A Multifunctional Dressing for Best Practices Mary Wolphagen BSN, RN, CWCN, Wound Care Coordinator. Conway Medical Center, Conway SC 29526

INTRODUCTION

Wound care programs (WCP) are key for best practices. The Conway Medical Center (CMC) wound care leader evaluated possible improvements in the CMC inpatient wound care practices. Goal: improve WCP practices. The CMC outpatient Wound Care Clinic managed wounds with Polymeric Membrane Dressings* (PMDs) with positive outcomes. For continuity of care, the author evaluated PMDs for an inpatient WCP. Example case studies reported here: Patient 1: male, age 77. History of cerebrovascular accident, atrial fibrillation. Skin tears (STs) left knee/forearm, class 3 with total flap loss; Patient 2: male, age 73. History of subdural hematoma, gastrointestinal bleed, cardiovascular disease, cancer. Right/left shoulder stage 2 pressure injuries (PIs) caused by combined friction/shear; Patient 3: male, age 89. History of osteomyelitis of heels, sepsis, hypertension, and immobility. Stage 2, 3 sacral Pls; Patient 4: male, age 70. History of osteomyelitis, deep vein thrombosis of leg, cardiovascular disease, diabetes type 2, bed bound functional paraplegic. Unstageable PI left hip, 100% slough; **Patient 5:** female, age 83. History of sepsis, community acquired pneumonia, diabetes, and cancer. Painful stage 2 sacral PI. Periwound edema, erythema, discoloration, satellite lesions; **Patient 6:** male, age 66. History of alcohol withdrawal, elevated liver enzymes, smoking. Skin tear right forearm, class 3 with total flap loss. Periwound skin discoloration; Patient 7: female, age 73. History of acute stroke and altered mental status. Slow healing, painful stage 2 sacral PI. Periwound skin maceration, erythema; pain and stinging with manuka honey; Patient 8: female, age 79. History of congestive heart failure exacerbation, hypokalemia. Sacral deep tissue pressure injury (DTPI). Tissue dark purple in color.



Left shoulder stage 2 pressure injury Initial application of PMD Wound measurement: 4 cm x 1 cm x 0.1cm

PATIENT 2





Day 16 The pressure injury is closed

Sacral stage 2 and stage 3 pressure injury

Bibliography

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*PolyMem[®] Wound Dressings

Ferris Mfg. Corp., 5133 Northeast Parkway, Fort Worth, TX 76106 USA, 1-800.POLYMEM (765.9636) • www.polymem.com This case study was unsponsored. Ferris Mfg. contributed to this poster presentation.

RATIONALE

PMDs control inflammation to where it is needed - into the damaged tissues, reducing secondary cell damage, pain, swelling and bruising in open or closed tissue injury. PMDs encourage wound healing through all the phases of wound healing and is the optimal dressing of choice to apply from onset of tissue injury through wound closure. PMDs help prevent the formation of chronic wounds. Wounds are continually cleansed with PMDs which minimizes the need for additional cleansing during dressing changes. The components in the dressing: the glycerin and the mild cleanser support autolytic debridement and maintain a moist healing environment. Superabsorbents in the dressing draw wound fluid to the wound site and help draw non-viable tissue into the dressing where it is easily discarded with the dressing.

Results with Polymeric Membrane Dressings:

- Consistent faster wound healing.
- Decreased pain reported by patient.
- changes.
- Atraumatic: compared to wet-to-dry and hydrocolloid which would stick.
- and can be applied to different sizes/shapes of wounds, manages the exudate optimally.



Wound closure observed day 25, discharge day

Sacral stage 2 pressure injury Initial application with PMD PMD secured with secondary dressing and surrounding skin protected with a protective spray due to soiling from incontinence. Wound measurement: 1 cm x 1 cm x 0.2 cm Erythema around wound edges

PATIENT 3

• Cleaner wound bed compared to the use of manuka honey dressings or petrolatum dressings. • Decreased frequency of dressing changes; compared to twice daily or daily wet-to-dry dressing

• Ease of use: the nursing staff can apply and remove it easily, it is adaptable to different types of wounds

PATIENT 7



Patient discharged on day 15, before wound closure, to home.

Wound care orders: Continue with PMDs, with spouse taking care of pressure injury. Patient to follow up at wound care center.

Wound measurement: 1 cm x 0.4 cm x 0.1 cm

METHODS

Patients 2-8: PMD non adhesive dressing.

All wounds initially cleanse with normal saline. No further cleansing as, per manufacturer instructions, as the dressing contains a safe wound cleanser, continually cleansing the wound.

RESULTS

Several patients were inpatient for short-time. It was observed wounds with PMDs were either near closure or closed when discharged.

Patient 1: 4-day discharge, wound almost at closure with PMDs, no pain after initial cleanse. The family reported the patient did not usually heal so quickly. **Patient 2:** Patient wounds reached closure before 15-day discharge. Atraumatic dressing removal.

Patient 3: Sacral PIs closed 25-day discharge. Consistent healing improvement with each dressing change.

with PMDs.

Patient 7: New epithelial growth observed during dressing change next day, decreased pain. Patient discharged on day 15 before wound closure. Patient 8: DTPI resolving by time of discharge 3 days later, dark purple tissue resolving. Tissue injury did not open.

DISCUSSION

Many of the patients were at high risk for slow healing due to their comorbidities and or location of the wound but had consistent improvements in wound healing. There was less inflammation and redness observed after application of PMDs. Normally skin adhesive spray is applied for DTPI with no improvement. PMDs are a multifunctional dressing and best practice wound care to implement in the inpatient wound care program at this facility. PMD usage removes uncertainty from the treatment plan because PMDs provide consistent positive outcomes.



Patient 1: PMD with silicone adhesive border dressing; pain with initial wound cleanse.

Patients 3,5,7,8: PMD dressing changed daily, as needed due to soiling.

Patients 1,2,4,6: PMD dressing changed every 3 days per calendar schedule.

Patient 4: periwound skin protected with a barrier adhesive due to very fragile skin.

Patient 7: periwound skin protected with a barrier spray due to very fragile skin.

Patient 2,3,4,5,7,8: PMD secured with a secondary 5-layer foam dressing.

Patient 4: In 22 days PMDs autolytically debrided 100% of the slough. In 56 days with PMDs the wound closed. Day 59, the patient was discharged.

Patient 5: Wound almost at closure, patient 7-day discharge with no complaints of pain after 1 - 2 days. With PMDs there was less swelling, redness, and discoloration. Within a few days there were improved healing outcomes of satellite lesions.

Patient 6: 3-day discharge. Consistent healing improvement. ST wound closure on day 2