Wound care requires diagnosis and management by a wound care specialist. Treatments for skin impairments can improve patient outcomes while saving both time and money. However, when interventions for cutaneous compromise are not diagnosed and/or managed appropriately, limbs and lives are lost. Moreover, integumentary morbidities become chronic, expensive, and debilitating.

### Comprehensive Wound Service

**IHIS Consult/IP Comprehensive Wound Service**

**Office:** 614-685-9337

- Complex surgical wounds / recalcitrant wounds dehiscence
- Pathological wounds
- Foot ulcers without a podiatry or orthopedic consult
- Preexisting stage III or IV and deteriorating stage II
- Leg ulcer, open and draining
- Wounds that are new and need a diagnosis

**Certified Wound, Ostomy and Continence Nurses (CWOCNs)**

- IHIS Consult/IP ET (ET = enterostomal therapist): 614-293-8897
- OSUWMC (Doan, Rhodes, Ross, Dodd, & Harding): 614-293-8897
- James Cancer Hospital: 614-685-4865
- OSU East: 614-257-2440

**Service Physicians / Unit CNS**

- Clean, intact surgical wounds
- Legs with dry scaling skin or cellulitis without open wounds
- Foot ulcer if podiatry or orthopedics involved
- Stage I or stable stage II pressure ulcers
- Enterocutaneous fistula management simple dressing/ pouching
- Wound VAC maintenance
- Existing ostomy managing well
- Stable skin tears
- Intact tubes and drains

### 1. Risk Assessment

- The [Braden Scale for Predicting Pressure Sore Risk](#) must be used and interventions made based on the outcome of the assessment.
- The Braden assessment should be completed and preventive measures instituted on admission, every 24 hours after admission, and with each significant change.
- The Braden Scale evaluates sensory perception, moisture, activity, mobility, nutrition, friction, and shearing risks.
  - Scores < 18 suggest an increased risk for pressure ulcer development and should alert medical staff to institute preventative measures that correlate with the patient’s category of risk.
- Preventive interventions should be incorporated into each patient’s individual plan of care.

### 2. Evaluation of Wounds

- Wounds must be evaluated within 24 hours of patient admission.
- Wounds must be evaluated at last weekly and prn.
- The criteria listed below must be included in the evaluation and compared with each subsequent wound assessment.
  - Name of patient
  - Date of evaluation
  - Location of wound
  - Wound diagnosis and stage or tissue depth
  - Pain during evaluation (1-10) with documentation of intervention if patient is in pain
  - Sinus tract/ tunneling
  - Undermining
  - Exudate type
  - Exudate amount
  - Granulation tissue color
  - Granulation tissue amount
  - Necrotic tissue type
  - Necrotic tissue amount
  - Peri-wound
  - Odor
  - Stage / thickness
  - Progress
  - Exposed tendon, bone, hardware, epithelialization amount
3. Wound Diagnosis

- Wounds must be diagnosed and the diagnosis must be documented in the patient’s chart by a clinician who can medically diagnose.
- If the wound manifestations do not clearly point to a definitive diagnosis and/or if the wound(s) have been present for > 3 months and are not improving, a wound biopsy is indicated.
- There are some clinical situations in which the Comprehensive Wound Service should be consulted in order to assist with wound diagnosis.
  - Comprehensive Wound Service
    - Office: 614-685-9337
  - University Hospital CWOCNs
    - Office: 614-293-8897
  - The James CWOCNs
    - Office: 614-685-4865

4. Interventions

- Interventions for each chronic wound diagnosis must be consistent with today’s standards for evidence-based wound care and must meet each patient’s individual needs and goals.

5. Plan Revisions and Follow-Up

- Care plan revisions must be implemented weekly or more frequently if wound is deteriorating based on wound evaluations.
- According to CMS, and as instituted by OSUWMC, patients with chronic wounds must have their wound(s) evaluated and a plan of care created upon admission.
- Patients’ wounds must be reevaluated and their plan of care revised pending outcomes during wound evaluation at least weekly and more frequently with any significant changes.
- Interventions should be consistent with the standard of wound care outlined by WHS, WOCN, and NPAUP.

Pressure Ulcer Staging

As defined by the NPUAP

- **Stage I: Non-blanchable erythema**
  - Intact skin with non-blanchable redness of a localized area usually over a bony prominence.
  - Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area.
  - The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue.
  - Category I may be difficult to detect in individuals with dark skin tones.
  - May indicate “at risk” persons.

- **Stage II: Partial-thickness**
  - Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough.
  - May also present as an intact or open/ruptured serum-filled or serosanguinous filled blister.
  - Presents as a shiny or dry hallow ulcer without slough or bruising. It is important to note, bruising indicates deep tissue injury.
  - This category should not be used to describe skin tears, tape burns, incontinence-associated dermatitis, maceration, or excoriation.

- **Stage III: Full-thickness skin loss**
  - Full thickness tissue loss
    - Subcutaneous fat may be visible but bone, tendon or muscle is _not_ exposed.
  - Slough may be present but does not obscure the depth of tissue loss.
  - May include undermining and tunneling.
  - The depth of a Stage III pressure ulcer varies by anatomical location.
    - The bridge of the nose, ear, occiput, and malleolus do not have (adipose) subcutaneous tissue, and Stage III ulcers can be shallow.
    - In contrast, areas of significant adiposity can develop extremely deep Stage III pressure ulcers. Bone/tendon is not visible or directly palpable.

- **Stage IV: Full thickness tissue loss**
  - Full thickness tissue loss with exposed bone, tendon or muscle.
  - Slough or eschar may be present.
  - Often includes undermining and tunneling.
  - The depth of a Stage IV pressure ulcer varies by anatomical location.
    - The bridge of the nose, ear, occiput and malleolus do not have (adipose) subcutaneous tissue and these ulcers can be shallow.
    - Stage IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis or osteitis likely to occur. Exposed bone/muscle is visible or directly palpable.

- **Unstageable – depth unknown**
  - Full thickness tissue loss in which actual depth of the ulcer is completely obscured by:
    - Slough (yellow, tan, gray, green or brown)
- 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; but it will be either a stage III or suspected deep tissue injury (depth unknown).
  - Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear.
    - The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue.
  - Deep tissue injury may be difficult to detect in individuals with dark skin tones.
  - Evolution may include a thin blister over a dark wound bed.
    - The wound may further evolve and become covered by thin eschar.
    - Evolution may be rapid exposing additional layers of tissue even with optimal treatment.

**NOTE:** Please see Pressure Ulcer Diagnostic Criteria for additional recommendations.

### Diabetic Foot Wound Staging / Wagner Scale

Diabetic Ulcer Grading (diabetic lower extremity ulcers only):

- **Wagner 0:** Pre-ulcer lesions; healed ulcers; presence of boney deformity.
- **Wagner 1:** Superficial ulcer without penetration to deeper layers of entire dermis.
- **Wagner 2:** Full thickness ulcer that penetrates through subcutaneous tissue and may expose tendon, bone, joint, or ligament.
- **Wagner 3:** Same criteria as a Wagner 2 with evidence of infection: abscess, osteitis, osteomyelitis, pyarthrosis, or infection of the tendon and tendon sheath. This does not include soft tissue infection.
  - **NOTE:** Diabetic patients may not exhibit classic signs; exposure of tendon with positive culture is appropriate.
- **Wagner 4:** Wet or dry gangrene in a toe, toes, forefoot, or any area with localized gangrene. Gangrene is defined as necrosis and subsequent decay of body tissue caused by infection, thrombosis, or lack of blood flow. It may present as eschar and may involve the heel, ankle, or part of the lower extremity.
- **Wagner 5:** Gangrene of the lower extremity requiring amputation.

It may be helpful to reference OSUWMC’s Diabetic Foot Burn Management guideline or Diabetic Foot Wound Diagnostic Criteria for more information on key aspects of care such as:

- Assessment of diabetic control per HgA1c
- Optimization of glycemic/metabolic control
- Optimization of burn wound management

**NOTE:** All wounds other than pressure ulcers and diabetic foot wounds should be described as either partial-thickness or full-thickness wounds and not staged.

- **Partial Thickness Wounds:** Non-pressure/non-diabetic wounds including or above the subcutaneous tissue
- **Full Thickness Wounds:** Non-pressure/ non-diabetic wounds below the subcutaneous tissue.

**Wound Care after Discharge**

- Every patient with a wound should be followed up after discharge.
- If the patient lives locally he/she should be referred to one of the four outpatient wound clinics, listed below.
- To make an appointment, please call 614-293-4811 or visit the Comprehensive Wound Center webpage
  - Martha Morehouse Medical Plaza
  - UH East
  - CarePoint
    - Gahanna
    - Lewis Center
- For assistance with making a follow-up appointment for patients with a chronic wound(s) whether in or out of hospital please call 614-685-9337.

**OSUWMC Resources**

**Websites:**
- For more information about wound care, see the OSUWMC Skin/Wound Management website.
  - The site includes an Assessment Reference Sheet with photographs to help identify wounds.
- See The OSUWMC Nursing Policy on Wound Care

**Order sets:**
- OSU IP BURN: Wound Care [2171]
External Resources

The following evidence-based resources are recommended by CMS and are followed by the OSUWMC Comprehensive Wound Service (CWS):

- Agency of Healthcare Research and Quality (AHRQ)
- American Medical Directors Association (AMDA)
- Certified Wound, Ostomy, and Continence Nurses Society (CWOCN)
- Medicare Quality Improvement Community Initiatives
- National Pressure Ulcer Advisory Panel (NPUAP)
- Wound Healing Society

Quality Measures

- Discharge with follow-up at OSUWMC Outpatient Wound Clinic
- Discharge with amputation in following year
- Hospital-acquired pressure ulcer status
- 30-day readmission rate with wound as primary diagnosis
- Length of stay
- Braden Scale risk assessment on admission and every 24 hours
- Documentation of evaluation / reevaluation criteria
- Hyperbarics referrals

Reference


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Guideline Approved


Disclaimer: Clinical practice guidelines and algorithms at The Ohio State University Wexner Medical Center (OSUWMC) are standards that are intended to provide general guidance to clinicians. Patient choice and clinician judgment must remain central to the selection of diagnostic tests and therapy. OSUWMC’s guidelines and algorithms are reviewed periodically for consistency with new evidence; however, new developments may not be represented.