Stage 2 Pressure Injury

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Disclosures

• None
Objectives

- Explain current definition of Stage 2 pressure injury and rationale
- Discuss etiology and pathology of Stage 2 pressure injuries
- Describe guidelines for differential assessment of Stage pressure injury versus IAD, ITD, MARSI, skin tears, and traumatic injury

Stage 2 Pressure Injury

- Partial thickness skin loss with exposed dermis
  - Wound bed viable (pink or red, moist)
  - May present as intact or ruptured serum filled blister
  - Adipose tissue/deeper structures not visible
  - Slough, eschar, granulation tissue not present
  - Commonly result from adverse microclimate and shear (pelvic lesions) or shear alone (heel)
Stage 2 Pressure Injury

• Should NOT be used to describe the following wounds:
  – Incontinence Associated Dermatitis (IAD)
  – Intertriginous Dermatitis (ITD)
  – Medical Adhesive Related Skin Injury (MARSI)
  – Traumatic Wounds
    • Skin tears
    • Burns
    • Abrasions

Stage 2 Pressure Injury: Pathology?

• Evidence that many partial thickness wounds caused by “top down” factors such as moisture and friction as opposed to pressure or pressure + shear
• Resulting questions/concerns:
  – Are partial thickness lesions EVER caused by pressure or pressure + shear?
  – Should partial thickness lesions be removed from staging system for pressure injuries?
Stage 2 Pressure Injury: Pathology?

- Evidence that many partial thickness wounds caused by moisture/friction
  - Basis for clarifying statement re: wounds that should NOT be classified as Stage 2 pressure injuries
  - Importance of differential assessment and implications for education
  - Classify wound as Stage 2 PrI only when pressure/shear believed to be etiologic factors

Stage 2 Pressure Injuries: Current Concepts re: Pathology

- Trunk: Microclimate + shear
- Heel: Shear
- Medical Device Related Pressure Injury: Microclimate, Pressure
Guidelines for Accurate Assessment
Stage 2 Pressure Injuries

• Challenges:
  – Differential assessment pressure injuries from non-pressure wounds
  – Differentiation Stage 2 from Stage 3 pressure injuries

• Critical assessment factors
  – Wound location and characteristics
  – Patient history

Characteristics Stage 2 Pressure Injuries

• Location
  – Bony prominences/areas exposed to shear (pt. dependent on others for repositioning)
  – Under medical devices

• Clinical characteristics
  – Pink-red, moist wound vs serum filled blister
  – Fat and deeper structures not visible
  – No eschar
  – Granulation tissue and slough not (usually) visible
  – Usually ≤ 0.2 cm (2 mm) in depth
Clinical Characteristics Stage 2 Pressure Injuries

• Points where further clarity needed
  – Granulation tissue not (usually) visible
    • Wounds extending into dermis: dermal repair proceeds concurrently with epithelial resurfacing
    • Epithelialization typically the visible indicator of partial thickness repair
    • Clinician reports of visible granulation buds in partial thickness wounds – more study needed

Clinical Characteristics Stage 2 Pressure Injuries

• Points where further clarity needed
  – Slough not (usually) seen
    • Dependent on definition of slough
      – Avascular fat vs
      – Yellow film due to coagulated exudate (soft “scab”) or heavy bioburden/biofilm
    • Avascular fat never seen in a Stage 2 injury
    • Yellow film due to coagulated exudate or heavy bioburden could be seen in Stage 2 injury
    • Clarity needed in definition of slough
Guidelines for Accuracy in Staging

- **Base staging on following**
  - Evidence re: anatomic structures involved (wound base): dermis/hair follicles vs adipose tissue
  - Consider depth of wound (< 0.2 cm?)
  - Stage based on “big picture”
    - Superficial wound with exposed dermis and thin layer yellow tissue: Stage 2
    - Superficial wound with combination new epithelium and granulation buds: Stage 2

Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

- **Stage 2**
  - Location: over bony prominence/ under medical device
  - Patient history: immobile/requires positioning by staff
  - Presentation: defined contours (over areas exposed to pressure/shear)

- **IAD**
  - Location: perineum, inner thighs, buttocks
  - Patient history: frequent episode incontinence
  - Presentation: diffuse with irregular borders candidiasis?
Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

- **Stage 2 PrI**
  - Location: over bony prominence/ under medical device
  - Patient history: pt dependent for repositioning
  - Presentation: defined contours over areas exposed to pressure and/or shear

- **ITD**
  - Location: at base of body fold (or on opposing surfaces)
  - History: diaphoresis; obesity?
  - Presentation: linear break in skin or “kissing lesions”

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Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

- **Stage 2 PrI**
  - Location: over bony prominence/ under medical device
  - Patient history: pt dependent for repositioning
  - Presentation: defined contours over areas exposed to pressure and/or shear

- **Trauma (e.g. friction)**
  - Location: areas exposed to superficial “drag” (fleshy prominences)
  - Patient history: restlessness; being “dragged”; fragile skin
  - Presentation: contours match fleshy areas exposed to friction
Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

• Stage 2 PrI
  – Location: over bony prominence/ under medical device
  – Patient history: pt dependent for repositioning
  – Presentation: defined contours over areas exposed to pressure and/or shear

• MARSi
  – Location: skin exposed to removal adhesive device
  – Patient history: adhesive removal; ? fragile skin
  – Presentation: patchy areas superficial skin loss d/t adhesive removal

Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

• Stage 2 PrI
  – Location: over bony prominence/ under medical device
  – Patient history: pt dependent for repositioning
  – Presentation: defined contours over areas exposed to pressure and/or shear

• Skin Tears
  – Location: area exposed to trauma (handling, adhesive removal, “bumping”)
  – Patient history: age; fragile skin; care dependency
  – Presentation: may have intact flap or partial/total flap loss
Differential Assessment: Stage 2 PrI vs Non-Pressure Wounds

- **Stage 2 PrI**
  - Location: over bony prominence/under medical device
  - Patient history: pt dependent for repositioning
  - Presentation: defined contours over areas exposed to pressure and/or shear

- **Partial Thickness Skin Loss D/T Other Pathology (e.g., HSV)**
  - Location variable
  - History variable
  - Presentation variable: discrete lesions common

Differential Assessment: Stage 2 vs Stage 3 Pressure Injuries

- **Stage 2**
  - Wound base: exposed dermis (pink-red or pink-white)
  - Minimal/no depth
  - No avascular fat (slough)

- **Stage 3**
  - Wound base: exposed subcu (adipose) tissue (pink yellow)
  - Variable depth
  - May have slough
Accurate Classification and Staging

- Current data re: accuracy
- Impact of misclassification/incorrect staging
- Strategies to improve accuracy
  - Clear delineation of clinicians responsible for classification and staging
  - Education and tools to support accuracy

Clinician Focus: Prevention and Management All Skin Breakdown

- Prevention
  - Prompt identification patient at risk (per risk assessment tool or presence medical device)
  - Prompt and comprehensive prevention
    - Support surface that provides pressure redistribution + shear/moisture control if needed
    - Routine repositioning
    - Moisture management
    - Measures to reduce friction/shear force
    - Medical device management: correct sizing, padding, repositioning when feasible
Management *Any* Partial Thickness Wound: Principles & Priorities

- Correct etiologic factors
- Provide systemic support for healing
- Maintain clean moist wound surface
- Monitor progress in healing and modify plan accordingly

Management Partial Thickness Wounds: Specific Wounds

- **Stage 2 Pressure Injury**
  - Support surface; repositioning
  - Topical therapy: advanced wound care dressings (foams, hydrocolloids, etc.)

- **Incontinence Associated Dermatitis (IAD)**
  - Containment (bowel management system?)
  - Topical therapy: zinc-oxide based moisture barrier
    - Ostomy powder + alcohol free liquid barrier as “base”?
    - Transparent adhesive or nonadherent contact dressing as “cover”?
  - Antifungal moisture barrier for candidiasis
Management Partial-Thickness Wounds: Specific Wounds

• **Intertriginous Dermatitis (ITD)**
  – Dressing to separate body folds, absorb exudate, and maintain moist wound surface
    • Gentle adhesive foam, hydrocolloid, etc.
    • Moisture barrier ointment + soft folded gauze

• **Friction Damage**
  – Low friction support surface (or linens)
  – Repositioning systems/aids to prevent “drag”
  – Dressings that maintain moist surface and have low friction surface (hydrocolloid, glycerine-based gel, thin film, etc.)

Management Partial-Thickness Wounds: Specific Wounds

• **MARSI**
  – Use nonadhesive products or skin friendly tapes to secure nonessential devices
  – Use hydrocolloid or foam dressing as “base” when aggressive adhesives needed
  – Use adhesive releasers and “push-pull” technique for removal
  – Gentle adhesive foam, hydrocolloid, or nonadherent dsg to treat existing wounds
Management Partial-Thickness Wounds: Specific Wounds

• **Skin Tears**
  - Provide padding of extremities & equipment
  - Assure gentle handling techniques and use of skin friendly adhesive products
  - Stabilize viable skin flap with SteriStrips, etc.
  - Gentle adhesive or nonadhesive dressings
    - Gentle adhesive foam dressings
    - Nonadherent contact layers secured with roll gauze
    - Glycerine based solid gel secured with roll gauze

Management Partial-Thickness Wounds: Specific Wounds

• **Wounds d/t specific disease process, e.g., HSV**
  - Collaborate with team to establish accurate diagnosis
  - Treat based on diagnosis (antiviral for HSV)
  - Topical therapy based on location: dressings vs. moisture barrier ointment
Challenges in Classification and Management Stage 2 Pressure Injury

• Clear definition of slough
• Further study re: visible indicators partial thickness repair (granulation buds?)
• Tools that promote accuracy in differential diagnosis of pressure injury re: Moisture Associated Skin Damage and other types partial thickness skin loss

Summary

• Stage 2 Pri: Current Guidelines
  – Differential diagnosis
    • Consider location and patient history
  – Differentiation Stage 2 and Stage 3
    • Carefully assess structures in wound base
  – Prevention: comprehensive attention to management pressure, moisture, friction
  – Management
    • Correct etiologic factors
    • Systemic support for healing
    • Maintain clean moist wound
References


• Bruce T, et al. 2012. Reliability of pressure ulcer staging: lit review and 1 institutions strategy


References Cont’d


