



# Effectiveness of Borderless Foam Dressings in Surgical Patients

Elizabeth Biddle, RN, Jenny Fitzmaurice, BSN, RN, Kristin Sanders, RN

## Operating Room

### Introduction

Surgical patients have an elevated risk for pressure ulcers. Due to anesthesia, long periods of immobility and lengthy procedure times, all perioperative personnel should be aware of proper use and indications of borderless foam dressings in surgical patients. Currently, Hershey Medical Center has no policy in place regarding the use of borderless foam dressings

### PICO Question

**Population:** Surgical patients

**Issue:** Pressure ulcers in surgical patients

**Comparison:** Effectiveness of borderless foam dressings

**Outcome:** Reduction of pressure ulcers in surgical patients

**Questions:** Are borderless foam dressings effective in the reduction of pressure ulcers in surgical patients?

What is the proper use and indication for borderless foam dressings in surgical patients?

### Methods

A literature search was conducted using CINAHL, EbscoHost, and PubMed databases.

**Keywords:** Pressure ulcers, surgical patients, borderless foam dressing.

**Inclusion Criteria:** Articles within 5 years and surgical patients.

### Results

Article	Findings	Recommendations
Walton-Geer, Patina S (2009)	Pressure ulcers develop in surgical patients several hours to up to three days after surgery. Pressure ulcers develop based on the three factors of: pressure, intrinsic factors, and extrinsic factors. Improper positioning causes problems with blood pressure and deficiencies in tissue perfusion and venous return which leads to thrombus formation and pressure ulcer development.	All surgical patients should be considered high risk for pressure ulcer development. AORN recommends the use of pressure-relieving devices for surgical patients.
Santamaria, et al. (2013)	Conclusions of this trial revealed that by using multi-layered soft silicone dressings, there were fewer patients who developed pressure ulcers. There was a 10% difference between the control group and the intervention group. Interestingly one of the intervention patients did not have the dressing placed r/t his condition. This patient developed a Stage II pressure ulcer on his sacrum, where when the dressing was being placed there was no pressure ulcer development. The results of this study did show that soft silicone multi-layered dressings did have clinical and statistical significance for decreasing or preventing pressure ulcer development.	Multi-layered soft silicone dressing should be used on all hospitalized patients who have an increased risk of developing pressure ulcers. This not only includes patients in the OR or in critical care areas, but also includes floor patients whose mobility may be decreased for whatever reason. By using evidence based practices and knowledge about pressure ulcer formation the silicone dressing could aid in preventing pressure ulcers in our patients.
Walsh, N. Blanck, A., Smith, L., Cross, M., Anderson, L., Polito, C. (2012)	“The dressing prevents sacral PU [Pressure ulcers] by absorbing moisture and enhancing tissue tolerance to pressure, while simultaneously decreasing shear forces on the sacral area.”	The use of foam dressings can be helpful to reduce pressure ulcers in not only surgical patients but all hospitalized patients

### Conclusions

After a thorough literature review borderless foam dressings were found to be effective in the reduction of pressure ulcers in surgical patients. We believe current practices should include policies and indications for the use of borderless foam dressings.

### References

- Santamaria et al. A Randomized controlled trial of the effectiveness of soft silicone multi-layered foam dressings in the prevention of sacral and heel pressure ulcers in trauma and critically ill patients: the border trial. *International wound journal* 2013; 1-7
- Walsh, N. Blanck, A., Smith, L., Cross, M., Anderson, L., Polito, C. Use of a Sacral Silicone Border Foam Dressing as One Component of a Pressure Ulcer Prevention Program in an Intensive Care Unit Setting. *Wound Ostomy Continence Nurs J.* 2012; 39(2): 146-149.
- Walton-Geer, Patina S., Prevention of Pressure Ulcers in the Surgical Patient. *AORN J.* 2009; 89(3): 538-548.