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Little Booklet

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INGHAM REGIONAL MEDICAL CENTER
A McLAREN HEALTH SERVICE

Pressure Ulcer Prevention and Staging

Introduction

RNs, LPNs and Nursing Assistants in all inpatient areas including, GEMS, ED, OR, PACU, Same Day Surgery and Peds/OB are required to review this booklet and complete the quiz. Return your completed quiz to your manager by September 15, 2008. If you have any questions about the content, please contact your manager or Anne Carl, WOCN, or Sue Brennan, Clinical Education.

Terminology

Pressure ulcer, pressure sore, decubitus ulcer and bedsore are used interchangeably to describe skin integrity issues related to pressure. Pressure ulcer is the recommended term by the National Pressure Ulcer Advisory Panel and the Agency for Health Care Policy and Research (AHCPR). A pressure ulcer is defined as a localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with friction and/or sheer. Leg ulcers caused by arterial or venous insufficiency should not be referred to as pressure ulcers. Heel ulcers are generally pressure ulcers, however.

Risk factors

Healthy tissue depends upon delivery of nutrients and removal of waste products. Factors that compromise circulation to the tissue will increase the risk of tissue necrosis or cellular death. Pressure, when prolonged, occludes blood flow and leads to cell death or ischemia. Tissue turns maroon red to black. Pressure related factors include: pressure intensity, duration and tissue tolerance. The amount of time required to impair tissue blood flow can vary greatly among individuals. If blood pressure and nutrition are inadequate, it can be much less than two hours to see color changes. Shear factors involve tissue damage from inside the body moving outward causing deep tissue damage, such as with hip contractures. Maintaining a sitting body position can cause a great deal of damage on the ischial bones (butt cheeks). Friction (epidermal or top layer of skin damage) is caused by sliding patients across bed linens without a lift sheet. Moisture causes softening of the skin (maceration), which is then more easily damaged by any of the above factors.

- Systemic factors: nutrition, aging, edema, low blood pressure—decreased tolerance to pressure
- Decreased consciousness, sensory input (CVA, diabetes)
- Impaired mobility patient is unable to reposition self
- Moisture (wound drainage, perspiration, fecal/urinary incontinence)

CMS "Never" events reimbursement

Starting in October of 2008, CMS will no longer reimburse hospitals for care related to 33 "never" events. These are complications that are considered to be avoidable or preventable. Pressure ulcers acquired during hospitalization are considered to be preventable. Any costs associated with the care of Stage 3 or 4 pressure ulcers not noted on admission will not be reimbursed. For this adverse event, the average cost of care is estimated to be $700 per case, and greater if the wound becomes infected. **All stages of pressure ulcers present on admission must be noted on the adult admission record. Do not write, "Patient states no areas of breakdown" as the skin must actually be visualized by someone on admission. If you have questions feel free to contact the wound/ostomy nurse.**

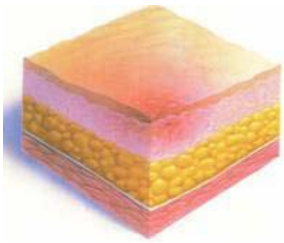
Pressure Ulcer Staging

Suspected Deep Tissue Injury

Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue. Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment. Please consult WOCN if you see this presentation on a patient.

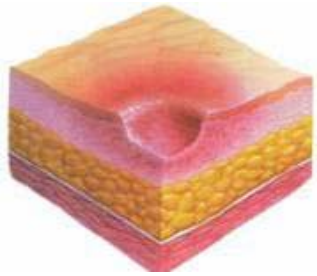
Stage I

An observable pressure-related alteration of intact skin whose indicators as compared to the adjacent or opposite area on the body may include changes in one or more of the following: skin temperature (warmth or coolness), tissue consistency (firm or boggy feel), and/or sensation (pain, itching). The stage one ulcer has a defined area of persistent redness in lightly pigmented skin, whereas in darker skin tones, the ulcer may appear with persistent red, blue or purple hues. May be difficult to detect in individuals with dark skin.

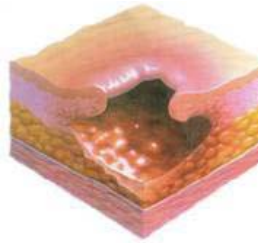


Stage II
Partial-thickness skin loss involving epidermis or dermis, or both. The ulcer is superficial and presents as an abrasion or intact or open/ruptured serum filled blister. Presents as a shiny or dry shallow ulcer without slough or bruising.* *Stage II should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation*.

*Bruising indicates suspected deep tissue injury



Stage III
Full-thickness skin loss involving damage to or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia. The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.




Stage IV
Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures (e.g., tendon, joint capsule). Undermining and sinus tracts also may be associated with Stage IV pressure ulcers.


Unstageable
Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. This tissue will generally require sharps debridement.

Prevention: The Nurse's Role

Determining Risk: The Braden scale
The Braden Scale is a tool which measures patient risk for pressure ulcer development based on six sub scale risk factor categories including: Sensory Perception, Moisture, Activity, Mobility, Nutrition, Friction and Shear. For each sub scale the nurse assesses the patient according to specified criteria and determines the appropriate numerical score. Scores for each risk factor category are totaled to obtain a Braden score. Suggested interventions are implemented according to corresponding numerical value.

Levels of risk

AT RISK: 15-18*
MODERATE RISK: 13-14*
HIGH RISK: 10-12*
VERY HIGH RISK: 9 or less
(* if other major factors are present such as advanced age, poor nutrition, diastolic BP below 60, hemodynamic instability advance to the next level of risk)

1. The Braden Scale will be completed on all patients within 12 hours of admission. Obstetric and pediatric patients will be assessed using the Braden Scale if hospital stay exceeds 72 hours.

2. Reassess the patient for the presence of risk factors by completing the Braden Scale (see attachment A) every 12 hours and/or if there is a significant change in condition.

3. In addition to the Braden Scale, identify contributing risk factors and consider high risk diagnosis in Box 1 below. Based on the risks and conditions present, implement specific preventative interventions. (Use Attachment B as a guide).

Box 1

High Risk Diagnoses:	Contributing Risk Factors
Peripheral vascular disease	Age greater than 65
Myocardial infarction	Existing pressure ulcer
Stroke	Immobility
Multiple trauma	Scheduled for surgery
Musculoskeletal disorders/fractures	Wrinkled bed linen
GI bleed	Devices (i.e. oxygen tubing, splints)
Paraplegia	Sedation
Neurological disorders	Sensory deficits
Diabetes	Nutritional deficits
Renal disease	Excessive exposure to moisture
Cancer	Exposure to friction and shearing
Spinal cord injury	History of a previous pressure ulcer
Vented or Tracheostomy patient	HOB greater than 30°

4. Implement the following guidelines with all patients to prevent development of pressure ulcers:

A. Conduct a skin assessment each shift paying particular attention to bony prominences (heels, ankles, hips, sacrum, elbows, buttocks, coccyx, knees and toes).

B. Special garments, shoes, heel and elbow protectors, orthotic devices, restraints and protective wear should be removed for skin and bony prominence inspection.

C. Assess for friction and shearing.

1. *Friction* is the mechanical force of two surfaces moving across each other; it damages surface tissues, causing blisters or abrasions. Individuals who cannot lift themselves during repositioning and transferring are at high risk for friction injuries.

b. *Shear* is the mechanical force that is parallel rather than perpendicular to the skin, which can damage deep tissue such as muscle. Tissues attached to the bone are pulled in one direction, whereas surface tissues remain stationary. Shear commonly occurs when the head of the bed is elevated and the individual slides downward.

5. Implement the following guidelines with patients determined to be at risk for development of pressure ulcers:

A. Place at risk patient on pressure reducing surface. (See Specialty Bed Therapies 40.4.032).

B. When placing a patient on an air mattress overlay give the mattress a hand check each shift. Inadequate support or “bottoming out” can be a problem with support surfaces. To check for adequate support, place a hand (palm up) under the mattress below the area at risk for a pressure ulcer or below the area of the pressure ulcer. If less than an inch of support material is felt, the patient has bottomed out and the support surface is inadequate.

C. Patients on specialty beds still require frequent repositioning.

D. Encourage patient mobility such as increased ambulation, sitting up in chair, or turning self while in bed. Consult with OT/PT for mobility suggestions.

E. Use air filled chair cushions for pressure relief while in a wheelchair or room chair.

F. Clean skin daily and at the time of soiling avoiding hot water and harsh cleaning agents.

G. Evaluate and manage urinary and fecal incontinence. Determine need for referral to WOCN.

H. Use moisturizers on dry skin.

I. DO NOT massage bony areas.

J. Use of protective barrier ointment on all patients.

K. Use lifting devices (trapeze or bed linen) to avoid friction during transfers and position changes.

L. Turn and position clients every 2 hours if consistent with care goals.

M. DO NOT use donut type devices.

N. Use pillows or foam wedges to keep bony prominences such as knees and ankles from direct contact with each other.

O. Protect heels and elbow from friction by applying skin barrier film or a transparent dressing as needed.

P. To relieve heel pressure consider one of the following:
- Bridge heels off bed with pillows (heel must consistently stay off the bed)
- Pressure relief boots
- Zoneaire bed with heels zoned (may be obtained with a nurse order)

Q. Avoid positioning directly on the trochanter (hip bone) when using the side-lying position. Instead use a 30° lateral side lying position.

R. Maintain the head of the bed at the lowest degree of elevation that is possible, considering patient comfort and medical conditions, such as risk for aspiration.

S. Lower head of bed 1 hour after meals or tube feeding. If this is not possible because of patient's medical condition, assess the sacral region more frequently.

T. Evaluate nutritional status. Obtain dietary consult for all patients at risk.

6. **Documentation:**
    A. Document skin assessment on the adult admission record within 12 hours of admission.

    B. Initiate a wound flow sheet for all patients with wounds (including Stage 1 pressure ulcers.) File under flow sheet tab in chart. Do not carry in medication book.

    C. Recalculate the Braden score every 12 hours or if a significant change in patient condition is present.

    D. Document/update the preventative care plan initiated in response to the level of risk.

    E. Document any abnormal skin assessment and preventive intervention/treatment each shift.

Please feel free to contact Anne Carl, RN, Wound/Ostomy Nurse with questions. She can be reached at 975-7401.