Kingston Health Sciences Centre

Pressure Injury Prevention Learning Guide

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Prepared by: **Professional Practice**
Date: **1995 April**
Revised: **2021 March**

This learning guide has been developed

By

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NOTE: This learning guide contains information that is current at the time of publication and distribution. Policies and procedures are reviewed regularly and change frequently. Please refer to related policies and procedures on the Intranet.

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Introduction

Nurses, working in partnership with the Interprofessional Health Care team, play an integral role in risk assessment and prevention of pressure injuries.

This learning guide provides information about the skin, pressure injuries, risk assessment tools, risk factors and associated pressure injury prevention interventions. Accurate and complete documentation of skin status and level of risk promotes continuity of care and can be used as the foundation for the skin plan of care.

A pressure injury is localized damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open wound and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear. The tolerance of soft tissue for pressure and shear may also be affected by microclimate, nutrition, perfusion, co-morbidities and condition of the soft tissue.

In 2016 the National Pressure Ulcer Advisory Panel (NPUAP) announced a change in terminology from pressure ulcer to pressure injury. This is because there was confusion using the word “ulcer” to describe injury to skin which can be intact or open. “Ulcer” by definition implies open skin. This led to confusion since a stage 1 and deep tissue injury are both injuries to *intact* skin. The term “pressure injury” represents both unbroken and open skin, and will reduce confusion when staging wounds. However, as this is a recent change in terminology, some legacy documents will still contain the word ulcer. The two terms can be used synonymously.

Learning Objectives

1. Know how to perform and document a skin assessment.
2. Demonstrate the correct procedure for completion of the Braden Scale for Predicting Pressure Ulcer Risk.
3. Identify intrinsic, extrinsic and surgical risk factors contributing to the development of pressure injuries.
4. Identify the pressure injury prevention interventions needed relating to risk assessment.
5. Know how to correctly implement pressure injury prevention interventions.
6. Know how to communicate and document patient care interventions.
7. Identify how to select, obtain and use support surfaces

Definitions

Blanching erythema: redness on the skin which, when pressed with a finger, goes away and returns to redness when the finger is lifted off of the skin. This is not an indicator of tissue damage.

Extrinsic risk factors: risk factors for the development of pressure injuries found within the patient's environment, such a bed surface, constrictive clothing or medical devices, poor hygiene, medications, restraint use etc.

Intrinsic risk factors: risk factors for the development of pressure injuries found within the patient's health history, such as extremes of age, posture/contractures, acute illness, high body mass index (BMI), 2 or more co-morbidities etc.

Non-blanching erythema: an area of redness on the skin whereby the skin does not turn white when pressure is applied with a finger for a couple of seconds. 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. This is the first indicator of skin breakdown.

Pressure injury: a pressure injury is localized damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open wound and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear.

Pressure redistribution: the ability of the support surface (mattress) to distribute load over the contact areas of the human body.

Specialty Support Surface (SSS): a device designed to redistribute pressure in the management of tissue strain relief and prevention of pressure related skin complications. SSSs may include additional therapeutic functions such as: preventing or reducing shearing, friction and moisture.

Surgical risk factors: risk factors for the development of pressure injuries generated by the surgical experience, such as length of surgery, position during surgery, pooled moisture from prep/irrigants, vasoactive medications, anesthetic agents, positioning devices etc.

Pressure Injuries

The skin is the largest organ in the human body and is vital to a person's health and wellbeing. The skin of the average adult covers approximately $2m^2$ and weighs about 6lbs or up to 15% of total adult body weight. The skin forms a protective barrier against the external environment while maintaining a homeostatic internal environment.

In acute care settings, most pressure injuries develop within the first 2 weeks of admission. Given the right circumstances a pressure injury can develop in less than 30 minutes.

Preventing and treating pressure injuries includes:

- Identification of individuals at risk so that interventions may be implemented to reduce the risk factors.
- Determining the patient's level of risk is through a combination of clinical judgment and the use of a reliable risk assessment tool (Braden/Braden Q).
- Formulating a patient centered care plan based on identified intrinsic and extrinsic factors as well as those identified by the risk assessment tool (Braden/Braden Q).
- Early implementation of appropriate strategies for maintaining intact skin and preventing complications.
- Prompt identification or management of complications.

Common sites for pressure injuries include:

- occiput
- ears
- sacrum
- coccyx
- ischial tuberosities (buttocks "sitting bones")
- femoral trochanters (hips)
- knees
- ankles
- heels
- shoulders and scapulae
- iliac crests
- lateral and medial malleoli (ankles)
- ears

Over 50% of pressure injuries occur in the pelvic region.

Pressure Injury Risk Assessment and Prevention

A plan of care for preventing pressure injuries is composed of three parts:

1. Skin assessment
2. Pressure injury risk assessment
3. Pressure injury prevention interventions

Pressure Injury Risk Assessment

A pressure injury risk assessment is to be performed upon admission to Kingston Health Sciences Centre (KHSC) and repeated daily or every shift for the critical care patient, and when there is a change in the patient's condition.

Adult Population

KHSC uses the Braden Scale for Predicting Pressure Sores referred to as Braden Scale for short. The Braden Scale (Appendix A) is a nursing tool used to determine the level of risk by assessing individual risk factors. The Braden Scale is intended for use on patients 8 years and older. The Braden Scale assesses pressure injury risk using these subscales:

- Sensory Perception – ability to respond meaningfully to pressure related discomfort
- Moisture – degree to which skin is exposed to moisture
- Activity – degree of physical activity
- Mobility – ability to change and control body position
- Nutrition – usual food intake
- Friction – occurs when two surfaces move across each other, and often results in the removal of superficial layers of skin
- Shear – mechanical force that acts on an area of skin in a direction parallel to the body's surface; in other words, the skeleton slides while the skin remains stationary.

The Braden Scale provides a framework for re-assessment as the patient's condition changes and for the development of the plan of care relating to pressure injury prevention. The Braden Scale is useful as an aid in beginning to structure assessments of patient conditions.

Pediatric Population

KHSC uses the Braden Q Scale for Predicting Pediatric Pressure Sore Risk (Appendix B), Braden Q for short. The Braden Q is a nursing tool used to assess the level of risk of developing a pressure ulcer in the pediatric population. The scale is designed to be used for children 21 days (3 weeks) old to 8 years of age. Infants and young children in diapers are at risk for skin breakdown. The risk assessment should also take into consideration the child's age and developmental level. The Braden Q scale assesses pressure injury risk using these subscales:

- Mobility – the ability to change and control body position
- Activity – the degree of physical activity
- Sensory perception – ability to respond in a developmentally appropriate way to pressure-related discomfort
- Moisture – degree to which skin is exposed to moisture)
- Friction/shear – when skin moves against support surfaces/occurs when skin and adjacent bony surface slide across one another
- Nutrition – usual food intake pattern)
- Tissue perfusion and oxygenation

How to complete the Braden Scale or Braden Q

1. Obtain the Braden/Braden Q risk assessment tool appropriate for the patient's age (Refer to Appendix A for the Braden Scale or Appendix B for the Braden Q).
2. Perform the risk assessment of each of the subscales.
3. Select the value for each category that best describes the patient's current condition.
   a. If the score is less than the highest available per category, the patient has a deficit and is said to be at risk for pressure injury development.
   b. Follow-up interventions are actioned by the Registered Health Care Provider (RHCP) who completed the assessment. Interventions must address the identified risk for any assessment score that is less than the maximum possible achievable score.
   c. Communicate the plan of care on the Interprofessional Patient Profile (Kardex) for each category with an identified risk.

Braden Scale Score: (circle **one** for each section)			
Sensory perception 1 2 3 4	Moisture 1 2 3 4	Activity 1 2 3 4	Time _____(hhmm)
Mobility 1 2 3 4	Nutrition 1 2 3 4	Friction & Shear 1 2 3	Initials _____
Action is required for any assessment score that is less than the maximum achievable score. **Communicate/update** risk reduction strategies on Interprofessional Patient Profile. **Implement and document** interventions in the Clinical Flowsheet			

Clinical judgment plays a vital role in identifying patients who may be at risk for developing a pressure injury. Intrinsic, extrinsic and surgical risk factors should also be considered.

Additional Risk Factors

To fully determine a patient's level of risk for developing a pressure injury, nurses must combine the information gained from completing the Braden Scale/Braden Q with clinical judgment and take other risk factors into consideration: intrinsic, extrinsic and surgical risk factors.

Intrinsic Risk Factors

Intrinsic risk factors are those risk factors derived from the patient's health history. Intrinsic factors may include but are not limited to:

- posture/contractures
- extremes of age
- vascular disease
- impaired perfusion
- acute illness, sepsis
- history of previous pressure injuries
- level of consciousness
- nutrition status (malnutrition and dehydration)
- pain
- 2 or more co-morbidities: i.e. spinal cord injury, high Body Mass Index (BMI), severe chronic or terminal illness, incontinence.
- Medications that thin the skin

Extrinsic Risk Factors

Extrinsic risk factors are those risk factors that are found in the patient's environment. Extrinsic risk factors may include but are not limited to:

- poor hygiene
- medications
- undesirable living conditions
- pressure/friction/shear
- constrictive clothing/garments
- transfer sling
- inappropriate use of support surface
- restraint use

Surgical Risk Factors

Surgical risk factors are those risk factors that are directly related to the surgical experience. Patients in critical care areas may also be subject to some of these risk factors. Surgical risk factors include but are not limited to:

- length of surgery
- position during surgery
- positioning devices
- anesthetic agents/sedation
- vasoactive medications
- pooled moisture from prep/irrigant solution
- retractors
- hemodynamic status
- warming devices

Skin Assessment

A comprehensive head to toe skin assessment is performed on admission and every shift; documenting any wounds or changes to the skin along with their characteristics during this time. Inspection of the patient's skin and bony prominences should occur at least daily. Factors, such as, chronic moisture from fecal and urinary incontinence, shear, friction, immobility, loss of sensory perception, contractures, level of activity, advanced age, smoking, and poor nutrition can contribute to pressure injury formation.

A comprehensive skin assessment requires both visual and tactile inspection. Look for changes in colour, temperature and sensation. While performing a skin assessment consider the following as applicable:

- Devices, shoes, socks, antiembolic stockings, and heel and elbow protectors and restrictive clothing, etc.
- All bony prominences, including back of the head, shoulders, rib cage, elbows, hips, ischium, sacrum, coccyx, knees, ankles, and heels, should be inspected.
- Skin around and beneath orthopedic devices (cervical collar, braces, or cast) as well as other equipment and devices including restraints should be assessed.
- Areas where pressure, friction and shear are exerted during activities of daily living should be assessed.
- Any abrasions or warmth in areas where devices may rub against the skin should be noted.

Inspect for skin discolouration (redness, purplish or bluish) and tissue consistency (firm or boggy feel), and palpate for abnormal sensations.

Palpate reddened or discoloured areas with a gloved finger to determine if the erythema (redness) blanches. If the area does not blanch, this is the first indicator of tissue damage.

Assess the patient for additional areas of potential pressure (including but not limited to):

- Nares: nasogastric (NG) tube, oxygen cannula
- Tongue and lips: oral airway, endotracheal tube
- Ears: oxygen cannula, pillow
- Drainage tubes
- Wound drainage
- Skin folds
- Indwelling urinary drainage catheter
- Under orthopedic and positioning devices
- Thromboembolic stockings

Observe the patient for preferred positions when in a bed or chair and assess the bony prominences involved for potential breakdown risk. Observe the patient's ability to initiate and assist with position changes and provide support for position changes accordingly.

On medical, surgical, pediatric and mental health units the comprehensive skin assessment is documented on the Clinical Flowsheet in the Standardized Systems Assessment section under Integumentary System.

Integumentary System **See ALSO Braden Score Page 3** Skin clear and intact	

A check mark in this box indicates that a comprehensive head to toe skin assessment was completed (i.e. all areas of skin were assessed) and no areas of skin breakdown were detected. Additional information (+) or areas of concern are noted (*) the symbol is documented in the box and an Interprofessional Progress Note is completed to elaborate on the findings.

In critical care areas the comprehensive skin assessment is documented on the Clinical Flowsheet Assessment. Additional information is documented in the Interprofessional Progress Notes.

In the emergency department the comprehensive skin assessment is completed on admitted patients or patients whose stay has exceeded 24 hours. This skin assessment is documented in the Care Notes section of the Emergency Department Information System (EDIS).

Pressure Injury Prevention Plan of Care

Pressure injury prevention is performed simultaneously with nursing care. Formulation of a plan of care to prevent pressure injury development is based on the information gained from completing the Braden Scale/Braden Q and consideration of other identified intrinsic, extrinsic, and surgical risk factors.

Patients may be considered at risk for pressure injury development despite a perfect score in all six/seven categories of the Braden Scale/Braden Q when other risk factors are present. Identify any patient characteristics that may be risk factors for pressure injury development and document these in the Interprofessional Progress Notes and consider these when developing a care plan for the patient.

Developing a Pressure Injury Prevention Care Plan

After completion of the skin assessment, the Braden Scale/Braden Q and consideration of additional risk factors the pressure injury prevention care plan must be developed.

When completing the Braden/Braden Q, if the score is less than the highest available per category, the patient has a deficit and is said to be at risk for pressure injury development.

Follow-up interventions are actioned by the RHCP who completed the assessment to address the identified risk for any assessment score that is less than the maximum possible achievable score.

A sample pressure injury care plan is available on the IPP (Kardex) and it outlines sample interventions for each Braden subscale. This care plan is to be completed for every patient and updated as needed.

SKIN/WOUND
Risk Reduction Strategies as Appropriate to Braden Score

Sensory Perception	Moisture	Activity
☐ Assess boney prominences q shift ☐ Use positioning devices (e.g. pillows)	☐ q _____ toileting/peri care ☐ q ____ skin cleanse and barrier cream ☐ Use breathable absorbent pads/briefs (no plastic backed pads) ☐ Use urinary/fecal containment device	☐ Consult OT ☐ Maximum 2 hours in chair without repositioning ☐ Consult PT ☐ Provide structured mobility plan
Mobility	**Nutrition**	**Friction/Shear**
☐ Turn/reposition q2h & prn ☐ Use 30° side-lying position ☐ Elevate legs with pillows or other devices to suspend heels	☐ Consistent documentation of percent meal consumed ☐ Consult dietitian prn ☐ Feed proteins first	☐ Use lift/transfer devices ☐ Keep HOB less than 30° (unless contraindicated) ☐ Use repositioning sheets ☐ Vaseline/petroleum jelly to moisturize heels/elbows

For individuals at risk, the plan of care should include a turning schedule, maximum remobilization, heel protection, the management of moisture, nutrition, friction and shear as well as the use of pressure-reduction support surfaces if bed or chair-bound.

Positioning

A positioning schedule is one of the most important interventions for pressure injury prevention. Determine position changes for the patient based on, but not limited to, these factors:

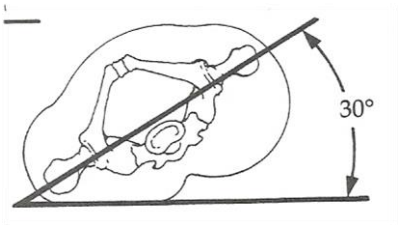
- Frequency
- Tissue tolerance
- Level of activity and mobility
- General medical condition
- Skin condition
- Comfort
- Overall treatment objectives

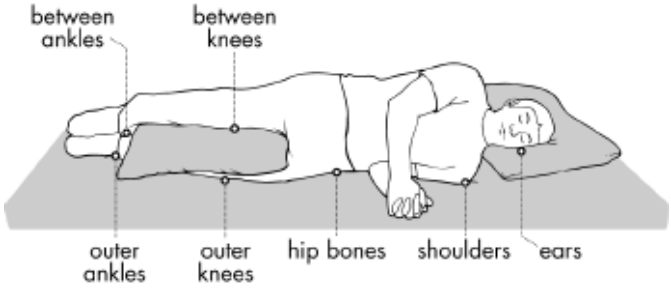
Change positions every 2 hours, unless contraindicated by the patient's medical condition, using positioning and lifting/transfer devices. Always remove transfer devices from under the patient after use. Avoid positioning the patient on an area of skin discolouration whenever possible. Skin discolouration indicates that the body has not recovered from the previous pressure force and requires further relief from repeated pressure force.

When repositioning the patient, observe for skin discolouration in any area that was under pressure when changing the patient's position. Palpate any area of discolouration or mottling that was under pressure. Assess whether the involved area blanches with palpation or remains discoloured or red. Areas of non-blanchable erythema or discoloured areas may indicate that deeper tissue damage is present. Do not massage reddened areas; massage in this area may worsen the inflammation by further damaging underlying blood vessels.

Positioning a Patient in Bed

Position the lateral patient in a 30-degree lateral position, with pillow placement under the patient's shoulder and one pillow under the leg on the same side to provide pressure relief for the sacrum and the trochanter. Using a 30° lateral side-lying position avoids pressure directly on sacral and trochanteric bony prominences.





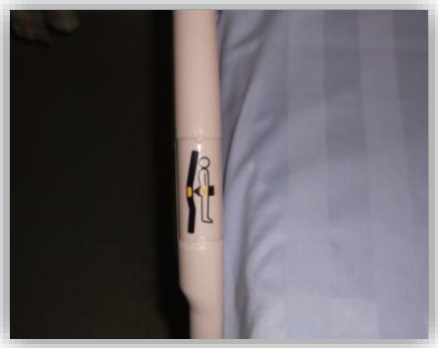
Position the supine patient to protect their shoulders, trochanter, and malleolus.

Pillows help to maintain proper patient position and can provide cushion to high-risk areas.

Position patients with the head of the bed at a 30^{o} angle or less if the patient's medical condition allows it. This prevents shearing forces as the patient's body slides down the bed.

Ensure proper hip alignment to reduce friction and shearing forces. Many beds at KHSC have an indicator on the side rail to assist with proper patient positioning.

Aligning the patient's hips with this indicator ensures proper patient positioning when the head of the bed is raised and can help to prevent the patient from sliding down in the bed.



When the patient is "boosted" above this mark they will slide back down. Sliding down in bed causes shearing forces. Shear causes blood vessels to bend and stretch which impairs blood flow to the tissue, resulting in ischemic tissue damage. Shear doubles the effects of pressure on the skin.

The majority of shear injuries can be eliminated with proper positioning, as most shearing occurs when individuals slide down, or are dragged up in bed.

Use minimal linens between the patient and the support surface (mattress). Every layer of linen/absorbent pads placed between the patient and the support surface decreases the effectiveness of the support surface. It is a misconception that multiple layers of linens will be more effective in containing moisture and will provide greater patient comfort. When in fact, adding layers of linens under the patient may inhibit the surface's ability to redistribute pressure and maintain an optimal skin microclimate. Six layers of linen/absorbent pads (including briefs) can decrease the effectiveness of powered air surface to the same as a standard foam surface. Ask yourself: are you adding extra layers of linen to benefit the patient, or to protect the mattress?

Positioning a Sitting Patient

The ideal seating position includes a chair that is slightly tilted back with foot support (feet should not be left dangling), and arm rests. Optimal seating position is achieved in a chair not in a bed.

- Limit the time the patient spends seated in a chair or wheelchair *without* pressure reducing surface to 1 hour or less.
- If sitting in a chair is necessary for individuals who are high risk for pressure injuries or who have existing pressure injuries on the sacrum, coccyx, or ischia, sitting should be limited to a maximum of three times per day for no more than 2 consecutive hours and have an appropriate seating surface.
- Chair bound patients, who are able, should be taught to make slight changes in their position every 15 minutes.

Mobilization

Optimizing a patient's mobility status can have positive impacts on all areas of their recovery while in hospital in addition to the prevention of pressure injuries.

Physical Therapist (PT) and Occupational Therapist (OT) have unique training and skills to minimize patient risk for pressure injuries such as specialization in biomechanics, exercise program development, equipment prescription and positioning.

Rehabilitation to maximize range of motion, strength and mobility reduces patient risk for tissue damage. In addition, stretching and positioning devices can decrease muscle spasms to reduce friction and shear.

Institution of a rehabilitation program across all spectrums of care will increase a client's functional mobility, ensure safe and proper use of equipment, and allow for ongoing education to clients and caregivers to achieve their goals of care.

Pressure Redistribution Equipment

You may consider using a pressure-redistribution bed surface. KHSC has a Specialty Support Surface (SSS) Clinical Policy, S-2000. This addresses criteria that must be met for a SSS and outlines the process for getting one of these surfaces for the patient. The use of a SSS is not a substitute for routine mobilization and repositioning.

A referral to an OT may also be considered for seating assessment for those patients who are able to be sitting up in a bedside chair or wheelchair.

Nutrition

Patients may benefit from additional fluids if dehydration risks are present. This would include (but not limited to) elevated temperature, vomiting, profuse sweating, diarrhea or the presence of heavily draining wounds.

Patients who tire easily or who need to be assisted with meals should be encouraged to consume the protein portion of their meal first.

Dietitian referrals may be beneficial in establishing optimal diets and supplements required to meet the patients caloric and protein requirements. Wound healing may necessitate an increase in proteins and calories.

Moisture Management

Skin should be kept as clean and dry as possible. Use of dressings such as antimicrobial textiles can assist in wicking moisture from skin folds such as pannus and breasts. Skin barrier creams can be used in high moisture areas.

Five-layer polyurethane foam dressings have demonstrated effectiveness in reducing the amount of friction and shear that is applied to the skin, therefore these dressings are an option as part of an overall pressure injury prevention plan of care. However, these dressings do not reduce the amount of pressure that is applied to the skin. It is a common misconception that applying these dressings can help to reduce pressure, as a result, these dressings are not commonly used as a prevention strategy at KHSC and a turning regime and other interventions are favored.

Medical Device Prevention

Avoid positioning the patient directly onto medical devices such as tubes and drains. Avoid leaving the patient on a bedpan for more than a few minutes.

Continuing Care Monitoring and Care

Pressure injury prevention is performed concurrently with other nursing care and is an ongoing intervention for the duration of the patients stay.

Continue to observe the patient’s skin for areas at risk for change in colour or texture. Observe the patient’s tolerance of position changes. Remember to compare subsequent risk assessment scores and reconsider interventions as the patient changes. Monitor the patient for signs and symptoms of dehydration,

including change in weight, skin turgor, urine output, or elevated serum sodium. Assess, treat, and reassess pain.

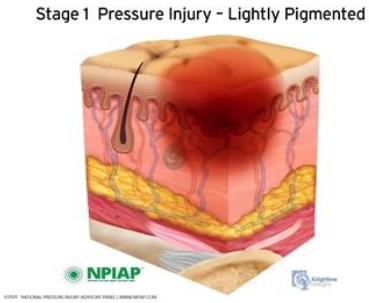
Unexpected Outcomes: Pressure Injury Development

Skin becomes mottled, reddened, purplish, or bluish. Areas under pressure develop persistent discolouration, induration, or temperature changes. Skin breakdown and/or pressure injury develops.

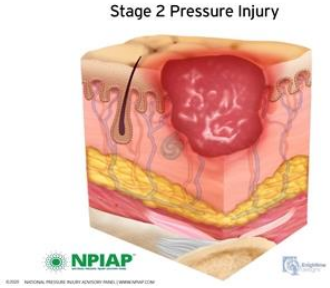
The NPUAP has developed a method of staging/categorizing pressure ulcers, to classify the amount of tissue damage. These stages should not be used to describe moisture associated skin damage (MASD) including incontinence associated dermatitis (IAD), intertriginous dermatitis (ITD), medical adhesive related skin injury (MARSI), or traumatic wounds (skin tears, burns, abrasions).

While pressure injuries are referred to as stages the wound does not need to progress through the stages and with appropriate care and intervention progress can be halted at any stage.

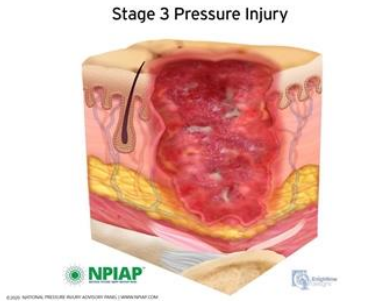
Stage 1 Pressure Injury
Intact skin with a localized area of non-blanchable erythema, which may appear differently in darkly pigmented skin. Presence of blanchable erythema or changes in sensation, temperature, or firmness may precede visual changes.



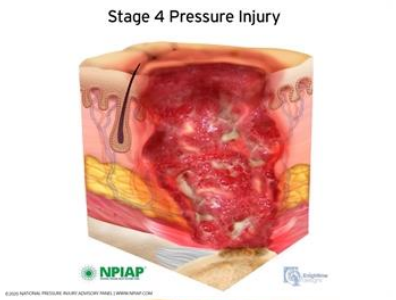
Stage 2 Pressure Injury
Partial-thickness loss of skin with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister. Adipose (fat) is not visible and deeper tissues are not visible. Granulation tissue, slough and eschar are not present.



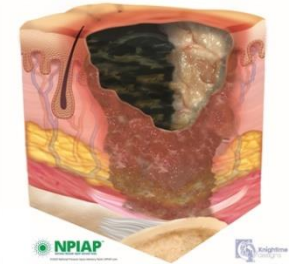
Stage 3 Pressure Injury
Full-thickness loss of skin, in which adipose (fat) is visible in the ulcer and granulation tissue and epibole (rolled wound edges) are often present. Slough and/or eschar may be visible. The depth of tissue damage varies by anatomical location; areas of significant adiposity can develop deep wounds. Undermining and tunneling may occur.



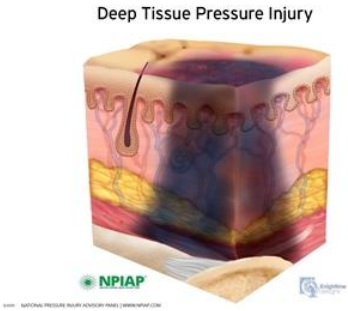
Stage 4 Pressure Injury
Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone in the ulcer. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location.



Unstageable Pressure Injury
Obscured 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.



Deep Tissue Pressure Injury
Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discolouration or epidermal separation revealing a dark wound bed or blood filled blister. Pain and temperature change often precede skin colour changes. Discolouration may appear differently in darkly pigmented skin. The wound may evolve rapidly to reveal the actual extent of tissue injury, or may resolve without tissue loss.



Should any of the above occur, initiate nursing interventions appropriate for these findings, report findings to the attending physician team and consult the Nurse Specialized in Wound Ostomy and Continence (NSWOC) and appropriate allied health.

Do not massage any red or discoloured pressure points. Areas of non-blanchable erythema or discoloured areas may indicate that deeper tissue damage is present. Massage in this area may worsen the inflammation by further damaging underlying blood vessels.

The pressure injury plan of care needs to be reevaluated with the development or worsening pressure injury. Pressure injury prevention initiatives described previously need to be continued with the addition of appropriate wound care.

Reporting and Documentation

1. Document on the unit specific Clinical Flowsheet:
   - All daily sub-scores in the Mandatory Daily Risk Assessment: Braden Scale or Braden Q
   - Skin assessment findings in the Clinical Flowsheet and if abnormal, then more details should be provided in the Interprofessional Progress Notes

2. Document on the Activities of Daily Living sections of the Clinical Flowsheet and/or in the Interprofessional Progress Notes:
   - All interventions implemented
   - Evaluation including the patient's response to the interventions.

3. Document on the Wound Assessment and Treatment Flowsheet each wound on a patient. It will be completed once per shift when the wound is visible (example dressing change occurs). Refer to Appendix C.

4. Communicate/update the plan of care on the IPP (Kardex):
   - The plan of care
   - Patient's risk score and skin assessment
   - Any skin changes
   - Use of pressure-redistribution devices

5. When giving report at transfer of care (to another unit or facility or to another nurse at shift change) remember to include skin related information.

   Information to include in report:

   - Skin status and presence of any wounds
   - Level of risk for pressure ulcer development
   - Current prevention strategies in place
   - Current treatment plan for existing wounds

6. A SAFE Report is to be completed for all pressure ulcers that develop on patients while at KHSC. Data from SAFE Reports can be analyzed on different patient populations with pressure injuries to determine why patients at KHSC are developing pressure ulcers. This information will assist in the development of KHSC specific protocols for pressure ulcer prevention and treatment. It is important to note that SAFE Report is not a disciplinary tool but rather a learning tool to assist the development of strategies that support quality patient care.

Patient/Caregiver Teaching and Discharge Planning

- Provide information about treatment and wound-healing expectations.
- Assist the patient and family with understanding the multiple factors involved in preventing pressure injuries.
- Explain and demonstrate positioning options to achieve pressure redistribution.
- Explain the purpose and maintenance of pressure-redistribution devices.
- Encourage questions and answer them as they arise.
- Liaise with Local health Integration Network (LHIN) for continued wound-healing support in the community as needed.

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Kingston Health Sciences Center Policy SAWM 7-675: Pressure Injury Risk Assessment and Prevention

Appendix A: Braden Scale for Prediction of Pressure Ulcer Risk

Patient's Name_____ Evaluator's Name_____ Date of Assessment

SENSORY PERCEPTION ability to respond meaning-fully 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.	**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 the 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 .Very 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 non-existent. 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 room at least twice a day and inside room at least once every two 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 Limitation** Makes major and frequent changes in position without assistance.				
NUTRITION usual food intake pattern	**1. Very Poor** Never eats a complete meal. Rarely eats more than ⅓ of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR is NPO and/or maintained on clear liquids or IV's 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 incudes 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 products) per day. Occasionally will refuse a meal, but will usually take a supplement when offered OR is on a tube feeding or TPN 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 & 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.					
				Total Score				

Appendix B: Braden Q Scale for Prediction of Pediatric Pressure Ulcer Risk

The Braden Q Scale					
Intensity and Duration of Pressure					**Score**
Mobility The 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 completely turn self 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.	
Activity The degree of physical activity	**1. Bedfast:** Confined to bed	**2. Chair fast**: Ability to walk severely limited or nonexistent. Cannot bear own weight and/or must be assisted in to 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. All patients too young to ambulate OR walks frequently:** Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.	
Sensory Perception The ability to respond in a **developmentally** appropriate way 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 sensory impairment which limits the ability to feel pain or discomfort over half 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 limits ability to feel or communicate pain or discomfort.	
Tolerance of the Skin and Supporting Structure					
Moisture Degree to which skin is exposed to moisture	**1. Constantly Moist:** Skin is kept moist almost constantly by perspiration, urine, drainage, etc. Dampness is detected every time patient is moved or turned.	**2. Very Moist:** Skin is often, but not always moist. Linen must be changed at least every 8 hours.	**3. Occasionally Moist:** Skin is occasionally moist, requiring linen change every 12 hours.	**4. Rarely Moist:** Skin is usually dry, routine diaper changes, linen only requires changing every 24 hours.	
Friction - Shear ***Friction:*** occurs when skin moves against support surfaces ***Shear***: occurs when skin and adjacent bony surface slide across one another	**1. Significant Problem**: Spasticity, contracture, itching or agitation leads to almost constant thrashing and friction.	**2. 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.	**3. 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 relative good position in chair or bed most of the time but occasionally slides down.	**4. No Apparent Problem:** Able to completely lift patient during a position change; 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.	
Nutrition ***Usual*** food intake pattern	**1. Very Poor**: NPO and/or maintained on clear liquids, or IVs for more than 5 days **OR** Albumin <2.5 mg/dl **OR** Never eats a complete meal. Rarely eats more than half of any food offered. Protein intake includes only 2 servings of meat or dairy products per day. Takes fluids poorly. Does not take a liquid dietary supplement.	**2. Inadequate:** Is on liquid diet or tube feedings/TPN which provide inadequate calories and minerals for age **OR** Albumin <3 mg/dl **OR** rarely eats a complete meal and generally eats only about half of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement.	**3. Adequate:** Is on tube feedings or TPN, which provide adequate calories and minerals for age **OR** eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered.	**4. Excellent:** Is on a normal diet providing adequate calories for age. For example: eats/drinks most of every meal/feeding. 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.	
Tissue Perfusion and Oxygenation	**1. Extremely Compromised:** Hypotensive (MAP <50mmHg; <40 in a newborn) **OR** the patient does not physiologically tolerate position changes.	**2. Compromised:** Normotensive; Oxygen saturation may be <95 % **OR** hemoglobin may be < 10 mg/dl **OR** capillary refill may be > 2 seconds; Serum pH is < 7.40.	**3. Adequate:** Normotensive; Oxygen saturation may be <95 % **OR** hemoglobin may be < 10 mg/dl **OR** capillary refill may be > 2 seconds; Serum pH is normal.	**4. Excellent:** Normotensive, Oxygen saturation >95%; Normal Hemoglobin ; & Capillary refill < 2 seconds.	
				Total:	

From Quigley and Curley (1996).

Appendix C

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Hôtel-Dieu Hospital

KGH Hôpital Général de Kingston General Hospital

Patient Identification Label

WOUND ASSESSMENT & TREATMENT FLOWSHEET

Fill out ONE form per wound

This form is to be used when documenting a wound assessment. The purpose is to highlight trends in wound healing and identify any signs of infection and / or wound deterioration.

Wound Location:												
Type: ☐ Pressure Injury ☐ Skin Tear ☐ Surgical ☐ Unknown ☐ Other _____												
Legend ✓= Completed / Present / Assessed ✱= See Interprofessional Progress Notes	(yyyy/mm) **Year / Month**	**Day** (dd)										
		Time (hhmm)										
Pressure Injury Stage (If Applicable) **S1, S2, S3, S4** = Stage 1-4 **X** = Unstageable **DTI** = Deep Tissue Injury **NOTE:** Pressure Injuries are not back staged (e.g. S3 doesn't become S2)												
Wound Measurements	**Length** (cm)											
	Width (cm)											
	Depth (cm)											
	Tunnelling / Undermining (✱)											
Wound Bed **NOTE:** Not required for wounds with no visible wound bed (e.g. S1 pressure injury)	**Pink/Red** (e.g. clean, red / pink tissue, moist, healthy) %											
	Slough (wet, stringy, adherent, yellow / brown tissue) %											
	Eschar (dry, black) %											
	Foreign body (e.g. sutures, mesh, hardware) (✱)											
	Underlying structure (e.g. muscle, bone, adipose) (✱)											
Exudate Amount	**None** (✓)											
	Scant/small (✓)											
	Moderate (✓)											
	Large/copious (✓)											
Exudate Type (✓) all that apply	**Serous** (✓)											
	Serous Sanguineous (✓)											
	Sanguineous (✓)											
	Purulent (✓)											
	Other (✱)											
Odour	**Odour present after cleansing** (Yes or No)											
Peri-Wound Skin (Around Wound) (✓) all that apply	**Intact** (✓)											
	Erythema (reddened) (✓)											
	Indurated (firmness around wound) (✓)											
	Macerated (white, waterlogged) (✓)											
	Denuded (superficial loss of tissue) (✓)											
	Callused (✓)											
	Fragile (✓)											
New Sign of Infection / Wound Deterioration. Prescriber Notified (✓)												
Dressing Change Completed (If Applicable) (✱)												
Initials												

Kingston Health Sciences Centre
Centre des sciences de la santé de Kingston

Hôtel-Dieu Hospital

KGH Hôpital Général de Kingston General Hospital

Patient Identification Label

WOUND ASSESSMENT & TREATMENT FLOWSHEET

Nurses Specialized in Wound Ostomy and Continence (NSWOC) Section to be completed by NSWOC RN													
☐ NSWOC RN following patient Date of Initial Assessment (yyyy/mm/dd) _____ Date of Signoff (if applicable) (yyyy/mm/dd) _____													
	(yyyy/mm) Year / Month	Day (dd) Time (hhmm)											
Wound Edge (✓) all that apply	Attached	(✓)											
	Non-Attached	(✓)											
	Rolled	(✓)											
	Epithelialization	(✓)											
Wound Photography Completed		(✱)											
		Initials											

Printed Name	Signature	Designation	Initials