Burns (https://galwayem.ie/guidelines/trauma-and-musculoskeletal/burns)

Category
Trauma and Musculoskeletal (https://galwayem.ie/guidelines/trauma-and-musculoskeletal)

Major burns
Beware airway problems
- Get immediate help from ED senior / ITU and Plastic Surgery Registrar
- Manage along ATLS principles
- Insert 2 IV lines and start fluid resuscitation
- Give IV morphine for pain
- Record burn area on a Lund and Browder chart (not including simple erythema)
- Insert NG tube and urinary catheter
- Ranitidine for stress ulcer prophylaxis
- Prevent hypothermia
- Tetanus +/- Immunoglobulin

Inform Plastic surgeons early

Major burns which need admission (i.e. > 10% BSA in children or > 15% BSA in adults) will be transferred to a burns unit: usually St James's Hospital, Dublin. This will be organised by the plastic surgical team and will be done after the patient has been resuscitated and after the burns have been dressed, essential escharotomies done etc.

The following burns should be referred to the Plastic Surgeons:
a) any risk of inhalational burns
b) full thickness burns
c) more than 5% surface area in a child
d) more than 10% surface area in an adult
e) any suggestion of non accidental injury to children (NAI)
f) significant burns of the face, hands, feet
g) burns of the perineum, genitalia
) circumferential burns of limb or chest
i) burns over a joint
j) electrical burns
k) burns which have failed to heal within three weeks

In NAI, if the burn is minor and does not warrant admission, the child should be referred

to the Duty Consultant Paediatrician.

Outpatient Treatment
Erythema (e.g. sunburn) needs no treatment.
- All burns should be cleansed and any dead tissue debrided.
- Small blisters may be left, large blisters may be de-roofed or aspirated
- Full thickness burns will usually be referred to the plastic surgeons
- If burn is infected, take a swab, remove all dead skin and de-roof all blisters.
- The standard dressing is duoderm.

All patients should receive Tetanus Prophylaxis if indicated. Prescribe or advise analgesia

Follow-Up of burns Patients with small superficial burns can be followed up by their own GP. Other burns will usually be followed up in the ED review clinic unless it is felt that this may be inappropriate (e.g. patient is elderly and immobile, or patient lives a long way away when they can be referred to the GP or District Nurse as appropriate) Ideally clean burns should be left as long as possible e.g. five days to avoid the risk of infection and the interference with wound healing which results from dressing changes.
The patient should be told to return earlier if the exudate comes through to the outer layer of the dressing.

If the burn is large or if there is a risk of sepsis the patient should be brought back earlier. Also, if a burn is seen very early and you feel it will blister then arrange for it to be seen earlier.

The following need referral to the plastic surgeons:
a) Significant full thickness burns especially those over a joint or in any place where contracture or scar formation would cause problems.
b) Burns in which a significant area is unhealed after three weeks.
c) Electrical burns, if the burn is overlying (and therefore may be involving) a joint, a tendon or any other important structure.

Specific Burns

Hands
- Remove rings
- All hand burns need a high sling and advice on elevation.
- Significant burns will benefit from admission for elevation.
- Small burns of the dorsum or palm or burns of a single digit can be dressed.
- More extensive burns –seek senior ED advice.

Face and neck
- Beware of inhalation burns
- Facial burns are treated by exposure.
- Liquid paraffin can be applied to the burn, it needs to be cleaned off and re-applied daily.
- Significant facial burns should be referred to the Plastic Surgeons.

Perineum
- Catheterise before swelling precludes
- Should be admitted

Feet

- Advise elevation.

Burns in Children
Is the injury consistent with the story? If not, consider NAI.
Common patterns of NAI are:
a. Cigarette burns
b. Burns of the buttocks
c. Burns of the hands and feet in a glove or stocking distribution
d. Deep burns to the back of the hands

Was there neglect involved e.g. unguarded fire or 5 year old boiling a kettle to make tea? If so, refer to the Health Visitor

Chemical Burns
In general, Chemicals can be removed from the skin by washing (preferably with running water) for 15 minutes. Note that some chemicals can be absorbed through the skin and cause systemic problems - ask advice/look up/phone the Poisons Centre as appropriate. Get senior ED advice.

Lime or concrete burns.
Dry lime or cement should be brushed off without water. Burns should be washed with water or saline as should chemical burns to the eyes.

Hydrofluoric acid.
Used for glass etching. Seek senior advice. Neutralise with calcium chloride or calcium gluconate. With large burns there is a risk of systemic hypocalcaemia. Check venous Ca2+ and ECG for prolonged QTc. Replace with Calcium gluconate

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