

Clinical Practice Guidelines²

4. **Consider Functional and Aesthetic Outcome**
 - a. Debride blisters that impede functional ability especially ROM (burns to the hands)
 - b. Debride blisters to speed healing time
5. **Use Wound Healing Strategies**
 - a. Remove non-viable tissue from the wound bed to promote healing
 - b. Maintain a moist wound healing environment by using synthetic dressings
 - c. Use dressings that don't cause mechanical trauma to the woundbed
 - d. Silver sulfadiazine should be used as a last resort (debris accumulation and daily dressing changes)
6. **Optimize Patient Comfort**
 - a. Small blisters can be left intact as a natural method of pain control
 - b. Stage debridement (aspirate first)
 - c. Choose dressings with longer wear times to minimize discomfort
7. **Improve Cost-Effectiveness**
 - a. Synthetic dressings can speed healing, reduce dressing frequency, decrease narcotic use, potentially reduce hypertrophic scarring and decrease need for additional treatments / procedures

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Dressing Options - ACH

1. **Hydrofiber with Silver**
 - a. With absorbent soft silicone dressing (moist healing); 2-3 days wear time for mid to deep partial thickness burns
 - b. With bulky gauze dressing (allowed to dry out and adhere to superficial partial thickness burn); up to 14 days wear time
2. **Nanocrystalline Silver**
 - a. Moisten with sterile H₂O *not* saline
 - b. Needs to be kept continually moist (should use hydro gel with absorbent silicone dressing); up to 3 days wear time
 - c. Can be painful without hydro gel
3. **Absorbent Soft Silicone Dressing with Silver**
 - a. Direct application; up to 7 days wear time
4. **Polymyxin B Sulfate and Gramicidin Ointment**
 - a. Can use with absorbent silicone dressing (1-2 days wear time) or with soft silicone dressing and gauze (daily change)
5. **Silver Sulfadiazine**
 - a. Can use with absorbent soft silicone dressing or soft silicone dressing and gauze *but* requires a daily dressing change

References

1. Sibbald RG, Orsted HL, Coutts PM and Keast DH. Best practice recommendations for preparing the wound bed: Update 2006. *Wound Care Canada – Reprint*. 2006;4(1):R6-R18.
2. Sargent R. Management of blisters in the partial-thickness burn: An integrative research review. *Journal of Burn Care and Research*. 2006;1(1):66-81.
3. Alsbjorn, et.al.. Guidelines for the management of partial-thickness burns in a general hospital or community setting – Recommendations of a European working party. *Burns*. 2007;33:155-160.

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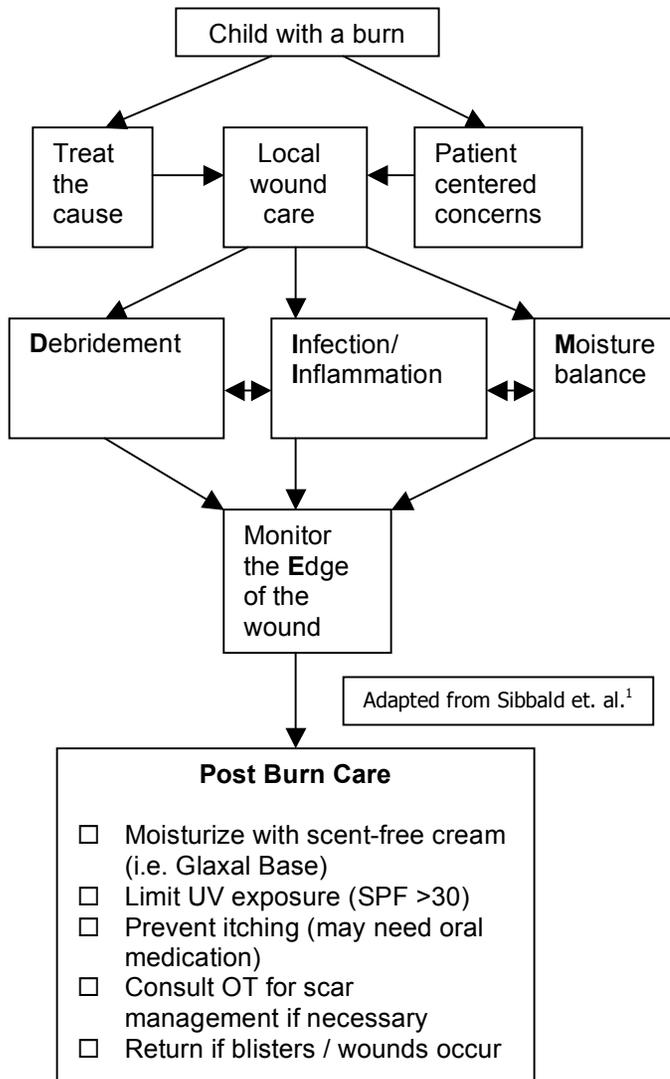
Quick Reference Guide



Partial Thickness Burns and Blister Management

Alberta Children's
Hospital - Calgary

Wound Bed Preparation Paradigm



Adapted from Alsbjorn et. al.³

The Paradigm Explained

Treat the Cause

- ❑ Teach prevention
- ❑ Consider co-factors to healing (nutrition, co-morbid diagnoses, smoking)

Address Patient-centred Concerns

- ❑ Foster adherence to plan of care
- ❑ Consider quality of life (pain)
 - Medicate prior to treatment
- ❑ Educate the pt / family / caregiver

Local Wound Care

- ❑ Prevent burn wound desiccation
- ❑ Cleanse the burn wound with low-toxicity solutions
 - Sterile Water / Saline
 - Potable Tap Water

Debridement

- ❑ Remove non-viable tissue to reduce bacterial burden
 - Gauze, forceps, scissors

Infection / Inflammation

- ❑ Assess and treat with topical antimicrobials

Moisture Balance

- ❑ Select a dressing that fits the needs of the wound

Monitor the Edge of the Wound

- ❑ Consider referral to Plastic Surgery to assess for possible skin grafting if projected wound closure to be > 2-3 weeks

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1. Use Infection-Prevention Strategies

- a. Blisters should be debrided to:
 - i. Remove non-viable tissue from the wound bed
 - ii. Allow proper visualization of burn depth
 - iii. Remove fluid that may suppress local and systemic immune function

2. Consider Blister Size

- a. Blisters under 6 mm in diameter may be left intact (less likely to rupture spontaneously, impede healing or function)
- b. Large blisters should be debrided to:
 - i. prevent spontaneous rupture
 - ii. prevent mechanical pressure on wound bed

3. Consider Blister Type

- a. Debride thin-walled blisters to prevent spontaneous rupture
- b. Thick-walled blisters **may** be left intact as they are less likely to rupture (often occur on soles of feet or palms of hand – may not apply to younger pediatric population) **unless** they restrict range of motion (ROM)