PRESSURE ULCERS

AGS Geriatric Evaluation and Management Tools (Geriatrics E&M Tools) support clinicians and systems that are caring for older adults with common geriatric conditions.

From the AMERICAN GERIATRICS SOCIETY

Geriatrics Evaluation & Management Tools

DEFINITION

Any lesion caused by unrelieved pressure that results in damage to underlying soft tissue when the tissue is compressed between a bony prominence and external surface over a prolonged period of time

BACKGROUND

- Time for development is variable
- Affects 1 million adults annually
- CMS does not pay for hospital-acquired stage III or IV pressure ulcers

SCREENING

Examine high-risk sites daily: heels, sacrum, scapular spines

HPI

- Inciting event or injury
- Duration
- Pain
- Location
- Drainage
- Treatments to date

POTENTIAL TRIGGERS OR RISK FACTORS

INTRINSIC RISK FACTORS *Physiologic factors or disease states that increase the risk of pressure ulcers*	EXTRINSIC RISK FACTORS *External factors that damage the skin*
■ Age ≥70 ■ Nutritional status ■ Decreased arteriolar blood pressure	■ Pressure, friction, shear forces ■ Moisture ■ Urinary or fecal incontinence

Resources: Braden (http://www.bradenscale.com) and Norton (www.woundcarehelpline.com/NortonScale.pdf) Assessment Scales

PAST MEDICAL HX

Impaired mobility	Diabetes	Congestive heart failure	Anemia
Tobacco use	Cognitive impairment	Fever	Lymphoma
Low BMI/malnutrition	Stroke	Sepsis	Hypoalbuminemia
Restraints	Pneumonia	Hypotension	Dry skin
Incontinence	Malignancy	Renal failure	History of pressure ulcers

SOCIAL HX

Living situation, caregiver stress, substance abuse, history of abuse or neglect

MEDICATIONS

Sedating medications

PHYSICAL EXAM

- Location—Describe and pay attention to high-risk sites
- Staging
  - Stage I: Persistent erythema of intact skin. In darker skin tones, may appear with red, blue, or purple.
  - Stage II: Partial-thickness skin loss involving epidermis, dermis, or both. Ulcer is superficial and presents as an abrasion, blister, or shallow crater.
  - Stage III: Full-thickness skin loss involving damage or necrosis of subcutaneous tissue that may extend down to, but not through, underlying fascia
  - Stage IV: Full-thickness skin loss with extensive destruction, tissue necrosis, or damage to muscle, bone, or supporting structures (eg, tendon, joint capsule)
  - Unstageable: Full-thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green, or brown) and/or eschar in wound bed
- Area—Measure diameter for circular lesions vs. length for irregularly shaped lesions
- Depth—Measure depth from plane of skin and probe for undermining
- Drainage—Describe amount, odor, purulence
- Necrosis—Describe; has it occurred in the presence of a dressing?
- Granulation—Identify areas of granulation or regression, to document healing
- Cellulitis
  - Assess for tenderness, warmth, and redness
  - Differentiate from a thin rim of erythema surrounding most healing wounds

LABS

- Complete blood count with differential
- Pre-albumin
- Possible cultures
- Hemoglobin A1c

MANAGEMENT: DEBRIDEMENT

TYPE	METHOD	COMMENTS
Mechanical	Wet-to-dry irrigation, hydrotherapy	Removes dead and live tissue; painful
Surgical/Sharp	Scalpel, scissor, or laser to remove dead tissue	Quick, effective; use for infection; painful
Enzymatic	Topical agent to dissolve dead tissue	Use only if there is no infection; may damage skin
Autolytic	Allows dead tissue to self-digest	Use if other methods not tolerated and no infection; has a delayed effect
Biosurgery	Larvae to digest dead tissue	Quick, effective; good option when surgical management is not an option

MANAGEMENT: DRESSINGS

NAME	EXAMPLE(S)	INDICATION(S)	CONTRAINDICATIONS
Transparent film	Tegaderm, Bioclusive	Stages I and II—protects from friction	Skin tears, draining. or suspected infection
Foam island	Allevyn, Lyofoam	Stages II and III	Excessive exudate; dry, crusted wound
Hydrocolloid	Duoderm, Tegasorb, Nu-Derm	Stages II and III	Poor skin integrity, infection, wound that needs packing
Petroleum-based nonadherent	Vasoline-impregnated gauze	Stages II and III, graft sites	---
Alginate	Sorbsan, Kaltostat, Algosteril, AlgiDerm	Stages III and IV, excessive drainage	Dry or superficial wound with maceration
Hydrogel, amorphous	IntraSite, SoloSite, Restore gels	Stages II, III and IV, but must combine with gauze dressing	Maceration or excess exudate
Hydrogel, sheet	Vigilon, Restore impregnated gauze	Stage II or skin tears	Maceration, moderate to heavy exudate
Gauze packing	Gauze pads, Fluffed Kerlix, plain Nu Gauze	Stages III and IV; deep wounds, especially those with tunneling or undermining	---
Silver dressing	Silvercel, Silvadene, Aquacel, Acticoat	Malodorous wounds, exudative wounds, and those highly suspicious for critical bacterial load	Systemic infection, cellulitis, fungus, interstitial nephritis, skin necrosis, concurrent use with proteolytic enzymes

MANAGEMENT: INFECTION CONTROL

- Wound cleansing and dressings
- Consider topical antibiotics if there is failure to heal or persistent exudate after 2 weeks
- Avoid routine swabs, but cultures may assess bacterial burden
- If not healing, consider cellulitis or osteomyelitis

MANAGEMENT: OTHER

- Ensure adequate nutrition; weak evidence for supplements
- Minimize mechanical loading using appropriate support surfaces (static vs. dynamic)
- Improve mobility if possible; frequent turning
- Monitoring: *No* reverse staging; rather, "This is a healing stage___"; use the Pressure Ulcer Scale for Healing or the Pressure Sore Status Tool (http://www.npaup.org/PDF/push3.pdf)

REFERRAL

Surgical repair may be indicated for stage III and IV ulcers

Sources: Pacala JT, Sullivan GM, eds. Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine. 7th ed. New York, NY: American Geriatrics Society; 2010; and GRS Teaching Slides Web site http://www.frycomm.com/ags/teachingslides.