Pressure Ulcers/Altered Skin Integrity

Key Points

Pressure ulcers are regions of localized damage to the skin and underlying tissues that usually develop over bony prominences such as the sacrum or heels.

Pressure ulcers are often overlooked by providers until significant ischemia and tissue death have occurred.

Most pressure ulcers begin in hospitals and account for the largest amount of money in nursing home legal settlements.

Though a pressure ulcer may progress from a stage I to a stage IV or an unstageable ulcer, a stage IV can never become a III, II, or I (even after healed).

Pressure ulcers are often mismanaged, despite availability of best practices and recommended standards of care.

Avoid using donut-type devices and sheepskin.

Reposition bed-bound persons every 2 hours.

Position chair-bound persons every hour.

Position head of bed at or below 30° whenever possible.

Assessment

Derived from the Guidelines of the 2009 National Pressure Ulcer Advisory Panel (NPUAP). When assessing a patient's wounds, a complete evaluation includes:

1. Location
2. Stage
3. Size (length, width, depth)
4. Sinus tracts/tunnels/Undermining
5. Exudate - type/amount
6. Wound base - clean, granulated, eschar, slough
7. Surrounding skin
8. Phase of wound healing
9. Signs/symptoms of infection
10. Pain

Use validated assessment tools for such as Braden Scale, Norton Scale, or Pressure Ulcer Scale for Healing (PUSH).
Diagnosis

Stageable Pressure Ulcers

Stage I: 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.

Stage II: Partial thickness loss of dermis presenting as a shallow open ulcer with a red or pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.
**Stage III:** Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscles are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.

**Stage IV:** Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining and tunneling.
Unstageable Pressure Ulcers

*Eschar:* Named originally from the Greek word eschara (scab). Eschar is a slough/dead tissue that is cast off from the surface of the skin. Eschar development occurs with burns, pressure ulcers necrotizing and other types of wounds.

*Deep tissue injury (DTI):* 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.

Management

The management of pressure ulcers requires an interprofessional team approach.

The basic components of wound management include:

1. The general principle of pressure relief with proper positioning & support surfaces such as static (foam, air, gel) and dynamic support (alternating air, low-air-loss or air-fluidized) surfaces
2. Evaluating, monitoring and documenting patient progress; location, stage, area, depth, drainage, necrosis, granulation and cellulitis. Document all observations over time.
3. Identify and treat contributing factors such as medical conditions (e.g., urinary incontinence, diabetes, heart failure, etc.), nutritional status, pain level, and psychosocial health.
4. Appropriate local wound dressing. Both pressure ulcer stage and amount of exudates should be taken into consideration when dressing wounds. For example, alginates are indicated for heavy exudate only. Hydrocolloids should not be used alone over a stage 2 or 3 wound with heavy exudate. Absorptive substance like calcium alginate (for excessive exudate), Silver Sorb (malodorous wounds), moist gauze (or hydrogel) can be used to pack stage III and stage IV pressure ulcers. Hydrogels are indicated for wound beds that are dry for rehydration or to rehydrate eschar for debridement. Necrotic tissue in pressure ulcers and arterial ulcers should be debrided surgically or enzymatically.

Prevention

Prevention begins by identifying risk factors. Always perform a complete history and physical. Those at highest risk include patients with immobility and patients with other individual risk factors such as poor nutritional status, decreased arterial pressure. Perform a head to toe skin check, ask about bowel & bladder problems, and ensure nutritional interventions are consistent with goals of care.
References


