This Policy applies at ALL sites.

Title:	**Risk Assessment, Prevention and Management of Pressure Injuries in the Adult Population**		
Manual:	Clinical		
Section:	Wound Care		
Approval Body:	SLT Final – COO, CNE, EVP		
Original Effective Date: *(mm/dd/yyyy)*	June/2012	**Reviewed Date:** *(mm/dd/yyyy)*	October/2016
Revised Date: *(month/yyyy)*	October/2016 February/2021	**Next Revision Date:** *(month/yyyy)*	February/2024
Cross References:	Patient Care Assistant (PCA) Policy		
Key Words:	pressure injury prevention, Braden scale, wound assessment, pressure injury prevention protocol, pressure injury management protocol, pressure ulcer		
Developed by: *(Title)*	**Wound Skin and Ostomy Specialist**	**Owner:** *(Title)*	**Program Director, CKD & Medicine**

POLICY:

Skin integrity risk assessment and prevention of pressure injuries is an interprofessional processes and each discipline within their scope of practice is responsible for contributing to the individualized plan of care of the patient as per roles and responsibilities outlined in Appendix A.

DEFINITION(S):

Pressure Injury: 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 injury 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.

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Stage 1: Intact skin with a localized area of non-blancheable erythema, which may appear differently in darkly pigmented skin. Presence of blancheable erythema or changes in sensation, temperature, or firmness may precede visual changes. Color changes do not include purple or maroon discoloration; these may indicate deep tissue pressure injury.

Stage 2: 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. These injuries commonly result from adverse microclimate and shear in the skin over the pelvis and shear in the heel. This stage 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).

Stage 3: Full-thickness loss of skin, in which adipose(fat) is visible in the injury 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. Fascia, muscle, tendon, ligament, cartilage and/or bone are not exposed. If slough or eschar obscures the extent of tissue loss this is an Unstageable Pressure Injury.

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

Unstageable: Full thickness tissue loss in which actual depth of the injury is completely obscured by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed. Until enough slough and/or eschar are removed to expose the base of the wound, the true depth cannot be determined.

Deep Tissue Pressure Injury: Intact or non-intact skin with localized area of persistent non-blancheable 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. Discolouration 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.

This Policy applies at ALL sites.

Medical Device Related Pressure Injury: Medical device related pressure injuries result from the use of devices designed and applied for diagnostic or therapeutic purposes. The resultant pressure injury generally conforms to the pattern or shape of the device. The injury should be staged using the staging system.

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. Due to the anatomy of the tissue these injuries cannot be staged.

PROCEDURE:

Assessment:

1. Primary nurse to complete and document Risk Assessment as per protocol below. Patients with the Braden Scale scoring (Appendix B) of 18 or less are considered at risk for pressure injury development
    a. Score of 15 -18 at risk
    b. Score of 13-14 moderate risk
    c. Score of 10-12 high risk
    d. Score of ≤ 9 very high risk

Risk Assessment (Braden)		
Area	Initial	Re-assessment
Acute Care *(except for Mental Health and Obstetrics*)	Within 24 hrs. of admission	• Daily (every 24 hrs) • Upon change in condition • Upon transfer
Mental Health	Within 24 hrs. of admission	• Daily • Upon change in condition • Upon transfer
Obstetrics	Within 24 hrs. of admission	• Daily • Upon change in condition • Upon transfer
Pediatrics/NICU Braden Scale Q (if age is	Within 24 hrs. of admission	• Daily • Upon change in condition • Upon transfer

This Policy applies at ALL sites.

greater than 3 weeks)		
Continuing Care Program	Within 24 hrs. of admission	• Daily • Upon change in condition • Upon transfer
Intensive Care Unit and Coronary Care Unit	Within 12 hrs. of admission	• Daily (every 24 hrs)

2. All pressure injuries will be documented within 24 hours of admission.

3. Primary nurse to complete and document a head-to-toe skin assessment every shift for all admitted patients that includes skin under medical devices, fingernails, toenails, feet, and all bony prominences.

4. Primary nurse to communicate and document patient risk and individualized interventions daily on the I-Pass and in the patient's health record.

5. If issues persist despite individualized interventions (i.e. lack of improvement, wound deterioration, infection), consult Wound, Skin, and Ostomy Specialist

6. Patients weighing more than 135 kg and having mobility issues should have a bariatric bed ordered immediately by calling central equipment.

7. All pressure injuries developed during the hospital admission shall be reported through the electronic incident reporting system (RL Safety Reporting) immediately upon discovery.

8. All facility acquired pressure injuries will be investigated by the unit manager, clinical educator and patient care coordinators with oversight of the Wound, Skin, and Ostomy specialist.

9. Primary nurse will assess all patients for the presence of pain related to the pressure injury and its treatment and report poor pain control to the patient's most responsible physician.

This Policy applies at ALL sites.

10. All identified pressure injuries will be assessed and documented according to:
    - Stage
    - Size: length by width by depth (LxWxD)
    - Location
    - Odour
    - Sinus tract/undermining (use clock to describe location and document depth). i.e. 2cm tunneling at 12 o'clock
    - Exudate (type and amount) i.e. copious purulent drainage
    - Appearance of the wound bed (granulation, slough or eschar)
    - Condition of the surrounding skin i.e. dry and intact

11. Wound measurements will be done on admission and q7 days there after.

Prevention

1. Interventions will be initiated based on the patient's individual Braden scale category as
    a. per the Mackenzie Health pressure injury prevention intervention protocols (Appendix C).

2. Patients with Braden score of less than 12, Braden mobility score 1 or 2 or those with pressure injuries should have a low air loss pressure redistribution bed ordered immediately by calling central equipment (Appendix D).

3. Skin under devices such as Oxygen tubing, Tracheostomy ties, Retention sutures, Nasogastric tubes, Oxygen saturation probes, Continuous positive airway pressure (CPAP) mask, Bedpan, Splints, Endotracheal (ET) tubes and Casts as these can cause significant skin breakdown and pain will be assessed for the need of protective dressing. May use silicone type dressings.

Management of Pressure Injuries

1. Treatment of stage 1 and 2 pressure injuries shall be performed by the patient's assigned nurse as per protocol (Appendix E).

2. Assessment and treatment of stage 3, 4, unstageable and deep tissue injuries will be determined by the Wound, Skin, and Ostomy Specialist and the patient's most responsible physician and carried out by the patient's assigned primary nurse.

This Policy applies at ALL sites.

3. Other interprofessional members of the health care team will be involved and consulted accordingly (Physiotherapist (PT), Occupational therapist (OT) , Dietitian, Wound, Skin, and Ostomy Specialist, Plastics, Infectious Diseases, etc.) (Appendix A).

4. All members of the health care team are accountable to document the effectiveness of the strategies to prevent and manage pressure injuries: ongoing assessment, documentation updates, evaluation of different strategies, modifications necessary to the patients' individualized plan of care in the interdisciplinary progress notes.

5. All members of the health care team shall provide patient and family education regarding pain and discomfort, possible outcomes, duration of the treatment, importance of adherence to the treatment plan, importance of ambulation and mobility, positioning and prevention techniques (Appendix A).

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APPENDICES:

APPENDIX A:

Team Members	Roles and Responsibilities
Wound, Skin, and Ostomy Specialist	• Leads and coordinates the Mackenzie Health skin and wound program • Collects data, analyzes statistics, identifies trends, evaluates outcomes and presents findings to the interdisciplinary committee • Evaluates use of skin care products • Educates health care providers regarding best practices to reduce risk factors and prevent skin breakdown • Assesses and provides directions for wound management as per referral • Identifies potential underlying causative factors contributing to pressure injury development • Monitors progress and documents effectiveness of

This Policy applies at ALL sites.

Team Members	Roles and Responsibilities
	treatment
Nursing (Registered nurse and Registered practical nurse)	• Completes head to toe skin assessment and Braden score assessment as per policy • Identifies the presence of any pressure injuries on admission • Sends Methicillin-resistant Staphylococcus aureus (MRSA)/ Vancomycin-resistant enterococci (VRE) swabs of all wounds as per policy • Communicates risk and interventions to on-coming staff and personal care assistant at each shift • Initiates individualized interventions for high risk patients • Completes hourly 4P rounding (pain, positioning, personal needs and placement) as per policy • Applies interventions for minor wounds (skin tears, scratches, minor trauma, stage 1 and 2 pressure injuries) as per policy • Implements interventions as per policy and recommendations by physician and wound care nurse • Removes all dressings on admission, assesses all wounds and initiates referral to interdisciplinary team as appropriate • Monitors nutritional, fluid and protein intake • Provides patient and family education • Evaluates progress • Documents assessment, interventions and evaluation • Collaborates with personal care assistant on assessment, planning and documentation of pressure injuries • Initiates referrals to interdisciplinary team for additional consultation • Completes discharge planning forms regarding wound care • Completes SafePoint incident report for all hospital acquired pressure injuries
Wound care champion (where applicable)	• Attends monthly meetings and shares program updates with team • Creates, seeks and coordinates opportunities to promote use of best practice guidelines with front line staff and the interprofessional team • Advocates for use of best practice guidelines during huddles • Assists front line staff with care of minor wounds and stage

This Policy applies at ALL sites.

Team Members	Roles and Responsibilities
	1 and 2 pressure injuries • Escalates issues to manager, patient care coordinators, educator and wound, skin ostomy specialist. • Supports the direction for the wound and skin program • Reviews unit based metrics monthly and offering suggestions for improvement • Participates in the annual prevalence and & incidence study
Patient Care Assistant (PCA)	• **Refer to the Patient Care Assistant (PCA) Policy for PCA scope of practice** • **Under supervision of regulated care providers (RNs and RPNs):** ○ Receives report of patients pressure injury risk and individualized interventions from regulated care provider at beginning of shift ○ Follows assigned preventative measures to promote skin integrity in collaboration with and under the director of a regulated care provider ○ Reports abnormal or unusual skin conditions to regulated care providers Assists regulated care providers with patient turning and repositioning
Registered Dietitian	• Completes nutrition assessment based on level of nutrition risk as per Mackenzie Health Referral Criteria for Inpatient Nutrition Care • Orders appropriate diet and supplements per Medical Directive for Revision of Diet Orders in Adult Inpatients • Makes recommendations to physicians including: relevant lab tests, vitamin/mineral supplementation and nutrition support if indicated • Monitors nutritional status and individualized nutritional care plan as appropriate
Occupational Therapist/Physiotherapist	• Assesses and advises on positioning and seating options • Advises staff on transferring techniques to prevent shearing • Assesses and develops treatment plan for restorative/maintenance of mobility program and communicates plan to the interdisciplinary team • Participates in the discharge planning process
Physician/Nurse Practitioner (MRP)	• Assesses and monitors patients' health status for the duration of their stay • Completes orders for wound treatment as per best practice guidelines

This Policy applies at ALL sites.

Team Members	Roles and Responsibilities
	• Refers to Wound, Skin, and Ostomy Specialist for consultation • Orders or consults plastics for debridement of wounds as needed • Monitors, evaluates and documents outcome of the treatment • Communicates and provides updates to patient and family
Manager	• Oversees the program/unit objectives • Analyze outcome measures • Monitors completion of Braden scales and skin assessments on admission • Reviews incident reports and supporting Continuous Quality Improvement (CQI) • Manages performance issues
Patient care coordinators/Charge Nurse	• Reviews high risk patients and those with pressure injuries to ensure best practices are in place • Supports staff with just in time education • Monitors completion of Braden scores and skin assessments
Clinical Educator	• Supports the education process in relation to risk assessment, prevention and management of pressure injuries

This Policy applies at ALL sites.

APPENDIX B:

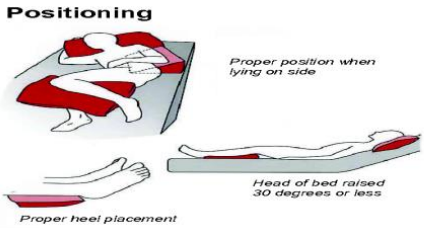
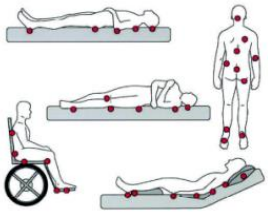
BRADEN SCALE

					SCORE
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	**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 1/2 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 1/3 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 1/2 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 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

This Policy applies at ALL sites.

APPENDIX C:

Pressure Injury Prevention Protocol Interventions are aimed at deficits identified by the Braden Scale	
Sensory Perception	
• Develop patient specific strategies to communicate need for position change • Consult with OT/SLP for communication strategies • Review medication, check for over sedation and/or pain management	
Moisture	
• Keep the skin clean and dry • Complete Bowel and Bladder assessment • Offer urinal or toileting hourly • Avoid briefs when possible • Assess brief hourly for stool and/or urine	• Wash area with incontinence product • Assess skin for new areas of breakdown • **DO NOT** massage reddened areas • Apply small amount of barrier cream Q 6-8hrs • Avoid friction and shearing to skin while washing
Activity /Mobility in chair/bed	
• Assess bony areas (pressure points) for redness and breakdown every shift when awake • Assess bed surfaces- Follow Appendix E • Protect bony areas at risk with cushions and or silicone dressings • Develop a Q 2hrs reposition schedule using 30 degree side lying position when in bed, every 1 hr. when up in chair • Offload heels at all times regardless of the type of surface • Use turning/repositioning sheets to avoid friction and sheer, order extra pillows by calling ext. 3663 • Reduce layers of padding between patient and bed (i.e. multiple soaker pads, blue pads, sheets etc.) • Assess ability to shift weight- Health teaching as appropriate • Consult OT/PT as appropriate for mobility, seating and footwear	
	
Do not use donut type cushions, IV bags, rolled blankets, towels or sheep skin pads as they contribute to pressure injury development	
Nutrition	

This Policy applies at ALL sites.

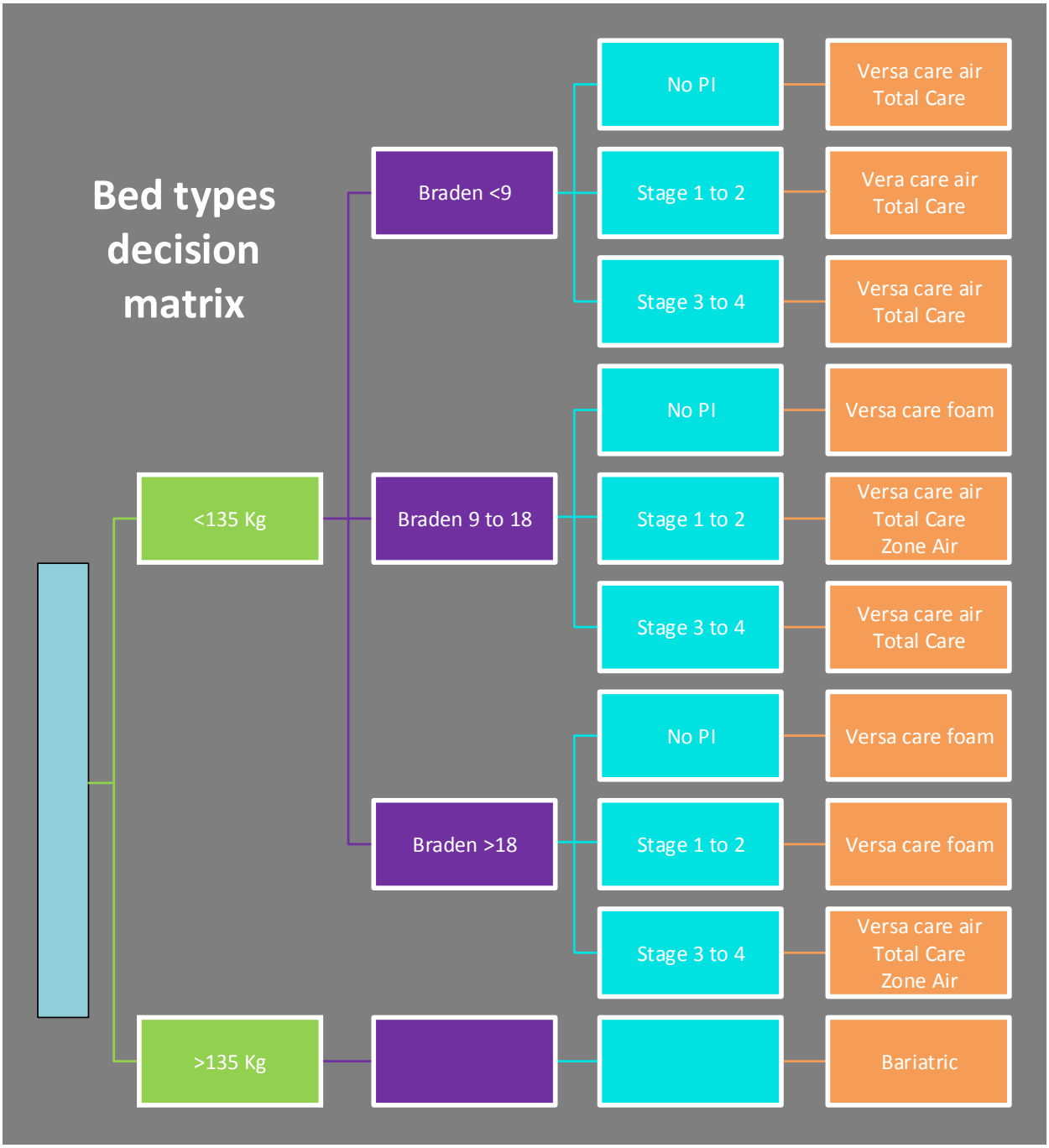
- Monitor and encourage food, fluid and nutritional intake
- Assist with meals where appropriate
- If patient has lost weight, eating less than half of meal tray , is having problems chewing or swallowing, has a Braden score of less than 16- please consult appropriately (MD, dietitian, speech language pathologist)

Friction/Shear	
• Maintain HOB less than 30 degrees while in bed unless feeding tube present • Assess the most appropriate lifting device • Consult PT/OT for assessments of transfers as appropriate	• Apply protective dressing to vulnerable areas of skin • Consult OT re seating, weight and positioning supports as necessary • Keep linen free of wrinkles and particles

Consider additional risk factors		
• Cognitive impairment • Age greater than 75 • Medical devices (splints, trachs)	• Obesity • Length of time in hospital • Pain and fractures	• Hemodynamic instability • History of pressure injuries • Major trauma/surgery

This Policy applies at ALL sites.

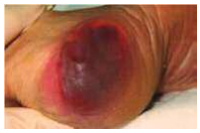
APPENDIX D:



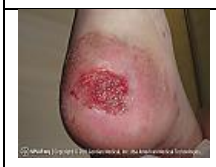
This Policy applies at ALL sites.

APPENDIX E:

Pressure Injury Management Protocol			
Prevention Assess for support surfaces Offload heels	Protect bony areas Protect from friction and sheer Assess pain	**Consults** Unit wound care champion PT/OT	Dietitian Wound, Skin, and Ostomy specialist

Type of wound	Stage	Goals of Care	Treatment	Product
	**Deep Tissue Pressure Injury (DTPI)**	Cover and protect Offload pressure	DO NOT MASSAGE - May apply barrier wipe - May leave open to air unless draining - May apply transparent film or silicone dressing - Change dressing Q5-7 days - Offload pressure	  
	**1**	Protect and Offload pressure Avoid friction and shear	DO NOT MASSAGE - May apply barrier wipe - May apply transparent film or silicone dressing - Change dressing Q5-7 days - Offload pressure	  
	**2**	Cover Protect Offload	- Cleanse with N/S - Cover with transparent film or silicone	

This Policy applies at ALL sites.

		Maintain moisture barrier/balance	dressing - Change dressing every 5-7 days	
	**3**	Cover and protect Fill and pack space Absorb drainage Manage and minimize risk of infection	- Irrigate with 100 ml normal saline bottles - Pack with alginates when high drainage occurs - Cover or pack with antimicrobials when infected - Apply hydrogels on dry and minimally exudating wounds - Consider Negative Pressure Wound therapy	    
	**4**	Cover and protect Fill and pack space Absorb drainage Manage and minimize risk of infection	- Irrigate with 100 ml normal saline bottles - Pack with alginates when high drainage occurs - Cover or pack with antimicrobials when infected - Apply hydrogels on dry and minimally exudating wounds	   

This Policy applies at ALL sites.

	**Unstageable**	Cover and protect Fill and pack space Absorb drainage Manage and minimize risk of infection Debride (healable wounds only)	**NON-HEALABLE** - Paint with Betadine - Cover with dry dressing **HEALABLE** - Irrigate with 100 ml normal saline bottles - Pack with alginates when high drainage occurs - Cover or pack with antimicrobials when infected - Apply hydrogels on dry and minimally exudating wounds	   
*****Unstageable on heels should not be debrided without consult with plastics and/or Wound, Skin and Ostomy Specialist*****				