Pressure Ulcer Risk Assessment
A to Z

American Medical Technologies
Irvine, California
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Overview & Objectives

• Describe the Importance of Risk Assessments

• Recognize Extrinsic & Intrinsic Factors that Contribute to Risk for the Development of Pressure Ulcers
Assessments

• Pressure ulcer risk assessment
• Detailed initial skin assessment
• Pressure ulcer risk assessment policy
• The implementation and consistent use of a risk assessment tool can reduce the incidence of pressure ulcers by 60%!!!!
Difference Between Skin Assessment and Pressure Ulcer Risk Assessment

- Skin health
- Variations
- Age / disease related changes

- Immobility
- Nutrition
- Sensation
- Moisture
Risk Assessment Steps

- Identify:
  - ALL risk factors
  - Pre-existing skin issues
- Assess level of pain
- Include the Resident Assessment Instrument (RAI)
- Identify the automatic high risk resident
- Assess additional factors impacting development, treatment and healing of pressure ulcers
Risk Assessment

- CMS considers a pressure ulcer to be a **sentinel event** in a resident of a LTC facility who had been assessed as being at **low risk** for pressure ulcer development.

- According to CMS:
  - Residents at high risk:
    - impaired transfer or bed mobility
    - Comatose
    - malnourished,
    - end-stage disease
- any other patient is at low risk
### Risk for Pressure Ulcers

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>- altered cognition</td>
<td>- dehydration</td>
</tr>
<tr>
<td>- malnutrition</td>
<td>- bed rest/chronic immobility</td>
</tr>
<tr>
<td>- incontinence</td>
<td>- intrinsic/extrinsic/iatrogenic factors</td>
</tr>
<tr>
<td>- immunosuppression</td>
<td>- multisystem trauma</td>
</tr>
<tr>
<td>- corticosteroid history</td>
<td>- significant obesity / cachexia</td>
</tr>
<tr>
<td>- fractures</td>
<td>- co-morbid conditions</td>
</tr>
<tr>
<td>- diminished pain awareness</td>
<td>- paralysis</td>
</tr>
<tr>
<td>- poor circulation</td>
<td>- resident refusal</td>
</tr>
<tr>
<td>- drugs that impair wound healing</td>
<td>- previous PrU history</td>
</tr>
<tr>
<td>- diabetes</td>
<td>- altered blood pressure</td>
</tr>
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<td></td>
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</tr>
</tbody>
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areas exposed to tubes, lines and/or external devices (casts, splints, etc)

- calcaneous
- greater trochanter
- ischial tuberosities
- sacrum
- medial/lateral malleoli
- knee (all aspects)
- olecranon process
- occiput
- ears
- Scapulae
- toes (tight sheets)
- thoracic vertabrae
## Extrinsic & Intrinsic Defined

<table>
<thead>
<tr>
<th>Extrinsic</th>
<th>Intrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being outside a thing</td>
<td>Belonging to a thing</td>
</tr>
<tr>
<td>Originating from outside</td>
<td>Originating from within</td>
</tr>
<tr>
<td>Outward or external</td>
<td>Internal</td>
</tr>
</tbody>
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Extrinsic & Intrinsic Factors

Extrinsic Factors

• Cracked shell due to impact
• Left out in sun
• Left in carton, unable to move or roll

Intrinsic Factors

• Old egg left over from Easter
• Overweight
• Diagnosed with congestive yolk disease
### Intrinsic Risk Factors Which Can Be Eliminated/Modified?

<table>
<thead>
<tr>
<th>Can Be Eliminated/Modified</th>
<th>Inherent Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Hx of PrU</td>
<td>• Altered blood pressure</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>• Increased temperature</td>
</tr>
<tr>
<td>Dehydration</td>
<td>– either internal to the patient or at the patient/surface</td>
</tr>
<tr>
<td>Excessive perspiration</td>
<td>• Body build</td>
</tr>
<tr>
<td>Urinary/fecal incontinence</td>
<td>• Co-existing health conditions</td>
</tr>
<tr>
<td>↓ sensory perception</td>
<td>– malignancy, diabetes, stroke, pneumonia, heart failure,</td>
</tr>
<tr>
<td>Impaired circulation</td>
<td>sepsis, renal failure, anemia, immune compromised</td>
</tr>
<tr>
<td>Altered mental status</td>
<td>• Acute illness</td>
</tr>
<tr>
<td>↓ mobility</td>
<td></td>
</tr>
<tr>
<td>Age &gt;70 years</td>
<td></td>
</tr>
</tbody>
</table>
Low Blood Pressure as a Risk Factor

- Systolic BP <100 mmHg
- Diastolic BP <60 mmHg
- Hypotension may shunt blood flow away from the skin to more vital organs
- Decreases skin tolerance for pressure by allowing capillaries to close at lower interface pressures
Extrinsic Factors

• Treatment protocols
• Failure to recognize risk
• Patient handling techniques
• Use of restraints
• Hygiene
• Medications
• Emotional stress
• Smoking
Risk Assessment Tools

• **Norton Scale:**
  • oldest, developed in 1961

• **Gosnell’s Scale:**
  • based on further refinement of Norton

• **Braden Scale:**
  • published 1987.
  • *Most common risk assessment tool used in clinical setting*
Pressure Ulcer Risk Assessment

• Determine if person at risk for pressure ulcers
  – On admission
  – Repeat as regularly & frequently as required by patient acuity
  – Or when a change in status
  – Ref. National Pressure Ulcer Advisory Panel=NPUAP.org

• Consider clinical setting
  – Acute care: on admission: at least every 48 hours
  – LTC: On admission\readmission, weekly for 1st 4 weeks, then quarterly
    Any time a change in patient’s status and/or discharge/return from hospital.
  – Home Health: On admission reassess every visit
Recommendations for Risk Assessments and Reassessments

• WOCN, AMDA
• Initial risk assessment at admission or readmission
• Reassess weekly for the first 4 weeks
• At least weekly during routine care (i.e. at bath)
• Then quarterly
• Or whenever the resident’s condition changes or deteriorates
How often are you doing pressure ulcer assessments in your setting?
# Braden Parameters

<table>
<thead>
<tr>
<th>Sensory Perception</th>
<th>Moisture</th>
<th>Activity</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Mobility</th>
<th>Nutrition</th>
<th>Friction &amp; Shear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completely Immobile</td>
<td>1. Very Poor</td>
<td>1. Problem</td>
</tr>
<tr>
<td>4. No Limitations</td>
<td>4. Excellent</td>
<td></td>
</tr>
</tbody>
</table>
Braden Scale Scores

• Mild Risk = 15 - 18
• Moderate Risk = 13 - 14
• High Risk = 10 – 12
• Very High Risk = 9 or below

**If other major risk factors are present (e.g., age, fever, poor dietary intake of protein, **diastolic pressure <60**, and/or hemodynamic instability), advance to next level of risk.
Risk Assessment
NOT Only A Number

Number **meaningless** unless risk factors identified

- **PrU** risk assessments should:
  - Identify each **specific** risk factors
  - POC should intervene for **each identified risk** factor
Prevention and Risk Factors

- Identify
- Remove
- Modify
- Stabilize risk factors
- To the BEST of your ability
- DOCUMENT, DOCUMENT, DOCUMENT
Risk Assessment

• Prevention and early intervention of at-risk patients is essential
• Thorough systems review
• Observation and palpation of patient’s skin is key!
Risk Assessment and POC

• Risk assessment
  • Address each in the resident’s **plan of care**
  • Risk assessment directs interventions
    • Offloading/positioning/heel elevation
    • Pressure redistribution and support surfaces (bed /wheelchair)
    • Nutrition & hydration
    • Dietary consult or re-consult
    • Consider resident food preferences, social & cultural differences
    • Medication review (topical & systemic)
    • Functional mobility (rehab services)
    • Interventions for incontinence
    • Specialist consults (vascular, endocrine, surgeon, psych, etc.)
CMS: Avoidable Pressure Ulcers

- Resident developed a pressure ulcer and the facility DID NOT DO one or more of the following:
  - Evaluate the resident’s clinical condition and pressure ulcer risk factors
  - Define and implement interventions that are consistent with resident needs, goals, and recognized standards of practice
  - Monitor and evaluate the impact of the interventions
  - Revise the interventions if appropriate
CMS: Unavoidable Pressure Ulcers

- Resident developed a pressure ulcer even though the facility:
  - Evaluated the resident’s clinical condition and *risk factors*
  - Defined and implemented interventions that are consistent with resident needs, goals, and recognized standards of practice
  - Monitored and evaluated the impact of the interventions
  - Revised interventions as appropriate
CMS-F314
Mandated Daily Monitoring
Risk Assessment Summary

Don’t Crack the Egg

• Use a clinically validated tool
• Obtain training
• Use the full version of a risk assessment tool
• Carefully match the resident’s clinical presentation to the risk assessment tool’s descriptors
• Remember that PrU risk assessment & skin assessment are different tools with different goals
• Make independent assessments (do not copy other people’s work)
Review Questions

1. A skin assessment is all that is needed to assess your patient’s risk for pressure ulcer development.  
   **True or False**

2. The Braden Scale includes the following parameters:  
   A. Mobility, skin health, age  
   B. Moisture, nutrition, hypotension  
   C. Mobility, moisture, activity  
   D. Activity, skin health, hypotension

3. An unavoidable pressure ulcer occurs when risk factors are evaluated, interventions implemented, the patient monitored and interventions evaluated.  
   **True or False**
Questions?

For more information about this presentation or other educational activities, please contact info@amtwoundcare.com
References

• Slide 4 & 17
• Barbara Braden, 1989, “Clinical Utility of the Braden Scale for Predicting Pressure Sore Risk”.
• Slide 6
  Ayello EA, Braden B. Why is pressure ulcer risk assessment so important? Nursing 2001;31(11):74-80. Adapted for Advances in Skin & Wound Care with permission from Lippincott Williams Ff Wilkins.
• Slide 7
  (Bergstrom, 1997, Gosnell 1973, Moolten, 1972)
• Slide 11, 12 & 13
  (University of Iowa Pressure Ulcer Prevention and Treatment Algorithm)
References Continued

- Slide 18
  Guideline for Prevention and Management of Pressure Ulcers; WOCN Clinical Practice Guideline Series 2003
  Pressure Ulcers in the Long-Term Care Setting; Clinical Practice Guideline; AMDA 2008

- Slide 24