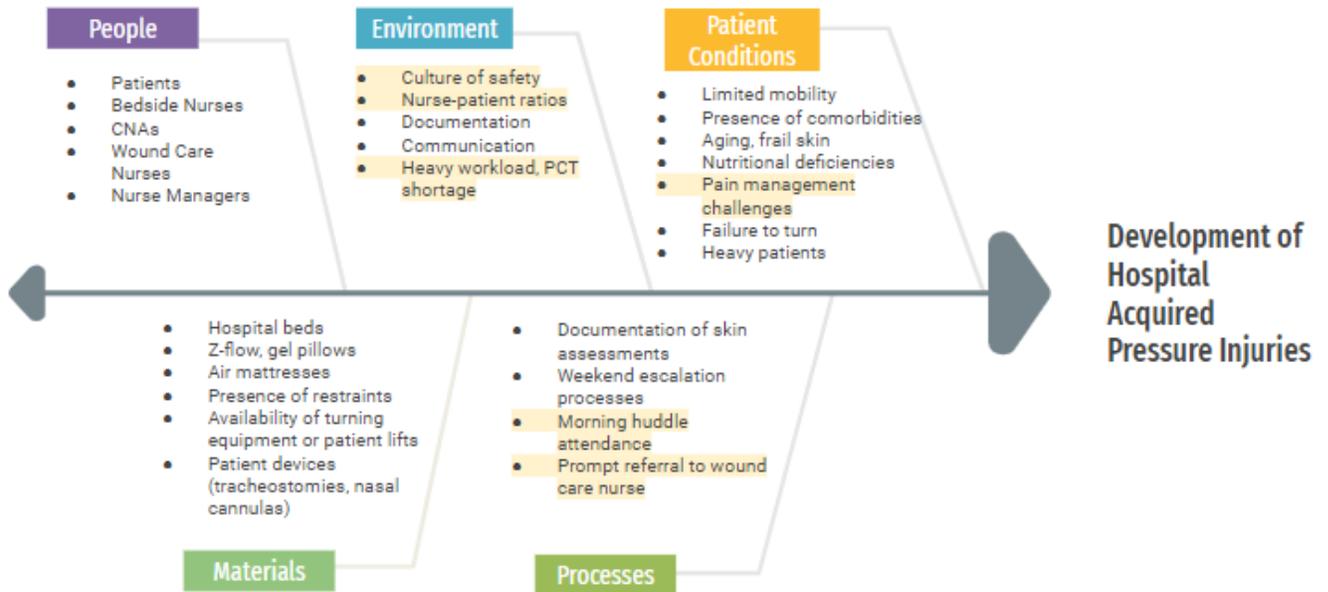
5 P’s Microsystem Assessment



The 5 P’s microsystem assessment was used to examine the microsystem in order to get a better understanding of it. This assessment allowed us to look at the purpose of this quality improvement project, the target population (i.e. patients), the professionals involved, and the processes and patterns in this microsystem that need to be explored, as they relate to this action plan.

Appendix B: Root Cause Analysis

Root Cause Analysis: Fishbone Diagram



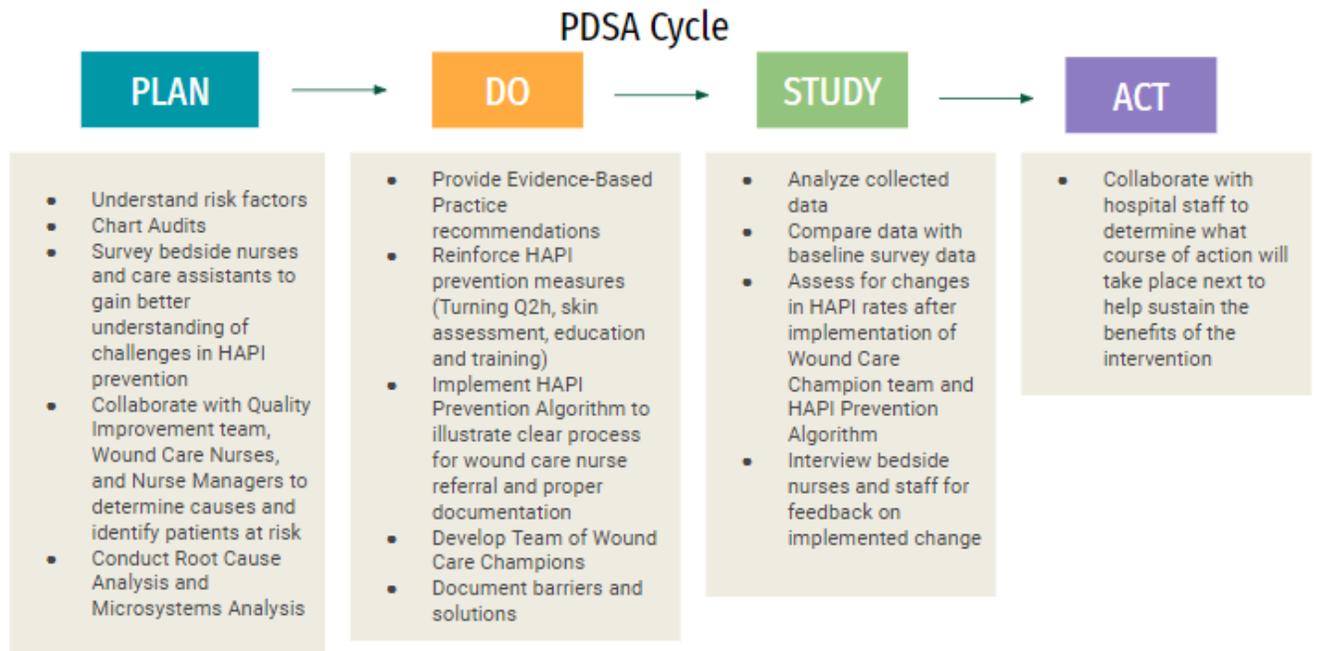
The fishbone diagram above displays the root cause analysis, which highlights the factors that contribute to the development of HAPIs. The staff can address the issues related to people, environment, patient conditions, materials, and processes with teamwork, communication, and implementation of the proposed bundle.

Appendix C: SWOT Analysis

SWOT Analysis			
Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none"> - availability of resources about pressure injuries, prevention, and treatment - WOCN onsite - WOCN provides staff education 	<ul style="list-style-type: none"> - some resources are outdated and not easy to read - only one WOCN onsite, no WOCN on site on the weekends - patient comorbidities that slow treatment progress 	<ul style="list-style-type: none"> - improved team dynamics - reduced hospital costs - increased patient satisfaction - encourage culture of safety 	<ul style="list-style-type: none"> - increased costs - staff overwhelmed - decreased patient satisfaction

The SWOT analysis above displays another avenue to explore the microsystem. With this assessment, we can examine the strengths and weaknesses of the microsystem, opportunities for improvement, and threats to the microsystem.

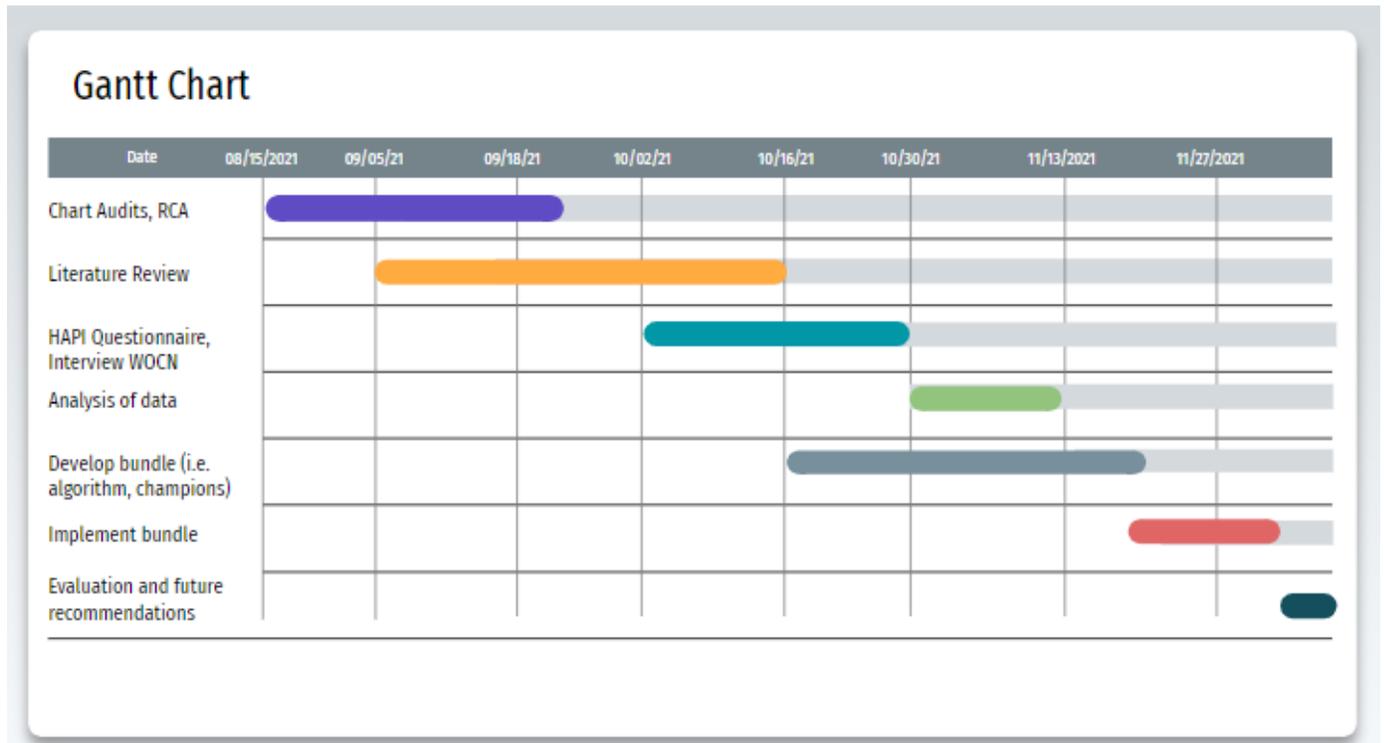
Appendix D: PDSA Cycle



The PDSA cycle shown above displays the four phases of this action plan: Plan, Do, Study, Act.

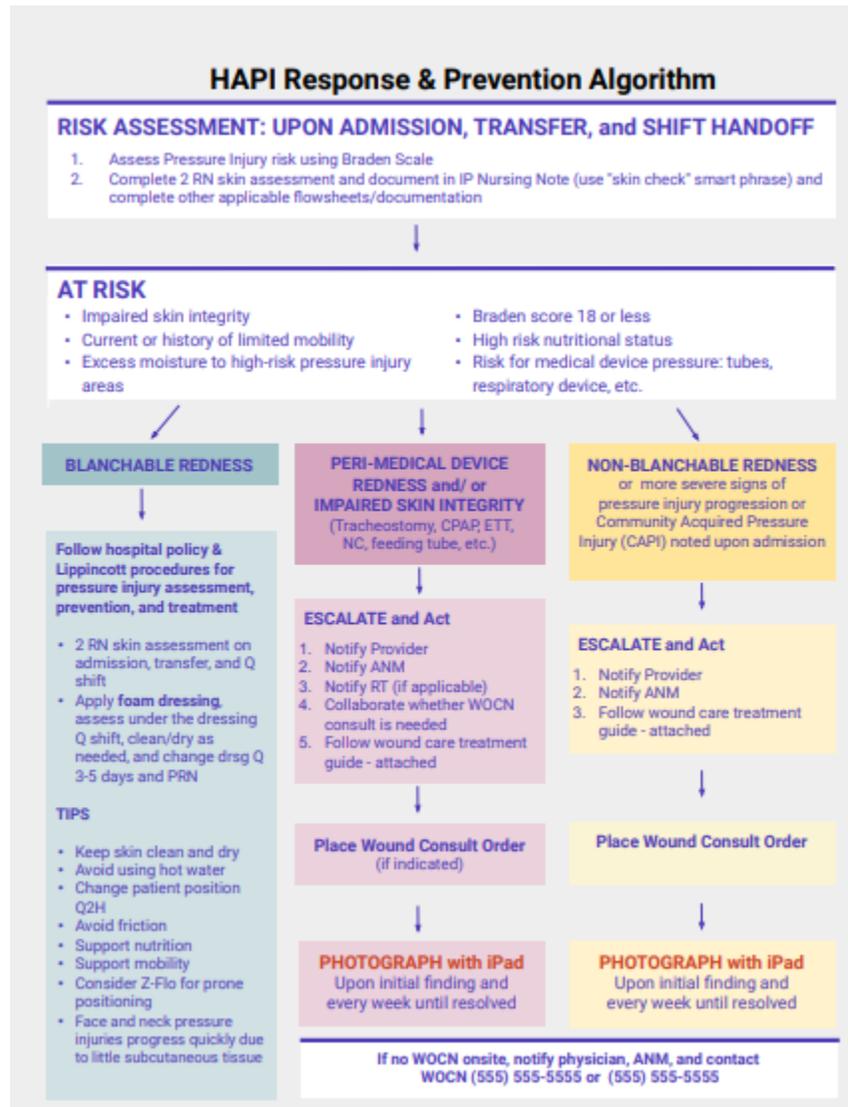
At this time, the Plan phase and the Do phase have been completed. The project is currently in the Study act. For this reason, this action plan concludes with recommended next steps to continue the cycle shown above (i.e. continue with the Study phase and Act phase).

Appendix E: Gantt Chart



The Gantt chart above shows a visual representation of this project's management and timeline. In weeks 1-5, chart audits and the root cause analysis are conducted (i.e. Plan phase). Weeks 4-9 are dedicated to the literature review (i.e. Plan phase) and weeks 8-11 are dedicated to the creation and implementation of the evidence-based HAPI questionnaire (i.e. Plan phase). After the literature review, the bundle is developed during weeks 10-15 (i.e. Do phase) and implemented during weeks 15-16 (i.e. Do phase). During the Plan and Do phases, it is important to involve the stakeholders in order to receive feedback and achieve buy-in. The initial gathered data is also analyzed during weeks 12-13 (i.e. Do phase). During week 17, the effectiveness of the bundle is evaluated (i.e. Study and Act phases).

Appendix F: Algorithm



Above is the first page of the algorithm in the proposed HAPI prevention bundle. This algorithm shows how to identify patients at risk for HAPIs. Based on the findings, different pathways are followed for proper escalation and documentation (i.e. blue pathway, pink pathway, yellow pathway).

Documentation

Integumentary Assessment sections:

- MS Shift Flowsheet QBH and PRN, integumentary section
- Do not select "Pressure Injury" unless known CAPI/HAPI
- Instead select "Non-Surgical Wound" on integumentary flowsheet, open "Wound Other" on wound flowsheet, and follow algorithm **until confirmed by WOCN**
- If patient has Medical Device, such as Tracheostomy, CPAP, ETT, NC, feeding tube, etc., complete site assessment and interventions under appropriate drop-down sections (example: tracheostomy drop-down section)

Skin Intervention sections:

- S: (Support surface) Pressure Reduction Device, Pressure Reduction Techniques
- K: (Keep them mobilized) Activity/Mobility, Positioning
- K: (Keep skin protected) Skin Protection
- I: (Incontinence management) Skin Protection, Hygiene Care
- N: (Optimize Nutrition) Nutrition Interventions

Notes:

- IP Nursing note smart phrase "SKINCHECK" on admission, transfer, and shift NKE
- If new non-blanchable redness is noted or CAPI on admission **place wound consult order**
- Wound flowsheet
- Do not document yes - "Pressure Injury" on MS Shift Assessment **until confirmed by WOCN**

Wound Flowsheet:

- If new suspected HAPI, open "Wound Other" on Wound Flowsheet - only WOCN to stage
- **If known CAPI**, ok to open pressure injury flowsheet, be sure to answer yes for "present on hospital admission" section and complete all sections
- **If CAPI** progresses 2 or more stages while patient hospitalized, considered HAPI - HARM to patient while hospitalized

RN to assure WOCN assesses patient within 48 hours of consult order, notify physician if not possible due to weekend findings

References: Hospital Policy and Lippincott Procedures

- Pressure Injury Prevention and Treatment NCAL Regional Policy
- Lippincott Procedures - Pressure injury prevention
- Lippincott Procedures - Tracheostomy tube cannula and stoma care

Above is the second page of the algorithm. This page provides more detail about the specific steps involved in documentation. This standardizes the process so that errors are less likely to occur.

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

Mark only one oval.

- True
- False

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"/>				

7. What interventions do you take when a patient has non-blanchable skin redness?

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

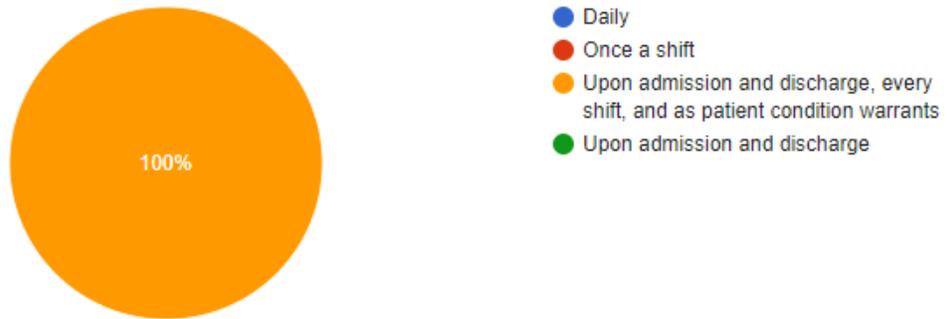
9. Do you have any additional comments?

The responses from this questionnaire are used to learn more about the barriers and challenges to HAPI prevention from the perspective of the frontline staff in this microsystem.

Appendix H: Questionnaire Results

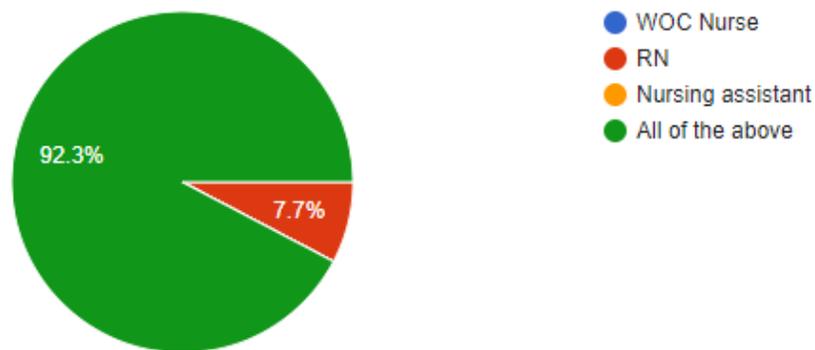
1. How often do you, the RN, assess and document skin condition?

10 responses



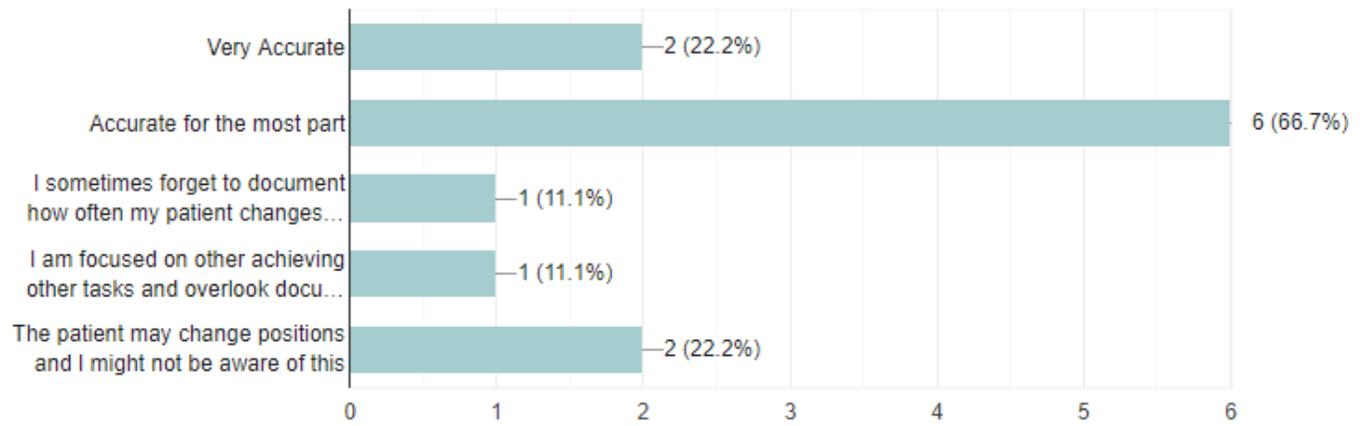
2. Who is the primary person accountable for a patient's skin assessment, pressure ulcer prevention, and documentation every shift?

13 responses



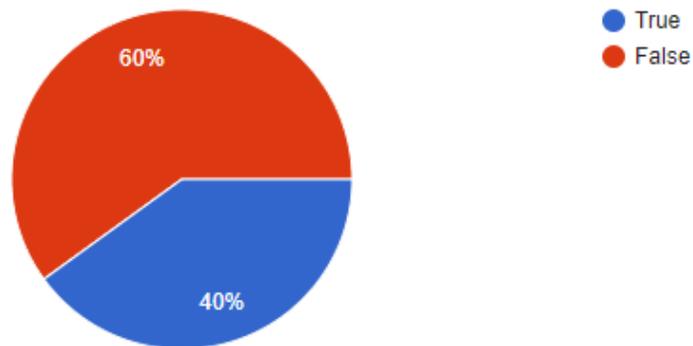
3. My documentation on positional changes or 'up ad lib' is (select all that apply)

9 responses



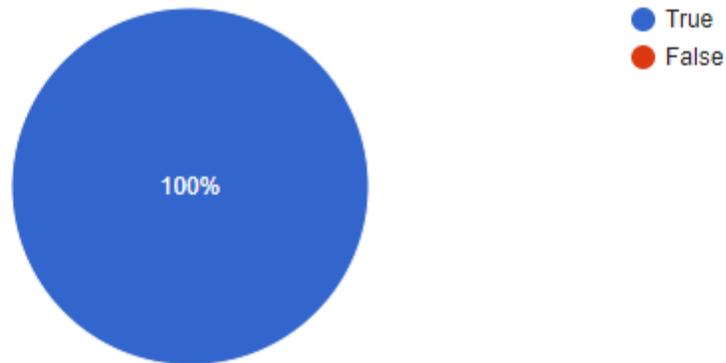
4. To help prevent pressure injury/ulcers, the head of the bed should be elevated at a 45-degree angle or higher.

5 responses

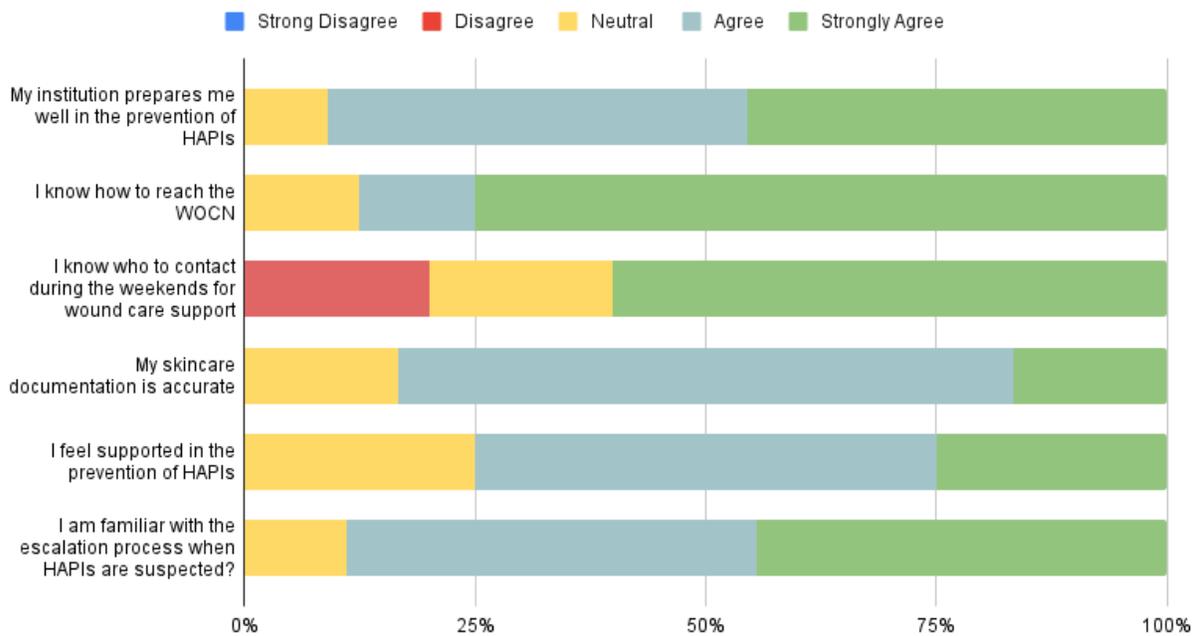


5. Early changes associated with pressure injury/ulcer development may be missed in persons with darker skin tones.

5 responses



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



7. What interventions do you take when a patient has non-blanchable skin redness?

- Take a photo document and place woc consult
- Take picture, monitor, wocn consult
- This is 'case by case.' Starting with the patient and managing their pain,
- Consult wound care nurse, turn Q2
- Collaborate with other team members to take the necessary steps - using pillows, protecting bony surfaces (coccyx, heels, elbows) turning every two hours. PCTs report to the nurse whenever a patient is at risk. Other measures for prevention include reaching out to the wound care nurse, and assisting by taking a picture of the wound.
- Ask patients when they want to turn, try to assess what the best time would be. Also pain management.
- Steps taken to escalate: Address the patient based on the Braden score, check redness (blanchable/nonblanchable erythema), consult Wound Care nurse for appropriate treatment. Use the Accumax Mattress (flows air throughout), Turn patient Q2 hours, protect bony prominences high risk.

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

- Short staffing, unable to turn total cares q2 or more
- Just follow process/protocol
- Staffing is a major problem. Then starting with the patient; sometimes they are not cooperative (behavioral issues, denial of hospitalization, etc.) Pain Management.
- short staffing, heavy patients, sometimes equipment is not available, pain management, hard to control the pain
- Difficult patients don't want to turn even though we try to turn them Q2h. The biggest issue is when the patient doesn't want to participate. This is when we must go up the chain of command. I feel comfortable with the protocol or HAPI prevention. Patients bed bound don't want to turn and that's the biggest problem.
- Biggest issue is staffing
- Challenges include being short staffed. Sometimes the patients are also challenging when it comes to turning them— some patients are really heavy, some are very stiff, so it takes a lot of people to turn them. Therefore it becomes a challenge when the unit is short staffed.
- Sometimes the patient doesn't want to turn, especially if they are in pain. We give the pain medicine, but that's Q4h, and the turning is supposed to be Q2h.
- Challenges in moving the patients, lack of staff, how the patient is placed in their beds, not enough lifts readily available when needed.
- Adamant patients no matter how much you try, medical conditions that put patients at risk, can't get control of their pain, or simply they don't want to move.
- Inadequate staff to assist turning patient, patient refused repositioning, pain

9. Do you have any additional comments?

- proper preparation from hospital, mainly short-staffing issue
- Aside from staffing, other ways to help are: Having wound care champions, at least one per unit. Champion Nurses would assess everyone (regardless of condition: Even though RNs taking measures to prevent, proper nutrition, q2h turn.. pt's may still get pressure ulcers, so all patients should be checked constantly). Wound Care Champions could give report to the managers. Have nurses participate on this role once a week, 4 hours per shift focused solely on pressure ulcer prevention. Make it so every nurse has the opportunity to do this if they want.

The figures above are gathered from the HAPI questionnaire results. The HAPI questionnaire involved knowledge-based and open-ended questions about documentation, preparedness, and other relevant feedback from the frontline staff. The responses to the knowledge-based questions show an accurate understanding regarding pressure injury prevention. The questions that addressed documentation and preparedness revealed that most felt that their documentation was accurate. Additionally, although the frontline staff felt well prepared by their institution in preventing HAPIs, there was still some uncertainty in regards to the escalation protocol on the weekends when the WOCN was not present. Some of the answers to the open-ended questions confirmed that there was a general shared idea of what needs to be done for HAPI prevention, while other answers shared the following obstacles that nurses face when it comes to HAPI prevention: staffing, pain management challenges, uncooperative patients, and availability of equipment for heavy patients.