

Toronto Best Practice Implementation Steering Committee

Helen Ferley, Co-Chair
Administrator
Seniors' Health Centre – North York
General Hospital

Patty Carnegy, Co-Chair
Staff Education Coordinator
Toronto Homes for the Aged

Carolyn Acton
Manager, Client Services
Toronto Community Care Access
Centre

Sue Bailey
Psychogeriatric Resource Consultant
Providence Healthcare

Janice Buchanan
Mental Health and Addiction Consultant
Ministry of Health and Long-Term Care
Toronto Regional Office

Martha Burnside
Director of Care
Yorkview Lifecare

Glenn Dudman
LTC Program Consultant
Ministry of Health and Long-Term Care
Community Health Division

Gabriella Golea
Administrative Director
Geriatric Mental Health and Dual
Diagnosis Programs
Centre for Addiction and Mental Health

Metzie Lacroxi
Director of Nursing
Lincoln Place

Becky Li
Director of Resident Care
Mon Sheong Foundation

Penelope Minor
Nurse Manager/Clinical Coach
Baycrest

Vania Sakelaris
LTC Program Consultant
Ministry of Health and Long-Term Care
Community Health Division

Josephine Santos
Regional Best Practice Coordinator,
Long-Term Care – Toronto Region
Ministry of Health and Long-Term Care
Host Agency: Seniors' Health Centre –
North York General Hospital

Nada Simic
Nurse Manager
Castleview Wychwood Tower

Anne Stephens
Clinical Nurse Specialist in Gerontology
St. Michael's Hospital

Cindy Stephens
Director of Nursing
Cummer Lodge

Clara Tsang
Geriatric Clinical Nurse Specialist/
Nurse Practitioner
Rouge Valley Health System
Geriatric Emergency Management

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This policy and procedure was developed by a sub-committee of the Toronto Best Practice Implementation Steering Committee:

Helen Ferley, Co-Chair
Administrator
Seniors' Health Centre – North York General Hospital

Patty Carnegie, Co-Chair
Staff Education Coordinator
Toronto Homes for the Aged

Josephine Santos
Regional Best Practice Coordinator, Long-Term Care – Toronto Region
Ministry of Health and Long-Term Care
Host Agency: Seniors' Health Centre – North York General Hospital

Martha Burnside
Director of Care
Yorkview Lifecare

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Disclaimer: This policy and procedure has been developed by a sub-group of the Toronto Best Practice Implementation Steering Committee based on the 2005 Ministry of Health and Long-Term Care Standards on Skin Care and the RNAO Best Practice Guidelines on Risk Assessment and Prevention of Pressure Ulcers and the Assessment and Management of Stage I to IV Pressure Ulcers. It is to be used as a guideline at the discretion of the LTC Homes.

This policy and procedure addresses skin care and pressure ulcer management. When caring for a resident with venous leg ulcer or diabetic foot ulcer, refer to the RNAO Best Practice Guidelines on Assessment and Management of Venous Leg Ulcers, Reducing Foot Complications for People with Diabetes, and Assessment and Management of Foot Ulcers for People with Diabetes.

**POLICY AND PROCEDURE
SKIN CARE AND PRESSURE ULCER MANAGEMENT**

POLICY:

Each resident will have a skin assessment and a treatment plan for the maintenance of skin integrity and wound management if required.

PURPOSE:

The purpose of the skin and wound management is to:

1. Identify residents at risk for skin breakdown.
2. Promote comfort and mobility.
3. Reduce or relieve pressure and maintain skin integrity.
4. Provide appropriate interventions to manage pressure ulcers and minimize infection.
5. Provide learning opportunities.
6. Monitor and evaluate resident outcome.

PREAMBLE:

The interdisciplinary skin care team plays a significant role in skin and wound management, promotes open communication and monitors the outcome of the program.

Team Members	Roles and Responsibilities
Skin Care Coordinator	<ul style="list-style-type: none"> • Coordinates the skin and wound care program. • Collects data, analyzes statistics, identifies trends, evaluates outcomes and presents quarterly statistics to an interdisciplinary committee. • Ensures skin care products are available. • Educates health care providers regarding best practices to reduce risk factors and prevent skin breakdown.
Nursing (RN and RPN)	<ul style="list-style-type: none"> • Completes head-to-toe assessment and Braden Scale within 24 hours of admission. • Initiates plan of care to reduce identified risks. • Makes referral to interdisciplinary team members.

Team Members	Roles and Responsibilities
Nursing (RN and RPN)	<ul style="list-style-type: none"> • Implements interventions for the prevention of skin breakdown. • Recognizes and responds to resident verbalizations and behaviours indicative of skin discomfort. • Conducts quarterly skin assessment. • Conducts Braden Scale for Predicting Pressure Sore Risk; frequency based on level of risk: <ul style="list-style-type: none"> Very High to High Risk = minimum of monthly Moderate Risk = q3months Low/No Risk = q6months • Coordinates referral process, communication with families and the team, the development and monitoring of plan of care, evaluation of the progress and reporting of the outcome. • Addresses and manages underlying cause of pressure ulcer. • Promotes and adheres to infection control practices. • Completes pain assessment and refers to Physician for effective management. • Evaluates and documents resident outcomes.
Health Care Aide/Personal Support Worker	<ul style="list-style-type: none"> • Initiates preventative measures to promote skin integrity. • Recognizes and reports resident verbalizations and behaviours indicative of skin discomfort. • Reports abnormal or unusual skin conditions to the registered nursing staff, e. g. red or open areas, blisters, bruises, tears, scratches. • Protects bony prominences by turning, positioning, application of lubricating creams, correct use of seating surfaces, heel boots and devices, etc. • Monitors fluid intake and output.
Registered Dietitian	<ul style="list-style-type: none"> • Completes nutritional risk assessment within 7 days. • Orders appropriate diet and supplements as described by the LTC Homes policy. A Physician co-signature is required. • Makes recommendations to Physicians including: albumin, blood monitoring, and vitamins/minerals.
Enterostomal Therapist (ET)/ Wound and Skin Specialist	<ul style="list-style-type: none"> • Completes and documents assessment based on nursing/Physician referral. Physician order is NOT required prior to Enterostomal Therapist assessment; however, is required prior to implementation of Enterostomal Therapist recommendations. • Identifies potential underlying causative factors contributing to pressure ulcer development. • Recommends treatment options. • Provides staff education. • Monitors and documents effectiveness of treatment.
Occupational Therapist (OT)/ Physiotherapist (PT)/Rehab Assistant (RA)	<ul style="list-style-type: none"> • 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 interdisciplinary team. • Provides and uses therapeutic modalities, e.g., ultrasound, laser. • Communicates with families on equipment purchases.
Recreation	<ul style="list-style-type: none"> • Involves the resident in group or one to one exercise, range of motion, social programs. • Recognizes and reports resident verbalizations and behaviours indicative of discomfort.

Team Members	Roles and Responsibilities
Chiropracist/ Podiatrist	<ul style="list-style-type: none"> • Completes assessment and treatment of the toenails/feet.
Physician	<ul style="list-style-type: none"> • Assesses health status of the resident within 7 days. • Completes medical orders for wound treatment based on current evidence and best practice. • Debrides the wound as needed. • Refers to specialized consultation services as needed. • Monitors, evaluates and documents outcome of treatment. • Communicates and provides update to families.
Social Work	<ul style="list-style-type: none"> • Provides support to resident's psychosocial needs. • Counsels and supports families.
Pharmacist	<ul style="list-style-type: none"> • Assesses resident's medications. • Makes recommendations to Physicians. • Provides consultation services. • Provides education.
Dentist/Denturist	<ul style="list-style-type: none"> • Completes dental assessment and treatment.
Chaplain	<ul style="list-style-type: none"> • Provides support to resident's spiritual/cultural needs. • Counsels and supports families.

PROCEDURE:

A. Skin Assessment

The interdisciplinary team will:

1. Request assessment and treatment plan from hospital/Community Care Access Centre prior to admission (e.g., Braden Scale for Predicting Pressure Sore Risk).
2. Offer bathing within 24 hours of admission to assess skin integrity.
3. Conduct head-to-toe assessment including skin, fingernails, toenails, mouth, feet and bony prominences:
 - Within 24 hours of admission
 - Upon return from hospital admission of 24 hours or longer if at risk for altered skin integrity.
 - Following leave of absence greater than 24 hours if at risk for altered skin integrity.
 - Prior to six weeks post-admission care conference.
 - Prior to completion of quarterly documentation.
4. Monitor daily if early signs of skin breakdown are present.
5. Document the assessment results.
6. Photograph open areas with signed consent.

7. Complete Braden Scale for Predicting Pressure Sore Risk within 24 hours of admission.
 - Very High to High Risk = minimum of monthly
 - Moderate Risk = q3months
 - Low/No Risk = q6months or if there is a change in resident's condition
8. Develop interventions to reduce risks and implement interdisciplinary plan of care.
9. Initiate a written plan of care within 24 hours and update as necessary.
10. Complete interdisciplinary team assessments within 21 days. Document and update quarterly.
11. Evaluate and document resident outcome.

B. Preventative Skin Care

The interdisciplinary team will:

1. Identify risk factors for skin breakdown such as:
 - Activity
 - Cognitive ability
 - Impaired mobility
 - Poor nutrition
 - Decreased sensory perception
 - Exposure to excess moisture
 - Pain
2. Develop and implement an interdisciplinary plan of care.
3. Encourage resident participation in range of motion exercises, seating and positioning program.
4. Ensure hydration of 1500 ml of fluids/24 hour and monitor weight monthly.
5. Assess the resident for a bowel and bladder program.
6. Ensure nails are short and clean. Registered staff/Chiropodist/Podiatrist must cut the nails of a resident with diabetes.
7. Clean the resident's mouth, teeth or dentures twice a day and report any abnormal changes.
8. Schedule 2 baths per week. Avoid using hot water and use a pH balanced, non-sensitizing skin cleanser. Apply non-sensitizing, pH balanced, lubricating moisturizers and creams with minimal alcohol content to skin after bathing.
9. Use protective barriers (e.g., creams, liquid barrier films, transparent films, hydrocolloids) or protective padding to reduce friction, maceration and irritation.
10. Manage moisture e.g., urine, feces, perspiration, wound exudates, saliva, etc. Use protective barrier products, change linens and clothing when damp.
11. Minimize shearing and friction on the skin when cleansing, providing care or moving the resident.
12. Observe for and respond to resident verbalizations and behaviours indicative of skin discomfort.

13. Provide and monitor effectiveness of analgesia.
14. Evaluate, document resident outcome, and update care plan.

For residents in bed or chair:

1. Use devices to enable positioning, lifting and transfers e.g., trapeze, transfer board, bed rails.
2. Reposition dependent resident a minimum of 2 hours during waking, including chair position and a minimum of 2 times per night.
3. Relieve pressure from bony prominences:
 - Use devices (e.g., pillows, foam wedges, gel pads, roho cushions, heel boots).
 - Turn to either side at small increments. Avoid positioning at 90 degrees over the trochanter.
 - Maintain the head of the bed less than 30 degrees.
 - Change angle of reclining chair a minimum of every 2 hours.
4. Do not use donut type devices or products that localize pressure to other areas.
5. Use available static air overlay for very high risk residents (Braden Scale \leq 9) or use a low-air-loss bed if the resident is at a very high risk, has additional risk factors, uncontrolled pain, or severe pain exacerbated by turning.
6. Avoid layers of padding between resident's skin and relief surface.
7. Maintain proper body alignment and position of comfort.
8. Refer to OT/PT for seating assessment and seating devices for special needs.
9. Develop, implement and update an interdisciplinary plan of care.
10. Evaluate and document preventative interventions and resident outcomes quarterly.

C. Pressure Ulcer/Wound Management

See Appendix B for description of Stage 1-4 and Stage X pressure ulcers.

Stage 1
<p>The interdisciplinary team will:</p> <ul style="list-style-type: none"> • Report changes in skin condition. • Assess skin condition and check that Braden Scale is current with appropriate interventions to reduce identified risk factors. • Establish turning schedule by repositioning resident at small increments to relieve pressure. Less than 90 degrees reposition is effective. • Maximize movement and mobility to relieve pressure from bony prominences. Sitting time may require reduction if the buttocks, sacrum or ischial areas are involved. • Assess seating devices for correct use and ability to decrease pressure. • Transfer and position correctly to prevent shearing and friction. • Monitor nutritional intake for adequate protein and hydration of 1500 mls of fluids/24 hrs. • Manage moisture. • Encourage involvement in social programs. • Ensure that the resident and/or Substitute Decision Maker (SDM) is informed of plan of care. • Evaluate and document preventative interventions, resident outcomes and update care plan.

Stage 2

The interdisciplinary team will continue with practices used for stage 1 and add:

- Complete Braden Scale and implement appropriate interventions.
- Refer resident to Dietitian for recommendations on supplements and laboratory investigations.
- Assess and support the resident's psychosocial and emotional needs.
- Assess and monitor care approaches to relieve/reduce pain (e.g., positioning, medication).
- Refer to Occupational Therapist and/or Physiotherapist for positioning and seating assistance.
- Ensure that consent is received for treatment and progress is communicated.
- Treat the ulcer as per Physician's order and document.
- Reassess ulcer weekly and document the following: stage, location, size, odour, condition of skin at base and at edges of open area.
- Evaluate and document resident outcome and summarize quarterly.
- Refer to the Enterostomal Therapist or Wound and Skin Specialist if the ulcer deteriorates or new areas develop and implement recommendations.
- Consult Physician and Enterostomal Therapist for review of treatment plan if the size of the wound has not decreased by 20 – 30 % in 3 – 4 weeks of initiating a treatment.

Stage 3 and 4

The interdisciplinary team will continue with practices used for stage 1 and 2 and add:

- Assess and complete Braden Scale with direct involvement of the Skin Care Coordinator.
- Revise plan of care and communicate to interdisciplinary team.
- Reassess nutritional plan of care including increased protein intake as tolerated. Arrange for blood work to obtain a pre-albumin level to determine nutritional status and wound healing ability.
- Reassess pain and effectiveness of intervention. Review pain control with Physician as required.
- Refer to the Enterostomal Therapist or Wound and Skin Specialist and implement recommendations.
- Ensure that consent is received for treatment and progress is communicated
- Maintain aseptic techniques and appropriate infection control processes.
- Debride wound on site by Physician, or Enterostomal Therapist.
- Implement specialized approaches as recommended by Enterostomal Therapist or Wound and Skin Specialist such as irrigation, wound packing techniques and others including VAC (Vacuum Assisted Closure).
- Ensure wound packing is sufficient to fill undermining and tunneling areas to eliminate dead space and promote healing. Do not over-pack a wound as this can result in ischemia of fragile tissue. Use only 1 piece of packing material. Document amount used. Secure end of packing strip to intact skin.
- Reassess wound weekly and document the following: stage, location, size, odour, sinus tracts, exudates and condition of base and surrounding skin.
- Consult Physician and Enterostomal Therapist for review of treatment plan if the size of the wound has not decreased by 20 – 30 % in 3 – 4 weeks of initiating a treatment.
- Review and educate staff on correct techniques for specialized treatment and pressure relieving surfaces.
- Evaluate and document resident outcome and summarize quarterly.

Note: Management of Stage 3 and 4 pressure ulcers are very similar and therefore, the interventions for both stages have been combined above.

Stage X

The interdisciplinary team will continue with practices used for stage 1 – 4 and add:

- Reassess for psychosocial needs and implement interventions to meet emotional needs.
- Implement recommendations by Dietitian and Enterostomal Therapist
- Provide appropriate analgesic 1-hr. prior to sharp debridement by Physician or Enterostomal Therapist.
- Maintain a comfortable and odour free environment.

Infected/Colonized Wound

- Observe and assess for signs and symptoms of infection. Redness greater than 2 cm around a wound indicates probable deep tissue infection.
- Consider high bacterial levels if ulcer is unresponsive to treatment, wound has not reduced in size by 20 – 30 % by 3 – 4 weeks of treatment, or increased level of exudates/purulent discharge, malodour, abscess, heat, redness, new areas of breakdown, and fragile with bleeding, hypergranulation.
- Observe for pyrexia and tachycardia.
- Inform the Physician of assessment.
- Swab wound using appropriate technique and forward to laboratory. See Appendix E.
- Maintain aseptic techniques – hand hygiene and change gloves between residents.
- Communicate progress with resident/SDM and obtain consent for revised treatment plan.
- Evaluate and document resident progress and summarize quarterly.

Note: A chronic wound may become contaminated but not infected; therefore, the team must continually assess for clinical signs of infection.

Closed Wound

The remodeling/healing phase may take up to 2 years. Collagen continuously reorganizes to regain strength. It will always be at increased risk for breakdown.

It is not appropriate to reverse stage a healing ulcer. For example, a pressure ulcer stage 3 does not become a stage 2 or a stage 1 in your documentation during healing. Chart the progress by noting an improvement in the characteristics: size, depth, amount of necrotic tissue, amount of exudate.

The interdisciplinary team will continue with preventative, protective skin care:

- Refer to OT/PT for specialized seating to relieve pressure on closed wound.
- Maintain adequate protein and fluid intake to promote continued healing.
- Reposition correctly to prevent shearing and friction.
- Manage moisture and keep resident comfortable.
- Monitor daily for 6 weeks post wound closure and report any changes.
- Revise and update care plan and document evaluation.

References:

Ministry of Health and Long-Term Care (2005). *Standards: Skin Care*. Toronto, Canada: Ministry of Health and Long-Term Care.

Registered Nurses' Association of Ontario (2002). *Assessment and Management of Stage I to IV Pressure Ulcers*. Toronto, Canada: Registered Nurses' Association of Ontario. [On-line]. Available: www.rnao.org/bestpractices

Registered Nurses' Association of Ontario (2005). *Risk Assessment and Prevention of Pressure Ulcers*. (Revised). Toronto, Canada: Registered Nurses' Association of Ontario. [On-line]. Available: www.rnao.org/bestpractices

Additional Resources:

Canadian Association of Enterostomal Therapists (CAET): www.caet.ca

CAET is a professional organization founded to represent Enterostomal Therapy nursing. The CAET believes that all person with the following conditions are entitled to the comprehensive services of an Enterostomal Therapy nurse: abdominal stomata (opening), fistulae, draining wounds, and selected disorders of the integumentary (skin), gastrointestinal, and genitourinary systems.

Canadian Association of Wound Care (CAWC): www.cawc.net

The CAWC is a non-profit organization of healthcare professionals, industry participants, patients and caregivers dedicated to the advancement of wound care in Canada.

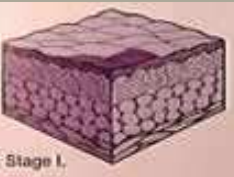
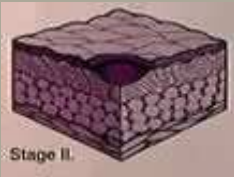

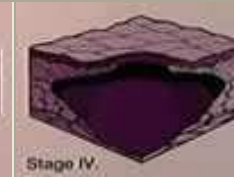
APPENDIX A: Braden Scale for Predicting Pressure Sore Risk

Resident's Name _____

Evaluator's Name _____

					Date of Assessment				
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 sensor impairment that 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 the room at least twice a day and inside room at least every 2 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 <u>Usual</u> food intake pattern	1. Very Poor Never eats a complete meal. Rarely eats more than 1/3 of any food	2. Probably Inadequate Rarely eats a complete meal and generally eats only about ½ of any food	3. Adequate Eats over half or most meals. Eats a total of 4 servings of protein (meat	4. Excellent Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or					

APPENDIX B: Staging of Wounds

Stage 1	Stage 2	Stage 3	Stage 4	Unstageable (X)
<p>An observable area of intact skin that has persistent redness as a result of pressure.</p> <p>Reddening of the skin's surface that lasts longer than 20 minutes. In individuals with darker skin, discoloration of the skin may be purplish/bluish or egg plant-like colour accompanied by localized heat, edema, induration or hardness.</p>	<p>An ulcer that involves the epidermis and may extend to the dermis.</p> <p>The ulcer is usually superficial and presents clinically as an abrasion, blister or shallow crater.</p>	<p>An ulcer that involves damage to, or necrosis of, subcutaneous tissue that may extend down to, but not through, underlying fascia.</p> <p>The ulcer presents clinically as a deep crater with or without undermining of adjacent tissue.</p>	<p>An ulcer that with extensive destruction, tissue necrosis, or damage to muscle, bone or supporting structures e.g., tendon joint capsule.</p> <p>Undermining and sinus tracts also may be associated with Stage IV ulcers.</p>	<p>An ulcer where the wound bed cannot be visualized due to slough or eschar. This tissue needs to be removed before staging can take place.</p>
				

Reverse Staging

Clinical studies indicate that as deep ulcers heal, the lost muscle, fat and dermis is NOT replaced. Instead, granulation tissue fills the defect before re-epithelialization. Given this information, it is not appropriate to reverse stage a healing ulcer. For example, a pressure ulcer stage 3 does not become a stage 2 or a stage 1 in your documentation during healing. You must chart the progress by noting an improvement in the characteristics (size, depth, amount of necrotic tissue, amount of exudate, etc.). [Taken from the NPUAP Report Vol.4, No.2, September 1995]

Undermining/Tunnelling

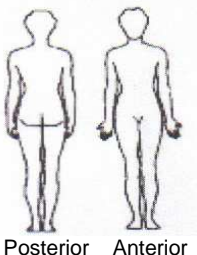
Wounds with depth, undermining and tunnelling are **packed to eliminate dead space** and the potential for abscess formation. Do not over-pack a wound as this can result in ischemia of fragile tissue.

APPENDIX C: Phases of Wound Healing

The entire wound healing process is a complex series of events that begins at the moment of injury and can continue for months to years. Below identifies the various phases of wound healing for acute uncomplicated wounds. Phases are extended for chronic wounds as the wound often becomes stuck in one or more phases.

I. Inflammatory Phase	II. Proliferative Phase	III. Remodeling Phase
<p>A) Immediate to 2-5 days</p> <p>B) Hemostasis</p> <ul style="list-style-type: none"> • Vasoconstriction • Platelet aggregation • Thromboplastin makes clot <p>C) Inflammation</p> <ul style="list-style-type: none"> • Vasodilation • Phagocytosis 	<p>A) 2 days to 3 weeks</p> <p>B) Granulation</p> <ul style="list-style-type: none"> • Fibroblasts lay bed of collagen • Fills defect and produces new capillaries forming scar tissue <p>C) Contraction</p> <ul style="list-style-type: none"> • Wound edges pull together to reduce defect <p>D) Epithelialization Resurfaces from wound edge to close wound defect. Requires granulation to fill defect to wound edge</p> <ul style="list-style-type: none"> • Crosses moist surface • Cell travel about 3 cm from point of origin in all directions • Wound is closed but not healed 	<p>A) 3 weeks to 2 years . Collagen continuously reorganizes to regain strength. Takes 3 weeks for new tissue to regain 30 % of original strength. Only ever regains 80 % of original strength. Always at increased risk for breakdown</p> <p>B) New collagen forms which increases tensile strength to wounds</p> <p>C) Scar tissue is only 80 % as strong as original tissue always at risk for injury in future</p>

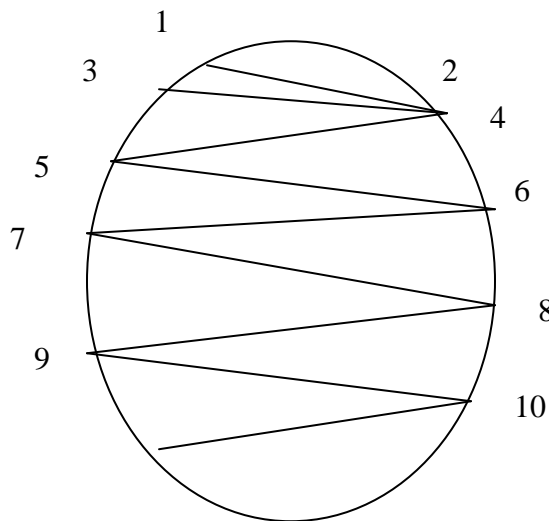
APPENDIX D: Pressure Ulcer/Wound Assessment Record

 <p style="text-align: center;">Posterior Anterior</p>	Diagram of Wound (undermining, tunneling, sinus, wound base)	Name: Address: Age: Diagnosis: Other:				
Date	Initial Assessment					
Braden Score – Date, interventions						
Location of wound						
Stage (1, 2, 3, 4, X)						
Length/width (cm)						
Depth (cm)						
Undermining/Tunnelling (cm) <i>(Use clock to describe)</i>						
Wound base (Pink – epithelialization; Red – granulating; Yellow – slough; Black – necrotic/eschar; Green – infected; Hypergranulation) % of each						
Ulcer margins						
Exudate (<i>Serous, Blood, Purulent</i>)						
Odour						
Culture (<i>date</i>)						
Periwound skin (<i>Normal, Macerated, Dry, Eczema, Cellulitic, Edematous, Other</i>)						
Sensation						
Pain Assessment						
Interventions (mattress, overlay cushion)						
Debridement: Yes/No Type						
Referrals: RD/ET/Wound Specialist/OT/PT						
Comments						
Treatment appropriate Yes/No Indicate Treatment:						
Changes in treatment/Care Plan Revised (<i>date</i>)						
Nurse's signature						

APPENDIX E: Wound Swabbing Technique

1. To obtain a wound culture, irrigate the wound gently with saline. Use enough irrigation pressure to enhance wound cleansing without causing trauma to the wound bed.
2. Use normal saline at room temperature to prevent wound trauma. Do not use skin cleanser or antiseptic agents (e.g., Povidine iodine (betadine), iodophor, sodium hypochlorite solution, hydrogen peroxide, or acetic acid).
3. Swab the wound bed using the ten-point technique (See Figure 1– for technique). Do not swab eschar, slough, exudate or the edges of the wound. Do not contact intact skin. Must contact the wound base to obtain reliable culture. Alternate technique: Obtain swab from deep within wound base pressing over a 1cm. area to express fluid from deep within the wound.

Figure 1:



(Swab wound edges and ten point coverage.)

Supporting Information

Wounds are swabbed for culture and sensitivity if signs and symptoms of infection are present to determine the type of organism that is present and its sensitivities to varying antibiotics. A wound should not be swabbed, if the purpose is to determine whether bacteria are present.

APPENDIX F: GLOSSARY OF TERMS

Cellulitis

Inflammation of cellular connective tissue. Inflammation may be diminished or absent in immunosuppressed individuals.

Colonized

The presence of bacteria on the surface or in the tissue of a wound without indications of infection such as purulent exudate, foul odour, or surrounding inflammation. All Stage II, III, and IV pressure ulcers are colonized.

Contaminated

Containing bacteria, other microorganisms, or foreign material. The term usually refers to bacterial contamination and in this context is synonymous with colonized. Wounds with bacterial counts of 10^5 organisms per gram of tissue or less are generally considered contaminated; those with higher counts are generally considered infected.

Debridement

Removal of devitalized tissue and foreign matter from a wound. Various methods can be used for this purpose:

Autolytic Debridement: The use of synthetic dressings to cover a wound and allow eschar to self-digest by the action of enzymes present in wound fluids.

Enzymatic (Chemical) Debridement: The topical application of proteolytic substance (enzymes) to breakdown devitalized tissue.

Mechanical Debridement: Removal of foreign material and devitalized or contaminated tissue from a wound by physical forces rather than by chemical (enzymatic) or natural (autolytic) forces. Examples are wet-to-dry dressings, wound irrigations, whirlpool, and dextranomers.

Sharp Debridement: Removal of foreign material or devitalized tissue by a sharp instrument such as a scalpel. Laser debridement is also considered a type of sharp debridement.

Epithelialization

The stage of tissue healing in which epithelial cells migrate (move) across the surface of a wound. During this stage of healing, the epithelium appears the colour of "ground glass" to pink.

Erythema

Redness of the skin.

Eschar

Thick, hard, black, leathery, necrotic, devitalized tissue.

Friction

Mechanical force exerted when skin is dragged across a coarse surface such as bed linens.

Granulation Tissue

Pink/red, moist tissue that contains new blood vessels, collagen, fibroblasts, and inflammatory cells, which fills an open, previously deep wound when it starts to heal.

Hypergranulation

Hypergranulation (proud flesh) may occur in wounds that are healing by second intention. This aberrant response represents overgrowth of fibroblasts and endothelial cells, and it is clinically recognized by its beefy, friable, red appearance. These highly vascular lesions resemble pyogenic granuloma on histologic analysis, and they bleed easily. The presence of this tissue

APPENDIX F: GLOSSARY OF TERMS

results in the inhibition of fibroblast proliferation and prevents wound healing. Treatment consists of destruction of the hypergranulation tissue by cautery, shave excision, aluminum chloride, or curettage.

Maceration

Softening of tissue by soaking in fluids. In this context, it refers to degenerative changes and disintegration of skin when it has been kept too moist.

Necrosis/Necrotic Tissue

Describes devitalized (dead) tissue, e.g., eschar and slough.

Pressure Ulcers

Any lesions caused by unrelieved pressure that results in damage to underlying tissue. Pressure ulcers usually occur over a bony prominence and are staged to classify the degree of tissue damaged observed.

Shear

Mechanical force that acts on a unit area of skin in a direction parallel to the body's surface. Shear is affected by the amount of pressure exerted, the coefficient of friction between the materials contacting each other, and the extent to which the body makes contact with the support surface.

Sinus Tract

A cavity or channel underlying a wound that involves an area larger than the visible surface of the wound. It is a pathway that can extend in any direction from the wound surface, which results in dead space with potential for abscess formation.

Slough

Necrotic (dead) tissue in the process of separating from viable portions of the body. It is seen as the accumulation of dead cellular debris on the wound surface, and tends to be yellow in colour due to the large amounts of leukocytes present. However, yellow tissue is not always indicative of slough but may be subcutaneous tissue, tendon, or bone instead.

Tunnelling

A passageway under the surface of the skin that is generally open at the skin level; however, most tunneling is not visible.

Undermining

A closed passageway under the surface of the skin that is open only at the skin surface. Generally, it appears as an area of skin ulceration at the margins of the ulcer with skin overlaying the area. The undermining often develops from shearing forces.