

# Wound management of a chemical burn in a neonate.

Deborah Maze<sup>1</sup>, James Marceau<sup>2</sup>

<sup>1</sup> The Burns Unit & the Children's Hospital at Westmead Burns Research Institute  
The Children's Hospital at Westmead, Locked Bag 4001, Westmead, Sydney, NSW 2145 [deborah.maze@health.nsw.gov.au](mailto:deborah.maze@health.nsw.gov.au)

<sup>2</sup> Westmead Hospital Neonatal Intensive Care Unit, Westmead, Sydney, NSW 2145 [James.Marceau@health.nsw.gov.au](mailto:James.Marceau@health.nsw.gov.au)

A 24week gestation, 600gm male triplet sustained a 6%TBSA partial thickness chemical burn injury to bilateral flanks whilst an inpatient in a Neonatal Unit.

A 0.5% aqueous chlorhexidine solution was used to prepare the skin of the triplet prior to insertion of umbilical venous and arterial catheters. The mechanism of injury is believed to have resulted from contact with the residual chlorhexidine solution pooling on a polyethylene drape (which was not removed from beneath the neonate) in combination with exposure of this solution to radiant heat from the open care incubator.

The epidermal layer of the skin in a premature infant is only 1-2 cells thick and offers little protection. Damage to the neonate's skin was noted 18 hours post insertion of catheters. There was a delay in recognising the extent of injury and subsequently the initiation of appropriate treatment. The Burns Service at the Children's Hospital at Westmead was consulted on Day 9 post injury.

The challenges around wound management for this neonate will be discussed, including the use of a novel silicone wound dressing gel in conjunction with an absorbent non-adherent foam dressing with a silicon wound contact layer. There was a dramatic improvement in wound healing once burn wound treatment commenced. Complete re-epithelialisation of burn wounds occurred within 28 days.

## Key Words

Burn, neonate, chemical, wound management

## Nominated Stream for Oral Presentations

- Medical
- Nursing
- Allied Health
- Scientific

## Nominated Stream for Poster Presentations

- Care
- Prevention
- Research