BACKGROUND AND SIGNIFICANCE

- Critical care patients are at the highest risk of hospital-acquired pressure injuries (HAPI) due to prolonged immobility, hemodynamic instability, vasopressors, diminished sensation, organ failure, and medical devices.
- Effective HAPI prevention strategies include pressure redistribution surfaces, frequent repositioning, nutritional interventions, and moisture and incontinence management.
- Since 2012, prophylactic silicone-coated foam dressings have become a popular sacral HAPI prevention strategy.

PURPOSE

To evaluate the evidence related to effectiveness of silicone-coated foam dressings on prevention of sacral HAPI and inform the decision about immediate translation into practice vs. need for original research.

METHODS

**PICO question:**

As compared to Mepilex foam dressings (C), are Allevyn Life foam dressings (I) as effective as preventing sacral PI (O) in critical care patients (P)?

**EBP team members (7)**

- Blake 12: Attending nurses (2), Nursing Director
- Ellison 4: Attending nurse (1), Clinical Nurse Specialist (CNS), Nursing Director
- PCS Institute for Patient Care: CNS/Nurse Scientist/Evidence Co-Lead

**Databases searched:**

- CINAHL
- Ovid Nursing
- Medline
- Embase.

**Clusters of Key Words:**

1. ICU, critical care, critically ill, SICU
2. Mepilex, Molnlycke, foam AND dressing, silicone AND foam AND dressing
3. Allevyn, Smith & Nephew, foam AND dressing
4. Pressure ulcer, decubitus ulcer, and decubiti.

RESULTS

Four of 31 citations were selected for inclusion:

- Two high quality Level I studies demonstrating significantly lower sacral HAPI incidence in critical care patients treated with prophylactic Mepilex foam dressings vs. no dressing (Sanitamaria, et. al. 2015, Kawoles, 2016)
- Two Level II studies demonstrating lower incidence of sacral HAPI in critical care patients treated with either prophylactic Allevyn Life foam or Mepilex foam, respectively, vs. historical controls without dressings (Chaiken, 2012, Byrne, et. al. 2016)

CONCLUSIONS

Four Level I and II studies demonstrate effectiveness of silicone-coated foam dressings for prevention of sacral PI. Future research needs to provide more evidence for clinical application.

IMPLICATIONS FOR PRACTICE AND FUTURE RESEARCH

Available evidence is limited but supports utilization of silicone-coated foam dressings for prevention of sacral PI. Future research needs to provide more evidence for clinical application.

REFERENCES


Dearholt SL, Dang D (Eds), Johns Hopkins Nursing Evidence-Based Practice: Model and Guidelines (2nd Ed.) 2015, Indianapolis, IN: Sigma Theta Tau International.
