Policy

Clinical Guideline
Management of Paediatric Burns Clinical Guideline

Policy developed by: SA Child Health Clinical Network
Approved SA Health Safety & Quality Strategic Governance Committee on: 10 December 2015
Next review due: 10 December 2018

Summary
Clinical Practice Guideline for the management of Burns in children.

Keywords
Management of burns, burns, body surface area, scald, superficial dermal, mid-dermal, deep dermal, full thickness, blisters, escharotomy, clinical guideline

Policy history
Is this a new policy? N
Does this policy amend or update an existing policy? Y
Does this policy replace an existing policy? Y
If so, which policies? Management of paediatric burns

Applies to
All SA Health Portfolio
All Department for Health and Ageing Divisions
All Health Networks
CALHN, SALHN, NALHN, CHSALHN, WCHN, SAAS

Staff impact
All Clinical, Medical, Nursing, Allied Health, Emergency, Dental, Mental Health, Pathology

PDS reference CG194

Version control and change history

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<th>Version</th>
<th>Date from</th>
<th>Date to</th>
<th>Amendment</th>
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<tr>
<td>1.0</td>
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South Australian Paediatric Practice Guideline

management of paediatric burns

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Note

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient’s medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

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South Australian Child Health Clinical Network

Last revised: 14/12/2015

Contact: cywhs.paediatricclinicalguidelines@sa.gov.au
For outpatient treatment parents should be instructed to return the child to medical officer/health facility if the following symptoms occur:

- Fever
- Vomitting/Diarrhoea
- Excessive pain
- Any evidence of purulent discharge
- Offensive smell
- Redness, swelling or tenderness
- Rash
- Patient is unwell

This is a common reaction to the hypermetabolic state of a child following a burn injury. Other causes however must be excluded by:

- Examination (of child and wound)
- Nasopharyngeal aspirate
- Wound swabs
- As indicated by clinical picture
- Consider Toxic Shock – refer to page 15

Mandatory Reporting

Psychosocial Issue

Physiotherapy/Occupational Therapy

References
Introduction

The care requirements of burns patients are considerable and complex.

In the case of severe burn injuries an initial period of hospitalisation is followed by extensive follow-up and rehabilitation.

The WCH Paediatric Burns Service provides advice regarding burns and specialist care for children and young people in SA.

Referral criteria to the WCH Specialist Burns Service are based on the Australia and New Zealand Burn Association's 'Transfer Guidelines for Burn Service Referrals (2007)' – See page 3.
First Aid

DANGER – ensure own safety

STOP THE BURNING PROCESS

COOL THE BURN WOUND

- For flame burns instruct the person to “stop, cover, drop and roll” – extinguish flames with a blanket
- Remove the heat source: clothing, embers, chemicals, etc.
- Apply cool running water to the burn for 20 minutes. Tap water is fine. NO ICE
- Remove anything tight: jewelry, non-adherent clothing etc.
- Minor Burn – Cool water irrigation for total of 20 minutes. Cover burn area with non-adherent dressing (e.g. cling wrap). Warm the patient. Seek medical advice.
- Major Burn – Resuscitation and emergency management is the priority. If cooling is permitted then cool with water for 20 minutes and then cover with cling wrap (do not apply cling wrap to face or chemical burns). Keep warm with outer blanket and raise the ambient temperature to reduce the risk of hypothermia.

- Contact WCH Burns Service 8161 700

Ice should never be used – it causes vasoconstriction leading to further tissue damage and hypothermia

Gel Pads (such as Hydrogel, Burnaid™) can be used ONLY as an alternative to running tap water where water is unavailable or not practical. Must be removed after 20 minutes; gel pads can lead to hypothermia in children.

Running tap water is still the best means of cooling the burn wound

Refer to APPENDIX B: Hydrogel Protocol.
First Aid – Burn Type Specific

Scalds (Burns with hot liquid or steam)
- Remove all soaked clothing
- A scald is deepest
  - Where the clothing is thicker
  - Where the liquid is held in the natural creases of the body (e.g., toddlers around their necks and folds of skin in their legs)
  - Where the clothing is compressed in the natural creases of the body
- Immediately cool the burn with cool running water

Electrical Burns
- Turn off mains/switch off source (power point)
- Remove patient from electricity source remembering your own safety
- In patients thrown due to high voltage electrical injury maintain spinal precautions if indicated and beware the risk of long bone fracture and other traumatic injuries.
- ECG

Chemical Burns
- Personal Protective Equipment (PPE) for first aid givers: Gown, gloves, mask and eye protection
- Remove all contaminated clothing
- Powdered agents should be brushed from the skin
- Areas of contact should be irrigated with copious amounts of cool water
  *Irrigate to the floor. From the contaminated area to floor directly to avoid run off injury to other areas if possible.
- Chemical eye injuries require continuous irrigation until ophthalmologic review. Always ensure that the unaffected eye is uppermost when irrigating to avoid contamination.
  - Acid: irrigate* with water for up to 1 hour or until the pain stops
  - Alkali: irrigate* with water for up to 2 hours or until the pain stops
Emergency Management

1. FIRST AID – see page 6-7
2. PRIMARY SURVEY – Identify and managing life threatening injuries\textsuperscript{14,15}
   \begin{itemize}
   \item A. Airway Maintenance
     \begin{itemize}
     \item Ensure airway patent
       Consider spinal precautions with C-spine protection if mechanism of injury warrants
     \end{itemize}
   \item B. Breathing and ventilation
     \begin{itemize}
     \item Expose the chest and assess ventilation efficacy\textsuperscript{13}
     \item Administer oxygen to all patients with major burn\textsuperscript{13,14}
     \item Be alter for any pre-existing airway obstruction, common in children
     \item e.g. asthma
     \item enlarged and adenoids
     \item tonsils and/or
     \item tracheomalacia
     \end{itemize}
   \end{itemize}

The upper and lower airway is narrower in children than in adults; swelling of respiratory tract or accumulation of secretions may seriously impair respiratory function.

- Assess for signs of inhalation injury\textsuperscript{13,11,16,17}
  \begin{itemize}
  \item Burns to face, mouth, neck, pharynx
  \item Soot in the sputum
  \item Tracheal tug, use of accessory muscles
  \item Inspiratory stridor
  \item Productive cough
  \item Respiratory difficulty
  \end{itemize}

Consider early intubation if any concerns regarding airway or breathing.

Beware circumferential chest burns as they may restrict chest expansion – consider need for Escharotomy page 10)
C. Circulation with Hemorrhage control
   > Check the pulse, blood pressure, capillary refill
   > Stop any external bleeding with direct pressure.
   > Insert 2 large bore peripheral cannulas (preferably through unburned skin)
   > Blood for CBE, EUC/LFTs/BGL, Coags, Group and save for burns >20% \(^{13,14}\)
   > Commence formal intravenous resuscitation for burns >15% (consider >10%)
   > N.B. Clinical signs of hypovolemia immediately post injury will not be due to the burn itself. Identify and manage acute causes of traumatic volume loss if present.
   > (See Fluid Resuscitation)

D. Disability: Neurological Status
   > Establish level of consciousness
     > A- Alert
     > V- Response to Vocal Stimuli
     > P- Response to Painful Stimuli
     > U- Unresponsive
   > Examine the pupillary response to light. Response should be brisk and equal

E. Exposure with Environmental Control
   > Remove all clothing and jewelry
   > Keep the patient warm\(^{14,18}\)
   > Calculate the burn size using the Paediatric Lund and Browder chart
   > Refer to APPENDIX A: Paediatric Burns Assessment Form
   > Log roll to visualise posterior surfaces
F. **Fluid Resuscitation**

> Manage circulatory shock with initial 10-20mls/kg fluid bolus.

> If the burn has been part of a blunt or penetrating traumatic incident hypovolaemic compromise will not be due to the burn itself in the initial stages. Other causes of volume loss must be considered and excluded or managed as identified.

> Ongoing burns fluid resuscitation with Hartmann’s Solution Calculated using the Parkland Formulae18,19 - 27

4ml x weight (kg) x % burn TBSA

> First half of the calculated fluid is given in the first eight hours

> Second half is given in the next sixteen hours20, 23, 27, 28

> The time of injury marks the start of fluid resuscitation18

> Adjust fluids as indicated by urine output18,19,22,26,28,29

> Output should be at least: 0.5ml/kg/hr for children <2 years 1 ml/kg/hr for children >2 years

Children also require maintenance fluids with 5% dextrose and 0.45 Normal Saline (4ml/kg/hour for the first 10kg + 2 ml/kg/hour for next 10kg + 1 ml/kg thereafter)

G. **Analgesia**

Intravenous morphine titrated to effect: 0.05 – 0.1mg/kg

(See analgesia page for minor burns and procedural doses)

H. **Tests and Tubes**

> Trauma series x rays if mechanism of injury appropriate

> Urinary catheter if receiving fluid resuscitation

> Nasogastric tube for >15%
SECONDARY SURVEY\textsuperscript{13}

- Head to toe examination
- Look specifically for neurovascular compromise in peripheries as the result of circumferential burns
- History:
  - A= Allergies
  - M= Medications
  - P= Past Illnesses
  - L= Last meal
  - E= Events/Environments related to injury
- Undertake burn depth assessment (see below)

Continually re-evaluate Primary Survey and don’t forget analgesia.

If children do not receive adequate analgesia in the early treatment period, they become increasingly distressed as time goes on, resulting in greater analgesic need.

Analgesics should never be given by the intramuscular (IM) route.

Full details of all pain management methods and protocols are contained in the SA Health Paediatric Clinical Practice Pain Management Guideline

Major Burns >10 – 15%

Prior to transfer to WCH

IV Morphine 0.05 – 0.1mg/kg should be administered as soon as possible. Further doses are often required but must be titrated against pain and sedation (as per APLS Guidelines)

In the absence of continuous pulse oximeter monitoring it is recommended the child should be observed for a minimum of 20 minutes before giving additional morphine.

Minor burns < 5 -10 %:

Minor burn injuries – minimal debridement

If the burn is only a small area requiring minimal debridement, intranasal fentanyl may provide adequate analgesia.

- Intranasal fentanyl dose is 1.5mcg/kg
- Other options for very minor burns include paracetamol or ibuprofen

Minor burn injuries – requiring more debridement or children requiring minimal debridement but who are unable to be compliant with the analgesia suggested above

The children will require a longer period of analgesia +/- sedation and transfer to the WCH Burns Service may be indicated.
**Burn Depth Assessment**

Gently clean all apparent burn areas; look at the burn

Is the Epidermis attached? Superficial layers of epidermis will slip free with slight pressure in an epidermal or superficial dermal burn

- **YES**
- **NO**

Run a gloved finger over the burn, is it

- **YES**
- **NO**

What type of blister is it?

- **Thin**
- **Thick**

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**SUPERFICIAL DERMAL**

Other signs: Brisk capillary return <2secs, very painful, copious exudate, pale pink, blisters.

**MID-DERMAL**

Other signs: Some mottling, sluggish capillary refill, darker red base, some anesthesia, less exudate, blisters

**DEEP DERMAL**

Other signs: sensation to pressure but not pain, absent capillary refill, sometimes has blisters

**FULL THICKNESS**

Other signs: No sensation, no capillary refill, may be charred, black, tan, dry with no blisters
Referral Criteria to Women’s and Children’s Hospital (WCH) Burns Service

The Paediatric Burns Service at the Women’s and Children’s Hospital provides an inpatient and outpatient service, including telephone consultations and patient transfers for persons ages 0-6 years of age.

The referral criteria to the WCH Burns Service are based on the Australian and New Zealand Burn Association referral guidelines for Burn Service referrals (2012).

The WCH Paediatric Burns Service receives referrals for any of the following:

- Any burn where the referring department/GP/clinic/nurse/or health worker requires management or advice from the paediatric burns service
- Burns greater than 5-7% Total Body Surface Area (TBSA)
- Burns to face, hands, feet, genitalia, perineum, major joints
- Full thickness burns
- Chemical burns
- Inhalation injury
- Circumferential burns
- Burn injury inpatients with pre-existing medical disorders
- Burns with associated trauma
- Burn injury with suspicion of non-accidental injury- refer Mandatory Report page 19.

How to refer to the service

Health professional wishing to refer to a specialist burn services including transfer, outpatient or review of digital photos can:

In Hours: Call the WCH burns registrar/ fellow/ advanced clinical practice consultant on 08 8161 7000

Out of hours: Call the WCH ‘on call’ surgical registrar on 08 8161 7000

All rural referrals require the following burns referral document completed. Optional for Metropolitan referrals – i.e. other referral format acceptable.

Tips for taking digital photos

- Take on dry plain surface, e.g. with green theatre sheet, or blue sheet.
- Something to measure size by, e.g. tape measure, changed, i.e. heat lamps off, flash off
- Send multiple pictures
ESCHAROTOMY

Limbs

When a limb is burned circumferentially the increase in pressure due to the accumulation of oedema under the rigid burned skin may interfere with circulation and cause death of tissue in the distal part of the extremity \(^{13,30}\).

Limb and digital escharotomies may be required if retrieval is delayed. These are usually performed under anaesthetic.

Chest

If deep burns involve the chest and abdomen, diaphragmatic movement may be restricted interfering with breathing. A chest escharotomy may be indicated.

*Refer to the Women’s and Children’s Hospital for advice regarding escharotomies if indicated*

Call 08 161 7000 and ask for the Burns Registrar.
### Flow-chart for Assessment and Management of < 5 - 7% TBSA Burns

<table>
<thead>
<tr>
<th>Burn</th>
<th>Epidermal</th>
<th>Superficial Dermal</th>
<th>Mid-Dermal</th>
<th>Deep-Dermal</th>
<th>Full Thickness</th>
</tr>
</thead>
</table>
| Assess Depth | Appearance - pink or red erythema with no blisters  
Capillary return – Rapid <2 seconds.  
Sensation - painful.  
Most common cause is sunburn.  
Pure erythema is not included in estimation of TBSA.  
Differentiation between erythema and superficial dermal burn may be difficult in the first few hours following the burn injury. | Appearance – Wet, pale pink or blotchy with blisters  
Epidermis may not lift off for 12 to 24 hours increasing risk of inaccurate assessment of burn as superficial epidermal  
Capillary return – Brisk <2 seconds.  
Sensation – Very painful as sensory nerves are exposed. | Appearance – Red, dark pink, white with blisters.  
Capillary return – Sluggish, varies with depth.  
Sensation – Adequate.  
Susceptible to conversion to a deeper thickness wound. | Appearance – Blotchy red due to extravasation of haemoglobin, or mottled or waxy and white. Will sometimes have blisters.  
Capillary return – Absent.  
Sensation – Absent.  
Epidermis, dermis and epidermal appendages are destroyed, injury may involve fascia, muscle and bone. | Appearance – White, charred, black, tan, no blisters.  
Capillary return – Absent.  
Sensation – Absent.  
Epidermis, dermis and epidermal appendages are destroyed, injury may involve fascia, muscle and bone. |

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### Primary Dressing

<table>
<thead>
<tr>
<th>Primary Dressing</th>
<th>Epidermal</th>
<th>Superficial Dermal</th>
<th>Mid-Dermal</th>
<th>Deep-Dermal</th>
<th>Full Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Dependant on site of burn, size of burn, exudate, pain, pt ability to manage dressing, cost and contamination)</td>
<td>If there is no epidermal loss, use moisturiser only several times a day. Sun protection advise: Hats and clothing SPF Factor 30+</td>
<td>Acticoat Hydrocolloids Mepilex Mepilex Ag Aquacel Ag Silver Sulphadiazine</td>
<td>Acticoat Aquacel Ag Mepilex Ag Silver Sulphadiazine</td>
<td>Acticoat Aquacel Ag Mepilex Ag Silver Sulphadiazine</td>
<td>Acticoat Aquacel Ag Mepilex Ag Silver Sulphadiazine</td>
</tr>
</tbody>
</table>

### Follow up

<table>
<thead>
<tr>
<th>Follow up</th>
<th>Epidermal</th>
<th>Superficial Dermal</th>
<th>Mid-Dermal</th>
<th>Deep-Dermal</th>
<th>Full Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>None required</td>
<td></td>
<td>Local followup +/- Digital Referral Service</td>
<td>Local followup +/- Digital Referral Service ?Transfer to WCH Burns Service</td>
<td>Local followup +/- Digital Referral Service ?Transfer to WCH Burns Service</td>
<td></td>
</tr>
</tbody>
</table>

### Outcome

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Epidermal</th>
<th>Superficial Dermal</th>
<th>Mid-Dermal</th>
<th>Deep-Dermal</th>
<th>Full Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>May require hospitalisation for pain management. Will heal in 3-5 days with no resulting cosmetic blemish</td>
<td>Will heal in 7-10 days as epidermal appendages remain intact. Minimal or no scarring but a colour defect may remain</td>
<td>Will heal in 10 to 14 days, except in the very young where the dermis is thin and depth of burn is invariably deeper. If infected may convert to full thickness injury requiring grafting</td>
<td>2-3 weeks, as epidermis, dermis and epidermal appendages are lost. If infected may convert to full thickness injury requiring grafting.</td>
<td>Large areas will not heal without surgical intervention; small areas may heal from the edges after several weeks. This wound will not re-epithelialise and whatever area of the wound is not closed by wound contraction will require skin grafting.</td>
<td></td>
</tr>
</tbody>
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**South Australian Paediatric Practice Guideline**

**management of paediatric burns**

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### Dressing Types and Suitable Uses

<table>
<thead>
<tr>
<th>Dressing</th>
<th>Type of Burn</th>
<th>Suitable Use</th>
<th>Dressing Change</th>
</tr>
</thead>
</table>
| Acticoat Fixed with Hypafix | Partial/Full thickness | - All areas of the body, not in the perineum  
- Colonised but not infected burns  
- Non-infected burns | 3-7 days |
| Mepilex Ag (Hypafix to secure edges) | Partial/Full thickness | - All areas of the body, not in the perineum  
- Colonised but not infected burns  
- Non-infected burns | 4-7 days |
| Aquacel-Ag | Superficial/ Partial thickness | - All areas of the body but not over joints or in the perineum.  
- Colonised but not infected burns.  
- Non-infected burns | Until dressing separates from wound. **Do not take dressing off unless infected.** |
| Hydrocolloids: Duoderm Comfeel (Hypafix to secure edges) | Superficial/Partial Thickness | - Flat surfaces  
- Not suitable for: infected burns | Up to 7 days or sooner if there is excessive exudate or loss of dressing. |
| Silver Sulphadiazine | Full thickness/infected/ contaminated burns | - ALL areas of the body except the face. | Change daily  
**Admission may be necessary**  
**DO NOT USE in children< 12 MONTHS OF AGE** |
| Hypafix | | - Dressing fixation  
- Graft fixation  
- Scar management  
- To secure other dressings | At least once a week or as necessary. |
| White soft paraffin | Face, buttocks, genitalia | Only areas that cannot be covered with dressings: face, buttocks, genitalia | At least three times as a day or as necessary.  
**Admission is usually indicated.** |
| Chloramphenicol 1% Ointment | Eyes and ears | Around eyes and ears | TDS |
| Topical antibiotic | Face, perineum, or any other area that may be infected | All areas of the body | Twice a day or prescribed for infected burns. |
COMPLICATIONS

For outpatient treatment parents should be instructed to return the child to medical officer/health facility if the following symptoms occur:

> Fever
> Vomiting/Diarrhoea
> Excessive pain
> Any evidence of purulent discharge
> Offensive smell
> Redness, swelling or tenderness
> Rash
> Patient is unwell

Fever/infection

This is a common reaction to the hypermetabolic state of a child following a burn injury. Other causes however must be excluded by:

> Examination (of child and wound)
> Nasopharyngeal aspirate
> Wound swabs
> As indicated by clinical picture
> Consider Toxic Shock – refer to page 15

Immunisation and tetanus status needs to be reviewed and updated.

Antibiotics are used ONLY if positive wound culture or clinical infection is detected and NOT used as prophylaxis.

Burn itch

This is common reaction to healing burn wounds. Non-sedating antihistamines provide a safe option for children:

Cetirizine should be tried as a first option

<table>
<thead>
<tr>
<th>Oral cetirizine</th>
<th>Infants 6months - 2years</th>
<th>0.125mg/kg/dose* TWICE daily prn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 2 – 5 years</td>
<td>1.25-2.5 mg/dose TWICE daily prn</td>
<td></td>
</tr>
<tr>
<td>Age 5 – 12 years</td>
<td>5mg/dose ONCE or TWICE daily prn</td>
<td></td>
</tr>
<tr>
<td>&gt;12 years</td>
<td>10mg/dose ONCE or TWICE daily prn</td>
<td></td>
</tr>
</tbody>
</table>
Toxic shock

- Toxic shock is a clinical diagnosis
  - Pyrexia > 39°C
  - Rash
  - Shock
  - Diarrhoea, vomiting or both
  - Irritability
  - Lymphopaenia

- Caused by bacterial superantigens which are produced by staphylococcus aureus and streptococcus sp
- Superantigens bind directly to T cells stimulating them to produce massive amounts of inflammatory cytokines e.g. TNFa, IL-6
- Causes capillary leakage, hypotension and can lead to shock and death
- Enhances patient susceptibility to gram negative infections
- Children < 2 are particularly susceptible because of low levels of anti-toxic shock antibodies. Up to 90% adults have antibodies against TSST and maternal antibodies can confer manifests 2-4 days after the burn injury
- Often occurs in small burns (< 10% TBSA) so be aware of outpatient presenting to ED, clinic or phone call from concerned parent
- Burn often appears “clean”
- Patient often deteriorates rapidly
- Once shock develops mortality can be as high as 50%
- Differential diagnosis includes burn sepsis, Kawasaki disease, toxic epidermal necrolysis, or any other infection

Treatment

- Aggressive management of hypovolaemic shock with fluid resuscitation and haemodynamic monitoring in Intensive Care/ High Dependency
- Inspection of wounds, debridement of necrotic material, change of dressings
- Blood, wound and other cultures for microscopy and sensitivity
- Antibiotics: **Flucloxacillin 50mg/kg up to 2g IV, 6 hourly PLUS Lincomycin 15mg/kg up to 1.2 IV 8 hourly**
- **OR**
  - **Vancomycin 30mg/kg IV 12 hourly PLUS Lincomycin 15mg/kg up to 1.2 IV 8 hourly**
- Passive immunisation of antibodies to staphylococcal and streptococcal superantigens e.g. fresh frozen plasma, IV immunoglobulin.
management of paediatric burns

TOXIC SHOCK PROTOCOL

Child with burns and temperature >39

Child is well

Established shock

Child has any of following:
- Rash
- Irritability
- Diarrhoea +/- vomiting

Bloods: CBE, MBA20, Coags, CRP, septic screen (Urine, CXR, blood cultures)
Start antibiotics
Hourly observations

Bloods: CBE, MBA20, Coags, CRP, septic screen (Urine, CXR, blood cultures)
Start antibiotics
Hourly observations

Bloods: CBE, MBA20, Coags, CRP, septic screen (Urine, CXR, blood cultures)
Start Antibiotics + IV immunoglobulin
Aggressive fluid therapy
Admission to PICU
Consider dressings change in CT
Inform Burns fellow / registrar and Burns consultant on call

PICU review

IF ANY DETERIORATION

ANTIBIOTICS:
- Flucloxacillin 50mg/Kg up to 2g IV 8/24
PLUS
- Clindamycin 15mg/Kg up to 600mg IV 8/24
OR if any penicillin allergy / previous MRSA :
- Vancomycin 30mg/Kg up to 1g IV 12/24
PLUS
- Clindamycin 15mg/Kg up to 600mg IV 8/24
Mandatory Reporting

Whilst many burns are usually the result of accidents, it is part of the burns assessment to attempt to fully understand how the injury has happened so as to help reduce the risks of similar injuries.

However, it is not the task of health professionals to evaluate the probability of abuse and neglect and so any suspicion of neglect or an inflicted injury requires mandatory notification to Families SA Child Abuse Report Line (ph. 131478).18

Indicators for consideration of mandatory notification include:

- Delay in seeking help
- Different accounts of the history of the injury over time
- Injury inconsistent with the history or with the developmental capacity of the child
- Past abuse or family violence
- Inappropriate behavior/interaction of child or caregivers
- Obvious immersion patterns, e.g., glove or sock patterns
- Symmetrical burns of uniform depth
- Restraint injuries on upper arms
- Other signs of abuse or neglect

Psychosocial Issue

When a young person experiences a burn injury, the whole family is affected emotionally. Most parents/caregivers seem to experience several emotional reactions such as shock, guilt and anxiety. These reactions usually resolve but should stress symptoms persist, referral/s to appropriate services can occur.

Every new admission to the WCHN is reviewed by the Social Worker, Burns Service with support available in the acute phase and also available through long-term follow-up if required. Furthermore, as a young person with a burn injury can experience similar emotional reactions, comparable support is available to them. Prior to discharge, contact (with consent) can be made with the services/agencies involved in the young person’s life (e.g., school/kindergarten) to maximise their post-burn adjustment.
Physiotherapy/Occupational Therapy

Scar management

> All burns that take longer than 10 days to heal or retain a florid appearance have the potential for hypertrophy. This is at most risk within 12 weeks of healing. Scars are treated in accordance with their appearance and texture.

> Once dressings are no longer required, healed burns should be moisturised and gently massaged. As the scar becomes more robust, the massage can be done more firmly. Scar massage should be performed regularly each day. This helps with sensitivity, dry skin and scar modification.

> Healed burns at risk of hypertrophy need to be reviewed regularly and assessed for signs of early scarring which would indicate need for scar management.

> Scar Management is tailored to the individual patient according to their site of burn, age and response to treatment and is continued until scar maturation, i.e. pal, sort and flat. 35,36,37

> Common scar management treatments include:
  > Various silicone gels
  > Pressure garments
  > Elastomer putty
  > Splints

Children should be referred to the Burns Team if there are concerns regarding a scar or a loss of range due to contracture. Please contact Allied Health on 8161 7381.
References

3. Rajan, V., et al., Delayed cooling of an acute scald burn injury in a porcine model: is it worthwhile?
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