

Assessing burns in the community pharmacy: a secondary prevention initiative

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Background

Secondary prevention is aimed at early treatment to optimise outcomes. In burns, this involves good burn first aid and early appropriate management. Delays can cause burn wound conversion, wound infection, surgical delay and worse scarring. Sometimes delays occur when patients present to pharmacies because they are reluctant to seek other health care options. Improved knowledge of burn assessment and care can empower pharmacists to confidently deliver appropriate care and referrals.

Method

A CPD educational article for community pharmacists was produced by the ANZBA prevention committee. This provided role relevant information about burn first aid, wound assessment, dressing choice, referral reasons, and advice.

1 ASSESS - SIZE OF BURN
(measured as percentage of total body surface area or TBSA). See ipsilateral diagrams.
• For adults - use the rule of nines.
• For children - proportions differ; the head is bigger percentage, the legs are a smaller percentage.
• Approximation of areas for all patients - the patient's hand (excluding fingers) is about 1% of their TBSA.

2 ASSESS - LOCATION OF BURNS ON BODY
• Circumferential injuries to digits or limbs require medical attention as the burn wound or the dressing can constrict the extremity and cause neurovascular damage.
• Check for special areas in criteria for admission overview.

3 ASSESS - DEPTH OF BURN
• Burns can continue to deepen over the first 3 days of a burn. Adequate first aid can reduce the process and is effective for up to 3 hours after the burn.
• Capillary refill time: apply pressure to check for blanching. Normal return of colour should happen within 2 seconds.
• Blistering: if there is blistering then the burn is deep enough to require specialist dressing.
• See table for comprehensive description of burn depth.
• The depth determines the need for surgery. This means that small burns such as a vehicle exhaust burn at under 1% TBSA may need surgery to heal and therefore needs specialist medical attention.

Depth	Colour	Blisters	Capillary Refill	Sensation	Healing
Epidermal	Red	No	Present	Present	Yes
Superficial Dermal	Pale Pink	Present	Present	Painful	Yes
Mid Dermal	Dark Pink	Present	Sluggish	+/-	Usually
Deep Dermal	Blotchy Red	+/-	Absent	Absent	No
Full Thickness	White	No	Absent	Absent	No

----- WHAT TO DO

1 COOL
If within 3 hours of burn.
Cool for 20 minutes with running tap water.
No ice.
Remove constrictive jewellery / clothing.

2 ASSESS size, location and depth: (see over)
Does the burn meet criteria for referral? (3A)
Is the burn > 3 cm or blistering, or pale or white? (3B)
Is the burn smaller than 3 cm in diameter or not blistering? (3C)

3A DRESS & REFER
Strongly advise immediate ED attendance.
Consider ambulance transfer if acute or risk of non attendance. Discuss with local burns team if concerned. Cover with clean, non-adherent dressing for transfer. No adhesive dressings across wound.
Criteria for referral to burn unit
• >5% TBSA in children
• >10% TBSA in adults
• 5% full thickness burns
• possible non accidental injury
• infected burns (red, pain, heat)
• pain control issues
• inhalation burns
• electrical burns or chemical burns
• special areas (face, neck, hands, feet, genitalia, perineum, joint, airway)
• burns with concurrent injuries or co-morbidities

3B DRESS & ADVISE
SPECIALIST BURN CARE
If able to attend GP/ED same day cover with non-adherent dressing for transfer.
Otherwise remove blister as pain allows and apply silver dressing.
Advise simple pain relief.
Explain signs of local infection needing treatment.
Flu-like symptoms need immediate medical attention, especially in children.
Recommend specialist care via local Emergency Department because:
1. Silver dressing required.
2. Adequate pain relief.
3. If not so painful then likely to be deep, and may need surgery.
Explain time to healing is best within 10 days for minimal scarring.

3C DRESS & ADVISE
• Use a moist, protective dressing.
• Do not use an adhesive dressing over the wound itself.
• If the wound blisters or breaks down go to ED (see #3B).
• Advise simple pain relief.

ADVICE FOR HEALED WOUNDS AND SCARS:
Always wear sunscreen and cover with long clothing for sun protection.
Wash and moisturise with a water-based cream can prevent or treat dryness and pruritus. Avoid soap and sodium lauryl sulphate.
Antihistamines might help itch.

----- HOW TO ASSESS

Figure 1. Quick reference card

Quick reference card

A quick reference card was created for pharmacists for free and accessible download from the PSA and ANZBA websites. This card included assessment information on different severities of burns and included advice on referral or management. See Figure 1 for images of both sides of the card.

Case scenario

Jacob, a seven-year-old boy, attends your pharmacy with his mother. He sustained a burn to the inside of his calf from a motorbike exhaust a few days ago. The burn is half the size of his hand, looks white and does not hurt. Jacob's mum wants a dressing for the wound. What assessment do you make and what advice do you give?

Case Scenarios

Two case scenarios were included; one of which was a child with a small but deep contact burn requiring referral (see above), and the other was an adult with a scald burn which did not require referral.

Discussion

The aim of the initiative was to empower pharmacists in the management and referral of minor burns using simple communication and supportive documentation. Partnering with other health care professionals to deliver good patient outcomes is a sustainable and cost effective professional strategy. Future evaluation of effectiveness is possible via BRANZ data.