THERMAL INJURY GUIDELINES

SUPERFICIAL PARTIAL THICKNESS BURNS

Description

- Pink, wet, small blisters, intact sensation
- Blanches on pressure with normal capillary return

Management Aims

- To protect from infection
- To absorb exudates
- To encourage healing.

Treatment

- Initial first aid – cold water, about 15°C, for 20 minutes. Do not use ice or iced water
  If greater than three hours since time of injury cold water will have no beneficial effect (EMSB 1996)
- De-roof any blisters (larger than 1cm diameter) with sterile scissors
- Apply wide mesh paraffin impregnated gauze (where larger volumes of fluid are
- exuding) or narrow mesh paraffin impregnated gauze (where smaller volumes of fluid are exuding) or silicone contact layer (children). Apply super absorbent secondary dressing or gauze +/- gamgee (depending on exudate levels) plus a bandage or tape to secure
- When exudate levels drop change to hydrocolloid or foam dressing.
- If wound is not showing signs of improvement within three days post injury, refer to
- Wallace Burns Unit Clinic at St. John's Hospital (adult) or Royal Hospital for Sick
- Children (children) for advice.

DO NOT APPLY FLAMAZINE® CREAM TO SUPERFICIAL BURNS

(Flamazine® should only be used on infected small burns or for prevention of infection in
larger burns after full assessment by a specialist)

Comments

- Superficial burns should heal within two weeks
- If healing is delayed it means the burn is deeper than originally diagnosed
- Apply simple emollient 2 x daily when healed, washing off with water before reapplying emollient
- Avoid wearing nylon next to recently healed areas
- Will need protected from sunlight/UV light for life with a factor 25+ sun screen.
- Children will require at least factor 30+ sun screen.

For further copies of guideline contact:
Wallace Burns Unit, St. John's Hospital, Livingston, West Lothian, EH54 6PP

It is important to realise that a burn wound is dynamic and continues to change up to 24 hours after injury. Do not assume that all areas of the burn are equally deep (EMSB 1996).

MID AND DEEP PARTIAL THICKNESS BURNS

Description

- Mottled red/white patchy appearance
- Blisters may be present, white in appearance on hands/feet
- Capillary return is sluggish or absent
- Reduced sensation or no sensation.

Management Aims

- To protect from infection
- To manage exudates
- To assess depth for conservative management or surgical management.

Treatment

- Initial first aid – cold water, about 15°C, for 20 minutes. Do not use ice or iced water.
  If greater than three hours since time of injury, cold water will have no beneficial effect (EMSB 1996)
- Apply superabsorbent dressing if available or simple conservative dressing of either wide mesh paraffin impregnated gauze (where larger volumes of fluid are exuding) or narrow mesh (where smaller volumes of fluid are exuding) or silicone contact layer (children) and gamgee padding plus bandage
- Change outer padding as required leaving paraffin gauze intact for two days
  or
  change super absorbent as required due to exudate

DO NOT APPLY FLAMAZINE® CREAM BEFORE ASSESSMENT AT 48 HOURS POST INJURY

- After 48 hours reassess:
- If sensation and blanching, treat as for superficial burn
- If no blanching refer to Wallace Burns Unit at St. John's Hospital (adults) or Royal Hospital for Sick Children (children) for full assessment and treatment regime.

Comments

- If in any doubt as to depth of burn please refer to Wallace Burns Unit at St. John's Hospital (adults) or Royal Hospital for Sick Children (children) to prevent delay in preparing for surgery if this is required
- Apply simple emollient 2 x daily when healed, washing off with water before reapplying emollient
- Avoid wearing nylon next to recently healed areas
- Will need protected from sunlight/UV light for life with a factor 25+ sun screen.
- Children will require at least factor 30+ sun screen.

FULL THICKNESS BURN

Description

- Dry black/white/brown, leathery appearance
- No sensation, no capillary return
- If old burn may have thick layer of slough/eschar present

Management Aims

- To protect from infection
- To manage exudate
- To prepare for surgery for excision and grafting

Initial Treatment and Assessment

- Initial first aid – cold water, about 15°C, for 20 minutes. Do not use ice or iced water.
  If greater than three hours since time of injury cold water will have no beneficial effects (EMSB 1996)
- Phone the Wallace Burns Unit at St. John's Hospital (adults) or Royal Hospital for Sick Children (children) for advice or to arrange transfer.

If patient is for Transfer

- If patient is for transfer, cover all burned areas with cling film to prevent infection and allow for ease of assessment. Then wrap patient in sterile/clean sheets/covers to prevent heat loss
- If transfer is delayed for any reason, or journey will be greater than 2-3 hours, apply super absorbent dressings or conservative dressings of paraffin impregnated gauze (use Silicone contact layer in children), gauze, gamgee and bandages to manage fluid loss.

DO NOT APPLY FLAMAZINE® CREAM AS IT WILL MASK THE BURN INJURY AND MAKE IT DIFFICULT TO ASSESS

Treatment if not for transfer

- If the patient is not for transfer to specialist unit due to smaller size of burn, apply Flamazine® cream to the burn wound, cover with paraffin impregnated gauze, gauze, gamgee and bandages to manage fluid loss
- Change dressings daily until thick eschar lifts, then reduce to every two days depending on exudate levels
- Once a healthy granulating wound bed is present, change to hydrocolloid or foam dressing, depending on level of exudate.

Comments

- If healing is delayed it means the burn may require skin grafting; please contact the Regional Unit
- Apply simple emollient 2 x daily when healed, washing off with water before reapplying emollient

- Avoid wearing nylon next to recently healed areas
- Will need protected from sunlight/UV light for life with a factor 25+ sun screen. Children will require at least factor 30+ sun screen.

CRITERIA FOR IDENTIFYING BURNS REQUIRING REFERRAL TO A REGIONAL BURNS UNIT:

IDENTIFYING BURNS REQUIRING REFERRAL

THE BRITISH BURN ASSOCIATION HAS IDENTIFIED THE FOLLOWING INJURIES AS THOSE REQUIRING REFERRAL TO A BURN UNIT:

- Burns greater than 10% Total Body Surface Area (TBSA) in adults
- Burns greater than 5% TBSA in children
- Burns of special areas – face, hands, feet, genitalia, perineum and major joints
- Full thickness burns greater than 5% TBSA
- Electrical burns
- Chemical burns
- Burns with an associated inhalation injury
- Circumferential burns of the limbs or chest
- Burns at the extremes of age – children and the elderly
- Burn injury in patients with pre-existing medical disorders which complicate
  management, prolong recovery or effect mortality
- Any burn patient with associated trauma
- Suspected 'non accidental injury' (children or elderly).

Ref: Emergency Management of Severe Burns (EMSB) Course Manual (1996) UK version for The British Burn Association

Contact Details

When phoning please ask for Specialist Registrar for Burns:

- Wallace Burns Unit at St. John's Hospital, Livingston (adults): **01506 523000**
- Royal Hospital for Sick Children (RHSC), Edinburgh (children): **0131 536 0000**

For advice

- Wallace Burns Unit at St. John's Hospital, Livingston (adults): **01506 524120**
  RHSC Nurse Led Dressing Clinic (children) Mon, Wed, Thu, Fri: **0131 536 0743**

Further Information

www.britishburnassociation.com British Burn Association
www.baps.co.uk British Association of Plastic Surgeons
www.cobis.scot.nhs.uk Care of Burns in Scotland