Improving patient and financial outcomes by managing partial thickness injuries with soft silicone dressings in a trauma department

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INTRODUCTION AND STATEMENT OF PROBLEM

Moses Cone Hospital is a Level II trauma center located in the Southeastern United States. The trauma service identified a care management concern and financial challenge related to wound care for patients admitted with partial thickness traumatic wounds or “road rash” sustained from motor vehicle incidents.

PROBLEM HIGHLIGHTS

• Exposed nerve endings in partial thickness injuries seemed to frequently cause the patient more pain than the primary injury from the accident
• Patients were frequently remaining in the hospital additional days than may be needed for stabilization of their primary injuries due to the painful dressing changes
• Intravenous pain medication was routinely required for dressing changes
• Historical management of these injuries included one of the following topical modalities: semi-occlusive thin film dressings, normal saline dressings or silver sulfadiazine (SSD) cream – covered with gauze dressings
• The use of SSD in partial thickness wounds has been shown to delay healing1
• Dressing changes were often ordered to be changed two or three times per day requiring significant nursing involvement related to dressing removal, cleansing and reaplication of the dressing
• The customary topical wound care practice resulted in patients consistently reporting pain levels at 8 or greater with each dressing change (on a scale of 0 - 10)
• Patient and staff satisfaction related to these injuries was unsatisfactory

As a Magnet-designated facility, our nursing divisions are encouraged to work collaboratively with other departments to identify problems, challenges and solutions that will improve our patient outcomes. The CWOCN, working together with the trauma service personnel, recognized the negative impact our patient outcomes. The CWOCN, working together with the trauma service personnel, identified problems, challenges and solutions that will improve patient outcomes by managing partial thickness injuries with soft silicone dressings in a trauma department.

ACTION PLAN

Insuring regarding product application was held for the trauma team and products were allocated for this population of patients. We chose to trial Mepilex® Border and Mepilex® Lite (Mölnlycke Health Care, LLC., Norcross, GA) based on positive outcomes we had utilizing Mepitel® as a contact layer with negative pressure wound therapy.

A product trial, which included pre- and post-digital photography, was held through the trauma department and outcomes were consistently shared. Findings and proposals to change practice were shared with the products committee.

OUTCOMES FOUND

• Mepilex® Border and Mepilex® Lite provided absorption and protection for wound healing
• Frequency of dressing changes was decreased from three times a day to daily, due to drainage, then qod
• Supply costs and nursing time were reduced 59% per day
• Pain levels decreased from an average of 8 to an average of 3 (on a 1-10 scale)
• Intravenous pain medication was eliminated
• Pain was managed by oral analgesics
• Reduced time in the hospital as the wounds are effectively managed and patient recovery is maximized
• Cost savings due to decreased nursing time and supply cost

REFERENCES:
Road Rash: A ‘Best Practice’ Solution to a Painful Problem
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