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Staff Education to Enhance Nurses' Knowledge of Pressure Injury Prevention

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This is to certify that the doctoral study by

Jacqueline Evette Foster

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Dr. Brenda Kulhanek, Committee Chairperson, Nursing Faculty
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Walden University
2025

Executive Summary: Staff Education Project

Staff Education to Enhance Nurses' Knowledge of Pressure Injury Prevention

by

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Executive Summary Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Summary

Hospital-acquired pressure injuries (HAPIs) have a significant negative impact on patient safety and the quality of care. This doctor of nursing practice (DNP) staff education project focused on improving staff nurses' knowledge in preventing pressure injuries. Recognizing the high incidence of pressure injuries at the project site, this staff education project addressed the critical need to reduce pressure injuries for at-risk patients by providing ongoing education and training to enhance pressure injury management, reduce hospital costs and length of hospitalization, and improve patient care quality. The practice-focused question guiding this staff education project was the following: To what degree will implementing computer-based learning impact nurses' knowledge of pressure injury prevention among adults in a rural Georgia hospital? Evidence was gathered from peer-reviewed journal articles published within the last 5 years from various databases. The staff education project included a structured, evidence-based computer learning module with pre- and posttest knowledge assessments to evaluate nurses' baseline knowledge and understanding gained after module completion. A pre- and posttest design with descriptive statistics including the percentage of scores was used to evaluate knowledge gains. A mean pretest percentage score of 73, improved to a posttest mean of 100. The increase in the mean percentage supported an increase in nurses' knowledge following the computer learning module. The findings may promote positive social change by reducing pressure injuries, ensuring equitable access to quality care, and promoting ongoing education and training for nursing staff to prevent pressure injuries utilizing evidence-based strategies.

Background

Practice Problem

Recent benchmark scores at the project site reported by the quality review nurse revealed a concerning trend in the rise of pressure injuries. Despite existing prevention strategies, two to three new pressure injury cases were reported monthly over the past 6 months, indicating the ineffectiveness of current prevention strategies. Leadership identified the primary cause of this increase as the lack of staff education and training. The gap was primarily due to the absence of a nurse educator for staff training on pressure injury prevention. Furthermore, depending on staffing, a high nurse-to-patient ratio can range from 1:8 to 1:10. The heavy patient load, understaffing, and knowledge gaps necessitated a structured approach to guide nurses in preventing pressure injury.

The lack of consistent training forced nurses to rely on inconsistent peer-to-peer instruction, resulting in significant knowledge gaps regarding effective pressure injury prevention strategies and contributing to inconsistent patient care. To address the rising rate of HAPIs as evidenced by benchmark scores, the DNP project provided structured ongoing education focusing on risk assessment, skin assessment, and preventive interventions to address this gap. Wu et al. (2022) suggested that effective education programs can significantly improve nursing knowledge and reduce the incidence of pressure injuries both short- and long-term. The DNP staff education project was implemented to enhance the medical-surgical nurses' knowledge of pressure injury prevention. This staff education project was designed to equip the nurses with the

knowledge and skills to assess, manage, and prevent pressure injuries on the medical-surgical unit.

Practice-Focused Question

The practice-focused question guiding this staff education project was the following: To what degree will implementing computer-based learning impact nurses' knowledge of pressure injury prevention among adults in a rural Georgia hospital? Addressing the clinical question, this project focused on how nurses' knowledge, skills, and use of evidence-based strategies in pressure injury prevention impact at-risk patients. Effective pressure injury prevention requires nurses to implement knowledge, skills, and evidence-based strategies to provide quality care for at-risk patients. Technology-enhanced learning that includes evidence-based strategies can empower nurses in caring for at-risk patients (Ding et al., 2023). Computer-based learning offers a flexible training solution to address knowledge gaps (Li et al. (2022), which can effectively connect theory and practice.

Sources of Evidence

This staff education project included evidence from a comprehensive literature review to enhance nurses' knowledge of pressure injury prevention. The search included peer-reviewed journal articles published within the past 5 years using keywords such as *pressure injury*, *pressure ulcer*, *wound*, *bedsore*, *skin integrity*, *knowledge*, *adults*, *staging*, *skin*, and *wound care*. The databases searched included Cumulative Index of Nursing and Allied Health Literature, PubMed, Science Direct, ProQuest, Google Scholar, the Walden University library, and Elton B. Stevens Company. Articles

reviewed included several systematic review articles. The articles included Level I and II studies and randomized controlled trials, with quality grades of A or B. All articles supported that continuous education leads to a reduction in pressure injuries.

The computer-based learning module incorporated several resources designed to enhance nurses' knowledge. In the computer-based learning module, case studies, resources, and knowledge assessment tests were designed to enhance nurses' knowledge of pressure injury prevention using evidence-based strategies. The evidence-based strategies incorporated assessment, management, and prevention of pressure injuries. I developed a teaching plan (see Appendix A). The PowerPoint learning module is located in Appendix A, case studies designed to improve learning are located in Appendix B, the pretest knowledge assessment tool is located in Appendix C), the posttest knowledge assessment tool is located in Appendix D, the National Pressure Injury Advisory Panel (NPIAP) handout is located in Appendix E, the Braden Scale resource is located in Appendix F, and a course completion survey is located in Appendix H, which was administered after participants completed the computer module to assess the overall effectiveness of the project. The NPIAP resource, which was used with permission from the NPIAP education department (see Appendix H), was the foundation of the risk assessment for the educational project and guided the evidence-based strategies associated with the project. The NPIAP provided insight for best practices in assessing, staging, and identifying pressure injuries in at-risk patients.

This staff education project included a computer-based learning module as an evidence-based learning tool in the medical-surgical unit to enhance nurses' knowledge

of pressure injury prevention. The project was driven by the need to address the rise of HAPIs in the medical-surgical unit at the project site. To enhance pressure injury prevention, I delivered a 4-week structured staff education and measured the effectiveness of the computer-based training. This approach was critical for measuring effective pressure injury prevention, e-learning, and computer-based training. Moreover, it demonstrated a positive impact on nurses' knowledge and skills. Yan et al. (2021) estimated that 40% of nurses in small- and medium-size hospitals lack sufficient knowledge of pressure injury care. The current project results provided strong evidence that computer-based learning significantly enhanced nurses' knowledge in preventing pressure injuries. Therefore, education programs are critical for enhancing nurses' knowledge and skills and improving patient outcomes. Li et al. (2022) recommended staff education focused on assessing, preventing, and managing pressure injuries in at-risk adults, emphasizing the need for enhanced training programs, including computer-based learning, necessary to increase nursing competency and address knowledge gaps.

Project Purpose

HAPIs pose a serious threat to hospitalized patients. Despite ongoing prevention efforts, pressure injuries continue to be a persistent challenge in health care settings (Gedamu et al., 2021). Pressure injuries are areas of damaged skin and tissue beneath the skin. They typically develop over bony areas of the body from friction and shearing or where a medical device presses against the skin. These injuries are caused by significant pressure that lasts too long or a combination of pressure and a shearing force (NPUAP,

2022). HAPIs significantly impact patients' quality of life, extend hospital stays, increase nursing workload, and escalate hospitalization costs (Gedamu et al., 2021).

In the United States, HAPIs affect over three million patients annually (Choragudi et al., 2024). HAPIs contribute to decreased mobility, prolonged hospital stays, and increased financial costs for patients and health care facilities (Kitamura et al., 2023). Therefore, continuous education and training for nursing staff is crucial for effective pressure injury management. This DNP staff education project aimed to enhance staff nurses' understanding and assess their knowledge of pressure injury in at-risk patients on a medical-surgical unit to reduce the incidence of pressure injuries. Additionally, this staff education project addressed to what extent evidence-based learning enhanced nurses' knowledge.

Staff Education Project Development

The staff education project was implemented at a rural hospital in Georgia with a 30-bed medical-surgical unit comprising 12 staff nurses caring for adult patients with chronic illnesses. At the project site, recent benchmark scores reported by the quality review nurse revealed a concerning trend. Despite current prevention strategies, the unit experienced two to three new pressure injury cases each month over the past 6 months, indicating the ineffectiveness of current prevention strategies that prompted the current project. After discussion with stakeholders, management approved the implementation of the project. Recognizing that this rural hospital lacks a nurse educator, training materials were provided to the nurse manager for review (teaching plan, PowerPoint, Braden scale, Pressure Ulcer Knowledge Assessment Test assessments, NPIAP resources, and the

project's purpose). Following facility approval, mentor assignment, and Walden University approvals, an implementation date was set, resources were uploaded to the facility's education platform, and staff nurses were notified via facility email regarding the project and its implementation. Given staffing shortages, the varying levels of experience among nurses, and time constraints, the staff education project was designed to allow nurses to complete the modules at their convenience, allowing for flexibility.

The computer modules were available over 4 weeks. On the first day of implementation, arrangements were made for staff to arrive 30 minutes early for an in-service session on accessing the modules, taking the tests, and completing surveys. This session aimed to ensure that all staff nurses could access the module and addressed any questions. Nurses were informed that computer-based training provides flexibility in learning for nurses and affords nurses the opportunity to participate in self-paced learning, which is critical when facing the challenges of unpredictable schedules, staffing shortages, and demanding patient loads. Nurses were able to control their learning by accessing the learning modules at their own pace while effectively managing their time without stress, leading to improved patient care. The modules, tests, and surveys were available at any time. The modules were intended to be completed during nurses' shifts and before the 4-week period ended. A passing score of 80% was recommended; however, if results were not successful, tests could be retaken multiple times to achieve this score. All staff nurses agreed to participate in the staff education project.

Results

The data analyzed in this staff education project aimed to answer the practice-focused question: To what degree will implementing computer-based learning impact nurses' knowledge of pressure injury prevention among adults in a rural Georgia hospital? After the staff education project, results were analyzed using descriptive statistics. The pretest assessment results totaled 886, and the post-test assessment results were 984. The following formula was used to calculate the improvement percentage. The sum of the pretest results was subtracted from the sum of the posttest scores, then divided by the pretest scores and multiplied by 100.

$$\frac{\text{Posttest scores} - \text{pretest scores} \times 100}{\text{Pretest score}}$$

The pretest results total was 886, and the posttest results total was 984, indicating that only 33% (4 out of 12) nurses achieved a score of 80% or above on the pretest assessment. On the other hand, the posttest assessment scores revealed a notable increase, with 100% of the staff nurses passing. This represented an 11% improvement in overall knowledge, resulting in a mean score of 81%. Table 1 reveals the results.

Table 1

*Pressure Injury Pre- and Posttest Knowledge Comparison (*N = *12)*

Category	Pretest assessment	Posttest assessment	Improvement percentage	Passing percentage
Pretest passing above 80	4			33%
Posttest passing above 80		12	11%	100%
Pretest mean	73	80		
Posttest mean		81		

These findings revealed a significant improvement in nurses' knowledge and understanding, indicating improved competence among the nurses participating in the education project. This project aligns with Li et al.'s (2022) research that showed that educational workshops, structured training, continuing professional development, and ongoing training improve nurses' knowledge. The current staff education project was designed to equip nurses with the knowledge and foster a culture of continuous learning aimed at improving the quality of care for at-risk adults and reducing pressure injuries through evidence-based practices. Deakin et al. (2023) emphasized that effective HAPI prevention depends on nursing knowledge and the implementation of evidence-based practices, making staff education critical for improved patient outcomes. Chao et al. (2025) suggested that there is a critical link between nursing knowledge and patient outcomes in pressure injury prevention, which reinforces the importance of educational interventions to improve nurses' knowledge.

As Kitamura et al. (2023) suggested, computer-based training, assessment tools, and simulation training have been proven effective in empowering nurses with

independent access to effective prevention strategies and reducing the reliance on peer-peer instruction. The current staff education project was designed to reduce the incidence of pressure injuries at the project site using NPUAP resources (see Appendix E). To improve the effectiveness of staff education, this computer-based module should be integrated into the facility's annual competency training and professional development to ensure continued learning. This integration may promote ongoing education and training while reducing negative patient outcomes related to pressure injuries and providing new and experienced staff with the necessary knowledge to manage and prevent pressure injuries. Empowering nurses to independently use effective prevention strategies and identify their learning gaps may boost their skill and confidence in providing care, thereby contributing to the project's success. Although 100% of the medical-surgical nurses participated in the project, the limitations identified for this staff education project included challenges of staffing shortages and the inability to focus while participating in the project.

Conclusions

Computer-based education offers staff nurses a valuable opportunity to learn and continue their education. This DNP staff education project demonstrated the effectiveness of computer-based learning for enhancing nurses' knowledge and continuing education in pressure injury prevention among staff nurses in a rural medical-surgical unit. This flexible, self-paced computer-based learning module was effective in accommodating nurses with varying workloads and staffing shortages. Assessments after the module

revealed a significant improvement in nurses' knowledge and understanding of pressure injury prevention.

This staff education project may promote positive social change by empowering nurses to provide better care for at-risk patients. Culturally sensitive training equips nurses to implement effective interventions and improve quality care (Kitamura et al., 2023). This project included a flexible learning pathway that may be used to support ongoing training, reduce pressure injury incidence, and improve patient care and organizational outcomes by prioritizing nurses' education needs. Through culturally sensitive training, staff nurses will be better prepared to implement effective interventions and improve the quality of care.

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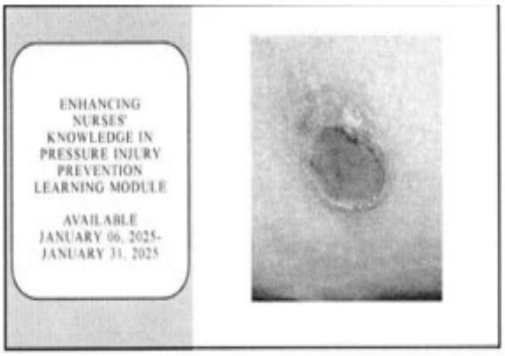
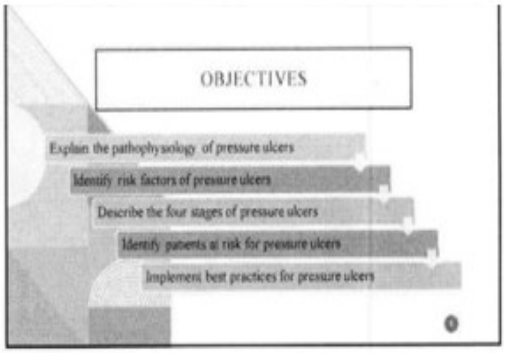
Appendix A: Teaching Plan

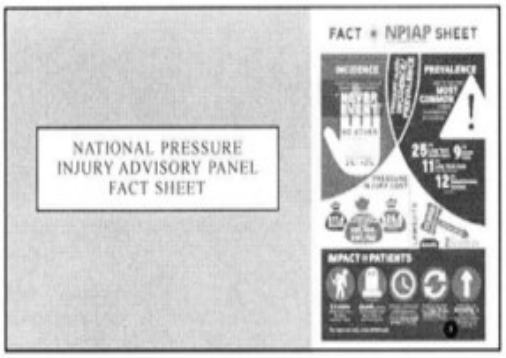
TEACHING PLAN			
Purpose: The purpose of this teaching plan is to improve nurses' knowledge in pressure injury prevention using computer-based learning modules and pressure injury clinical practice guidelines.			
Learning Objectives: By the end of this learning module, the learner will:	Educational Content	Teaching Method	Evaluation Method Pre/Post Assessment
1.Be able to define and identify risk factors of pressure injuries in at risk adults	Content will contain the basics of identifying and analyzing pressure injuries, risk factors cause (shown are friction, shearing, mobility and nutrition).	PowerPoint Presentation, Learning Modules	Case Study and 1-3 Knowledge Assessment questions
2.Be able to identify and describe the four stages of pressure injures using NPIAP guidelines.	Identify and list stages of pressure injuries in adult patients with Type 2 diabetes.	PowerPoint Presentation, Learning Modules	Case Study and 1-3 Knowledge Assessment questions
3. Be able to identify patients at risk for pressure injury using Braden Scale assessment	Distinguish parameters for Braden scale. Explain the use of the Braden scale and how to score pressure injuries correctly.	PowerPoint Presentation, Learning Modules	Case Study and 1-3 Knowledge Assessment questions
4. Be able to evaluate evidence-based strategies for preventing pressure injuries.	Know the parameters for Braden scale. Explain the use of the Braden scale and how to score pressure injuries correctly.	PowerPoint Presentation, Learning Modules	Case Study and 1-3 Knowledge Assessment questions
5. Describe best practices for pressure ulcer prevention	Demonstrate positioning, turning, dehydration and pressure relieving devices.	PowerPoint Presentation, Learning Modules	Case Study and 1-3 Knowledge Assessment questions
6. Recognize the need for continuous education and training to remain current in practice	Demonstrate competency with a score of 80% or greater on a comprehensive post assessment.	PowerPoint Presentation Learning Modules	Post Assessment Comprehensive Test


ENHANCING NURSES' KNOWLEDGE IN PRESSURE INJURY PREVENTION LEARNING MODULE
AVAILABLE JANUARY 06, 2025- JANUARY 31, 2025

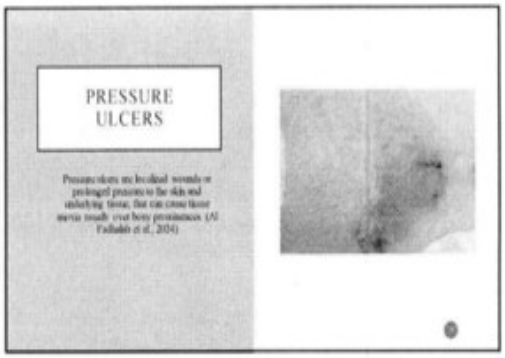
1


OBJECTIVES
Explain the pathophysiology of pressure ulcers
Identify risk factors of pressure ulcers
Describe the four stages of pressure ulcers
Identify patients at risk for pressure ulcers
Implement best practices for pressure ulcers

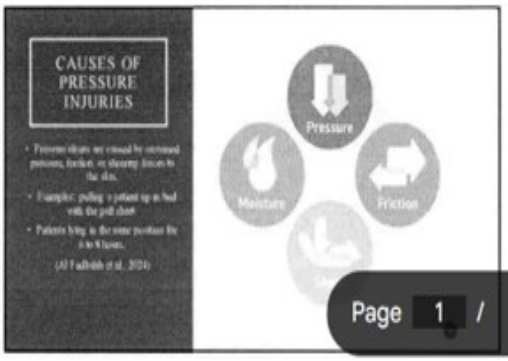
2

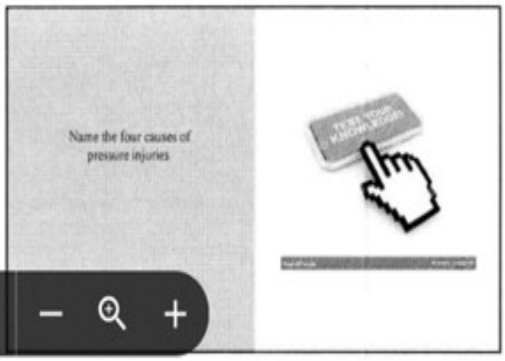

NATIONAL PRESSURE INJURY ADVISORY PANEL FACT SHEET
FACT + NPIAP SHEET
INCIDENCE
PREVALENCE
IMPACT ON PATIENTS

3


PRESSURE ULCERS

4


CAUSES OF PRESSURE INJURIES
Pressure
Moisture
Friction


Name the four causes of pressure injuries

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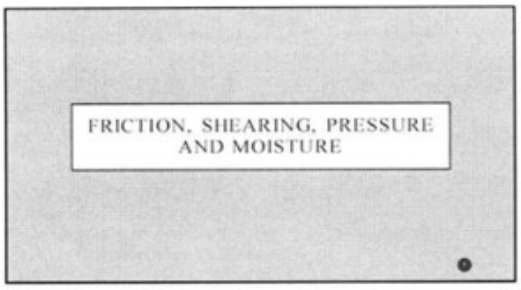

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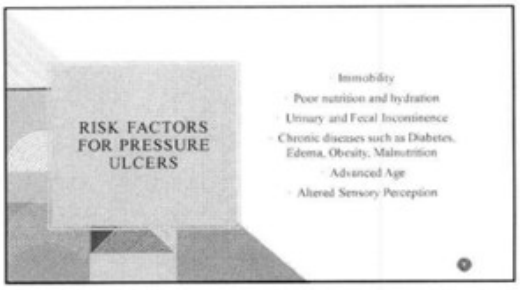

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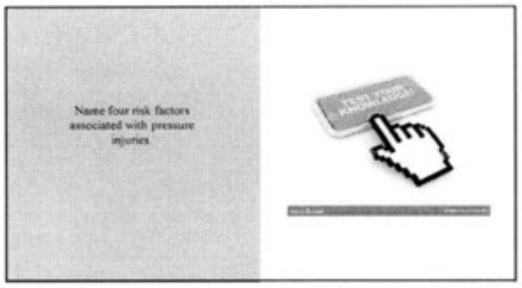

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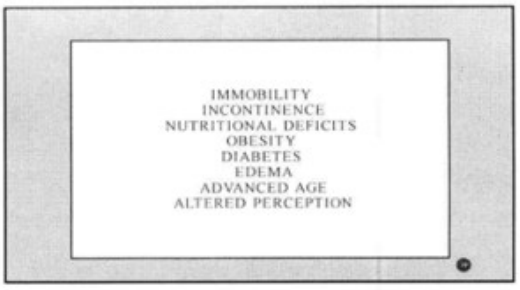

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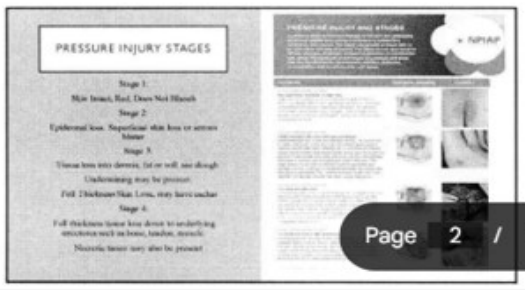

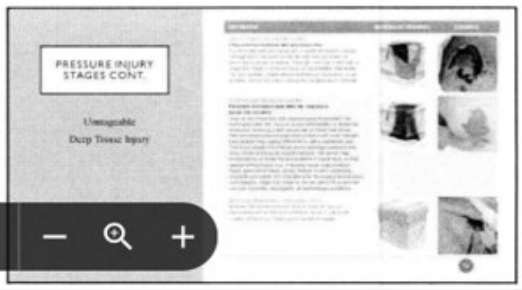

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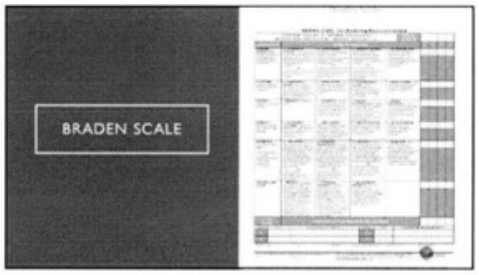
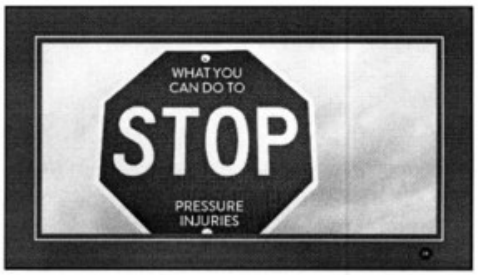
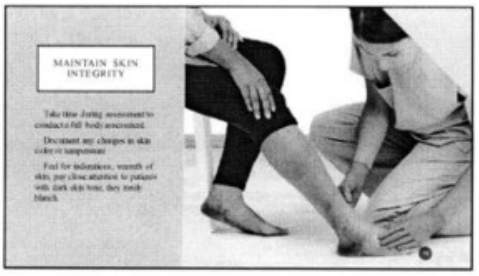

BRADEN SCALE

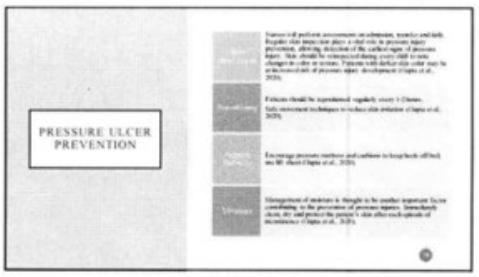
13


WHAT YOU
CAN DO TO
STOP
PRESSURE
INJURIES

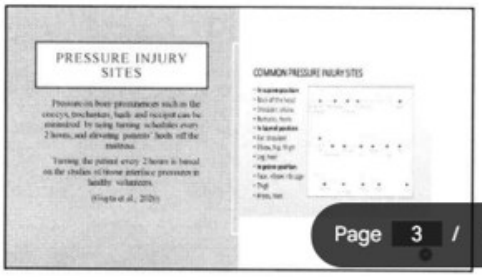
14

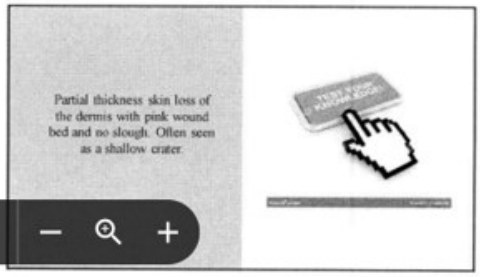

MAINTAIN SKIN INTEGRITY
Take time during assessment to conduct a full body assessment.
Document any changes in skin color or temperature.
Feel for inflammation, warmth of skin, pay close attention to patients with dark skin tone, they rarely blanch.

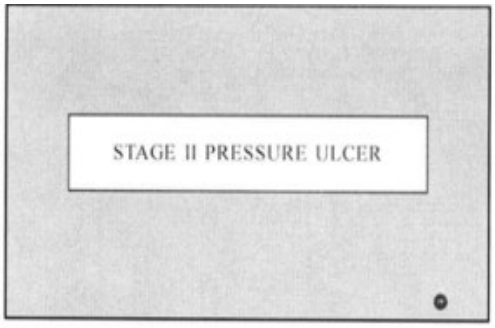
15


PRESSURE ULCER PREVENTION

16


PRESSURE INJURY SITES
COMMON PRESSURE INJURY SITES


Partial thickness skin loss of the dermis with pink wound bed and no slough. Often seen as a shallow crater.


STAGE II PRESSURE ULCER

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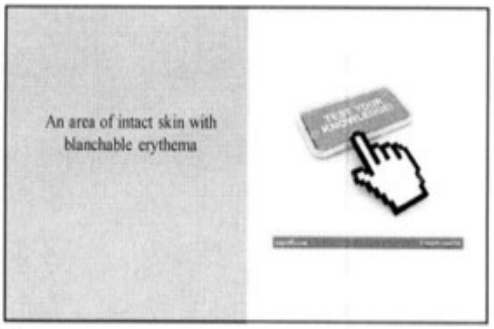
An area of intact skin with blanchable erythema

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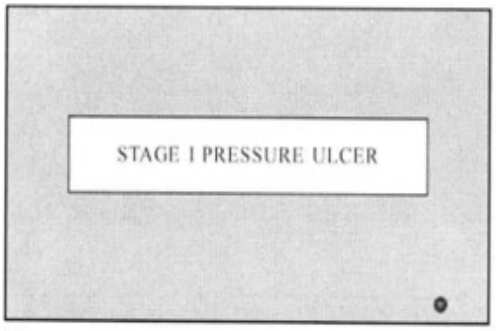
STAGE I PRESSURE ULCER

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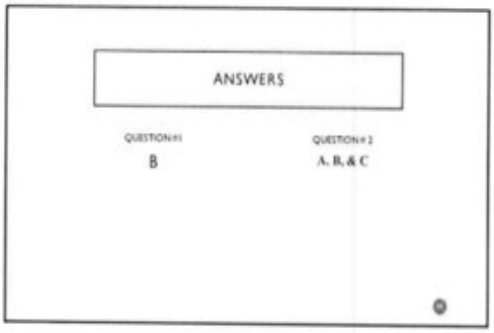
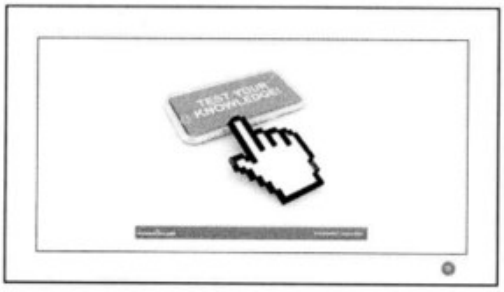
CASE STUDY #1


ANSWERS
QUESTION #1
B
QUESTION # 2
A, B, & C



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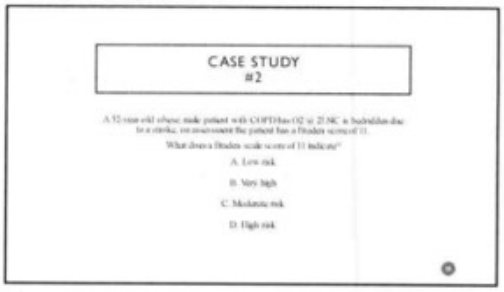

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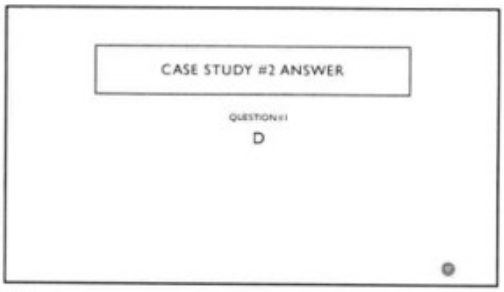

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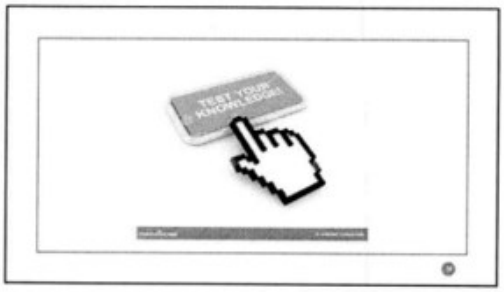

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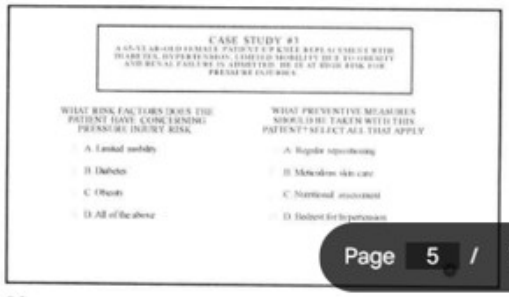

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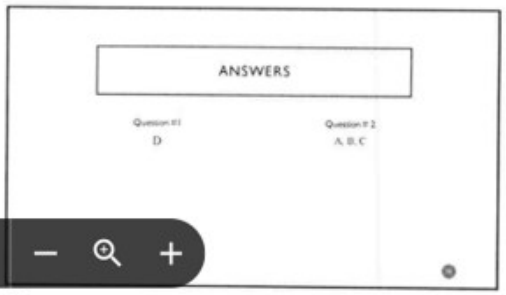

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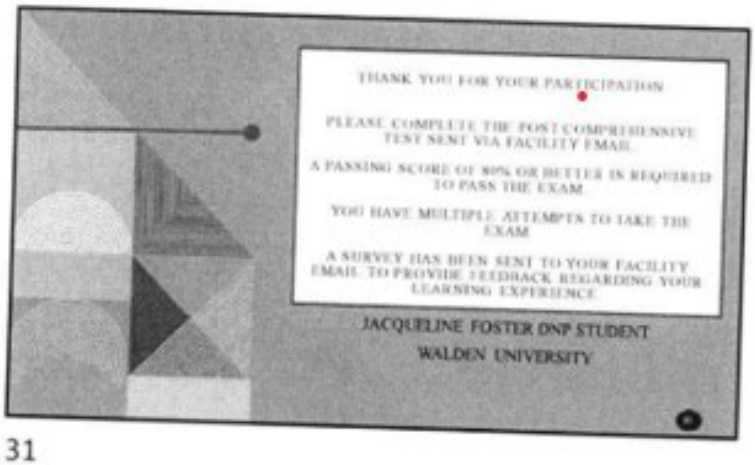
THANK YOU FOR YOUR PARTICIPATION
PLEASE COMPLETE THE POST COMPREHENSIVE TEST SENT VIA FACILITY EMAIL
A PASSING SCORE OF 80% OR BETTER IS REQUIRED TO PASS THE EXAM
YOU HAVE MULTIPLE ATTEMPTS TO TAKE THE EXAM
A SURVEY HAS BEEN SENT TO YOUR FACILITY EMAIL TO PROVIDE FEEDBACK REGARDING YOUR LEARNING EXPERIENCE
JACQUELINE FOSTER DNP STUDENT
WALDEN UNIVERSITY

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Appendix B: Case Study

Case Study

A nurse is conducting a skin assessment on an 85-year-old patient with diabetes and notes a reddened area over the sacral region. The patient is wearing O2 @ 3L/NC and has limited mobility. Answer the following 3 questions:

1. What stage of pressure injury is indicated by non-blanchable redness?

   A. Stage 4
   B. Stage 2
   C. Stage 1
   D. Stage 3

2. To perform an effective skin assessment, how should the nurse assess the patient to indicate the skin is unable to restore itself after pressure is removed?

   A. Mobility
   B. Blanching
   C. Ability to turn independently
   D. Braden scale

3. Which areas should be assessed in a skin assessment for pressure injuries?
   A. Lower back
   B. Elbows
   C. Heels
   D. Face

A 52-year-old obese male patient with COPD has O2 @ 2L/NC is bedridden due to a stroke, on assessment the patient has a Braden score of 11.

1. What does a Braden scale score of 11 indicate?
   A. Low risk
   B. Very high risk
   C. Moderate risk
   D. High risk

2. A 65-year-old female patient s/p knee replacement with diabetes, hypertension, limited mobility due to obesity and renal failure is admitted. He is at high risk of pressure injuries.
   What risk factors do the patient have concerning pressure injury risk?
   A. Limited mobility
   B. Diabetes
   C. Obesity
   D. All of the above

3. What preventive measures should be taken with this patient?
   A. Regular repositioning
   B. Meticulous skin care
   C. Nutritional assessment
   D. Bedrest for hypertension

Case Study Answers

Case Study #1

1. A
2. B
3. ABC

Case Study #2

1. D
2. D
3. A, B, C

Appendix C: Pre-Knowledge Assessment

Pre-Knowledge Assessment Tool

1. For which factors in the Braden Scale are you evaluating the patient's ability to respond to verbal command?
A. Activity
B. Mobility
C. Sensory/Perception
D. Friction/Shear

2. Minimally, a patient in the acute care setting should be assessed for pressure ulcer risk at least every:
A. 48 hours
B. 24 hours
C. 8 hours
D. 4 hours

3. How often should you, the RN, assess and document skin condition?
A. Daily
B. Once a shift
C. Upon admission and discharge, every shift, and as patient condition warrants
D. Upon admission and discharge

4. What can you, the RN, do when one of your patients has discoloration of the skin (red, purple, blue) indicating pressure?
A. See what happens over the next 24 hours.
B. Let the next nurses know about it. Start a skin care plan.
C. Place the patient on a pressure-reducing surface and explain to the patient and family that the patient needs to limit pressure to the area.
D. B&C from above

5. Who is the *primary* person accountable for patient skin assessment, pressure ulcer prevention, and documentation?
A. WOC Nurse (ET nurse)
B. RN
C. Nursing assistant
D. All of the above

Retrieved from: Agency for Healthcare Research and Quality (2017). Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7a.html

Pressure Ulcer Pre-Knowledge Baseline Assessment: Answer Key

1. For which factors in the Braden Scale are you evaluating the patient's ability to respond to verbal command?

A. Activity
B. Mobility
C. Sensory/Perception
D. Friction/Shear

2. Minimally, a patient in the acute care setting should be assessed for pressure ulcer risk at least every:
A. 48 hours
B. 24 hours
C. 8 hours
D. 4 hours

3. How often should you, the RN, assess and document skin condition?
A. Daily
B. Once a shift
C. Upon admission and discharge, every shift, and as patient condition warrants
D. Upon admission and discharge

4. What can you, the RN, do when one of your patients has discoloration of the skin (red, purple, blue) indicating pressure?
A. See what happens over the next 24 hours.
B. Let the next nurses know about it. Start a skin care plan.
C. Place the patient on a pressure-reducing surface and explain to the patient and family that the patient needs to limit pressure to the area.
D. B&C

5. Who is the *primary* person accountable for patient skin assessment, pressure ulcer prevention, and documentation?
A. WOC Nurse (ET nurse)
B. RN
C. Nursing assistant
D. All of the above

Retrieved from: Agency for Healthcare Research and Quality (2017). Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7a.html

Appendix D: Post Knowledge Assessment

For each question, mark the box for True, False, or Don't Know	True	False	Don't Know
1. Stage I pressure ulcers are defined as intact skin with nonblanchable erythema in lightly pigmented persons.			
2. Risk factors for development of pressure ulcers are immobility, incontinence, impaired nutrition, and altered level of consciousness.			
3. All hospitalized individuals at risk for pressure ulcers should have a systematic skin inspection at least daily and those in long-term care at least once a week.			
4. A Stage III pressure ulcer is a partial thickness skin loss involving the epidermis and/or dermis.			
5. All individuals should be assessed on admission to a hospital for risk of pressure ulcer development.			
6. A Stage IV pressure ulcer is a full thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structure.			
7. An adequate dietary intake of protein and calories should be maintained during illness.			
8. Persons confined to bed should be repositioned every 3 hours.			
9. Heel protectors relieve pressure on the heels.			
10. Donut devices/ring cushions help to prevent pressure ulcers.			
11. In a side lying position, a person should be at a 30-degree angle with the bed unless inconsistent with the patient's condition and other care needs that take priority.			
12. The head of the bed should be maintained at the lowest degree of elevation (hopefully, no higher than a 30-degree angle) consistent with medical conditions.			
13. A person who cannot move him or herself should be repositioned every 2 hours while sitting in a chair.			
14. Persons who can be taught should shift their weight every 30 minutes while sitting in a chair.			
15. Slough is a yellow or creamy necrotic tissue on a wound bed.			
16. Bony prominences should not have direct contact with one another.			
17. Every person assessed to be at risk for developing pressure ulcers should be placed on a pressure-redistribution bed surface.			
18. Skin macerated from moisture tears more easily.			
19. A blister on the heel is nothing to worry about.			

For each question, mark the box for True, False, or Don't Know	True	False	Don't Know
20. A good way to decrease pressure on the heels is to elevate them off the bed.			
21. All care given to prevent or treat pressure ulcers must be documented.			
22. Friction may occur when moving a person up in bed.			
23. A low Braden score is associated with increased pressure ulcer risk.			
24. Stage II pressure ulcers may be extremely painful due to exposure of nerve endings.			
25. For persons who have incontinence, skin cleaning should occur at the time of soiling and at routine intervals.			

Pieper Pressure Ulcer Knowledge Test

Retrieved from: Agency for Healthcare Research and Quality (2019). Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7a.html

Question		
1. Stage I pressure ulcers are defined as intact skin with nonblanchable erythema in lightly pigmented persons.	**True**	
2. Risk factors for development of pressure ulcers are immobility, incontinence, impaired nutrition, and altered level of consciousness.	**True**	
3. All hospitalized individuals at risk for pressure ulcers should have a systematic skin inspection at least daily and those in long-term care at least once a week.	**True**	
4. A Stage III pressure ulcer is a partial thickness skin loss involving the epidermis and/or dermis.		**False**
5. All individuals should be assessed on admission to a hospital for risk of pressure ulcer development.	**True**	
6. A Stage IV pressure ulcer is a full thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structure.	**True**	
7. An adequate dietary intake of protein and calories should be maintained during illness.	**True**	
8. Persons confined to bed should be repositioned every 3 hours.		**False**
9. Heel protectors relieve pressure on the heels.		**False**
10. Donut devices/ring cushions help to prevent pressure ulcers.		**False**
11. In a side lying position, a person should be at a 30-degree angle with the bed unless inconsistent with the patient's condition and other care needs that take priority.	**True**	
12. The head of the bed should be maintained at the lowest degree of elevation (hopefully, no higher than a 30-degree angle) consistent with medical conditions.	**True**	
13. A person who cannot move him or herself should be repositioned every 2 hours while sitting in a chair.		**False**
14. Persons who can be taught should shift their weight every 30 minutes while sitting in a chair.		**False**
15. Slough is a yellow or creamy necrotic tissue on a wound bed.	**True**	
16. Bony prominences should not have direct contact with one another.	**True**	
17. Every person assessed to be at risk for developing pressure ulcers should be placed on a pressure-redistribution bed surface.	**True**	
18. Skin macerated from moisture tears more easily.	**True**	
19. A blister on the heel is nothing to worry about.		**False**
20. A good way to decrease pressure on the heels is to elevate them off the bed.	**True**	
21. All care given to prevent or treat pressure ulcers must be documented.	**True**	
22. Friction may occur when moving a person up in bed.	**True**	
23. A low Braden score is associated with increased pressure ulcer risk.	**True**	

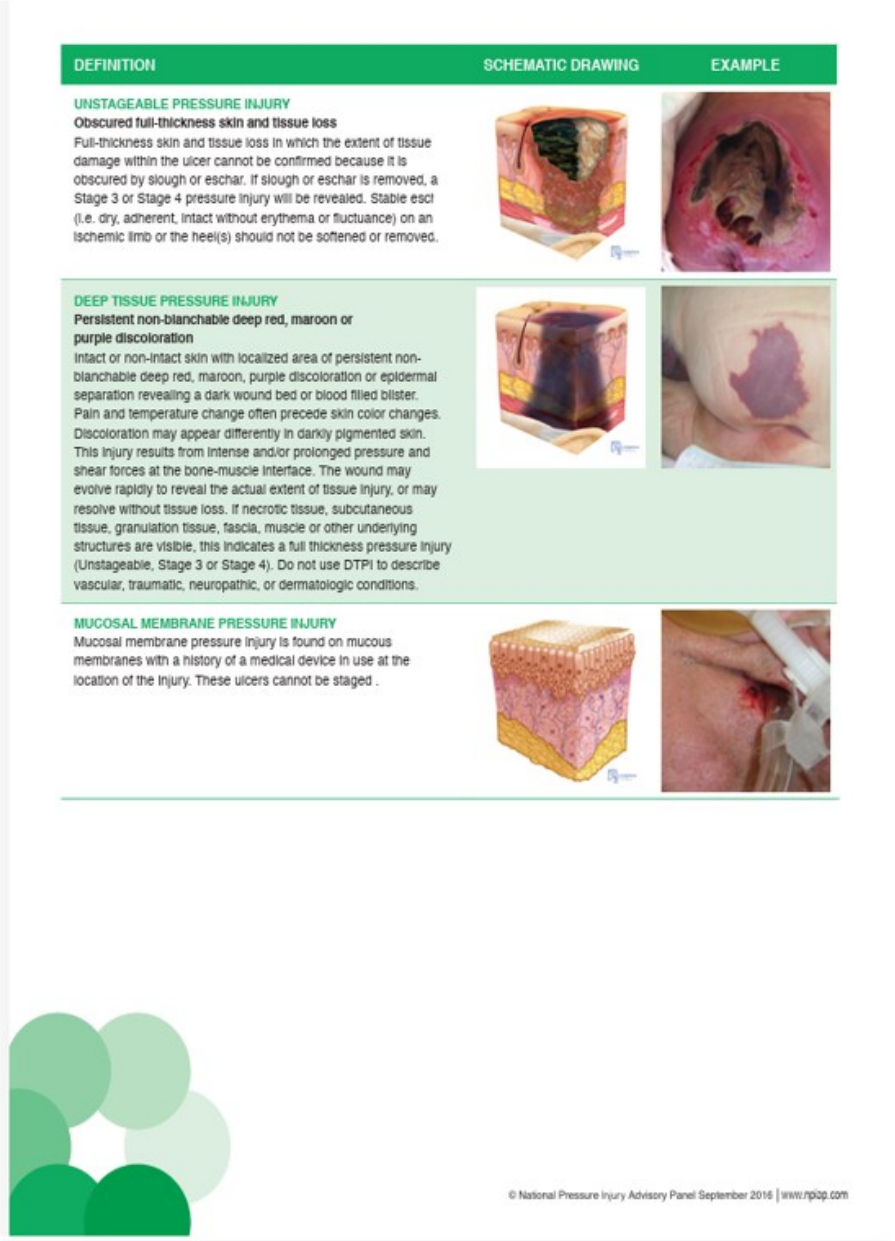
Question		
24. Stage II pressure ulcers may be extremely painful due to exposure of nerve endings.	**True**	
25. For persons who have incontinence, skin cleaning should occur at the time of soiling and at routine intervals.	**True**	

Pieper Pressure Ulcer Knowledge Test

Retrieved from: Agency for Healthcare Research and Quality (2019). Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7a.html

Appendix E: National Pressure Injury Action Panel

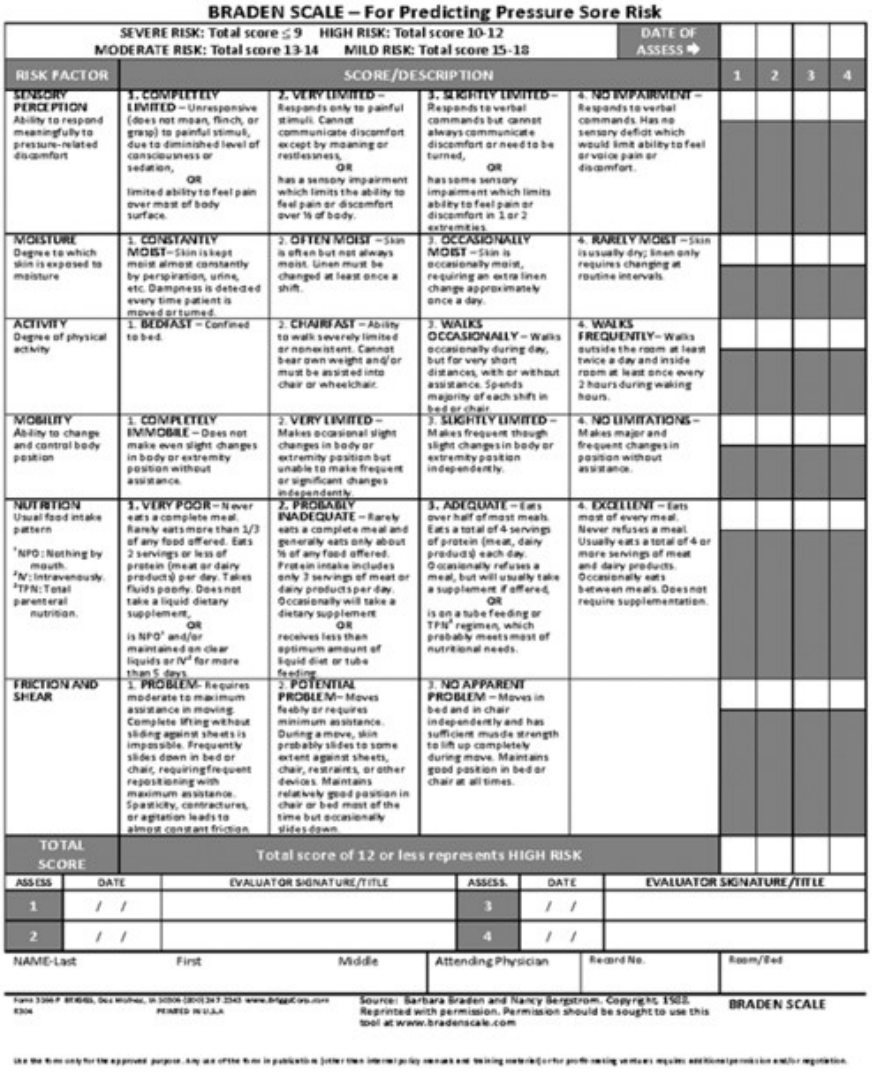
National Pressure Ulcer Advisory Panel (2022). Prevention and treatment of pressure ulcers: Quick reference guide. Retrieved from http://www.npuap.org.



DEFINITION	SCHEMATIC DRAWING	EXAMPLE
UNSTAGEABLE PRESSURE INJURY **Obscured full-thickness skin and tissue loss** Full-thickness skin and tissue loss in which the extent of tissue damage within the ulcer cannot be confirmed because it is obscured by slough or eschar. If slough or eschar is removed, a Stage 3 or Stage 4 pressure injury will be revealed. Stable eschar (i.e. dry, adherent, intact without erythema or fluctuance) on an ischemic limb or the heel(s) should not be softened or removed.		
DEEP TISSUE PRESSURE INJURY **Persistent non-blanchable deep red, maroon or purple discoloration** Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister. Pain and temperature change often precede skin color changes. Discoloration may appear differently in darkly pigmented skin. This injury results from intense and/or prolonged pressure and shear forces at the bone-muscle interface. The wound may evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss. If necrotic tissue, subcutaneous tissue, granulation tissue, fascia, muscle or other underlying structures are visible, this indicates a full thickness pressure injury (Unstageable, Stage 3 or Stage 4). Do not use DTPI to describe vascular, traumatic, neuropathic, or dermatologic conditions.		
MUCOSAL MEMBRANE PRESSURE INJURY Mucosal membrane pressure injury is found on mucous membranes with a history of a medical device in use at the location of the injury. These ulcers cannot be staged .		

National Pressure Ulcer Advisory Panel (2022). Prevention and treatment of pressure ulcers: Quick reference guide. Retrieved from http://www.npuap.org.

Appendix F: Braden Scale



BRADEN SCALE – For Predicting Pressure Sore Risk

SEVERE RISK: Total score ≤ 9 HIGH RISK: Total score 10-12
MODERATE RISK: Total score 13-14 MILD RISK: Total score 15-18

DATE OF ASSESS ➡

RISK FACTOR	SCORE/DESCRIPTION				1	2	3	4
SENSORY PERCEPTION Ability to respond meaningfully to pressure-related discomfort	**1. COMPLETELY LIMITED** – Unresponsive (does not moan, flinch, or grasp) to painful stimuli, due to diminished level of consciousness or sedation, OR limited ability to feel pain over most of body surface.	**2. VERY LIMITED** – Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness, OR has a sensory impairment which limits the ability to feel pain or discomfort over ½ of body.	**3. SLIGHTLY LIMITED** – Responds to verbal commands but cannot always communicate discomfort or need to be turned, OR has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	**4. NO IMPAIRMENT** – Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort.				
MOISTURE Degree to which skin is exposed to moisture	**1. CONSTANTLY MOIST** – Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2. OFTEN MOIST** – Skin is often but not always moist. Linen must be changed at least once a shift.	**3. OCCASIONALLY MOIST** – Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4. RARELY MOIST** – Skin is usually dry; linen only requires changing at routine intervals.				
ACTIVITY Degree of physical activity	**1. BEDFAST** – Confined to bed.	**2. CHAIRFAST** – Ability to walk severely limited or nonexistent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	**3. WALKS OCCASIONALLY** – Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	**4. WALKS FREQUENTLY** – Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.				
MOBILITY Ability to change and control body position	**1. COMPLETELY IMMOBILE** – Does not make even slight changes in body or extremity position without assistance.	**2. VERY LIMITED** – Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3. SLIGHTLY LIMITED** – Makes frequent though slight changes in body or extremity position independently.	**4. NO LIMITATIONS** – Makes major and frequent changes in position without assistance.				
NUTRITION Usual food intake pattern [1]NPO: Nothing by mouth. [2]IV: Intravenously. [3]TPN: Total parenteral nutrition.	**1. VERY POOR** – Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy product) per day. Takes fluids poorly. Does not take a liquid dietary supplement, OR is NPO[1] and/or maintained on clear liquids or IV[2] for more than 5 days.	**2. PROBABLY INADEQUATE** – Rarely eats a complete meal and generally eats only about ½ of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement OR receives less than optimum amount of liquid diet or tube feeding.	**3. ADEQUATE** – Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy product) each day. Occasionally refuses a meal, but will usually take a supplement if offered, OR is on a tube feeding or TPN[3] regimen, which probably meets most of nutritional needs.	**4. EXCELLENT** – Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.				
FRICTION AND SHEAR	**1. PROBLEM** – Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures, or agitation leads to almost constant friction.	**2. POTENTIAL PROBLEM** – Moves feebly or requires minimum assistance. During a move, skin probably slides to some extent against sheets, chair, restraints, or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3. NO APPARENT PROBLEM** – Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.					
TOTAL SCORE	Total score of 12 or less represents HIGH RISK							

ASSESS	DATE	EVALUATOR SIGNATURE/TITLE	ASSESS.	DATE	EVALUATOR SIGNATURE/TITLE
1	/ /		3	/ /	
2	/ /		4	/ /	

NAME-Last	First	Middle	Attending Physician	Record No.	Room/Bed

Form 3366 P BRADEN, Des Moines, IA 50309-3804 347-2343 www.BriggsCorp.com
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Retrieved from: Agency for Healthcare Research and Quality (2019). Rockville, MD. https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7a.html

Appendix G: Completion Survey

Computer-based Learning Module Post Evaluation Survey

As a student with Walden University, I want to thank you for participating in this learning experience.

Start now

1. How satisfied are you with the knowledge you gained from the course?
Very satisfied
Satisfied
Neither satisfied nor dissatisfied
Dissatisfied
Very dissatisfied

2. Do you feel you achieved your desired learning outcome? Single choice.
Yes
No
Not sure

3. How would you rate the overall quality of the learning module? Rating.
Very Satisfied
Satisfied
Dissatisfied
Very Dissatisfied

4. How effective were the instructional materials used in this course? Single choice.
Extremely effective
Very effective
Somewhat effective
Not so effective
Not at all effective

5. How effective were the learning activities used in this course? Single choice.
Extremely effective
Very effective
Somewhat effective
Not so effective
Not at all effective

6. Did the course meet your expectations? Single choice.
Yes
No
Not sure

7. How likely are you to recommend this course to your colleagues?
Likely
Unlikely

Document created using Microsoft Word

Appendix H: National Pressure Injury Action Panel Permission

Re: Form Submission - New Form - Request Permission using Guidelines

From: Emily Haesler (emily.haesler@curtin.edu.au)

To: Jacqueline27.DNP_25@yahoo.com

Date: Sunday, December 8, 2024 at 08:35 PM EST

Dear Jacqueline,
You are able to use the guideline content as long as your use is consistent with copyright law in terms of how much material you reproduce.

https://internationalguideline.com/permissions

Regards,

Prof. Emily Haesler | PhD, Fellow Wounds Australia

Adjunct Professor | Curtin University, Curtin Health Innovation Research Institute (CHIRI)
Adjunct Associate Professor | La Trobe University, Australian Centre for Evidence Based Aged Care (ACEBAC)
Honorary Senior Lecturer | Australian National University, School of Medicine and Psychology
Methodologist | National Pressure Injury Advisory Panel, European Pressure Ulcer Advisory Panel and Pan-Pacific Pressure Injury Alliance
Methodologist | World Council of Enterostomal Therapists
Board Member and Education Chair | International Wound Infection Institute
Board Member | World Alliance for Wound and Lymphoedema Care
Faculty Member | Australian Skin and Wound Alliance

P: +61 2 512 42946 M: 0405 541 994

CURTIN HEALTH INNOVATION RESEARCH INSTITUTE
Curtin University

From: Squarespace <form-submission@squarespace.info>
Sent: Monday, 9 December 2024 11:49
To: Emily Haesler <emily.haesler@curtin.edu.au>
Subject: Form Submission - New Form - Request Permission using Guidelines

Sent via form submission from *International Guideline*
Name: Jacqueline Foster
Email: Jacqueline27.DNP_25@yahoo.com
Subject: Request Permission using Guidelines
Message: Dear NPUAP Team, my name is Jacqueline Foster, and I am currently in the process of completing my Doctor of Nursing Practice (DNP) degree with Walden University. I am writing to request permission to use the NPUAP's pressure injury best practices, guidelines, pressure injury stages and pressure injury prevention points documents for educational purposes and the Braden Scale.
As a part of my DNP project, I am developing content that aims to enhance the understanding and management of pressure injuries with nurses in a rural hospital. I intend to include these documents in the appendices of my project and in the Pieper-Zulkowski Pressure ulcer knowledge test with your permission. I believe that utilizing NPUAP's guidelines will enrich the educational resources for this project.

The incorporation of your materials will ensure that the information provided to the nurses is accurate and aligned with the latest standards of care. I am committed to giving full credit to NPUAP for any materials used and will adhere to any guidelines or restrictions you may have regarding the use.
I would greatly appreciate your consideration of my request. If you require further information or documentation to facilitate this process, please do not hesitate to reach out.
Thank you for your time and consideration.
Jacqueline Foster
Walden University, Doctor of Nursing Practice Student
478-737-3683
Jacqueline27.dnp_25@yahoo.com
Manage Submissions
Does this submission look like spam? Report it here.

National Pressure Injury Advisory Panel (NPIAP) Request for Permission to Use NPIAP Product

Name & Title Jacqueline Foster: Doctor of Nursing Practice Student, MSN

Company Walden University

Address 100 Washington Avenue South, Suite 1210

City, State, Zip Minneapolis, Minnesota 55401

Email: Jacqueline27.DNP_25@yahoo.com **Phone:** 478-737-3683

I hereby request permission for use of Pressure injury best practice, NPIAP Staging Poster, Pressure Injury Best practice, Medical Device Related Pressure Injury

Intended use:

X **Educational material for internal policy or training materials**

_____ **Educational material for use by educational for-profit individual or agency**

_____ **Educational material for use by educational for-profit multi-agency system**

_____ **Educational material for free distribution by for-profit individual/group**

_____ **Component of a saleable product**

X **Other: please explain** I am currently a DNP student striving to complete a quality improvement project. I am requesting to use the requested documents to align with my project and goals.

_____ **Publication in a book chapter,** _____ **manuscript,**

_____ **educational resource,** _____ **other edition in preparation**

and in all future editions, print or electronic, of the following:

Publication title: _____

Article title: _____

Volume, page # & year: _____

Publisher: _____

Copyright: _____

Will be identified in publication as figure/table: Documents will be used in the appendix of the project paper.

Legal Agreement for Use of the NPIAP

AGREE **By typing *AGREE* in this box, you agree to the following.**

I/we agree that the NPIAP following documents: NPIAP Staging Poster, Pressure Injury Best Practice, prevention, Medical device related pressure injury **will be used as it was developed by the National Pressure Injury Advisory Panel (NPIAP) unless express permission is granted for use in another format. When the NPIAP document is printed, the document will include the full name of the NPIAP product. Printed materials will also include the phrase "Used with permission of the National Pressure Injury Advisory Panel & date." The permission granted through this process cannot be transferred to others or used for other purposes than expressed above and approved by the NPIAP. © NPIAP**

Return to:
Office@npiap.com

Permission approved: Samantha Spurling **Date** 12/10/2024

Approved by BOD, 6/17/10