Prevention of Decubitus Ulcers in the Clinical Setting

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Introduction

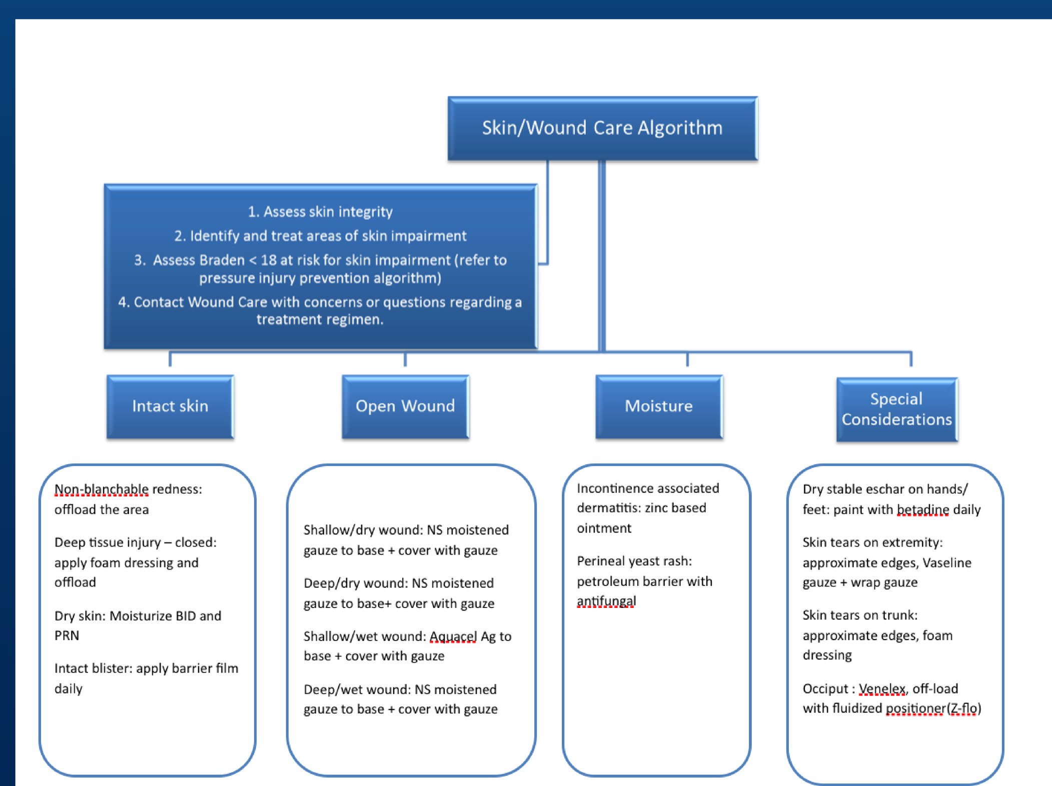
Although all facilities have a detailed guideline to follow for prevention of decubitus ulcers, many patients still suffer from them. Evidence demonstrates that hospital staff is not following guidelines to prevent decubitus ulcers, whether it be due to staff shortage, patient load, or inattention.

There are different causes for pressure ulcers, including shearing, friction, and interface pressures. Shearing can harm the skin by two forces moving in opposite directions, causing an occlusion of blood flow to the particular area of skin affected. Friction is caused by a patient moving over a surface that is still, this can cause blistering on the surface of the skin leading to a secondary infection. Lastly, interface pressures are caused by a patient lying in one position too long. The pressure points, mostly over bony prominences, pressed up against the mattress or chair will lead to decreased blood flow to the capillaries in the affected area, causing ischemia or death.

Evidence shows that decubitus ulcers can be prevented in many different ways. One important prevention method is assessment of the patient, including a risk assessment. Staff should visually look over their patient and ensure that the patient does not have any erythematous areas on common pressure points (heels, coccyx, and other bony prominences. The risk assessment is a thorough examination that includes inspection of the patients mobility capabilities or limitations, perfusion, oxygenation, nutritional status, increased skin moisture (incontinence), age, body temperature and general health status, as all of these factors play into the patient's overall risk. Health care staff should also be using evidence-based devices and techniques to reduce the risk of a patient developing decubitus ulcers.

Decubitus ulcers not only cost hospitals billions of dollars yearly, they cause the patients intense pain and longer hospitalizations. We would like to increase the knowledge of the hospital's staff to emphasize the importance of preventative methods to decubitus ulcers.

Protocols



Skin/Wound Care Algorithm

1. Assess skin integrity
2. Identify and treat areas of skin impairment
3. Assess Braden < 18 at risk for skin impairment (refer to pressure injury prevention algorithm)
4. Contact Wound Care with concerns or questions regarding a treatment regimen.

Intact skin

Non-blanchable redness: offload the area

Deep tissue injury – closed: apply foam dressing and offload

Dry skin: Moisturize BID and PRN

Intact blister: apply barrier film daily

Open Wound

Shallow/dry wound: NS moistened gauze to base + cover with gauze

Deep/dry wound: NS moistened gauze to base+ cover with gauze

Shallow/wet wound: Aquacel Ag to base + cover with gauze

Deep/wet wound: NS moistened gauze to base + cover with gauze

Moisture

Incontinence associated dermatitis: zinc based ointment

Perineal yeast rash: petroleum barrier with antifungal

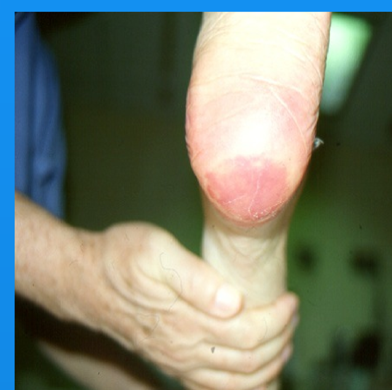
Special Considerations

Dry stable eschar on hands/ feet: paint with betadine daily

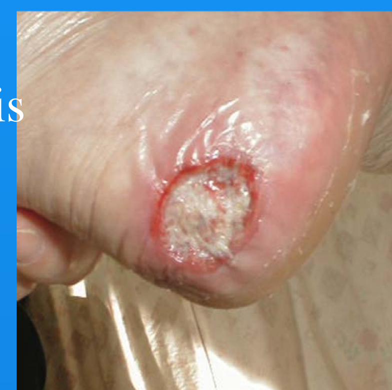
Skin tears on extremity: approximate edges, Vaseline gauze + wrap gauze

Skin tears on trunk: approximate edges, foam dressing

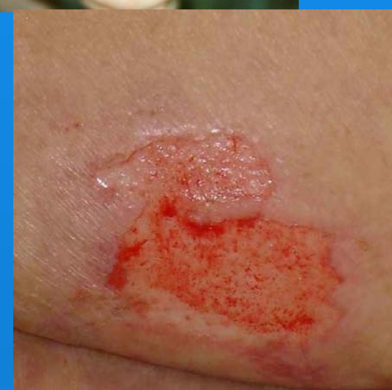
Occiput : Venelex, off-load with fluidized positioner(Z-flo)



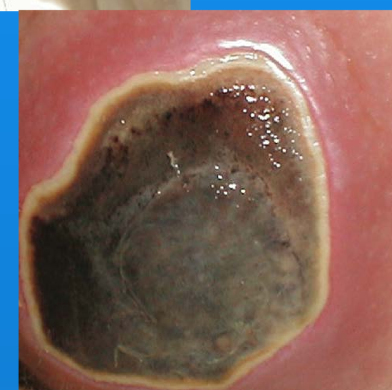
Stage 1: Skin in a localized area that is intact, red, and non-blanchable.



Stage 3: A full-thickness loss of skin. Adipose (fat) tissue is visible and slough or eschar may be present. Undermining and tunneling may occur.



Stage 2: The dermis is exposed by a partial-thickness loss of skin. May also be intact, but have blisters that are serum filled.



Stage 4: A full-thickness loss of tissue and tissue necrosis. There is damage to bone, muscle, and supporting structures.

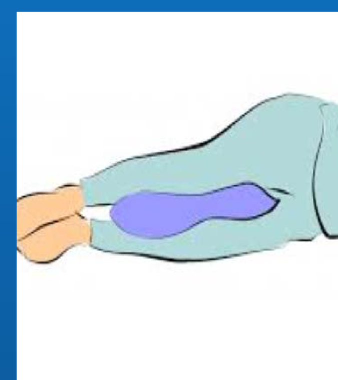
Preventative Methods

- Avoid placing patient on a red area
- Do not massage skin that is at risk
- Protect the skin from moisture with an individualized continence management plan
- Use skin moisturizer to hydrate skin
- Move patient in bed with a draw sheet
- Keep your patient mobile
- Keep your patient hydrated

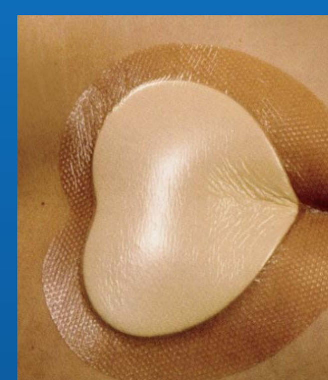
Use booties to relieve heel pressure

Turn patient every 2 hours

Use a pressure redistribution mattress



Pillows to keep bony prominences from touching



Foam dressings as a prophylactic

Survey Proposal

In order to evaluate the different methods of decubitus ulcer prevention, a meta-analysis of various peer-reviewed articles and hospital protocols were utilized. The analysis allowed a broad-spectrum of prevention methods, ulcer classification, and the appropriate treatments to be identified. The decubitus prevention protocols, provided by a local hospital, were able to show the overall guidelines that patient care technicians and nurses should be following for all patients. It went even further into detail for specific patient populations and the specific devices and medications that should be used for each. In order to analyze how strictly nurses and patient care technicians are following these guidelines, a survey could be conducted. This survey could be utilized at local hospitals with questions about decubitus ulcer prevention followed by a likert scale. The nurses and patient care technicians could circle how strongly they disagreed or agreed with the completion of protocols. This should be submitted anonymously to ensure honesty among participants.

Decubitus Ulcer Prevention Survey
Morehead State University's BSN Nursing Research

Please answer each question as honestly as possible, all surveys are anonymous.

1) The hospital I work at has appropriate guidelines for decubitus ulcer prevention

Strongly Disagree — Disagree — Agree — Strongly Agree

2) The hospital I work at educated me upon arrival of their decubitus ulcer protocols

Strongly Disagree — Disagree — Agree — Strongly Agree

3) I turn my patients or ensure they have changed positions every two hours

Strongly Disagree — Disagree — Agree — Strongly Agree

4) I properly relieve a patient's pressure points with pillows or devices

Strongly Disagree — Disagree — Agree — Strongly Agree

5) I use the proper products (heel protectors, ointments, alternating pressure mattress) to prevent decubitus ulcers

Strongly Disagree — Disagree — Agree — Strongly Agree

Additional comments:

Thank you for your participation!

Objectives

- Decrease occurrence of decubitus ulcers
- Educate hospital staff on how to prevent decubitus ulcers
- Improve patient outcomes and understanding of wounds

Teaching Recommendations

Patients

A nurse should educate every patient on the prevention methods, especially the patients who are considered high risk for developing decubitus ulcers. Patients can be educated on the following activities to ultimately help themselves if they are able:

- Early ambulation to promote blood flow throughout their body
- Moving themselves around in the bed at least every two hours to prevent pressure points
- Using moisturizer on their skin
- Keeping the head of the bed below 30 degrees (if medical condition allows)
- Drinking the appropriate amount of fluids
- Immediately calling for assistance after an episode of incontinence to prevent prolonged periods of moisture

Hospital Staff

All hospital staff members that are directly involved in patient care should be educated and reminded on the methods of decubitus ulcer prevention. They should know every activity that should be taught to the patients as well, especially when patients are unable to reposition, moisturize, etc on their own. Staff members should be well educated on the following interventions for their patients:

- Advocate for special pressure reducing mattresses
- Apply foam dressings to any bony prominences (elbows, heels, etc)
- After an episode of incontinence, barrier ointment should be applied
- Use draw sheets or the overhead trapeze to lift patients up in bed
- Identify any swallowing or feeding issues and advocate when needed for interventions to ensure the appropriate amount of nutrition
- Place appropriate air cushions in patients' chairs

References available upon request