

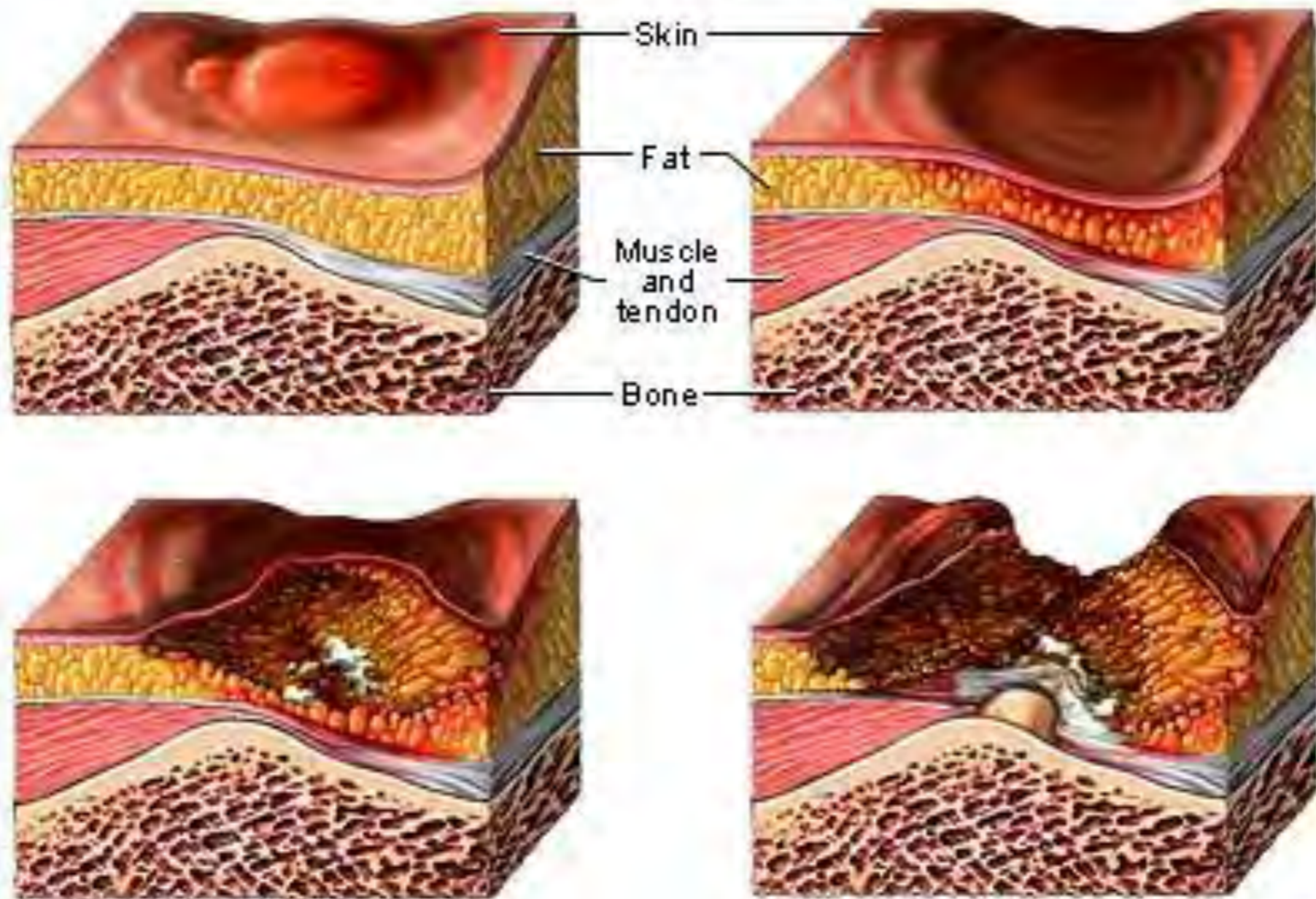
**Pathophysiology and Management of Decubitus
Pressure Ulcers**

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Pathophysiology

- Often occur in patients that are immobile or bedridden
- Underlying cause of decubitus ulcers is ischemic necrosis resulting from prolonged pressure against the soft tissue overlying bone

Progression of decubitus ulcer

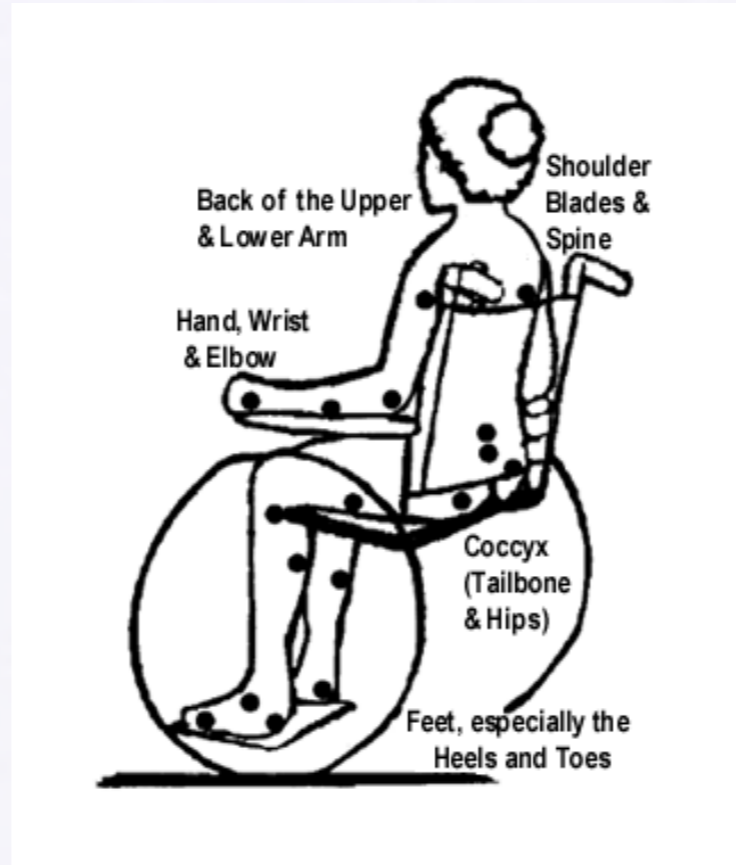


ADAM.

Staging

- Stage 1: Erythema on the skin, over a bony prominence, that does not blanch
- Stage 2: Superficial open wound that involves the epidermis and possibly the dermis. It looks like an abrasion or blister. Also called partial thickness
- Stage 3: Full thickness, involving damage to the epidermis, dermis, and subcutaneous tissue that does not extend through the fascia
- Stage 4: Full thickness, with necrosis of tissue, muscle, and possibly bone. These wounds often have significant tunneling and undermining.

Img 1



Img 2 Stage 3 Decubitus Ulcer



Stage 4 Decubitus Ulcer



Prevention

- Well padded chairs, sheepskin pads, Clinitron beds
- Turning the patient every 2 hours
- Paraplegics should not sit in the same position for more than 2 hours

Treatment

- Optimize nutritional status
- Monitor serum pre-albumin
- Rule out bone infection (osteomyelitis) with lab work and MRI
- Clean wound bed with enzymatic and excisional debridements.

Excisional vs Non-excisional Debridements

- Can be done as a bedside or OR procedure
- What makes a debridement excisional?
- The use of sharp instruments such as a scalpel or scissors
- How does this affect coding the procedure?

CPT Codes

- Important codes 15920-15946
- 15936: “Excision, sacral pressure ulcer, in preparation for muscle or myocutaneous flap or skin graft.” Needs to be dictated properly to support the code.
- 15946: Ischial excisions must have an ostectomy, unlike sacral excisions
- **Modifier 58: Staged Procedure**

Abraham, Michelle et al. (2011). Pressure Ulcers. (2011). *Current procedural terminology standard edition*. Chicago: American Medical Association.

Treatment

- Wound Vacs are negative pressure dressings that are used to shrink the wounds once the wound bed has been cleaned of all yellow tissue and thick eschar.
- The ideal wound bed is composed of beefy red granulation tissue.
- Goal: optimize the patient's medical status and the wound to prepare for myocutaneous flap surgery

Nutrition

- Anabolic vs catabolic
- Resolving or resolved osteomyelitis.

Treatment cont.

- Coverage with muscle, musculocutaneous, or axial flap
- Gluteus Maximus is the most commonly used
- Keep flapped area free of pressure for 2-3 weeks, usually placement in a rehab facility is necessary to closely monitor drain output.

Flap Codes

- Important codes: 15570-15738
- 15570: “Formation of direct or tube pedicle, with or without transfer; trunk”
- 15574: “forehead, cheeks, chin, mouth, neck, axilla, genitalia, hands, or feet”
- 15650: “Transfer, intermediate, of any pedicle flap, any location”

Necrotizing Fasciitis

- Severe soft tissue infection that causes massive tissue destruction. Spreads along the deep fascia. It can be very difficult to diagnosis in the early stages.
- Critical diagnostic finding: Gas forming organisms on imaging, rapidly spreading erythema, pain, necrosis
- Can rapidly lead to septic shock and death if not recognized and treated with wide surgical excision and broad spectrum antibiotics.



<http://haekal.com/blog/necrotizing-fasciitis/>

Skin Graft Codes

- Important codes: 15002-15005, 15040-15261
- 15002: “Surgical Preparation or creation of recipient site by excision of open wounds, burn eschar, or scar, or incisional release of scar contracture, trunk, arms, legs”

Common Skin Lesions

- **Actinic Keratosis**
- Most common precancerous skin lesion
- Small, single, or multiple slightly elevated, scaly or warty lesions
- Range in color from red, yellow, brown to black
- 15-20% become malignant and invade the dermis resulting in squamous cell carcinoma
- Treatment: curettement, laser, electrodesiccation, chemical agents

Actinic Keratosis



Basal Cell Carcinoma

- Most common skin cancer
- Commonly found on face, ears, scalp, and other commonly sun exposed areas
- Small, shiny, pearly, elevated lesions with rolled borders. Also commonly have telangectasias which are visible blood vessels around the lesion's border
- Less common type is sclerosing or morphea carcinoma: flat, whitish, waxy, firm



http://upload.wikimedia.org/wikipedia/commons/4/4f/Basal_cell_carcinoma.jpg

Treatment

- Surgical excision with frozen sections is most common
- Mohs surgery with reconstruction: especially good for areas where tissue sparing is important, such as, the nose and face
- Curretage and electrodesiccation

Squamous Cell Carcinoma

- 2nd most common skin cancer in the US
- Sites: ears, cheeks, lower lip, back of the hands
- Preceded by actinic keratosis
- Can be rapid or slow growing



Melanoma

- Melanoma is the most deadly skin cancer.
- Disease of the pigmented cells in the skin: melanocytes
- It can be found anywhere on the body, not just sun exposed areas. Ex: bottom of the feet, under nails, in the eye

- A: asymmetry
- B: border (this will often be irregular)
- C: color (may have multiple colors or shades within one lesion, ex: pink, brown, red)
- D: diameter (larger than the tip of a pencil eraser)
- E: elevation (may be raised on the skin surface)
- Treatment: wide excision and often chemotherapy and radiation



Hon Pak, MD. <http://emedicine.medscape.com/article/1100753-overview>

Skin Lesion Codes

- A lesion doesn't have to be malignant to be coded as a malignant excision. Extent of the excision determines the level of coding.
- “Adjacent Tissue Transfer Repair: the excision of a benign lesion (11400-11446) or a malignant lesion (11600-14302) is not separately reportable with codes 14000-14302.”

Questions???