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#### **Critical Burn Patient Skin Breakdown Prevention Protocol**

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#### Published In/Presented At

Kohler, K., Perini, K. (2015, July 8). *Critical Burn Patient Skin Breakdown Prevention Protocol.* Poster presented at LVHN UHC/AACN Nurse Residency Program Graduation, Lehigh Valley Health Network, Allentown, PA.

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#### **Critical Burn Patient Skin Breakdown Prevention Protocol**

Kara Kohler RN, BSN Kara Perini RN, BSN

A PASSION FOR BETTER MEDICINE."



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Purpose

 To develop a protocol that will aid in decreasing skin breakdown in >20% burn patients

# **PICO QUESTION**

- P: Critical Burn Patients (> 20% burn)
- I: Skin breakdown prevention
- C: No protocol

O: 90% compliance with designed protocol to decrease skin breakdown.

### **EVIDENCE**

- Incorporation of body wash and skin protectant brought about a decrease in skin breakdown from 68-40; statistically significant decrease in stage I and II pressure ulcer incidence; nurses evaluated interventions as effective 98% of the time.
- Effectiveness of topical skin interventions was variable and dependent on the skin condition being treated. More research needed
- Multiple-barrier product inhibited the passage of the dye into the skin significantly better than the other 2 products.
- Third spacing causes edema in burn patients. Fluid resuscitation increases edema.
- Regularly assess your patients' risk for pressure ulcer development.

#### **EVIDENCE**

- There is currently no clear evidence of a benefit associated with nutritional interventions for either the prevention or treatment of pressure ulcers. Further trials of high methodological quality are necessary.
- Some risk factors for pressure ulcer development are: pressure, infection, edema, and inflammation.
- Repositioning is an integral component of pressure ulcer prevention and treatment; it has a sound theoretical rationale, and is widely recommended and used in practice. However the degree of the turn and the frequency need more research to determine the most effective approach.
- People at high risk of developing pressure ulcers should use higher-specification foam mattresses rather than standard hospital foam mattresses. The relative merits of higher-specification constant low-pressure and alternating-pressure support surfaces for preventing pressure ulcers are unclear, but alternatingpressure mattresses may be more cost effective than alternating-pressure overlays.

# **BARRIERS & STRATEGIES**

#### Barriers:

- Census
- Compliance with the protocol
- Lack of equipment (wedges)
- Moist dressings

# **BARRIERS & STRATEGIES**

#### Strategies to overcome:

- Education for compliance
- Checklist for compliance
- Obtaining the necessary equipment (wedges)

### **Expected Outcomes**

- >90% compliance with protocol
- Decreased pressure ulcers

# **PROJECT PLANS**

- Admission pictures taken of high risk areas
  - Back of head
  - Sacrum
  - Heels
- Specialty bed order placed within 24 hrs
- Nutrition consult within 24hrs
- Full skin assessment and documentation every shift
- Braden (<18 is high risk!)</li>
- Egg crate foam under patient's head
- Heel precautions in place
- Sling in place
- PA/MD made aware
- Dressing orders placed

# **PROJECT PLANS**

- Disposable pads (extrasorbs) only!
- Turn/reposition patient every 2 hrs (document!)
  - Sling to reduce friction/shearing
  - Wedge pillow
- Z-Guard application to high risk areas
  - Wash between applications with mild soap and water
- Pressure ulcer present?
  - Document only a description and do not stage until seen by ET
  - ET consult placed for staging

#### References

- Aust, M. (2011). Pressure ulcer prevention. American Journal of Critical Care, 20(5).
- Cushing, C. A., & Phillips, L. G. (2013). Evidence-based medicine: pressure sores. *Plastic and reconstructive surgery*, 132(6), 1720-1732.
- Gillespie, B. M., Chaboyer, W. P., McInnes, E., Kent, B., Whitty, J. A., & Thalib, L. (2014). Repositioning for pressure ulcer prevention in adults. *The Cochrane Library*.
- Hodgkinson, B., Nay, R., & Wilson, J. (2007). A systematic review of topical skin care in aged care facilities. *Journal of clinical nursing*, 16(1), 129-136.
- Hunter, S., Anderson, J., Hanson, D., Thompson, P., Langemo, D., & Klug, M. G. (2003). Clinical trial of a prevention and treatment protocol for skin breakdown in two nursing homes. *Journal of* WOCN, 30(5), 250-258.
- Langer, G., Knerr, A., Kuss, O., Behrens, J., & Schlömer, G. J. (2003). Nutritional interventions for preventing and treating pressure ulcers. *The Cochrane Library*.
- McInnes, E., Jammali-Blasi, A., Bell-Syer, S. E., Dumville, J. C., & Cullum, N. (2011). Support surfaces for pressure ulcer prevention. *The Cochrane Library*.
- Moore, F. D. (1999). Then and now: treatment volume, wound coverage, lung injury, and antibiotics: a capsule history of burn treatment at mid-century. *Burns*, 25(8), 733-737.
- Sun, Q., Tran, M., Smith, B., & Winefordner, J. D. (2000). In-situ evaluation of barrier-cream performance on human skin using laser-induced breakdown spectroscopy. *Contact dermatitis*, 43(5), 259-263.
- Vinson, J., & Proch, J. (1998). Inhibition of moisture penetration to the skin by a novel incontinence barrier product. *Journal of Wound Ostomy & Continence Nursing*, 25(5), 256-260.

## **Questions or Comments?**

## **Make It Happen**



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