Pressure Ulcer Prevention: Learning from the New F-314

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Prevention

Critical Steps
• Identifying resident at risk for PU
• Identifying & evaluating risk factors
• Changes needed to remove or modify risk
• Changes in resident's condition
• Implementing individualized interventions
• Monitoring the impact of interventions
• Modifying interventions as needed

Comprehensive Care Plan

Care Plan:
• Identify resident at risk, the level & nature of risk (s)
• Identify the presence of pressure ulcers
• Monitoring: If PU risk is stabilized, reduced, removed
• Impact of interventions
• Assessments are timely & appropriate
Comprehensive Care Plan

- Interventions are implemented, monitored & revised
- Changes in condition are recognized, evaluated, reported and addressed
- Use clinical resources
- Need a quality assessment & assurance committee
- Monitor P & I of PU's;
- P & P meet current standards

Comprehensive Assessment

- Admission evaluation defines initial care approaches

  - Identify pre-existing signs (ie: purple or dark areas)

- Deep tissue injury--------Unavoidable PU

Was it Really a Stage I??
Darkly pigmented skin

General Guidelines

• Components of prevention
  – risk assessment
  – skin care
  – pressure reduction
  – friction & shear
  – incontinence/moisture care
  – nutritional assessment & interventions
  – patient/staff education

Comprehensive Assessment

• Multiple co-morbid factors
  >immobility, hospitalization, prolonged procedures
• Decreased sub-q tissue & lean muscle mass, skin elasticity, & impaired circulation
• Includes the RAI
• Identify multi-system organ failure, end of life condition, refusal of care & Tx.
Comprehensive Assessment

Addresses factors that can impact development, treatment or healing

- pressure points
- Under-nutrition
- hydration deficits
- moisture on the skin
- cognitive
- drugs, steroid

Comprehensive Assessment

ASSESSMENT TOOL

Requirements DO NOT mandate any specific tool other than the RAI

Validated Tools
- Braden Scale
- Norton Scale
- Waterlow Scale

Recommended: PU risk assessment tool on admission, weekly for four weeks, then quarterly.

Pressure Points & Tissue Tolerance

- Assessment of skin condition defines prevention strategies
- Pressure, Shear & Friction addressed
- Conduct regular skin assessment on at risk resident’s
- Impaired circulation from positioning (sloughing) or medical devices (tubes, casts, orthoses), keep heel off bed
Nutrition Needs

Nutrition provides vital energy & building blocks for all body structures
• Skin condition reflects overall body function
• Skin breakdown may be evidence of general catabolic state

Nutrition Needs

Weight reflects a balance between intake and utilization of energy
• Unintended weight loss-poor nutrition or worsening health status
• Increase hydration & caloric needs
• Nutritional goals: ↑ protein intake
  1.2-1.5 gm/kg body weight daily—unless contraindicated

Moisture

• Urine & feces irritate the epidermis and may make skin more susceptible to breakdown.
• Dermatitis related to incontinence should not be staged and documented as a PU.
Dermatitis

- Intense erythema
- Scaling
- Itching
- Papules
- Weeping
- Skin eruptions

Basic or Routine care

- Redistribute pressure (reposition, protect heels)
- Minimize exposure to moisture & keep skin clean
- Provide appropriate pressure redistributing support surfaces
- Provide non-irritating surfaces
- Maintain or improve nutrition & hydration
- Monitor adverse drug reactions

Repositioning

- Repositioning plan
- Lifting devices
- Avoid lying on the PU
- Educate resident on why position changes are important
- Change position regularly & monitor
- Assist with position changes if resident cannot move self
Repositioning

- Reposition at least q 2 hours or more frequently—based on resident’s condition & tolerance
- Keep off of trochanter unless no other options
- Keep reclining chair and bed below 30 degree angle to decrease pressure load
- Sitting: may need hourly position changes

Repositioning

- Teachable resident—teach how to shift weight q 15 minutes
- Wheelchairs with sling seat are not optimal for prolonged sitting
- No evidence to support shifting weight for 10-15 second is of any benefit
- Ongoing monitoring of resident’s skin integrity
QUESTION

How do you turn the resident?

How do you get him up in a chair?

ANSWER

Use an appropriate Pressure relieving Support surfaces

Which Bed is “Just Right”?

Support Surfaces

• Appropriate SS or devices selected to match the therapeutic benefits for each resident
• Provide pressure redistribution
• Check for over-inflated cushions and mattress; Assess if bottoming-out.
• Elbows & Heels high risk areas
• Keep heels off the bed
Support Surfaces

• Flexion contractures need special attention to reduce pressure
• Use of Pillows, & devices to keep skin off of skin; No donut devices
• Sheepskin, elbow & heel protectors are not effective at reducing pressure
• Use of Static and dynamic bed products

Group I: Static devices/mattresses or mattress overlays

• Air
• Foam
  • Completely immobile*
• Gel
• Water Overlay

Group II: Dynamic devices/mattresses, nonpowered mattress replacements or mattress overlays

• Low air loss
• Alternating air
• Multiple Stage II on trunk or pelvis, tried Group I without improvement*
  OR
• Large or multiple Stage III or IV on trunk or pelvis*
  OR
• Myocutaneous flap or skin graft in past 60 days*
Group III: Air-Fluidized Bed

The “Original Model”

- Stage III or IV ulcers*
- Bedridden or Chairbound*
- Would require institutionalization without AFT*
- Conservative treatment (including Group II surface) failed*
- Must have a trained caregiver* as well as MD directing the treatment regimen
- In addition:
  - No co-existing pulmonary disease* or
  - Require treatment with wet soaks or moist wound dressings

From CMS Support Surface Criteria from: http://www.palmettogba.com

Incidence of Pressure Ulcers in High Risk Patients

Braden Tool/Care Plan

<table>
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<th>Month</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
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<td>Incidence</td>
<td>13.2%</td>
<td>1.7%</td>
<td>13.2%</td>
<td>1.7%</td>
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</table>

Comprehensive Prevention

- AHCPR
- AMDA
- CMS
  - Xakellis, Frantz, et al 1999
  - Osterbrink, et al 2000
  - Baier, et al, 2002
  - Abel, et al, 2005
Interventions
Based on establishing relevant goals and approaches to stabilize or improve comorbidities
• Routine & Individualized interventions
• Minimize clinically significant risk factors
• Document valid reason why interventions were not appropriate or feasible

Resident Choice
Resident’s Rights 42 CFR 483.10(b)(3)(4).
• Must discuss resident’s condition, treatment options, outcomes and consequences of refusing treatment
• Expected to address resident’s concerns and offer relevant alternatives

Advanced Directives
• Care must reflect resident’s wishes
• Supportive care given that is not prohibited by the advanced directive
• End-of-life care—follow resident wishes
• If facility has implemented individualized approaches to stabilize condition and to prevent or Tx the PU (cleaning, turning, repositioning) then the development, or progression may be consistent with regulatory requirements.
Seat AND Back Pressure Mapping

SEAT PRESSURE MAPPING
Advanced Office Chair Design

Seat and Back

UltraThin Bed Pressure Mapping System
New model

Intact Skin

Reflections from probe membrane
Coupling gel
Stratum corneum of epidermis
Living strata of epidermis
Reflections from acoustic interfaces (e.g., between collagen & hydrated ground substance) in papillary layer of dermis
Reflections from acoustic interfaces in reticular layer of dermis
Hypodermis (panniculus adiposus) Reflections from collagen & ground substance interfaces within fibrous supports of adipose tissue

Mr R
Probe Membrane
Coupling Gel
Epidermis
Dermal Region
Edema

High resolution ultrasound image showing edema forming on a visually normal heel. Based upon other images this was known to be representative of the early stage of a pressure ulcer.
Prevention Summary

• Identification of risk

• Implementation of individualized interventions

• Monitoring the effectiveness of interventions

No Butts About It!

Resources

• www.cms.internetstreaming.com
• www.amda.com
• www.wocn.com
• www.ahrq.gov
• www.npuap.org