Management of burns in children

**DECISION FLOW CHART**

- **BURNS < 1%**
  - Manage locally
  - IF CONCERNED
    - Ring Salisbury Burns Unit
    - 01722 345507

- **BURNS > 1% + COMPLEX BURNS**
  - DISCUSS WITH Salisbury Burns Unit
  - 01722 345507

- **BURNS > 20% + INHALATIONAL BURNS**
  - SORT REFERRAL
    - A conference call will be arranged with the SWUK Children’s Burns Centre
    - 02380 775502

---

**CRITERIA FOR COMPLEX BURNS**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SITE</strong></td>
<td>Face, hands, perineum, feet, circumferential</td>
</tr>
<tr>
<td><strong>DEPTH</strong></td>
<td>Full thickness any site</td>
</tr>
<tr>
<td><strong>MECHANISM</strong></td>
<td>Chemical, radiation, high pressure, electrical</td>
</tr>
<tr>
<td><strong>AGE</strong></td>
<td>&lt; 5 years</td>
</tr>
<tr>
<td><strong>TOXIC SHOCK</strong></td>
<td>Delayed onset of high temperature, rash, D&amp;V, shocked</td>
</tr>
</tbody>
</table>

**BURNS DRESSINGS**

- Non-Chemical – Use Cling Film
- Chemical – discuss with Salisbury

---

**FOR SIMPLE BURNS < 1% BODY SURFACE AREA**

THERE IS NO BURNS SPECIFIC FLUID MANAGEMENT

**FOR ALL OTHER BURNS REFER TO THE SWUK CHILDREN’S BURN CENTRE GUIDANCE BELOW**
% Total Body Surface Area Burn

Be clear and accurate, and do not include erythema (Lund and Browder)

<table>
<thead>
<tr>
<th>AREA</th>
<th>Age 0</th>
<th>1</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>A = 1/2 OF HEAD</td>
<td>9 1/2</td>
<td>8 1/2</td>
<td>6 1/2</td>
<td>5 1/2</td>
<td>4 1/2</td>
<td>3 1/2</td>
</tr>
<tr>
<td>B = 1/2 OF ONE THIGH</td>
<td>2 3/4</td>
<td>3 1/4</td>
<td>4</td>
<td>4 1/2</td>
<td>4 1/2</td>
<td>4 3/4</td>
</tr>
<tr>
<td>C = 1/2 OF ONE LOWER LEG</td>
<td>2 1/2</td>
<td>2 1/2</td>
<td>2 3/4</td>
<td>3</td>
<td>3 1/4</td>
<td>3 1/2</td>
</tr>
</tbody>
</table>
SWUK Children’s Burn Centre
Guidance for referral to Bristol Royal Children’s Hospital

Criteria for Discussion / Referral
- All burns/scalds in children greater than 1%
- All circumferential burns
- All burns with associated injuries such as smoke or gas inhalation or electric shock
- All burns/scalds of any size involving face, hands, perineum and/or chest
- All children ‘unwell’ shortly after burn injury (of any size)
- All burns of any size in children that have not healed within two weeks
- All full thickness burns
- All neonatal burns of any size
- All children with burns and child protection concerns
- Any other case that causes concern

Flowchart:
- Burn wound does not meet specified criteria
  - Continue local care and dressings as required
  - Wound healing well
    - Discharge when ready with sun care / scar management advice
- Child presents unwell with recent burn injury - consider toxic shock?
  - Case meets criteria
    - Wound not improving
      - Plan transfer / outpatient appointment as clinically indicated
    - 10% TBSA burns and above
      - If journey >2hrs consider helicopter transfer
- Case requires discussion with the SWUK Children’s Burn Centre
  - Telephone: (0117) 923 0000  Bleep 6780

Fluid Guidelines
10-14% scald = 1 cannula, give maintenance fluids only
15-20% scald or >10% flame = 1 cannula, intravenous fluids as per formula below
>20% burn = 2 cannulae, intravenous fluids as per formula below

Fluid formula: Multiply Body Weight (Kg) by the % area burnt. Give this amount as ml of Hartmann’s over the first 8 hours from the time of injury.
NB: This formula is based on latest guidelines and may differ from regimens quoted in standard texts.
In smaller infants (<12 months of age), please check glucose, and in addition give 70% maintenance fluids (5% dextrose / 0.45% saline). Maintenance fluids are not required in older children.

- To calculate % area burn, use ‘Lund and Browder’ charts and only include blistered skin or full-thickness burn, ignore erythema
- Do not catheterise unless very lengthy journey planned (>4-6 hrs)
- Don’t insert central lines unless absolutely necessary
- Keep child nil by mouth as GA is likely
- Do not start antibiotics
- Cover burns in layered cling film or Vaseline for facial burns

Toxic Shock Advice
If a child presents with any of the following symptoms following burn injury, a full re-assessment is required and discussion with the Burns Centre:
- High Temperature (>38°C)
- Arasch
- Diarrhoea and/or vomiting
- General malaise—not eating or drinking or disinterested in surroundings
- Tachycardia / tachypnoea

For injuries requiring intravenous fluid support:
If transfer is unlikely within eight hours post injury, contact us again for further instructions

Scar Management / Sun Care Advice
- When healed, cream and massage the area with moisturising cream twice a day for at least three months
- Avoid direct sunlight for 2 years
- Always protect area with clothing (hats / T-shirt etc) and use a high factor sun cream