

Pressure Ulcer/Pressure Injury Care in Long-term Care Facilities

Part One: CMS Compliance and Best Practices

Darcie Anderson, MSN, RN, Nursing Educator

Provider Resources and Education Program (PREP)

Bureau of Survey and Certification (BOSC)

Disclosure Statement

No one with the ability to control the content of this activity has a relevant financial relationship with an ineligible company.

Continuing Education Requirements

- To earn continuing education, the learner must:
 - Register to attend.
 - Attend 100% of the presentation.
 - Receive an 80% pass rate on the knowledge check.
 - Complete an evaluation.
- Other participants will receive a certificate of completion.

Learner Outcome

Desired learner outcome: 100% of the learners will self-report increased knowledge regarding pressure ulcer care in long-term care facilities.

Continuing Education

- Ohio Department of Health is approved as a provider of nursing continuing professional development by Pennsylvania State Nurses Association, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.
- Ohio Department of Health is approved as a provider of continuing education for Licensed Nursing Home Administrators by the Ohio Board of Executives of Long-Term Services and Supports.
- Pressure Ulcer/Pressure Injury Care in Long-term Care Facilities: Part One awards 1.75 Continuing Professional Education Units (CPEUs) in accordance with the Commission on Dietetic Registration's CPEU Prior Approval Program.

Learning Objectives

- Identify and apply the federal regulations regarding pressure ulcer care.
- Identify and apply the State of Ohio laws and rules regarding pressure ulcer care.
- Identify and apply the Centers for Medicare and Medicaid Services interpretive guidance for pressure ulcer care.

Agenda

- Federal regulations for providing pressure ulcer care.
- State of Ohio laws and rules for providing pressure ulcer care.
- CMS interpretive guidance for pressure ulcer care.
- Best practices for pressure ulcer care.

Acronyms

- Bureau of Survey and Certification (BOSC).
- Care Area Assessments (CAAs).
- Centers for Disease Control and Prevention (CDC).
- Centers for Medicare and Medicaid Services (CMS).
- Deep Tissue Pressure Injury (DTPI).
- Evidenced Based Practice (EBP).
- Infection Preventionist (IP).
- Medical Device Related Pressure Injury (MDRPI).
- Minimum Data Set (MDS).
- National Pressure Injury Advisory Panel (NPIAP).
- Ohio Department of Health (ODH).
- Pressure Ulcer/Pressure Injury (PU/PI).

Federal Emblem & State Logo



Federal Regulations State Rules & Laws

Federal Regulations and State Rules



Federal Regulation § 483.25

Quality of care is a fundamental principle that applies to all treatment and care provided to facility residents. Based on the comprehensive assessment of a resident, the facility must ensure the residents receive treatment and care in accordance with professional standards of practice, the comprehensive person-centered care plan, and the resident's choices.



Federal Regulation § 483.25(b) (1) (i) (ii)

Based on the comprehensive assessment of a resident, the facility must ensure that:

(i) A resident receives care, consistent with professional standards of practice, **to prevent pressure ulcers and does not develop pressure ulcers** unless the individual's clinical condition demonstrates that they were unavoidable.

(ii) A resident with pressure ulcers receives necessary treatment and services, consistent with professional standards of practice, **to promote healing, prevent infection and prevent new ulcers from developing.**



Ohio Administrative Code 3701-17-14 (F)

The nursing home shall assure that all residents receive:

- Adequate.
- Kind.
- Considerate care and treatment at all times.



Ohio Revised Code 3721.13 (A) (3)

The rights of residents of a home shall include, but are not limited to:

- Upon admission and thereafter, the right to adequate and appropriate medical treatment and nursing care and to other ancillary services that comprise necessary and appropriate care consistent with the program for which the resident contracted.
- This care shall be provided without regard to consideration such as race, color, religion, national origin, age, or source of payment for care.



CMS Interpretive Guidance for Pressure Ulcer/Injury Care

CMS Interpretive Guidance

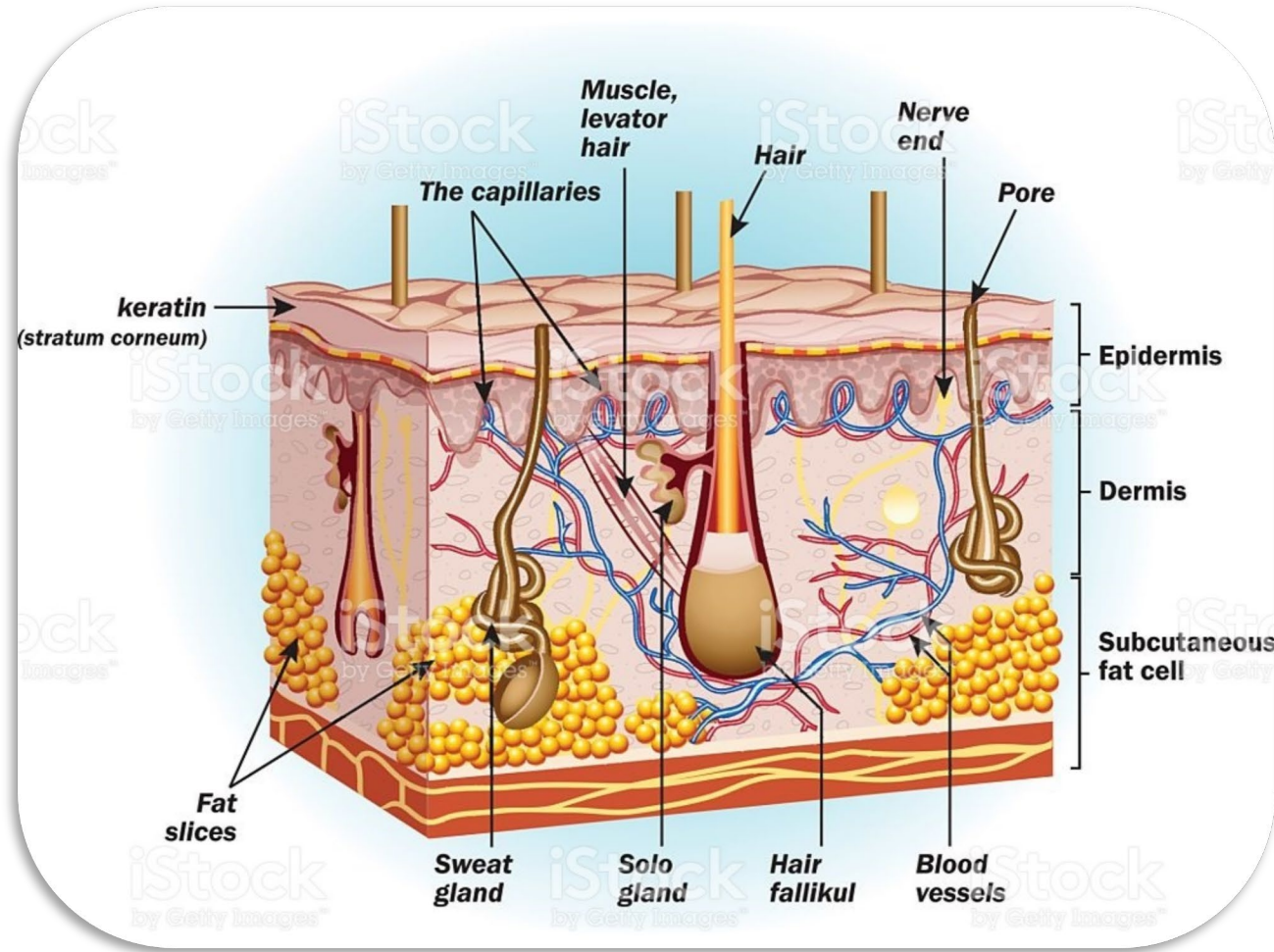


Skin: The Largest Organ

Skin is the body's largest organ. It is part of the integumentary system, the body's largest organ system. It may:

- Affect and be affected by other body processes and organs.
- Reflect the overall function of the body.

Skin: The Largest Organ (cont.)



Source: Blogspot

Types of Injuries

- Three of the more common types of skin injuries are:
 - Pressure.
 - Vascular insufficiency/ischemia (venous stasis and arterial ischemic ulcers).
 - Neuropathic (chronic wounds due to nerve damage).
- For information on skin issues other than PU/PIs see §483.25, F684 Quality of Care.

Types of Injuries (cont.)

Pressure



[Source: Atelier](#)

Vascular



[Source: Illinois Vein Specialists](#)

Neuropathic



[Source: Relias Media](#)

Pressure Ulcer/Pressure Injury (PU/PI)

- PU/PI:
 - Localized damage to skin and/or underlying soft tissue.
 - Over bony prominence or related to medical or other device.
- Pressure injury:
 - Intact skin.
 - May be painful.
- Pressure ulcer.
 - Open ulcer and appearance will vary depending on stage.
 - May be painful.

Pressure Ulcer/Pressure Injury (cont.)

- Soft tissue damage may be affected by:
 - Skin temperature.
 - Skin moisture.
 - Nutrition.
 - Perfusion.
 - Co-morbidities.
 - Condition of soft tissue.

Avoidable/Unavoidable

Avoidable (facility failed to):

- Evaluate clinical condition/risk factors.
- Define/implement interventions.
- Monitor/evaluate impact of interventions.
- Revise the interventions as needed.

Unavoidable (facility did):

- Evaluate clinical condition/risk factors.
- Define/implement interventions.
- Monitor/evaluate impact of interventions.
- Revise the interventions as needed.

Colonized/Infected

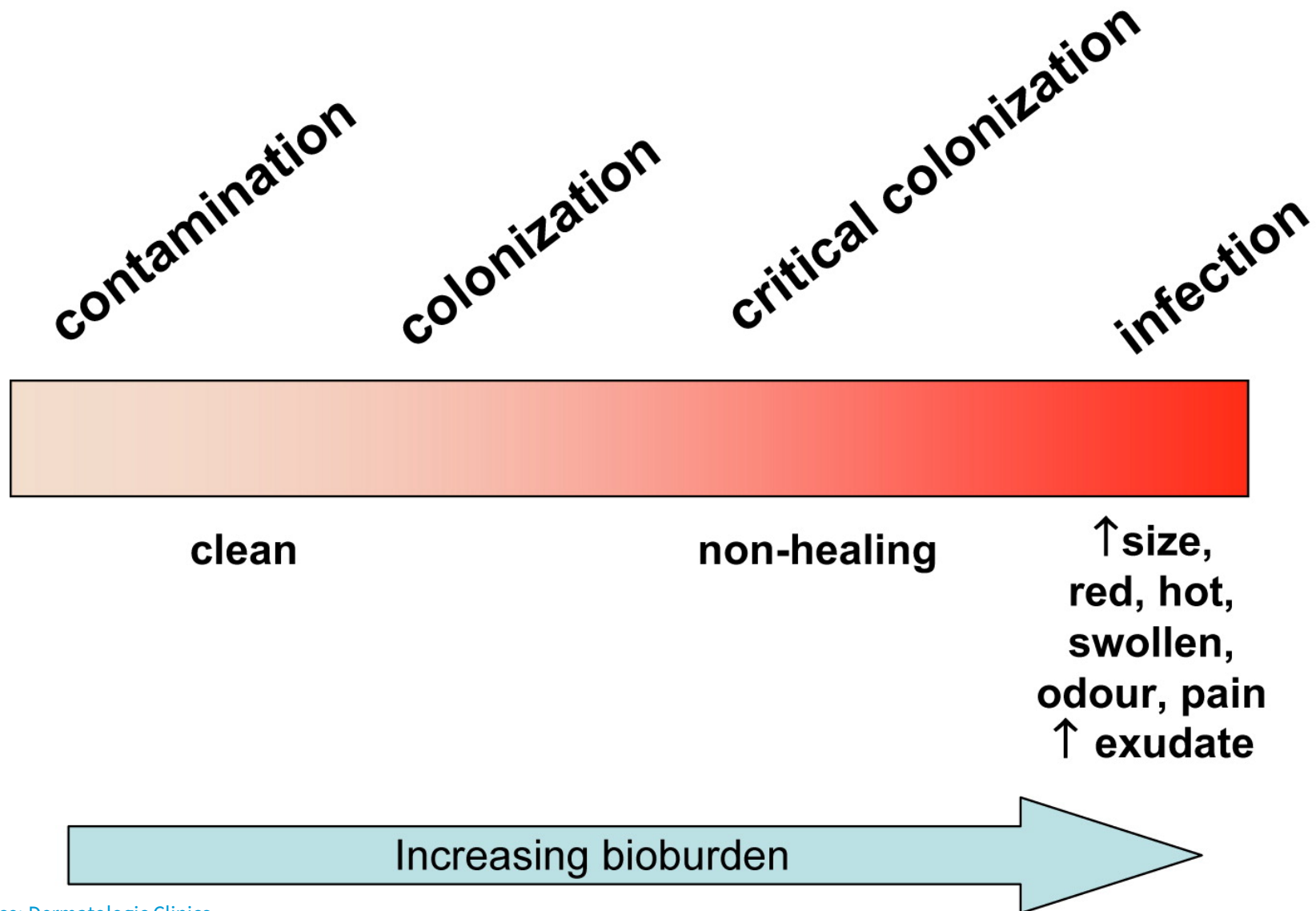
Colonized

- Presence of micro-organisms on the surface or in the tissue of a wound.
- No signs or symptoms of an infection.

Infected

- Presence of micro-organism in sufficient quantity to overwhelm the defenses of viable tissues.
- Produce signs and symptoms of infection.

Colonized/Infected (cont.)



Debridement

- Removal of devitalized/necrotic tissue and foreign matter.
- To improve or facilitate the healing process.
- Debridement methods:
 - Enzymatic dressings.
 - Surgical debridement.

Debridement (cont.)



Source: Science Examiner

Eschar

- Dead or devitalized tissue.
- Texture is hard or soft.
- Color is usually black, brown, or tan.
- May appear scab-like.
- Usually, necrotic tissue and eschar are firmly adherent to the base and sides/edges of the wound.

Eschar (cont.)



[Source: Aliem](#)

Slough

- Non-viable tissue.
- Color is usually yellow, tan, gray, green or brown.
- Usually moist.
- Texture can be soft, stringy and mucinous.
- May be adherent to the base of the wound or present in clumps throughout the wound bed.

Slough (cont.)

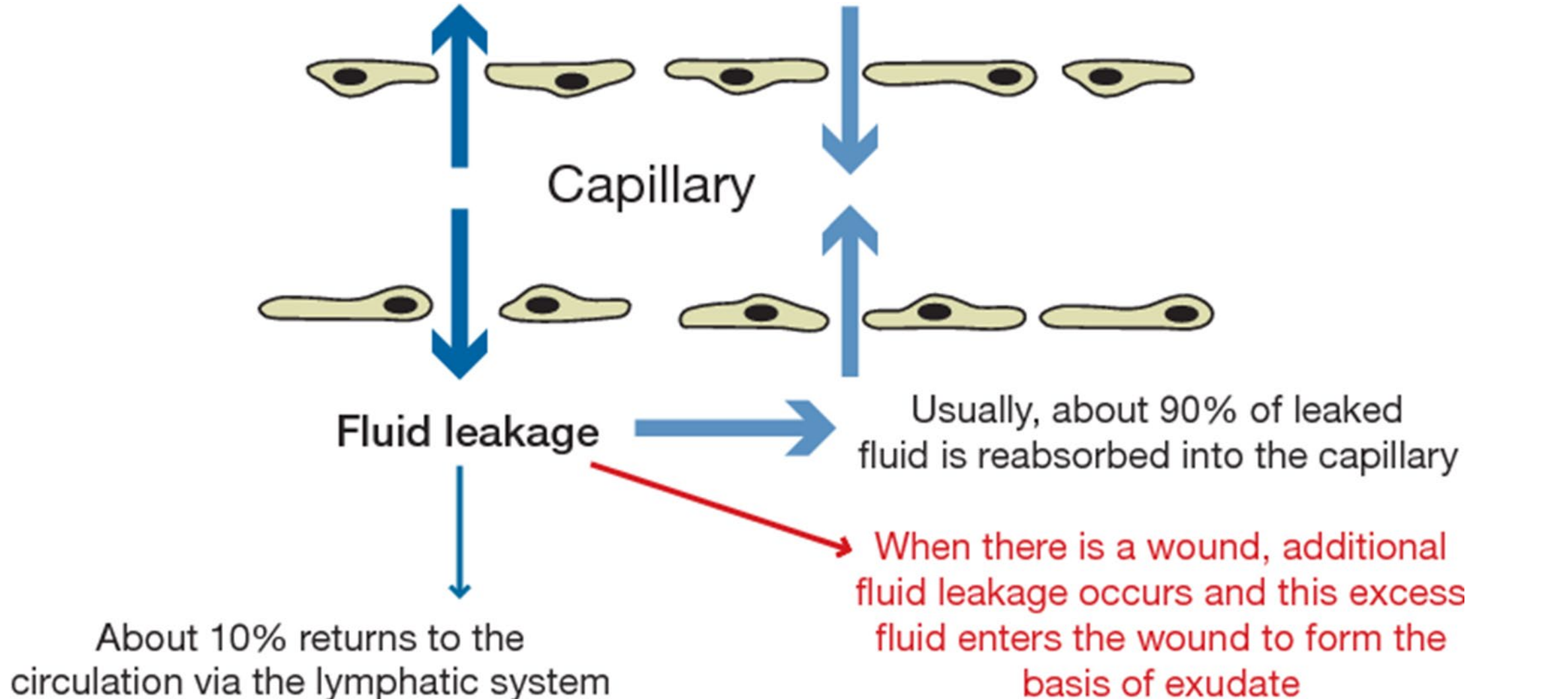


[Source: DermaGen](#)

Exudate

- Any fluid forced out of the tissues or its capillaries.
- Due to inflammation or injury.
- It may contain serum, cellular debris, bacteria and leukocytes.

Exudate (cont.)



[Source: Semantic Scholar](#)

Purulent Exudate

- Any product of inflammation.
- That contains pus.
 - Leukocytes.
 - Bacteria.
 - Liquefied necrotic debris.

Purulent Exudate (cont.)



[Source: Wound Care Education Institute](#)

Serous Exudate

- Watery fluid.
- Clear or slightly yellow/tan/pink fluid.
- Fluid that has separated from the blood and presents as drainage.

Serous Exudate (cont.)



[Source: Pinterest](#)

Friction/Shearing

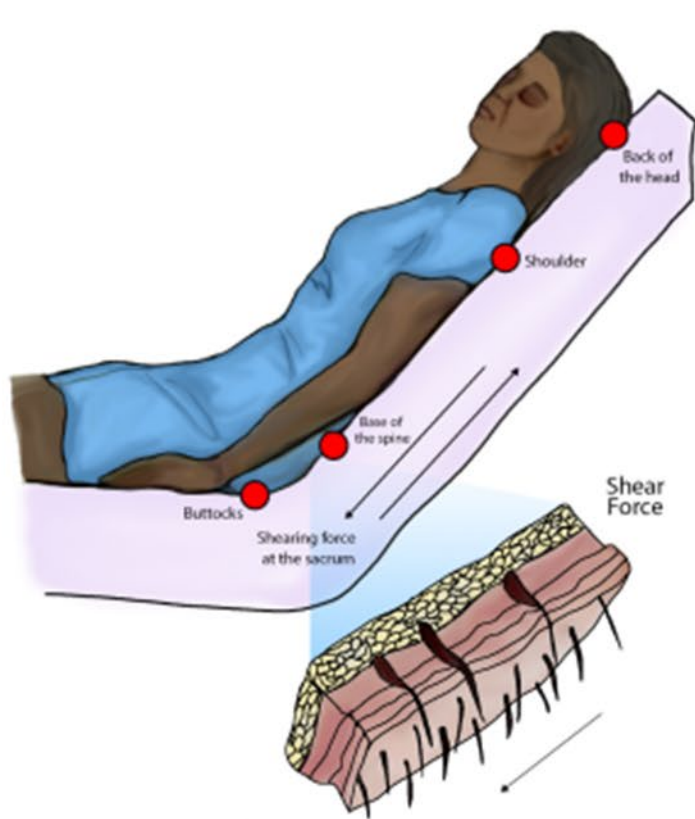
Friction:

- Mechanical force on skin.
- Skin is dragged across a surface.

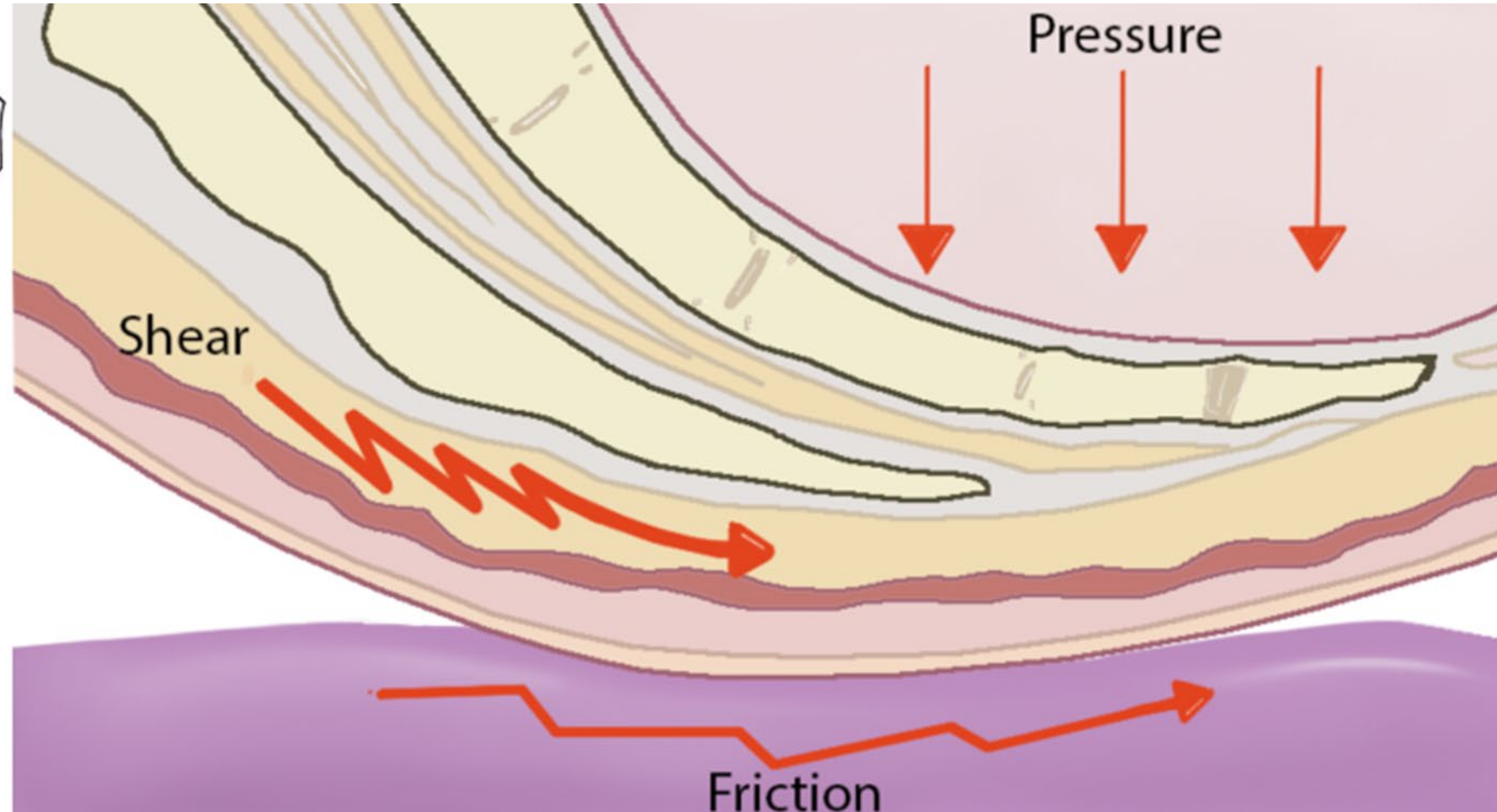
Shearing:

- Skin remains stationary while skin layers rub against each other.
- Underlying tissue moves/stretches.
- Underlying capillaries and blood vessels angulates/tears.

Friction/Shearing (cont.)



Shearing forces can occur when a patient is moved carelessly or slides down in bed.



[Source: Wis Tech Open](#)

Granulation Tissue

- Pink-red moist tissue.
- Fills an open wound, when it starts to heal.
- Contains:
 - New blood vessels.
 - Collagen.
 - Fibroblasts.
 - Inflammatory cells.

Granulation Tissue (cont.)



[Source: WoundSource](#)

Tunnel/Sinus Tract

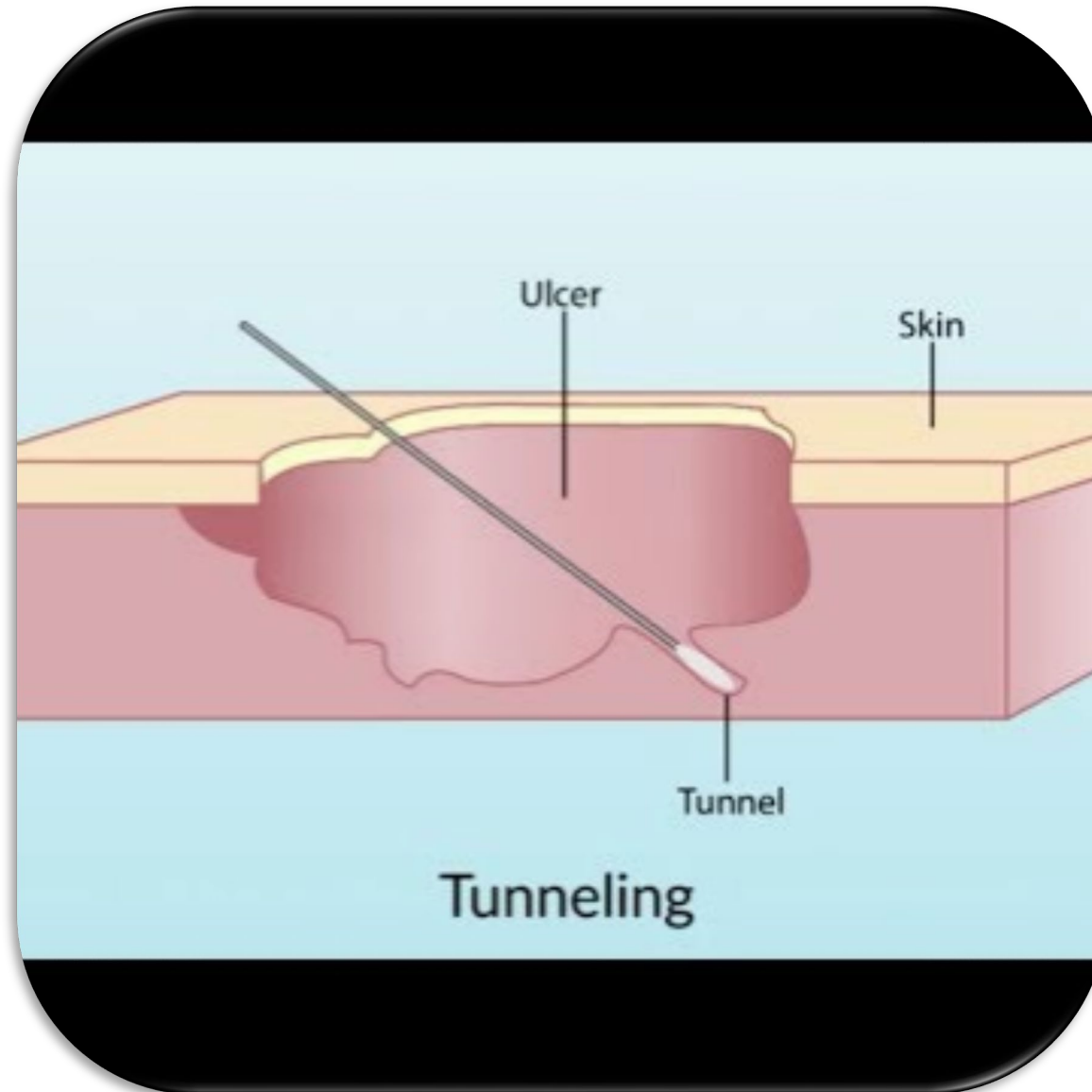
Tunnel:

- Passageway of tissue destruction.
- Under the skin surface.
- Opening at the skin level.

Sinus Tract:

- Cavity or channel underlying a wound.
- Involves a larger area than the visible wound surface.

Tunnel/Sinus Tract (cont.)

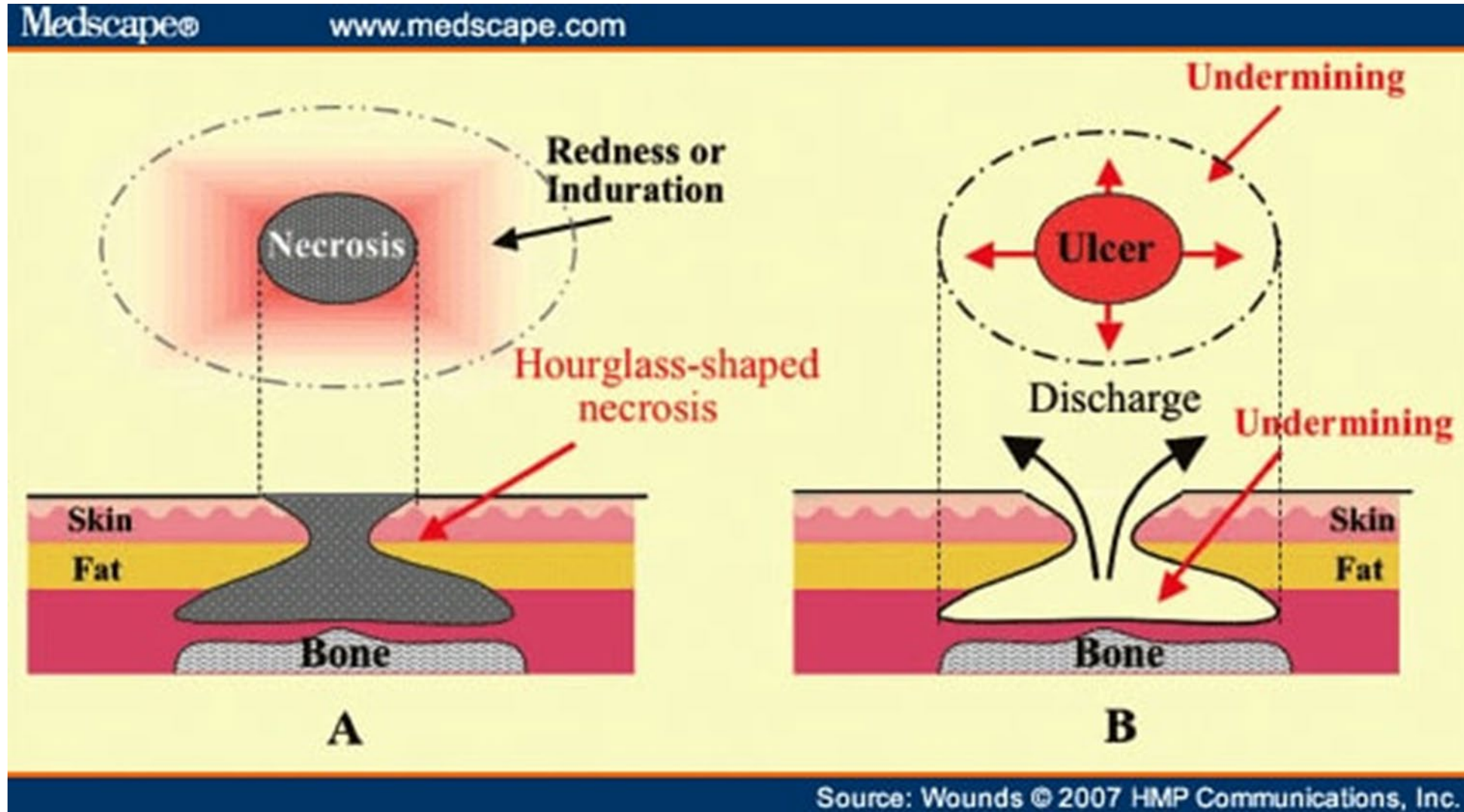


[Source: Dressing a Pressure Injury](#)

Undermining

- Destruction of tissue or ulceration extending under the skin edges (margins).
- Larger at its base than at the skin surface.
- Often develops from shearing forces.
- Differentiated from tunneling by the larger extent of the wound edge involved.
- Absence of a channel or tract from the wound under the adjacent intact skin.

Undermining (cont.)



Source: Lymphedema & Wound Training Institute

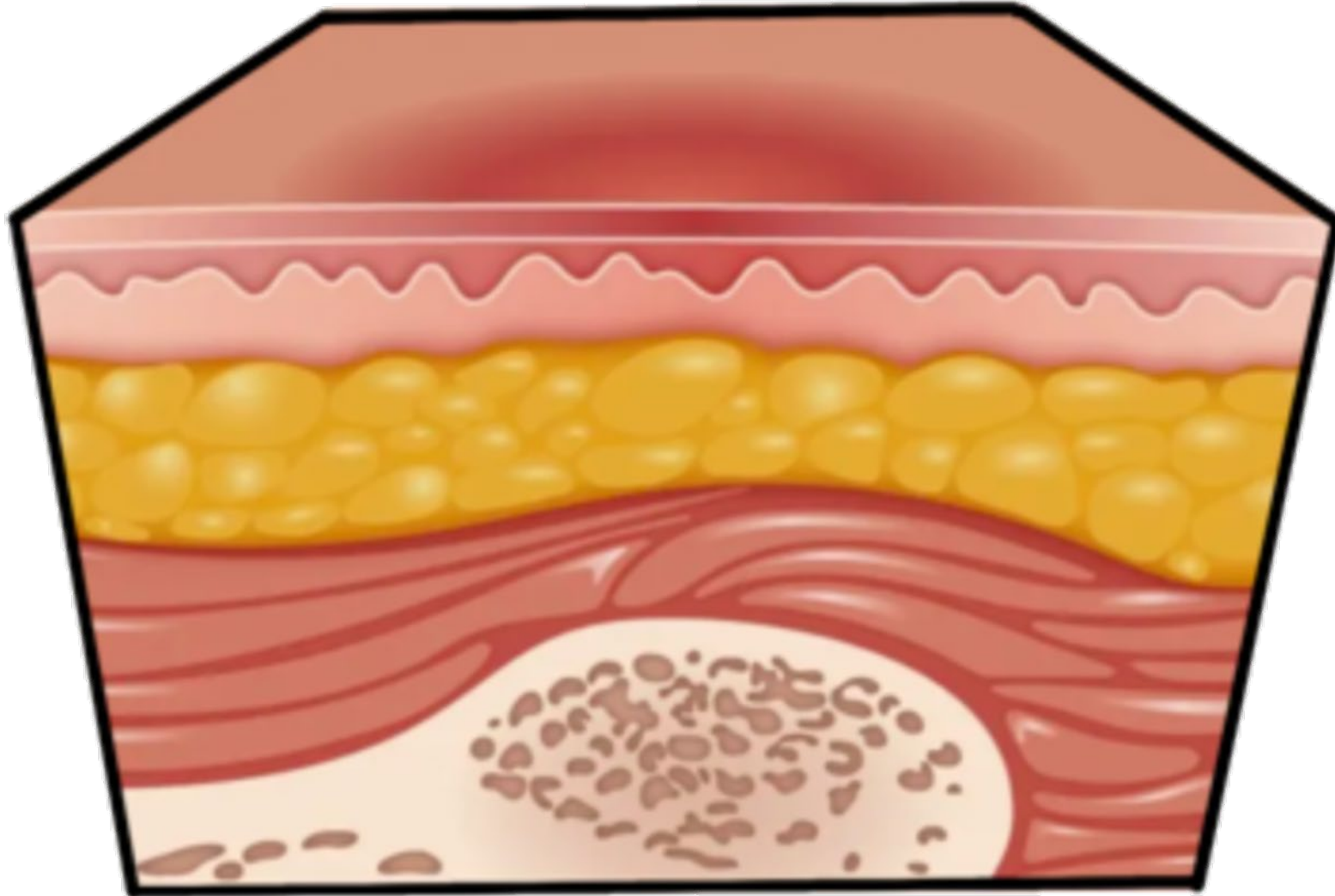
PU/PI Staging

- Performed to indicate the characteristics and extent of tissue injury.
- Should be conducted according to professional standards of practice.
- The facility is responsible for completing the MDS utilizing the staging guidelines found in the RAI Manual.

Stage 1 PU/PI

- **Non-blanchable erythema of intact skin.**
- In darker skin tones, may appear with persistent red, blue, or purple hues.
- Prior to visual changes, may have:
 - Blanchable erythema.
 - Changes in sensation.
 - Changes in temperature.
 - Changes in firmness.
- Color changes of intact skin may indicate DTPI.

Stage 1 PU/PI (cont.)

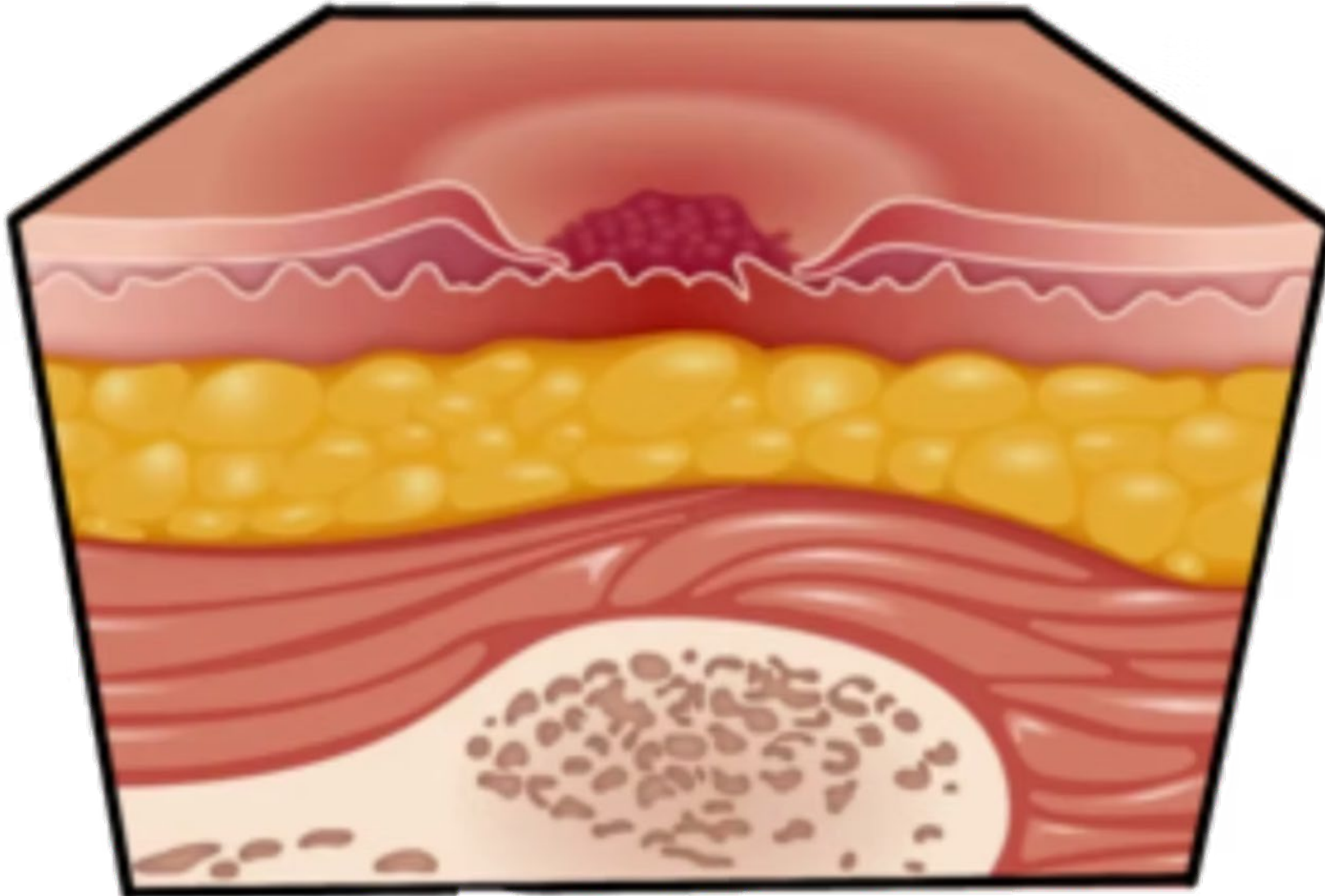


[Source: 6 Stages of Pressure Ulcers](#)

Stage 2 PU/PI

- **Partial-thickness skin loss with exposed dermis.**
- Shallow open ulcer.
- Wound bed is viable, pink or red, and moist.
- May present as an intact or open/ruptured blister.
- Not visible:
 - Adipose (fat) tissue.
 - Deeper tissues.
 - Granulation tissue.
 - Slough.
 - Eschar.

Stage 2 PU/PI (cont.)

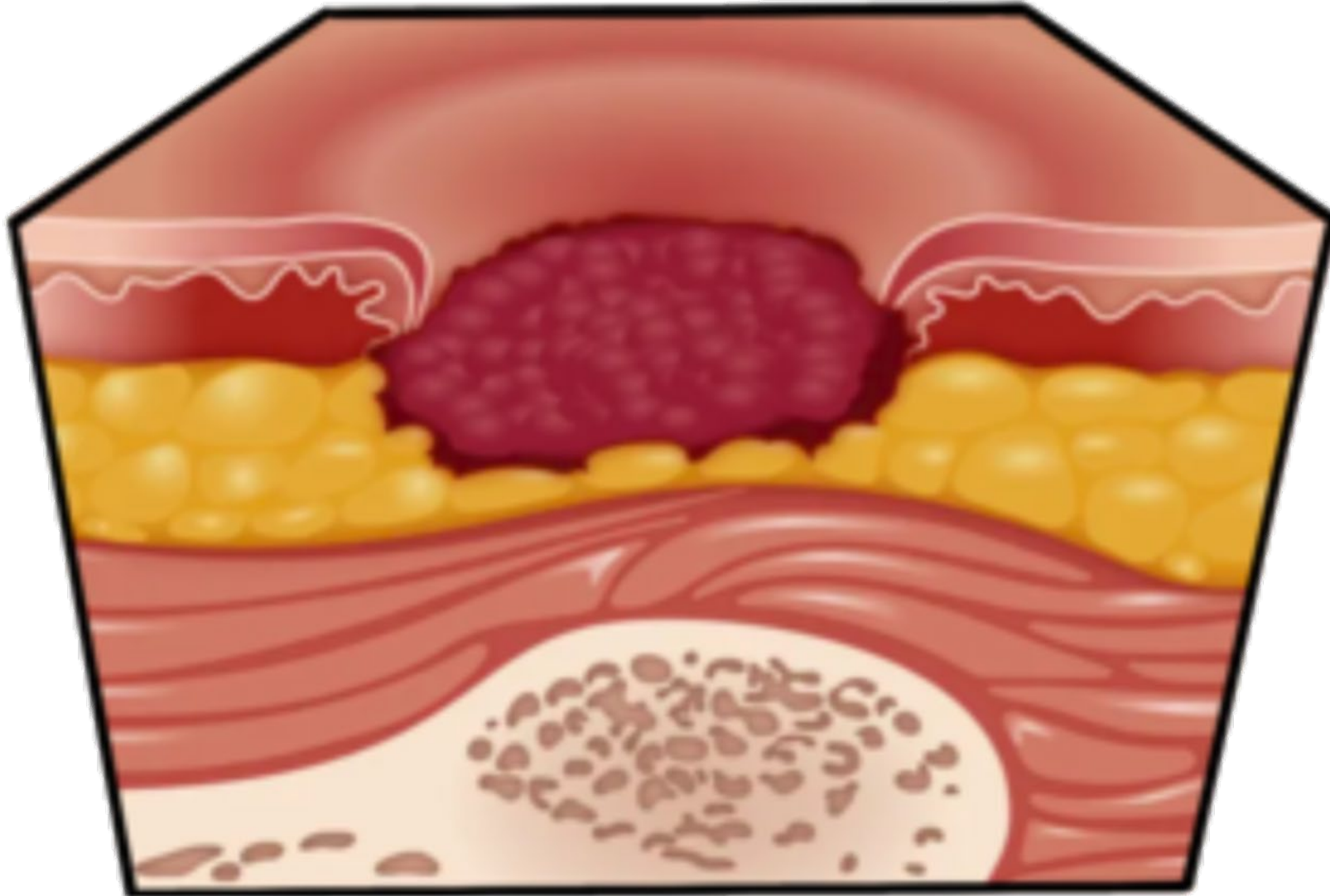


[Source: 6 Stages of Pressure Ulcers](#)

Stage 3 PU/PI

- **Full-thickness skin loss.**
- Subcutaneous fat may be visible.
- Granulation tissue and epibole are often present.
- Slough and/or eschar may be visible but does not obscure the depth of tissue (if wound bed is obscured it is unstageable).
- Depth of tissue damage varies by anatomical location (can develop deep wounds where significant adiposity exists).
- Undermining and tunneling may occur.
- Not exposed in the ulcer:
 - Fascia/muscle.
 - Tendon/ligament.
 - Cartilage.
 - Bone.

Stage 3 PU/PI (cont.)

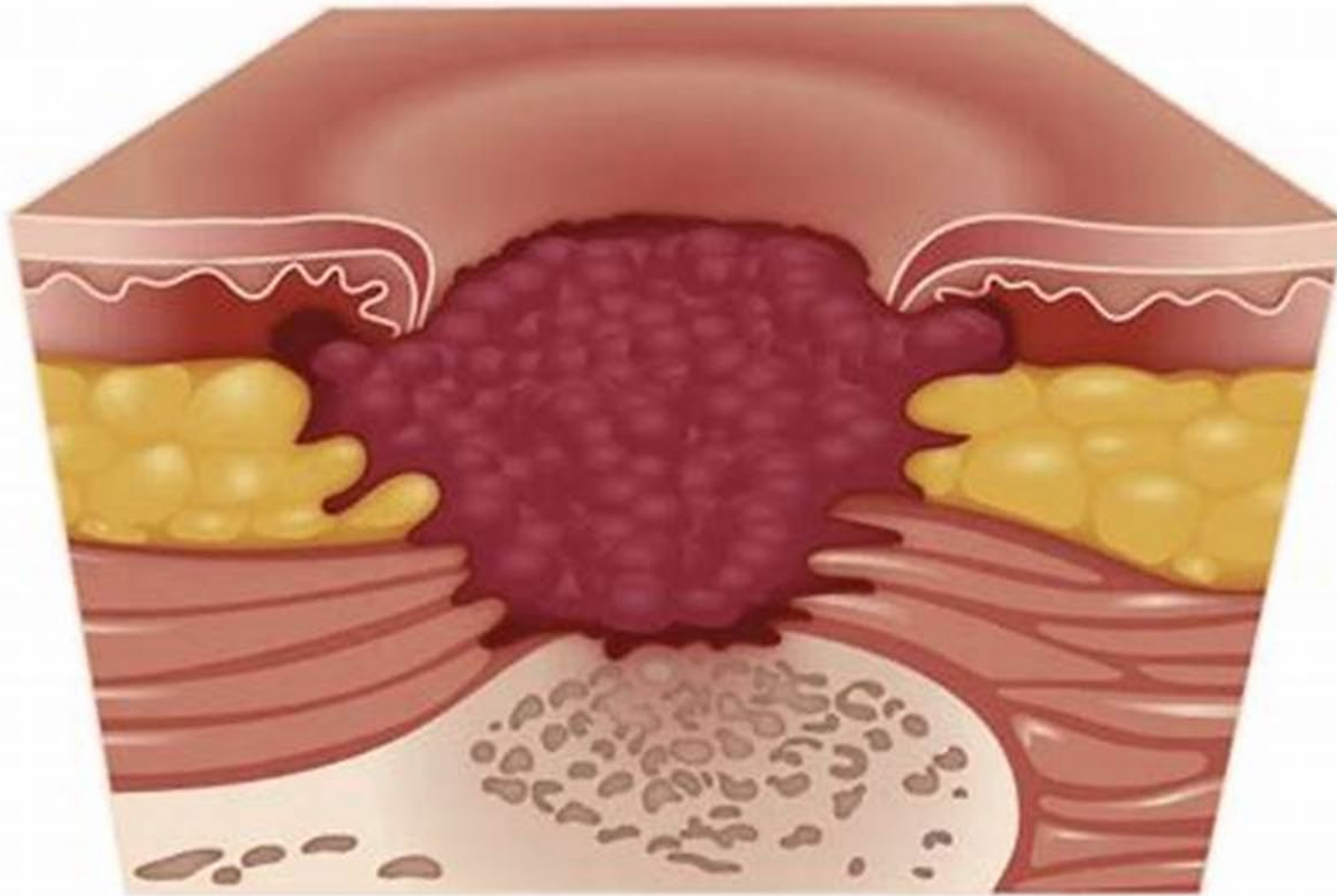


[Source: 6 Stages of Pressure Ulcers](#)

Stage 4 PU/PI

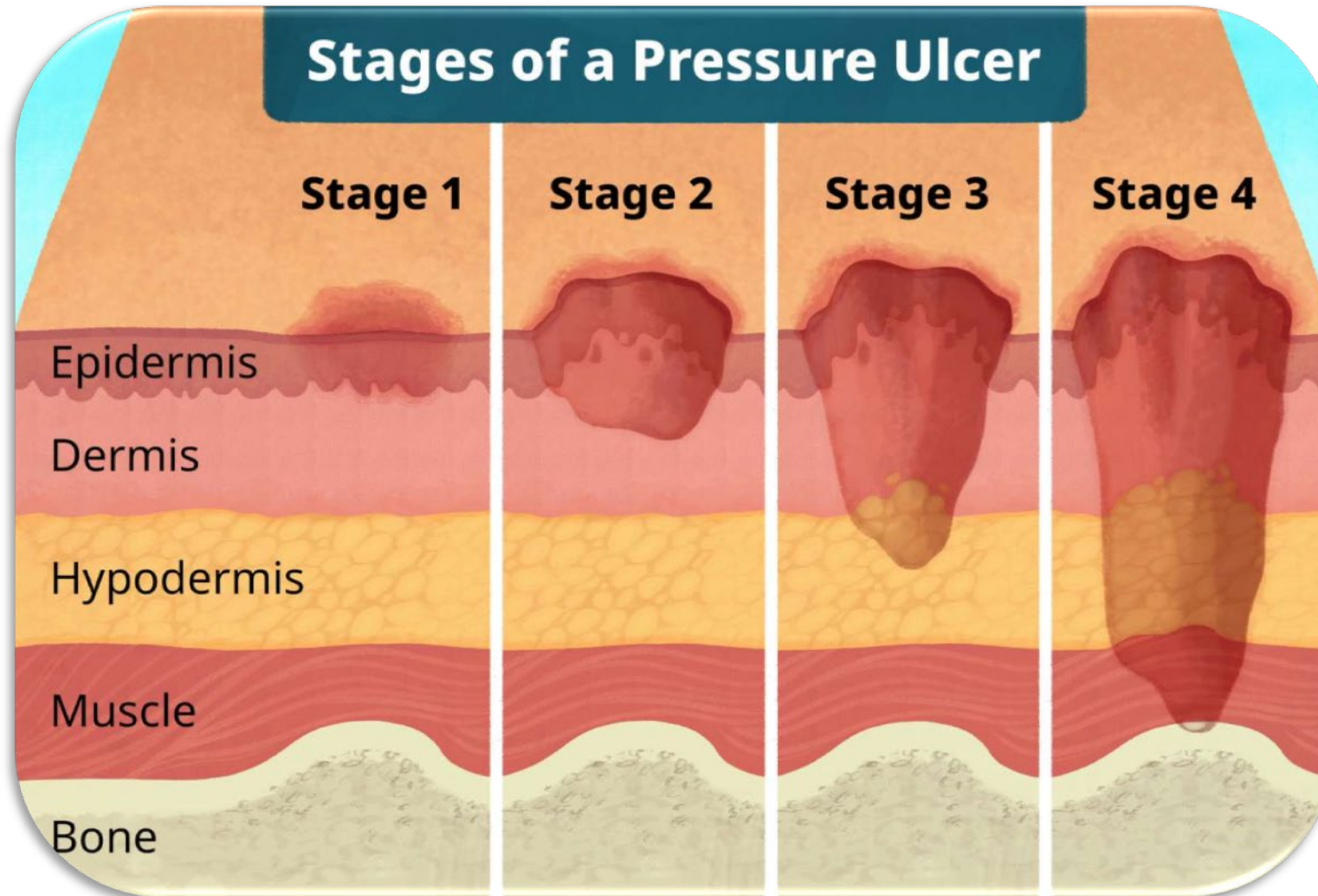
- **Full-thickness skin and tissue loss.**
- Exposed/directly palpable in the ulcer:
 - Fascia/muscle.
 - Tendon/ligament.
 - Cartilage.
 - Bone.
- Slough and/or eschar may be visible on some parts of the wound bed (if wound bed is obscured it is unstageable).
- Epibole, undermining, and/or tunneling often occur.
- Depth of tissue damage varies by anatomical location.

Stage 4 PU/PI (cont.)



Source: [6 Sages of Pressure Ulcers](#)

Four Stages of PU Review

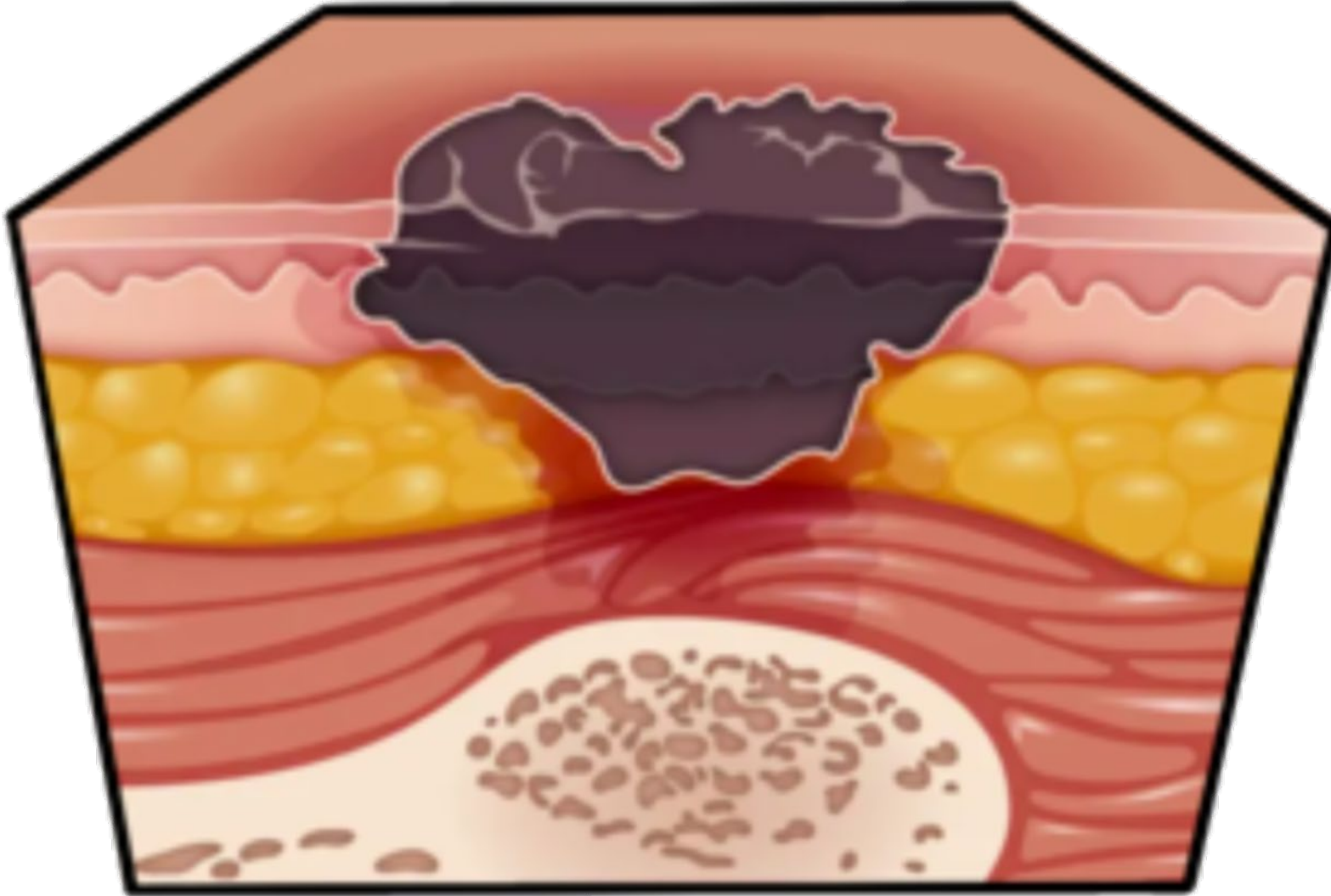


Source: Pinnaxis

Unstageable PU/PI

- **Obscured full-thickness skin and tissue loss.**
- Full-thickness skin and tissue loss in which the extent of the damage cannot be confirmed.
- Stable eschar should only be removed after careful clinical consideration and consultation with advanced level provider.
- If slough or eschar is removed, a Stage 3 or Stage 4 PU will be revealed.
- If anatomical depth of tissue damage can be determined (even without complete debridement or free of slough/eschar), then reclass the PU.

Unstageable PU/PI (cont.)

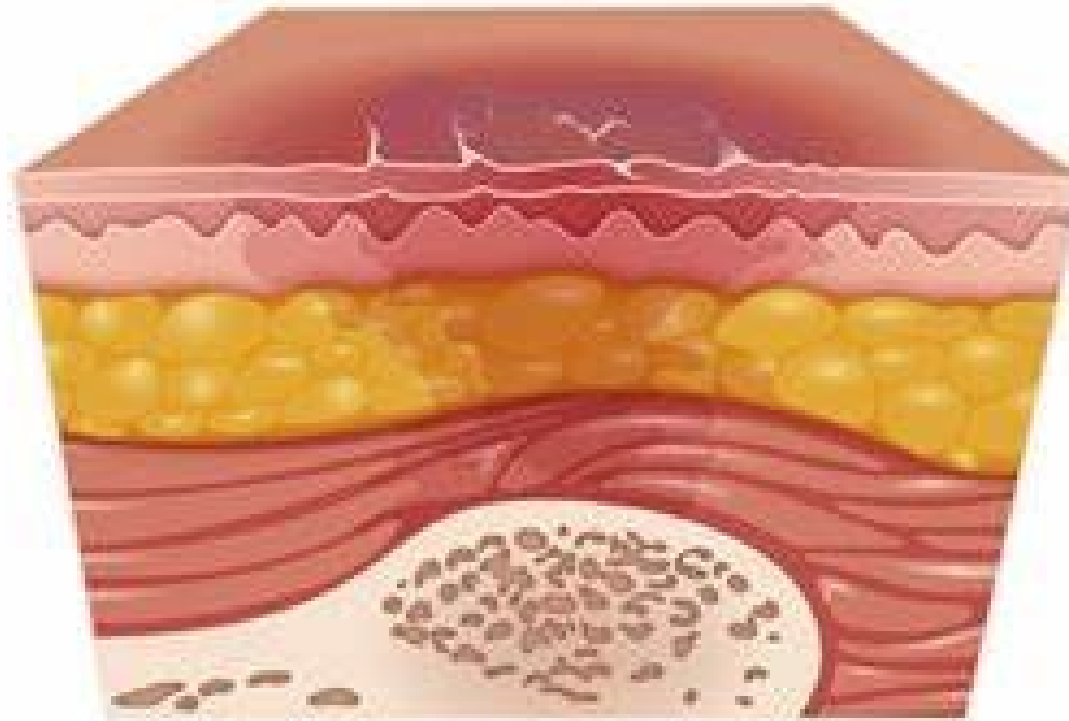


[Source: 6 Sages of Pressure Ulcers](#)

Deep Tissue Pressure Injury (DTPI)

- **Persistent non-blanchable deep red, maroon, or purple discoloration intact skin.**
- Due to damage of underlying soft tissue from intense and/or prolonged pressure and shear forces at the bone-muscle interface.
- May be preceded by painful, firm, mushy, boggy, warmer, or cooler area.
- May appear differently in darkly pigmented skin.
- May evolve rapidly into a wound or may resolve without tissue loss.
- Reclassify the ulcer to the appropriate stage once the injury opens.

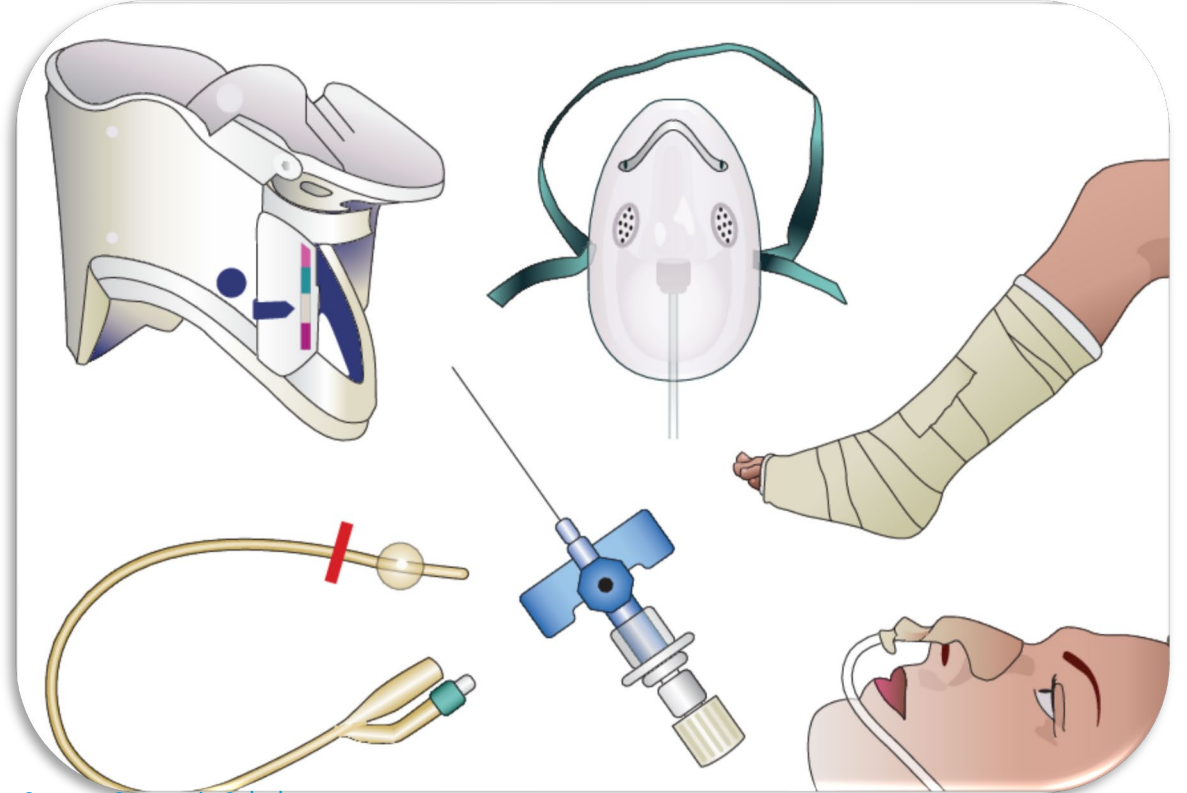
Deep Tissue Pressure Injury (cont.)



[Source: 6 Stages of Pressure Ulcers](#)

Medical Device Related PU/PI (MDRPI)

- Result from the use of devices designed and applied for diagnostic or therapeutic purposes.
- Injury conforms to the pattern or shape of the device.
- Injury should be staged appropriately.



[Source: Semantic Scholar](#)

Medical Device Related PU/PI (MDRPI) (cont.)

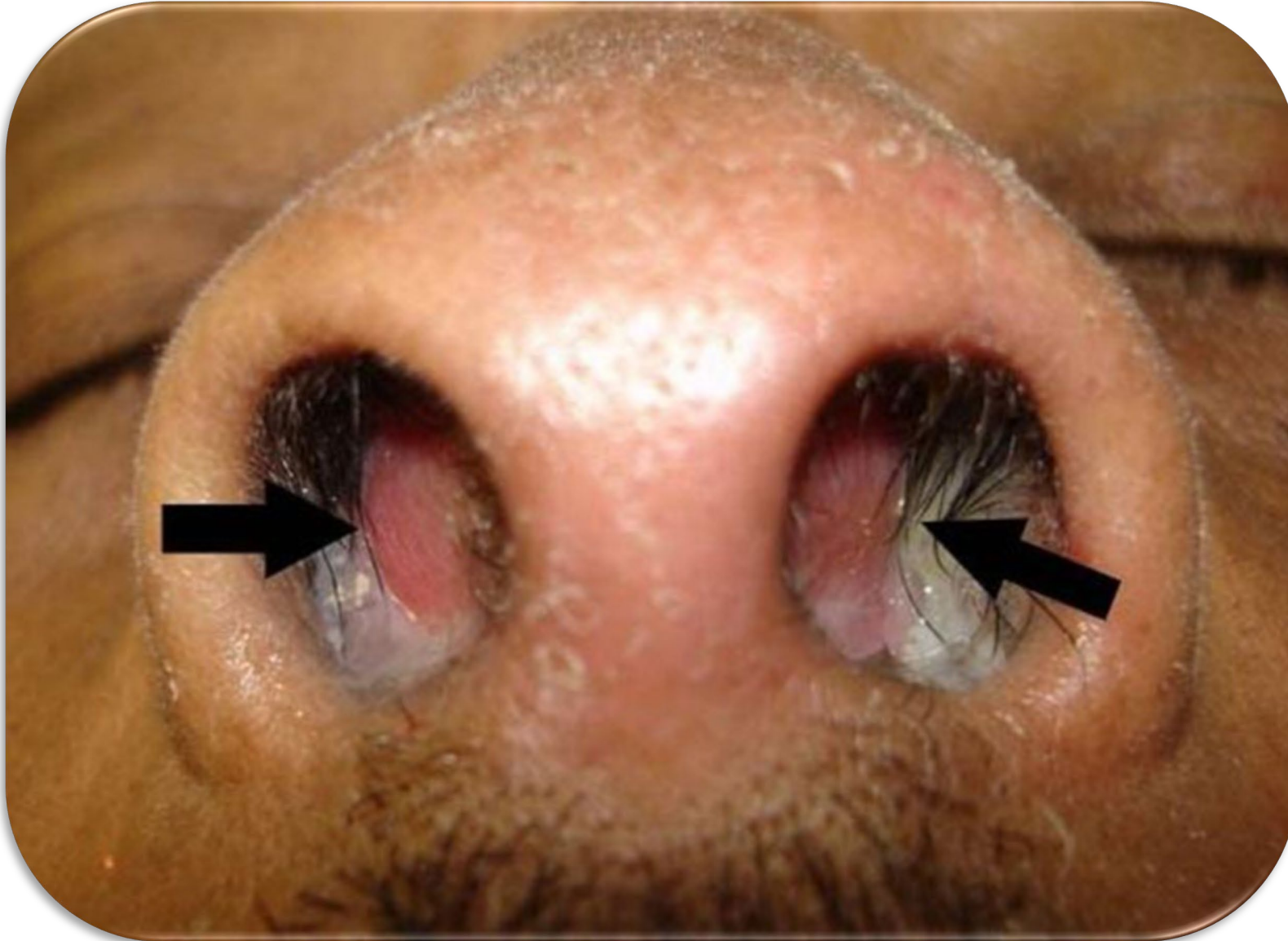


[Source: Deposit Photos](#)

Definition: Mucosal Membrane PU/PI

- Found on mucous membranes where a medical device has been used.
- Cannot be staged due to the anatomy of the tissue.

Mucosal Membrane PU/PI (cont.)



Source: BMJ Publishing Group

PU/PI Policies & Procedures

- System for daily monitoring and periodic documentation:
 - Measurements.
 - Terminology.
 - Frequency of assessment.
 - Documentation.
- Based upon current professional standards of practice.
- Developed with the medical director's review and approval.

Value of Initial Assessment

Admission evaluation:

- Identifies residents at risk of developing PU/PIs.
- Identifies residents with existing PU/PIs.
- Gathers data to guide physician orders and baseline care plan development.



[Source: AHN Cancer Institute](#)

Identifying Pre-existing Damage

Contributing factors prior to admission may include immobility during:

- Hospitalizations/surgical procedures.
- Prolonged ambulance transport.
- Waiting to be assisted after a debilitating event.



[Source: A Place for Mom](#)

Assessment of Darker Pigmentation

Erythema may be harder to identify when assessing residents with darkly pigmented skin. Staff should focus more on other evidence of PU/PI such as changes in:

- Skin sensation.
- Skin temperature.
- Skin firmness.

Residents with darker skin



For residents with darker skin, the skin may look **darker or lighter** than the surrounding skin.

Skin may look a little: **red, blue, or purple in color.**

[Source: Slide Serve](#)

Skin Monitoring - Image

Staff should remain alert to potential changes in the skin condition and should:

- Evaluate.
- Report.
- Document.



[Source: Aspire Rejuvenate](#)

Skin Monitoring (cont.)

- Develop a relevant care plan.
 - Measurable goals for
 - Prevention
 - Management.
- Define interventions.
 - Implement.
 - Monitor.
- Evaluate skin conditions weekly or more often as indicated:
 - Skin color.
 - Moisture.
 - Temperature.
 - Integrity.
 - Turgor.

Resident Choice

- The facility and the resident (representative) must discuss the following:
 - Resident's condition.
 - Treatment options.
 - Expected outcomes.
 - Consequences of refusing treatment.
- If the resident declines, the facility is expected to:
 - Address the resident's concerns.
 - Offer relevant alternatives.
 - Continual process.



[Source: Relias](#)

Comprehensive Assessment

- Evaluates resident factors which place them at risk for the development/hinder of healing PU/PIs:
 - Intrinsic risks.
 - Decreased subcutaneous tissue and lean muscle mass.
 - Decreased skin elasticity.
 - Impaired circulation or sensation.
 - Skin condition.
 - Other factors (including causal factors).

Comprehensive Assessment (cont.)

- Should address those factors that have been identified as having an impact on the development, treatment and/or healing of PU/PIs, including at a minimum:
 - Risk factors.
 - Pressure points.
 - Undernutrition and hydration deficits.
 - Moisture and the impact of moisture on skin.
- Identify the resident who has multi-system organ failure or an end-of-life condition or who is refusing care and treatment.

Plan of Care

- Establish relevant goals and approaches to:
 - Stabilize or improve co-morbidities.
 - Limit the effects of factors associated with PU/PIs.
- Based on:
 - Resident choices.
 - Clinical condition.
 - Physician input.
- If interventions were not appropriate or feasible, the facility staff and practitioners should document clinically valid reasons.

Assessment	Diagnosis	Planning	Intervention	Rationale	Evaluation
Subjective: "May mga sugat ako." as verbalized by the patient. Objective: ~Disruption of skin surface at the right upper arm ~presence of pain ~the wound is 7mm in distance ~there has a presence of erythema ~presence of itchiness in the surrounding of the wound	~Impaired skin integrity related to inflammatory response secondary to infection.	Goal: After the nursing 3 days intervention the client will be able to display improvement in wound healing. Objective: ~the wound will be lessen in diameter ~there will be an absent of erythema ~the presence of wound will be minimize ~absence of itchiness	~Demonstrated good skin hygiene (ex. wash thoroughly and pat dry carefully) ~provide and applied wound dressing carefully ~Emphasized importance of adequate nutrition and fluid intake. ~clean the wound with disinfectant and avoid using dirty dressing	~Maintainin g clean, dry skin provides a barrier to infection. ~ Wound dressings protect the wound and the surrounding tissues ~ Improved nutrition and hydration will improve skin condition. ~so the wound will be not infected	~the goal is met. Because the client is able to display improvement in wound healing as evidence by minimized presence of wound. ~there s a absent of itching ~absent of pain ~several part of wound had dried up.

Source: Imagetou

Prevention of PU/PI

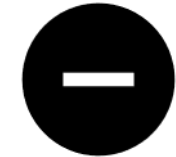
- PU/PI can occur wherever pressure has impaired circulation to the tissue.
- Factors affecting the potential development and healing of PU/PIs include:
 - Pressure intensity.
 - Pressure duration.
 - Tissue tolerance.
- Facilities should continuously focus on the prevention of PU/PIs with every resident, and this should be initiated upon admission and continue throughout the resident's stay.



[Source: Activheal](#)

Four Steps for PU/PI Prevention

1. Identify the resident at risk.
2. Evaluate resident specific risk factors.
3. Implement interventions to stabilize, reduce or remove underlying risk factors.
4. Provide treatment and services to heal PUs and prevent infection/additional PUs.



PU/PI Risk Assessment Tools

- PU/PI tools are designed to help identify residents at risk.
- Tools may be used at various times:
 - Admission.
 - Weekly for the first four weeks after admission.
 - Quarterly.
 - Change in resident's condition.
 - Based on each resident's specific needs.
- A common risk assessment tool is the Braden Scale for Predicting Pressure Sore Risk©.

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 mean, flinch or grasp) to painful stimuli, rise 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 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. Urine must be changed at least once a shift.	3. Occasionally Moist Skin is occasionally moist, requiring an extra liner change approximately once a day.	4. Rarely Moist Skin is usually dry, liner 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 Usual 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 1/2 of any food.	3. Adequate Eats over half or most meals. Eats a total of 4 servings of certain meals.	4. Excellent Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or				

Source: Yumpo

Risk Assessment and Clinician Responsibility

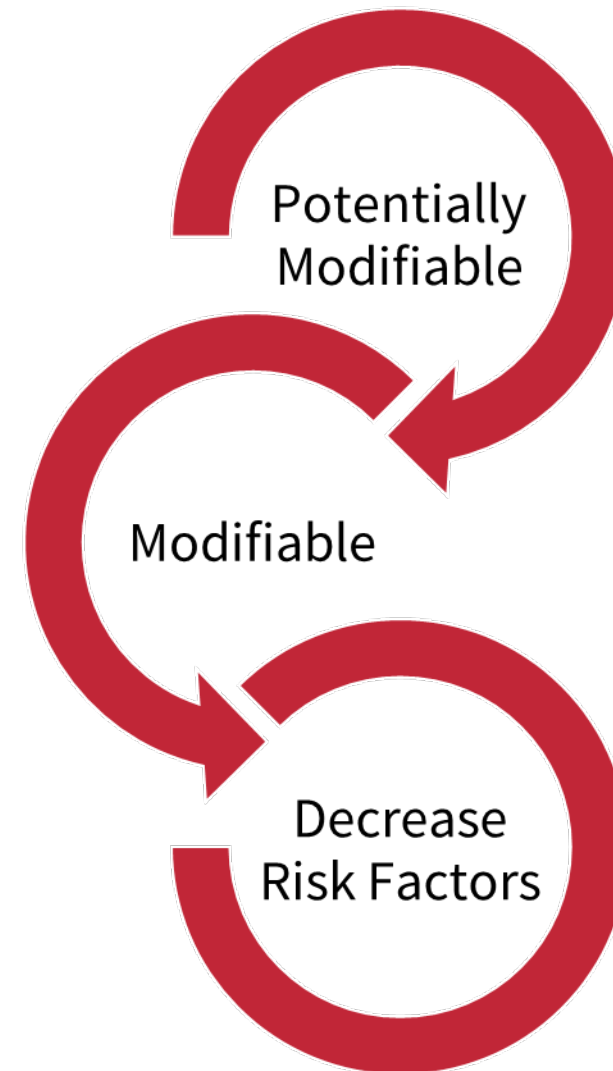
- Clinicians are responsible for:
 - Evaluating each existing and potential risk factor for developing a PU/PI.
 - Determining the resident's overall risk.
- Clinician's assessment may place the resident at a higher risk level than the overall score of the assessment tool.
- Clinician's decisions should be documented in the medical record.



[Source: Leman Aesthetic Clinic](#)

Risk Factors - Categories

- Not modifiable.
 - Permanent lack of sensation.
- Potentially modifiable.
 - Malnutrition.
 - Uncontrolled diabetes.
- Modifiable.
 - Pressure.
 - Moisture.



Risk Factors - Examples

- Impaired/decreased mobility.
- Co-morbid conditions.
- Medications.
- Impaired diffuse or localized blood flow.
- Resident refusal.
- Cognitive impairment.
- Skin exposure to urine and feces.
- Under nutrition, malnutrition, and hydration deficits.
- Presence of a previously healed PU/PI.



[Source: Vecteezy](#)

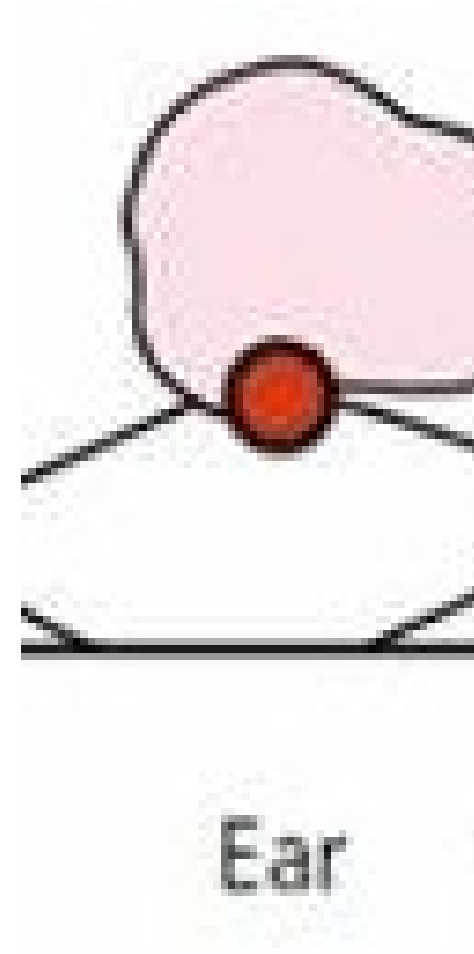
Pressure - Positioning

PU/PIs can result from positioning and are usually located over a bony prominence such as the:

- Scapula.
- Elbow.
- Spine.
- **Sacrum.**
- The greater trochanter.
- Ischial tuberosity.
- Fibular head.
- Malleolus.
- **Heel.**
- Legs, arms, and fingers due to contractures or deformity.

Pressure – Positioning (cont.)

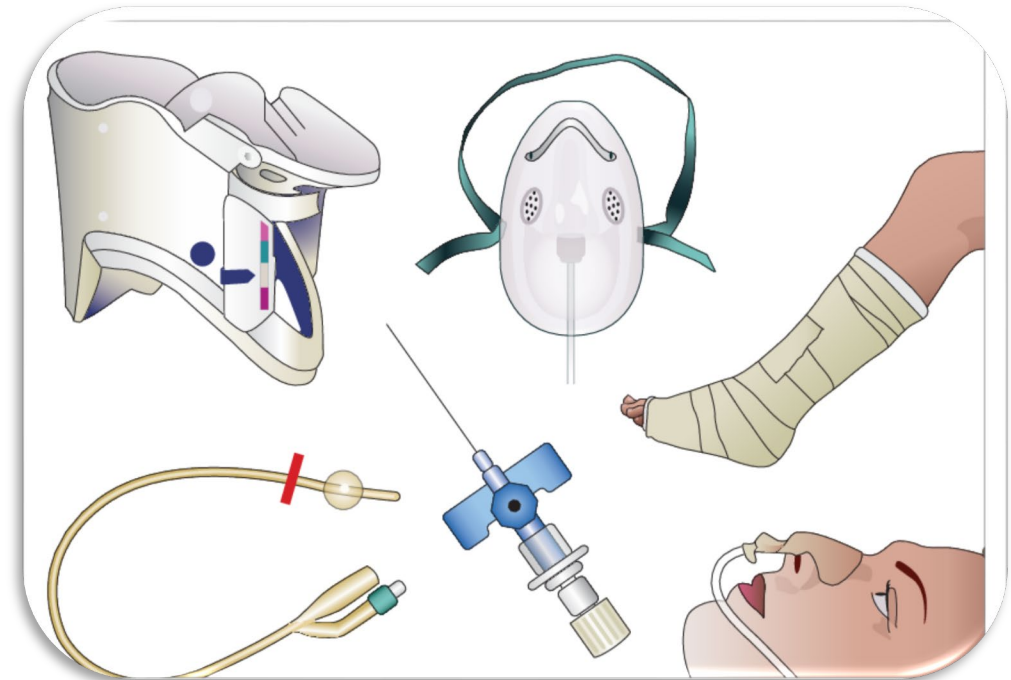
PU/PIs can also result from positioning concerns with non-bony areas such as the ear related to positioning of the head.



[Source: Guide of Greece](#)

Pressure – Medical Device

- Pressure resulting in impaired circulation to the tissue can be from a device as opposed to the resident's own body weight.
- Examples include but are not limited to:
 - Ear.
 - Nare.
 - Mucosal membrane.
 - Neck
 - Elbow.
 - Urinary meatus.
 - Labia/scrotum.
 - Extremities.



Source: Semantic Scholar

Friction & Shearing

Friction:

- Examples of friction include but are not limited to:
 - Blistering on a foot related to ill-fitting shoes.
 - Resident's skin rubbing against bed sheets.

Shearing:

- Example of shearing may include but is not limited to:
 - Resident shifting or scooting themselves across a surface instead of fully lifting their pelvis from a bed or chair.

Prevention & Treatment Strategies

- The comprehensive assessment should provide the basis for defining approaches to address residents at risk of developing or already having a PU/PI.
- A determination that a resident is at risk for developing a PU/PI has significant implications for prevention and treatment strategies but **DOES NOT** by itself indicate that development of a PU/PI was **unavoidable**.
- Effective prevention and treatment are based on consistently providing:
 - Routine interventions.
 - Individualized interventions.

Prevention & Treatment Strategies (cont.)

Based upon assessment and the resident's clinical condition, choices and identified needs, basic or routine care could include, but is not limited to, interventions to:

- Redistribute pressure.
- Minimize exposure to moisture and keep skin clean.
- Provide appropriate, pressure-redistributing, support surfaces.
- Provide non-irritating surfaces.
- Maintain or improve nutrition and hydration status, where feasible.
- Address adverse drug reactions.

Redistribution of Pressure - Repositioning

Repositioning:

- Is a common, effective intervention for an individual with a PU/PI or who is at risk of developing one.
- The resident on an existing PU/PI should be avoided.
- Is critical for a resident who is immobile or dependent upon staff for repositioning.



[Source: Medline](#)

Repositioning & Assessment

- Assessment of a resident's skin integrity after pressure has been reduced or redistributed should guide the development and implementation of repositioning plans.
- The resident's skin condition and general comfort should be regularly assessed.



[Source: Nancy Rubin](#)

Repositioning Frequency

Facilities should determine repositioning frequency with consideration to the resident's:

- Level of activity and mobility.
- General medical condition.
- Overall treatment objectives.
- Skin condition.
- Comfort.



[Source: Premier Paper & Print Services](#)

Repositioning Issues – Seated in Chair

- Limit time without pressure relief.
- Reposition to maintain stability and full range of activities.
- Use pressure relieving devices/cushions.
- Adjust the chair:
 - Seat tilt.
 - Footrests.
 - Leg rests.
 - Other supportive devices.
- Teach the resident to shift their weight while sitting in the chair.

Repositioning Issues – Seated in Chair (cont.)

- “Off-load” dependent residents who are sitting or who are in a bed or a reclining chair with the head of the bed or back of the chair raised 30 degrees or more.
 - At least hourly.
 - May require more frequent position changes.
 - “Microshifts” may not be adequate.
- Use wheelchairs to transport residents and not for extended sitting due to severely limiting repositioning options and increasing the risk of PU/PI development.
 - Modify the surface to the seating for a more stable surface with better pressure reduction.

Repositioning Issues – Seated in Chair (cont.)

- The care plan should address position changes to maintain the resident's skin integrity:
 - Timing (two hours or more frequently) based on resident's condition and specific needs.
 - Limiting repositioning based on locations of PU/PIs.
 - Head of bed elevation angle.

Pressure Redistributing

Pressure redistribution:

- Refers to the function or ability to distribute a load over a surface or contact area.
- Results in shifting pressure from one area to another and requires attention to all affected areas.
- Has incorporated the concepts of both pressure reduction and pressure relief.



[Source: AR Inspired Pencil](#)

Support Surfaces

- Appropriate support surfaces or devices should be chosen by matching a device's potential therapeutic benefit with the resident's specific situation:
 - Multiple injuries.
 - Limited turning surfaces.
 - Ability to maintain position.
- The effectiveness of each pressure redistribution device needs to be evaluated on an ongoing basis and should be based on:
 - Potential to address the individual's resident's risk.
 - Resident's response to the product.
 - Characteristics and condition of the product.

Support Surfaces (cont.)

NOT Recommended



[Source: Guide of Greece](#)

Pressure Reduction Issues (Static/Dynamic)

- Static pressure redistribution devices may be indicated when:
 - A resident is at risk for PU/PI development.
 - A resident is at risk for delayed healing.
- Dynamic pressure reduction surfaces may be helpful when:
 - The resident cannot assume a variety of positions without bearing weight on a PU/PI.
 - The resident completely compresses a static device that has retained its original integrity.
 - The PU/PI is not healing as expected, and it is determined that pressure may be contributing to the delay in healing.

Pressure Reduction Issues (Heels/Elbows)

- Heels and elbows have relatively little surface area and therefore, it is difficult to redistribute pressure on these two surfaces.
- It is important to pay particular attention to reducing the pressure on the heels and elbows for the resident at risk in accord with the resident's overall goals and condition.
- Pillows used to support the entire lower leg may effectively raise the heel from contact with the bed, but use of the pillows needs to consider the resident's other conditions.

Pressure Reduction Issues (Contractures)

- A resident with severe flexion contractures may require special attention to effectively reduce pressure on bony prominences or prevent breakdown from skin-to-skin contact.
- Products to provide comfort and reduce friction and shearing forces:
 - May include sheepskin, heel and elbow protectors, pillows, foam wedges, etc.
 - Are not effective at redistributing pressure.
 - May be employed to prevent bony prominences from rubbing together or on other surfaces such as armrests, the bed, or side rails.

Moisture – Urine and Feces

- Urine and feces contain substances that
 - May irritate the epidermis.
 - May make the skin more susceptible to breakdown and moisture-related skin damage.
- Fecal incontinence may pose a greater threat due to
 - Bile acids in the feces.
 - Enzymes in the feces.



[Source: Freepik](#)

Moisture – Urine and Feces (cont.)

- Irritation or maceration resulting from prolonged exposure to urine and feces:
 - May hasten skin breakdown.
 - Moisture may make skin more susceptible to damage from friction and shear during repositioning.



[Source: Freepik](#)

Moisture – Dermatitis or PU/PI

- Is it dermatitis related to incontinence or a partial thickness PU/PI?
- Dermatitis may occur in the area where the incontinence brief or underpad has been used.
- Differentiation should be based on:
 - Clinical evidence.
 - Review of presenting risk factors.



[Source: Felgains](#)

Nutrition

- Adequate nutrition provides:
 - Vital energy for organ and body function.
 - Building blocks for all the body's structures and processes.
- Additional energy or structural materials may be needed for repair or function of the body systems.



Source: Trios Health

Weight

Weight:

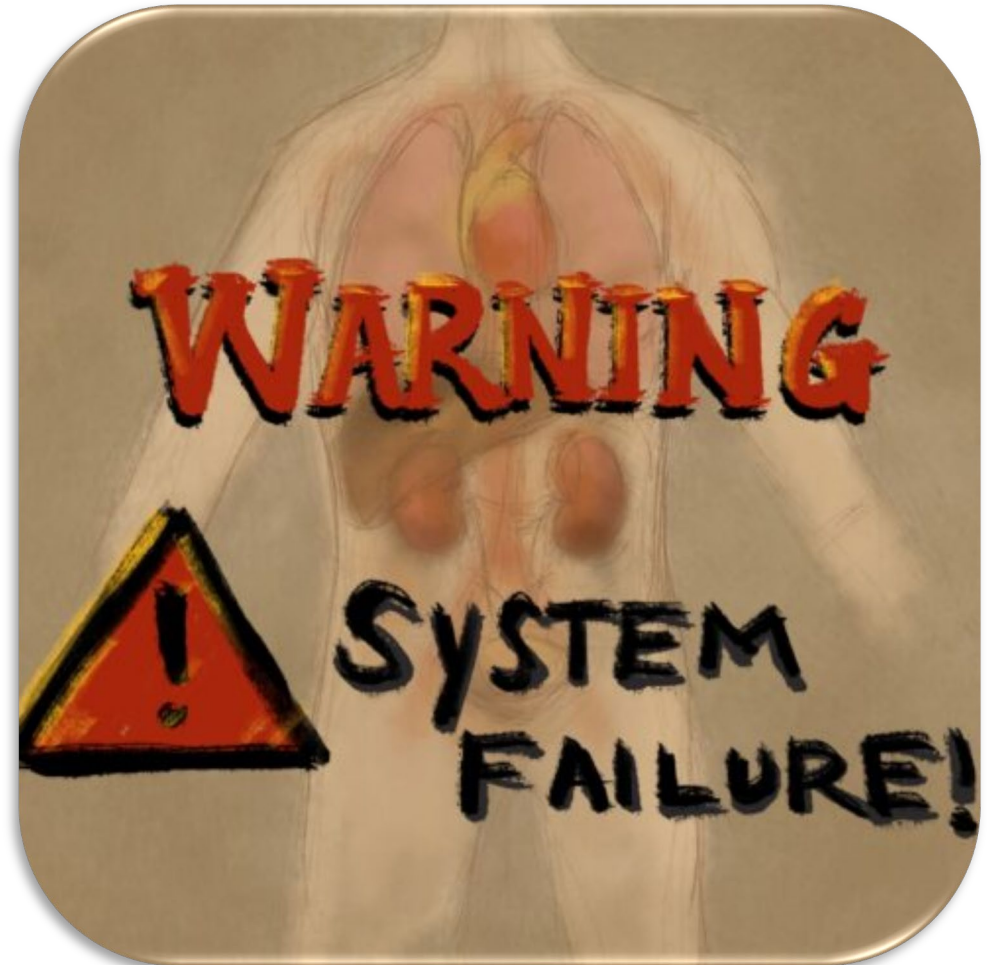
- Reflects a balance between intake and utilization of energy.
- Loss (significant, unintended) may indicate under-nutrition or worsening health status.
- Stability (in the absence of fluid excess or loss) is a useful indicator of overall caloric balance.



[Source: Daily Mail](#)

Body's Effective Use of Nutrition

- Severely impaired organs may be unable to use nutrients effectively.
- A resident with a PU/PI who continues to lose weight needs:
 - Additional caloric intake.
 - Correction (where possible) of the condition that is creating the hypermetabolic state.



[Source: Every 1 Dies](#)

Nutritional Care Plan

The team should summarize resident-specific evidence prior to instituting a nutritional care plan, noting:

- Severity of nutritional compromise.
- Rate of weight loss/appetite decline.
- Probable causes.
- Individual's prognosis / projected clinical course.
- Resident's wishes and goals.

Assessment	Diagnosis	Planning	Intervention	Rationale	Evaluation
Subjective: <i>"May mga sugat ako."</i> as verbalized by the patient. Objective: ~Disruption of skin surface at the right upper arm ~presence of pain ~the wound is 7mm in distance ~there has a presence of erythema ~presence of itchiness in the surrounding of the wound	~Impaired skin integrity related to inflammatory response secondary to infection.	Goal: After the nursing 3 days intervention the client will be able to display improvement in wound healing Objective: ~the wound will be lessen in diameter ~there will be an absent of erythema ~the presence of wound will be minimize ~absence of itchiness	~Demonstrated good skin hygiene (ex. wash thoroughly and pat dry carefully) ~provide and applied wound dressing carefully ~Emphasized importance of adequate nutrition and fluid intake. ~clean the wound with disinfectant and avoid using dirty dressing	~Maintainin g clean, dry skin provides a barrier to infection. ~ Wound dressings protect the wound and the surrounding tissues ~ Improved nutrition and hydration will improve skin condition. ~so the wound will be not infected	~the goal is met. Because the client is able to display improvement in wound healing as evidence by minimized presence of wound. ~there s a absent of itching ~absent of pain ~several part of wound had dried up.

Source: Imagetou

Body's Effective Use of Nutrition

- Some laboratory tests may help clinicians evaluate nutritional issues in a resident with PU/PIs.
- No laboratory test is specific or sensitive enough to warrant serial/repeated testing.
- A practitioner may order test(s) that provide useful additional information or help with management of treatable conditions at their discretion.



[Source: The University of Melbourne](#)

Adverse Drug Reactions

- Adverse drug reactions related to the resident's drug regimen:
 - May worsen risk factors for development of PU/PIs.
 - May prevent PU/PIs from healing.
 - Should be identified and addressed.
- Examples of adverse drug reactions include medications which may cause:
 - Lethargy.
 - Anorexia.
 - Create/increase confusion.



[Source: A One Moving](#)

Assessment/Treatment of PU/PIs

- It is important to recognize, assess and address:
 - Each existing PU/PI, whether present upon admission or developed after admission.
 - Factors that influenced the PU/PIs development.
 - Potential for development of additional PU/PIs or deterioration of the PU/PIs.
- Any new PU/PI suggests a need to reevaluate the adequacy of prevention measures in the resident's care plan.

Documentation of PU/PI Assessment & Treatment

When assessing the PU/PI, it is important that documentation addresses:

- The type of injury (pressure-related versus non-pressure-related).
- The PU/PIs stage.
- A description of the PU/PIs characteristics.
- The progress toward healing and identification of potential complications.
- If infection is present.
- The presence of pain, what was done to address it, and the effectiveness of the intervention.
- A description of dressings and treatments.

PU/PI Daily Monitoring

- PU/PI daily monitoring should include:
 - An evaluation of the PU/PI, if no dressing is present.
 - An evaluation of the status of the dressing, if present.
 - The status of the area surrounding the PU/PI.
 - The presence of possible complications.
 - Whether pain, if present, is being adequately controlled.
- There should be accompanying documentation when a complication or change is identified.



[Source: The Daily Campus](#)

PU/PI At Least Weekly Monitoring & Documentation

- With each dressing change or at least weekly, an evaluation of the PU/PI should be documented and include:
 - Date.
 - Location and staging.
 - Size.
 - Exudate.
 - Pain.
 - Wound bed.
 - Description of wound edges and surrounding tissue.
- Documented monitoring should be completed more often when indicated by wound complications or changes in wound characteristics.
- Photographs may be used to support this documentation:
 - Protocol consistent with professional standards are developed.
 - Issues related to resident privacy and dignity are considered and maintained.

Progression of Healing PU/PIs

- PU/PIs do not heal in a reverse sequence; that is, the body does not replace the types and layers of tissue (muscle, fat, and dermis) that were lost during development.
- The healing process varies depending on the stage of the pressure injury.
- Facilities are required to use the Resident Assessment Instrument (RAI) to describe the progression of the healing PU/PI.

Healing PU/PIs – Sacrum, Coccyx, & Ischia

- Sacrum/coccyx or ischia PU/PIs:
 - Limit sitting to 60 minutes or less, three times a day.
 - Consult a seating specialist.
- Ischial injury PU/PIs:
 - Not be seated in a fully erect posture in a chair or bed.
 - Modify sitting time schedules and re-evaluate the seating surface/resident's posture.



Source: Dreamstime

Non-Healing PU/PIs

No evidence of progress toward healing within two to four weeks the:

- Area should be reassessed.
- Resident's overall condition should be reassessed.
- Treatment plan should be re-evaluated.
 - Continue interventions.
 - Modify interventions
 - Document rationale for continuing present treatment despite little or no apparent healing.

Assessment	Diagnosis	Planning	Intervention	Rationale	Evaluation
Subjective: "May mga sugat ako." as verbalized by the patient. Objective: ~Disruption of skin surface at the right upper arm ~presence of pain ~the wound is 7mm in distance ~there has a presence of erythema ~presence of itchiness in the surrounding of the wound	~Impaired skin integrity related to inflammatory response secondary to infection.	Goal: After the nursing 3 days intervention the client will be able to display improvement in wound healing Objective: ~the wound will be lessen in diameter ~there will be an absent of erythema ~the presence of wound will be minimize ~absence of itchiness	~Demonstrated good skin hygiene (ex. wash thoroughly and pat dry carefully) ~provide and applied wound dressing carefully ~Emphasized importance of adequate nutrition and fluid intake. ~clean the wound with disinfectant and avoid using dirty dressing	~Maintainin g clean, dry skin provides a barrier to infection. ~ Wound dressings protect the wound and the surrounding tissues ~ Improved nutrition and hydration will improve skin condition. ~so the wound will be not infected	~the goal is met. Because the client is able to display improvement in wound healing as evidence by minimized presence of wound. ~there s a absent of itching ~absent of pain ~several part of wound had dried up.

Source: Imagetou

PU/PI Dressings & Treatments

- Treatment for a PU/PI is based upon:
 - Practitioner's clinical judgment.
 - Facility protocols.
 - Current professional standards of practice.
- Product selection should be based upon:
 - Relevance of the specific product to the identified PU/PI(s) characteristics.
 - Treatment goals.
 - Manufacturer's recommendations for use.



[Source: Metro Care](#)

PU/PI Dressings & Treatments – Clean Technique

EBP suggests that PU/PI dressing protocols may use clean technique rather than sterile, but that appropriate sterile technique may be needed for those wounds that recently have been surgically debrided or repaired.

- Clean technique involves:
 - Approved hand hygiene/glove use.
 - Maintaining a clean environment.
 - Using clean instruments.
 - Preventing direct contamination of materials/supplies.
- Clean technique is considered most appropriate for:
 - Long-term care.
 - Residents who are not at high risk for infection.
 - Residents receiving routine dressings for chronic wounds.

PU/PI Infections

- PU/PI complications may include:
 - Cellulitis.
 - Osteomyelitis.
 - Septic arthritis.
 - Abscess.
 - Bacteremia/septicemia.
 - Chronic infection.
 - Sinus tract.
- Involve the physician whenever there is a significant change in the wound or the overall resident condition.



[Source: Fity Club](#)

PU/PI Infections – Acute Wounds

- Classic signs of inflammation persist beyond the normal time frame of three to four days. The classic signs of inflammation include:
 - Redness.
 - Edema.
 - Pain.
 - Increased exudate.
 - Peri wound surface warmth.
- Immunosuppressed residents' signs of infection may be diminished or masked, and the only observable symptom may be a complaint of pain.



[Source: Inspired Pencil](#)

PU/PI Infections – Chronic Wounds

All chronic wounds have bacteria which resides in non-viable tissue. Therefore, debridement of the non-viable tissue and wound cleansing are important to reduce bacteria. Signs of infection may be more subtle such as:

- A decrease in healing.
- Exudate changes.
- Granulation tissue decolorization/friability.
- Undermining.
- Abnormal odor.
- Epithelial bridging.
- Sudden pain.

PU/PI Infections – Diagnosis & Treatment

- Physician diagnosis of infections in PU/PI are based on:
 - Resident history.
 - Clinical findings (wound culture).
- Pus, slough, or necrotic tissue should not be cultured.
- Findings such as an elevated white blood cell count, bacteremia, sepsis or fever may signal a PU/PI related infection **or** a co-existing infection from a different source.
- The treatment of an infection will depend on the type of infection present.



[Source: Vecteezy](#)

PU/PI Pain

- Pain:
 - Assessment and treatment are integral components of PU/PI prevention and management.
 - May interfere with movement and/or affect mood contributing to immobility and the potential for developing or for delayed healing or non-healing of an already existing PU/PI.
- Refer to §483.25(k) for additional guidance related to pain management.



[Source: Pain Treatment Directory](#)

End of Life PU/PIs

- Facility care must reflect the resident's goals for care and wishes as expressed in a valid advanced directive, if one is formulated, in accordance with state law.
- However, the presence of an advance directive does not absolve the facility from giving supportive and other pertinent care that is not prohibited by the resident's advance directive.
- When a facility has implemented individualized approaches for end-of-life care in accordance with the resident's wishes, the development, continuation, or worsening of a PU/PI may be considered unavoidable.
- If the facility has implemented appropriate efforts to stabilize the resident's condition and has provided care to prevent or treat existing PU/PIs, the PU/PI may be considered unavoidable and consistent with regulatory requirements.

Kennedy Terminal Ulcer (KTU)

- The facility is responsible for accurately assessing and classifying an ulcer as a KTU or other type of PU/PI and demonstrate the appropriate preventative measures were in place to prevent non-KTU pressure ulcers.
- KTU specific characteristics include:
 - Appear suddenly and within hours.
 - Appear usually on the sacrum/coccyx, but may appear on the heels, posterior calf muscles, arms and elbows.
 - Irregular edges and are red, yellow, and black as the ulcer progresses.
 - Often described as pear, butterfly, or horseshoe shaped.
 - Often appear as an abrasion, blister, or darkened area.
 - May develop rapidly to a Stage 2, Stage 3, or Stage 4 injury.

Best Practices in PU/PI Prevention and Care

Best Practices



Wound Team

Team purpose

- Meet regularly to discuss potential care/treatment options.
- Increase inter-professional communication and collaboration through enhanced data sharing.
- Address not only residents with current wounds but discuss residents who are at high risk for developing PU/PIs.

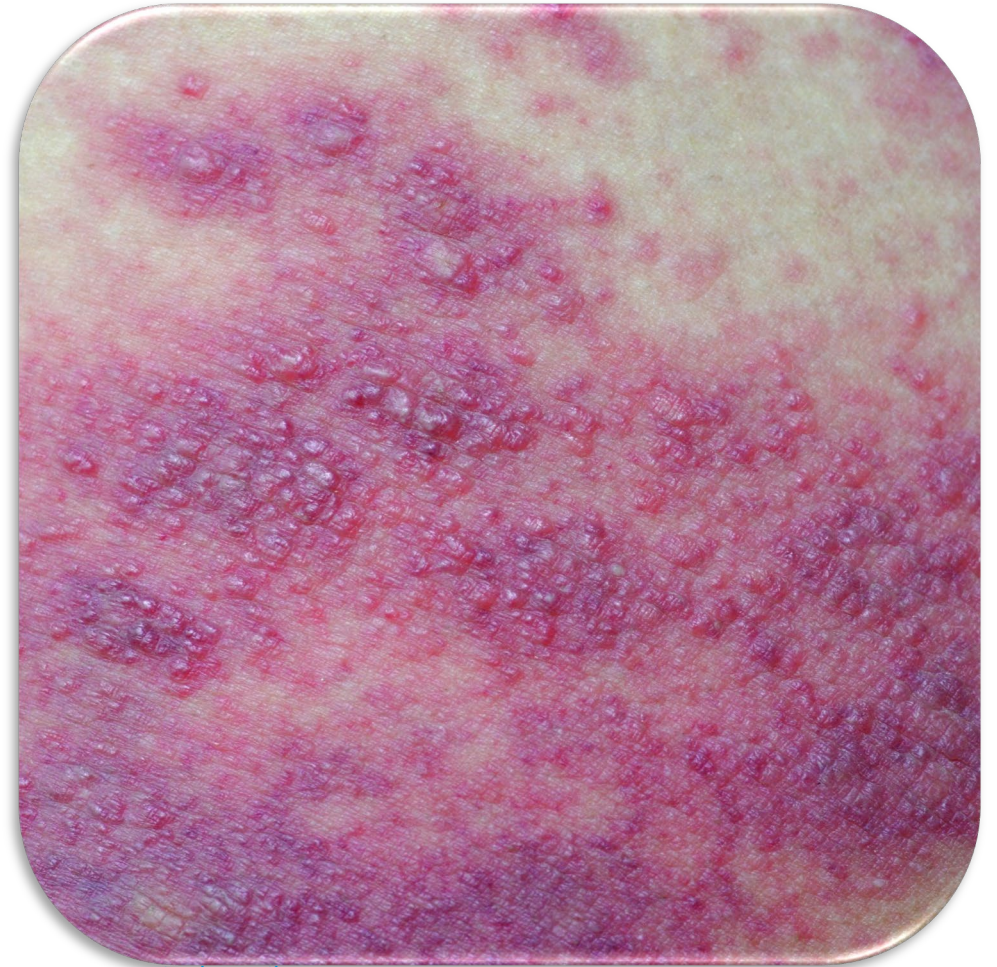
Team members

- Wound practitioner.
- Director of Nursing.
- Administrative personnel.
- MDS nurse.
- Dietitian.
- Occupational therapist.
- Lead certified nurse aide.

Incontinence-Associated Dermatitis

Incontinence-associated dermatitis:

- Is an irritant contact dermatitis caused by prolonged contact of the skin with urine and/or feces.
- Results from ammonia and enzymes in urine and feces break down the skin's natural protective barrier.
- Causes discomfort, itching, and pain resulting in a reduction in quality of life.
- Can raise the risk of pressure ulcer development.



[Source: Inspired Pencil](#)

Intertriginous Dermatitis

Intertriginous dermatitis:

- Is an irritant contact dermatitis caused by prolonged exposure to perspiration in skin folds.
- Results from skin-to-skin friction (rubbing) that is intensified by heat and moisture.
- Causes discomfort, itching, and pain resulting in a reduction in quality of life.
- Can raise the risk of pressure ulcer development.

Periwound Moisture-Associated Dermatitis

Periwound moisture-associated dermatitis:

- Is an irritant contact dermatitis caused by prolonged exposure to moisture around a chronic wound.
- Results from urine, stool, sweat, wound drainage or other sources of water eroding the wound edge tissue.
- Can contain exudate or toxins from bacteria in the wound bed.
- Causes discomfort, itching, and pain resulting in a reduction in quality of life.
- Can raise the risk of breaking down additional tissue and the wound can enlarge.

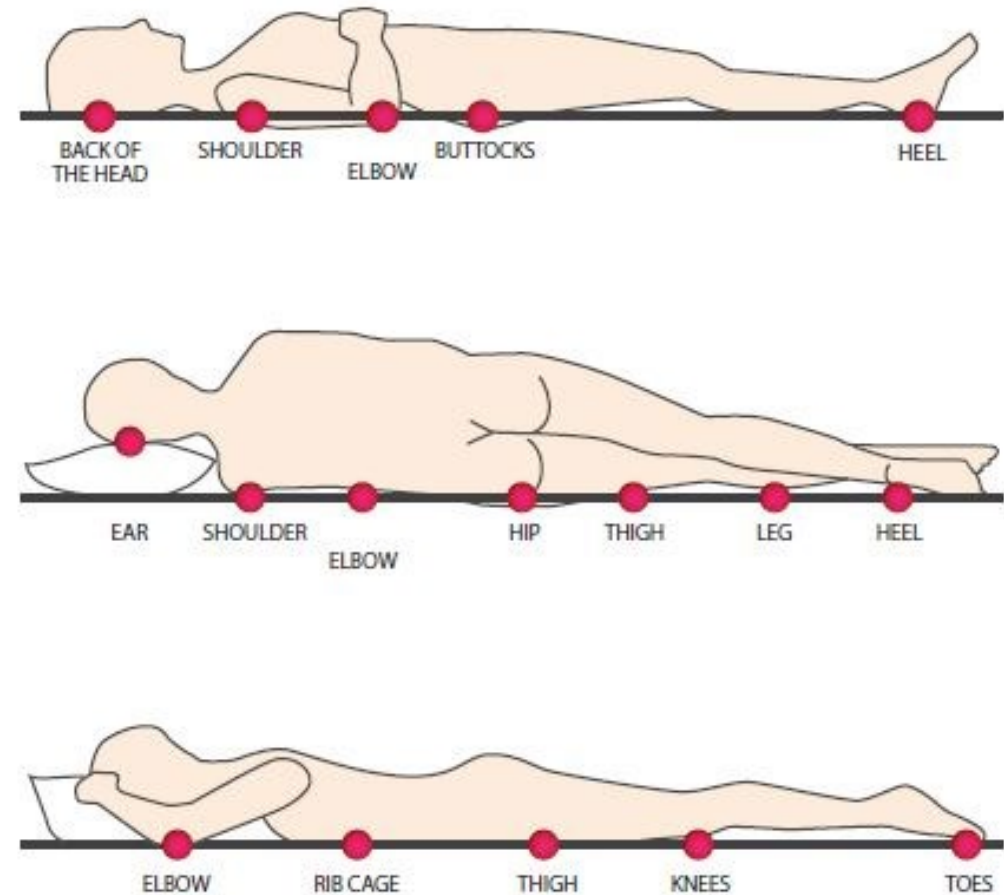


[Source: Medline](#)

Turning & Repositioning

Cuing innovations:

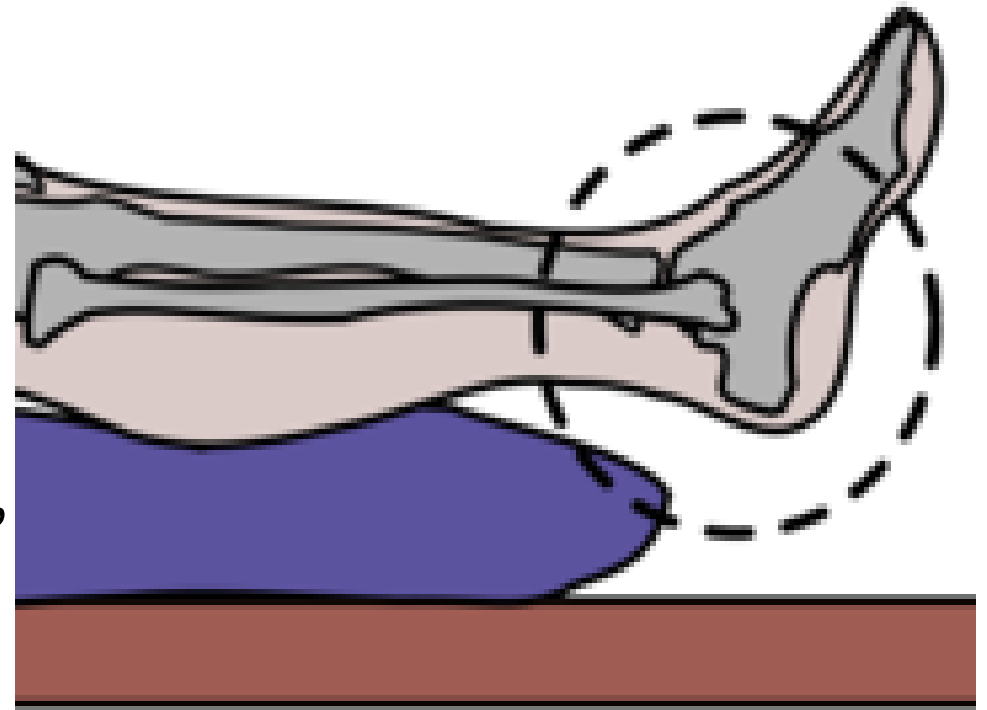
- Clock charts at the nursing station.
- Tracking, logging, and charting tools.



[Source: St. Vincent's Private Hospitals](#)

Offloading & Prevention Devices

- Offloading footwear.
- Protectors - devices to help reduce injury caused by friction or shear forces.
 - Self-adhering foam products.
 - Pressure reducing pads.
 - Flotation cushions.
- Positioners – offload by suspending, elevating, or changing position of the body area.
 - Turning wedges.
 - Positioning pillows.
 - Heel elevators.



[Source: Swansea Bay University](#)

Support Surfaces & Pressure Reduction

- Selecting the appropriate support surface is determined by many factors and is key in preventing and managing pressure injuries/ulcers.
- Options may include:
 - Powered covers.
 - Low air loss.
 - Alternating pressure.
 - Air fluidized.
 - Static flotation.



Source: [Factory Pure](#)

Therapeutic Linens

These are FDA-cleared bed linens and textiles designed to address shear and friction factors.



[Source: SRI Healthcare](#)

Facility Wound Self-Auditing

Implementation and monitoring strategies include:

- Determining the method and frequency of audits.
- Completing the audit.
- Preparing the internal audit report.
- Presenting findings to applicable parties.
- Developing corrective action plans.
- Continuing ongoing monitoring.



Wound Record
Weekly Wound Assessment
(Use a separate sheet for each wound site)

Patient Information:
Name: _____
Room #: _____

Risk Factors:
☐ Incontinence/moisture
☐ Altered nutritional status
☐ Impaired mobility/bedchair
☐ Altered sensory perception
☐ Activity limitation
☐ Other (describe): _____

Type of wound: ☐ Pressure ulcer ☐ Stasis ulcer ☐ Diabetic ulcer ☐ Other: _____

Site: _____

Date Acquired	Date	Stage (Pressure only)	Size (cm) LxWxD	Tissue Appearance	Wound Appearance	Wound Edge Appearance	Drainage (Type/amount/color)	Wound pain (Y/N)	Response to Treatment	Nurse's Signature
<input type="checkbox"/> Facility <input type="checkbox"/> Community  FRONT Anterior  BACK Posterior										

Site Key
Head
Upper Ext
Trunk
Sacrum
Trochanter
Iliac Crest
Tuberosity

Tissue Appearance
Granulation
Epithelialization
Necrotic
Slough/Eschar
Other (describe)

Wound Appearance
S - Sinus tract
T - Tunneling
U - Undermining
Include depth (cm), location (face of clock)

Wound Edge/Externa
E - Erythema
I - Induration
M - Maceration
Other (describe)

Drainage Key
S - Serous
SS - Serosanguinous
P - Purulent
Am - Sm. Med. L.p.
Color (describe)
Odor (describe)

Suspected Deep Tissue Injury: Intact skin with non-blanchable redness of a localized area. Darkly pigmented skin may not have visible blanching.
Stage 1: A persistent area of skin redness (without a break in the skin) that does not disappear when pressure is relieved.
Stage 2: A partial thickness loss of skin layers that presents clinically as an abrasion, blister, or shallow crater.
Stage 3: A full thickness loss of skin, exposing the subcutaneous tissue - presents as a deep crater with or without undermining adjacent tissue.
Stage 4: A full thickness loss of skin and subcutaneous tissue is lost, exposing muscle or bone.
Unstageable: Full thickness tissue loss in which the base of the ulcer is covered by slough and/or eschar in the wound bed.

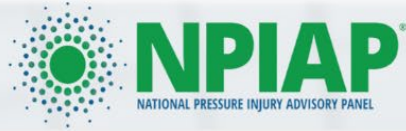
Source: Old Sermitsiaq

Three, Two, One of Wound Care

- Three reasons why proper wound care is important.
- Two things your facility is doing correctly regarding wound care.
- One area your facility needs assistance with regarding wound care.



NPIAP Free Materials



[Home](#) [Contact Us](#) [Print Page](#) [Your Cart](#) [Sign In](#)



[ABOUT US](#) [EVENTS](#) [EDUCATION & RESOURCES](#) [GUIDELINES & STANDARDS](#) [JOIN NPIAP](#)

Free Materials

NPIAP Free Materials

[Standardized Pressure Injury Prevention Protocol Checklist \(SPIPP- Adult\) 2.0](#)
[Deep Tissue Pressure Injury or an Imposter?](#)
[Wheelchair Seating Pocket Guide](#)
[Best Practices for Cleansing, Disinfecting, and Care of Polyurethane Support Surface Covers](#)
[Offloading Heels Effectively In Adults To Prevent Pressure Injuries](#)
[Proper Side Lying Positioning In Adults To Prevent Pressure Injuries](#)
[Proper Supine Positioning In Adults To Prevent Pressure Injuries](#)
[PROTECTING FACIAL SKIN Under PPE N95 Face Masks](#)
[Resources for Faculty on Pressure Ulcer Prevention](#)
[COVID-19 Resources](#)
[Pressure Injury Prevention During Proning](#)
[Staging Poster for Lightly and Darkly Pigmented Skin](#)
[Staging Cards for Lightly and Darkly Pigmented Skin](#)
[Quality Nutrition Poster](#)
[Quality Indicator Flyer](#)
[Best Practices for MDRPI Prevention](#)
[Critical Care MDRPI Prevention](#)
[Long-Term Care Prevention of MDRPIs](#)
[NPIAP Staging Poster](#)
[Pediatric Population MDRPI Prevention](#)
[Pressure Injury Fact Sheet](#)

☒ Remember Me

[SIGN IN](#) 

[Forgot your password?](#)

[Haven't registered yet?](#)

LATEST NEWS

[MORE](#)

 19 hours ago
[Podcast Ep. 9 Out Now](#)

 11/4/2024
[November 21 Webinar Registration Open](#)

*Looking for state-of-the-art
education?*

Visit the



- [Webinars](#)
- [Podcasts](#)
- [Training Resources](#)
- [Pressure Injury Modules](#)

and much more!

QUESTIONS?

ODH.OHIO.GOV

Bureau of Survey and Certification

(614) 466-3543

ODH.OHIO.GOV/PREP

PREP@odh.ohio.gov

Christine Meinke, LSW, LNHA, Provider Resources & Education Program (PREP) Supervisor

Darcie Anderson, MSN, RN, PREP Nursing Educator



**Department of
Health**



**Department of
Health**