

## Quality Assurance and Performance Improvement (QAPI) in Healthcare for Older Adults: Pressure Injury Prevention

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**WHY:** The largest organ of the human body is the skin. The skin which serves as a waterproof barrier or cushion to protect deeper tissues, regulate body temperature, and excrete waste, also acts as a receptor for pain and sensation. As we age, the skin may become impaired leading to risk for integumentary failure, including pressure injuries (previously referred to as pressure ulcers or sores). Aging causes the skin to become less elastic, essentially less protective. Additionally, a loss of fatty tissue and reduced circulation result in drier skin, leaving the integumentary system more vulnerable to injury.

Skin integrity can be further impaired by commonly occurring issues among older adults such as decreased mobility, bladder and/or bowel incontinence, nutritional deficiencies, diabetes, spinal cord injuries, metastatic cancers, dementia, delirium, and peripheral vascular disease. The presence of moisture on the skin can contribute to the development of skin injuries. Unrelieved pressure, the most common cause of pressure injuries in the older adults, deprives tissues of oxygen and vital nutrients, leading to tissue hypoxia and ischemia, eventually causing injury.

Pressure-relieving strategies are essential to preventing skin breakdown and promoting skin healing when injuries or wounds are present. To ensure pressure injury prevention and facilitate healing when injuries do occur, evaluate and document skin integrity upon admission to any healthcare setting (e.g. acute care hospital or long-term care facility), during home visits, during transitions in care, and on a regular basis in all settings. The goal of wound care management is to heal any wounds and restore skin integrity.

**BEST APPROACH:** The best approach for pressure injury prevention includes prevention, assessment, and early intervention of possible factors contributing to pressure injury formation or advancement of injury such as moisture, decrease in activity or mobility, sensory deficits, nutritional deficits, as well as circulatory and oxygenation issues.

### REFERENCES:

- Boyko, T.V., Longaker, M.T., & Yang, G.P. (2018). Review of the current management of pressure ulcers. *Advances in Wound Care*, 7(2), 57-67.
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- National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP), and Pan Pacific Pressure Injury Alliance (PPPIA). (2014). Prevention and treatment of Pressure ulcers-Clinical Practice Guideline. Washington DC: NPUAP. Available at: <http://www.npuap.org/%20resources/educational-and-clinical-resources/prevention-and-treatment-of-pressure-ulcers-clinical-practice-guideline>
- National Pressure Ulcer Advisory Panel Pressure Injury Stages. Updated April 2016: <http://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-injury-stages>
- Saghaleini, S.H., Dehghan, K., Shadvar, K., Sanaie, S., Mahmoodpoor, A., & Ostadi, Z. (2018). Pressure ulcer and nutrition. *Indian Journal of Critical Care Medicine: Peer-Reviewed, Official Publication of Indian Society of Critical Care Medicine*, 22(4), 283-289.

### MORE ON THE TOPIC:

- Best practice information on care of older adults: <https://consultgeri.org>
- Ayello, E.A. (2017). *Try This:*® Issue 5: Predicting Pressure Injury Risk. Available at: <https://consultgeri.org/try-this/general-assessment/issue-5.pdf>
- Braden Scale: <http://bradenscale.com>
- National Pressure Ulcer Advisory Panel: <http://www.npuap.org>

# Implementing the Plan Do Study Act Model (PDSA) for Performance Improvement related to Pressure Injury Prevention

**Plan:** Identify an opportunity and plan what needs to be changed. What needs to be done to improve the implementation of evidence-based pressure injury guidelines? Select the appropriate interventions and identify indicators for evaluation.

**Do:** Implement change on a small scale. Consider interventions that are needed and are possible. Use skin assessment tools as part of a comprehensive pressure ulcer prevention program. Conduct the review of implementation of clinical practice guidelines related to pressure ulcer prevention. Document observations, including any problems and unexpected findings. Collect data you identified as needed during the “plan” stage.

- Define pressure injuries
- Identify pressure injury risk factors
  - Impaired mobility
  - Impaired activity
  - Nutritional assessment
  - Perfusion/Oxygenation issues
  - Moisture
    - Diaphoresis, perspiration, urinary incontinence
  - Advancing age
  - Friction and Shear
  - Sensory perceptions
    - Parasthesia
  - Assess mechanical devices
    - Wheel chairs
    - Recliners
    - Toilets
  - Overall health status
- Identify Evidence-Based Pressure Injury Risk Assessment Tools
  - Braden Scale
- Physical Assessment and Lab Tests
  - Physical exam including vital signs, height, weight
  - Chemistry Panel
  - Complete Blood Count
  - Labs
    - Pre albumin
    - Hemoglobin A1c
- Skin Assessment
  - Upon admission; during transitions in care; home visits; at regular intervals
    - Blanching
    - Edema
    - Induration
    - Skin color changes
    - Localized redness
    - Localized heat
    - Pain assessment
    - Pressure injury staging
- Provide Skin Care
  - Repositioning techniques/scheduling
    - Turning and positioning
  - Massage
  - Preventative skin care
    - Skin emollients
    - Barrier products
  - Minimize shear
  - Transfer aids
- Select Support Surfaces
  - Chairs and beds
  - Heel elevation
  - Sheep skin
- Nutritional Assessment
  - Refer to dietitian
  - Assess eating ability
    - Enteral or parenteral supplements as needed
  - Hydration
  - Adequate protein intake

**Study:** Collect the data; evaluate data for patterns and trends. Assemble a team of practitioners to help analyze and study data to determine whether the interventions made a difference.

**Act:** For successful and ongoing changes, broaden the interventions and continuously assess results. What did you conclude? Make any recommendations or modifications to ensure improvement and appropriate implementation of evidence-based clinical practice guideline interventions.