University of California, San Diego
Regional Burn Center

A Guide to Assist House Staff in the Care of Outpatient Burns
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REGULAR CLINIC (5 East Burn Center)

Monday and Tuesday 9am to 4pm
Wednesday Closed
Thursday 9am to 12noon
Friday 9am to 4pm

Phone (for patients) 619.543.6505
Office: 619.543.6578
Fax: 619.543.6764

OUTPATIENT CLINIC (OPC, 3rd Floor, Suite 1)

Thursday 1pm to 4pm

Phone (for patients): 619.543.6886
Office: 619.543.6887
Fax:

No patients are to be scheduled for clinic appointments outside of the regular clinic hours without approval from the Charge Nurse. This includes Saturday, Sunday and Holidays that fall on regular clinic days.
**Burn depth is defined based on the depth of coagulation necrosis into epidermis and dermis (recognizing that the anatomical depth may change with wound conversion).**

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>CAUSE</th>
<th>WHAT YOU SEE</th>
<th>PAIN</th>
<th>TIME TO HEAL</th>
<th>SCAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPERFICIAL PARTIAL THICKNESS</td>
<td>hot liquid, short exposure</td>
<td>wet, pink, blisters</td>
<td>severe</td>
<td>10-14 days</td>
<td>minimal</td>
</tr>
<tr>
<td>MID-DERMAL</td>
<td>hot liquid, longer exposure, flash flame</td>
<td>less wet, red blisters</td>
<td>moderate</td>
<td>2-4 weeks</td>
<td>moderate</td>
</tr>
<tr>
<td>INDETERMINATE (mid to deep dermal)</td>
<td>as above</td>
<td>red with patchy, white arms</td>
<td>moderate</td>
<td>2-6 weeks</td>
<td>moderate or severe</td>
</tr>
<tr>
<td>DEEP-DERMAL</td>
<td>chemicals, direct contact flames</td>
<td>dry, white</td>
<td>minimal</td>
<td>3-8 weeks</td>
<td>severe (needs graft)</td>
</tr>
<tr>
<td>INDETERMINATE (deep dermal to full thickness)</td>
<td>chemicals, flames</td>
<td>dry, white</td>
<td>minimal to none</td>
<td>Likely need graft</td>
<td>mild to severe, depending on timing and type of graft</td>
</tr>
<tr>
<td>FULL THICKNESS</td>
<td>chemicals, flames, explosion, with very high temperature</td>
<td>dry, white, or char</td>
<td>none</td>
<td>need graft</td>
<td>mild to severe, depending on timing and type of graft</td>
</tr>
</tbody>
</table>

Section 2
A. PARTIAL THICKNESS OR SECOND DEGREE BURN

There are five categories of second degree burn typically used to characterize the depth of injury. Each corresponds with healing time, treatment modalities and outcome.

1. Superficial Second Degree

Involves entire epidermis to basement membrane and no more than the upper third of dermis. Rapid re-epithelialization occurs in 1-2 weeks. Because of a large number of remains in epidermal cells and good blood supply there is a very small zone of injury or stasis beneath the burn eschar.

2. Mid Second Degree (Mid Dermal)

Destruction of the epidermis occurs to the basement membrane plus the middle third of dermis. Re-epithelization is much slower (2-4 weeks) due to fewer remaining epidermal cells and less blood. More collagen deposition will occur especially if not closed by three weeks. This depth of wound has a significant risk of conversion. The zone of stasis is much larger than in the superficial second degree injury because of less blood flow and more initial injury to the remaining epidermal cells.

3. Indeterminate (Mid Second Degree versus Deep Second Degree)

One cannot accurately clinically determine if the wound will act like mid or deep second degree. The wound surface has characteristics of both. There is a high risk of conversion especially if the healing environment is not optimized by debridement of surface dead tissue and rapid closure.

4. Deep Second Degree (Deep Dermal)

Involves the entire epidermis and at least two thirds of the dermis leaving very little dermis and epidermal cells to regenerate.
Spontaneous healing is very slow (4-12 weeks). Sharp debridement is needed to remove eschar. Scarring is usually severe if not skin grafted and there is a high risk of infection. Inflammation induced conversion to a full thickness burn is common. Function of a re-epithelialized deep second degree burn is poor due to fragility of the epidermis and the rigidity of the scar laden dermis.

5. Indeterminate (Deep Second Degree Versus Third Degree)

Almost any deep second degree burn can be categorized as a high likelihood of being full thickness as there is a high risk of wound conversion.
B. Full Thickness (Third Degree Burn)

Both layers of skin are completely destroyed leaving no cells to heal except fibroblasts for scar formation. Wounds can partially heal by contraction from the edges (2-3 cm).

Deep dermal and full thickness burns will require excision and grafting and should be considered for hospitalization and Attending notification.
SCALD BURNS

WATER, TEA, COFFEE, SOUP, ETC.
Temp < 100c

OIL, GREASE, ETC.
Temp potentially >150c

CHARACTERISTICS: Usually pink blanching, very sensate minimal if any eschar.

CONSIDERATIONS: In children should always consider abuse or neglect. Does burn pattern match history given?

Size and location of burn: MAY NEED ADMIT IF BURNS ARE >10% TBSA, circumferential, affect genitals, face, neck, hands or over joints.

Section 3
TREATMENT:

PAIN: Premed needed for effective debridement of all raised blisters

**Children:**
- Oxycodone – 0.15mg/kg
- Tylenol w/ codeine – Tylenol limits dose up to 10mg/kg
- Morphine – 0.1mg/kg
- Ativan – 0.05-0.1mg/kg
- Benadryl – 1mg/kg
- D/C with Tylenol #3 tabs or elixir

**Adults:**
- Oxycodone – 5-15mg around the clock for in-patients
- Morphine – 2-10mg May need higher doses PRN DSG change
- Ativan – 1-2mg PRN DSG change
- D/C with Tylenol #3 or Vicodin

PRODUCTS:
- Santyl ointment w/ Polysporin powder cover with Xeroform
- Superficial second degree may use poly ointment cover with Xeroform
- Deeper second degree may need admit for TransCyte – make pt. NPO
- Don’t use gauze on outpatients – too painful to remove at next visit!
- No prophylactic antibiotics

DISCHARGE EDUCATION:
- Elevate affected extremity
- No direct sun exposure
- Take pain meds 1 hour prior to next clinic visit
- RTC 24-48 hours or immediately if S/S of infection
- Call burn clinic next day to secure authorization for appointment
CONTACT BURNS

IRON, BBQ GRILL, STOVE, GLASS FIREPLACE MUFFLER
  Depth depends on temperature and contact time

CHARACTERISTICS: Depending on depth pink and blanching to white
  dry leathery (full thickness)

CONSIDERATIONS: In children should always consider abuse or neglect.
  Does burn pattern match history given?

Size and location of burn: MAY NEED TO ADMIT IF BURNS ARE FULL
  THICKNESS.

Consider location rehabilitation needs size of burn, surgical needs.

Section 4
TREATMENT:

PAIN: Premed needed for effective debridement may require surgical debridement if full thickness.

Children: Oxycodone – 0.15mg/kg
Tylenol w/ codeine – Tylenol limits dose 10mg/kg
Morphine – 0.1mg/kg
Ativan – 0.05-0.1mg/kg
Benadryl – 1mg/kg
D/C with Tylenol #3 tabs or elixir

Adults: Oxycodone – 5-15mg around the clock for in-patients
Morphine – 2-10mg May need higher doses PRN DSG change
Ativan – 1-2mg PRN DSG change
In-patient may need continuous IV drip meds
D/C with Tylenol #3 or Vicodin

PRODUCTS: Thin eschar maybe healable - Santyl ointment w/ Polysporin powder, cover with Xeroform gauze (if in-patient stay expected)

Thick pale eschar - Alternate SSD with Sulfamylon cream if admitted for eventual surgery
No prophylactic antibiotics Ancef 1st line if cellulitic

DISCHARGE EDUCATION:
Elevate affected extremity with Murphy sling if circumferential PT/OT consult if admitted.
Around the clock pain meds 5-15 Oxycodone; DSG change PRN Morphine.
Reinforce nutritional needs.

1 Do not prescribe SSD or Sulfamylon if patient has a sulfa allergy.

Section 4
CHARACTERISTICS: Flash flame may be pink with some blanch. True flame burns are usually pale dry or charred full thickness

CONSIDERATIONS: Always suspect concurrent inhalation injury until proved otherwise

Size and location of burn: usually requires admission for surgical management
TREATMENT:

PAIN: Premed needed for effective debridement of all raised blisters

Children: Oxycodone – 0.15mg/kg
Tylenol w/ codeine – Tylenol limits dose 10mg/kg
Morphine – 0.1mg/kg
Ativan – 0.05-0.1mg/kg
Benadryl – 1mg/kg
D/C with Tylenol #3 tabs or elixir

Adults: Oxycodone – 5-15mg around the clock if in-patient
Morphine – 2-10mg May need higher doses PRN DSG change
Ativan – 1-2mg PRN DSG change
In-patient may need continuous IV drip meds
D/C with Tylenol #3 or Vicodin

PRODUCTS: If blanching - Santyl ointment w/ Polysporin powder; cover with Xeroform and gauze.
Deeper second degree and full thickness will require admission for surgery.
No prophylactic antibiotics.

DISCHARGE EDUCATION:
Elevate affected extremity may need Murphy Sling
PT/OT consult if admitted
WORKERS’ COMPENSATION: FIRST REPORT

Note: This First Report must be completed for ALL work comp patients. All sections of this form are to be completed, unless otherwise noted.

A-This section is to be completed by the patient or a family member

B-This section is to be completed by the covering physician

C-This section to be signed by the covering physician. Note that it will be co-signed by the Fellow or Attending.
Section 6
WORKERS’ COMPENSATION: PHYSICIAN PROGRESS REPORT

Note: All sections of this form are to be completed

A-This section is to be completed by the covering physician at the first and every subsequent visit

B-This section to be signed by the covering physician. Note that it will be co-signed by the Fellow or Attending.
### WORKERS’ COMPENSATION

**PRIMARY TREATING PHYSICIAN'S PROGRESS REPORT (PR-2)**

<table>
<thead>
<tr>
<th>POINT OF SERVICE</th>
<th>Source</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Identification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSURANCE COMPANY NAME/ADDRESS</th>
<th>CLAIM NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPLOYER'S NAME/ADDRESS</td>
<td>DATE OF INJURY</td>
</tr>
</tbody>
</table>

### SUBJECTIVE COMPLAINTS

### OBJECTIVE FINDINGS (include significant physical examination, laboratory, imaging or other diagnostic findings)

**Diagnoses:**

1. 
2. 

**TREATMENT PLAN**

(Include treatment rendered to date. List methods, frequency and duration of planned treatment(s). Specify consultation, referral, surgery and hospitalization.)

**Date of next visit:**

___ / ___ / ___

OR

Discharged, patient:

☐ has reached maximum medical improvement

☐ has no permanent disability

AND

☐ requires no further care for this injury

**Work Status:** Is patient able to perform regular work?  ☐ Yes  ☐ No.

If "No," date when patient can return to modified work: ___ / ___ / ___

**Anticipated date patient may return to regular work:** ___ / ___ / ___

**PRIMARY TREATING PHYSICIAN**

Original signature only, DO NOT stamp.

I declare under penalty of perjury that this report is true and correct to the best of my knowledge and that I have not violated Labor Code §139.3.

**DATE OF EXAM**

<table>
<thead>
<tr>
<th><strong>Doctor's Signature</strong></th>
<th><strong>CA License Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

**Doctor Name and Degree:** (please type)

**Address:** UCSD Medical Center, 200 West Arbor Drive, San Diego, CA 92103-8800

**Telephone Number:** (619) 543-7060

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Section 6
POINTS TO REMEMBER

NURSING:

- All returning patients must register at the Outpatient Center on the 1st floor between the hours of 8am-4pm, Monday-Friday. On weekends/holidays, utilize Outpatient Registration on the 2nd floor in the main tower.

- For all NEW outpatients, complete the Ambulatory Care Nursing Assessment form. Be sure to note:
  - Location of patient, mechanism, date/time when injured
  - Method of transportation to the hospital
  - If referred, by whom

- Immunization: Obtain current records for children under the age of 13. Obtain tetanus status on all patients.

- Initial visit photos with ID card

- Complete/update Wound Record and Wound Care Flow Sheet for each visit. Be sure to note if patient was debrided.

- Utilize the appropriate “Your Health Matters” patient discharge instructions handouts.

- Patients are to be given opened medication containers, such as Santyl ointment and Polysporin powder, which are used during their clinic visit to take home. These are NOT multiple-patient-use items.
**PHYSICIAN:**

- **American Burn Association Burn Center Referral Criteria**
  - 2\(^{nd}\) degree burns >10% TBSA, any age
  - Burns to face, hands, feet, genitalia, perineum, major joints
  - 3\(^{rd}\) degree burns, any size or age
  - Electrical burns including lightening
  - Chemical burns
  - Suspected inhalation injury
  - Burn accompanied by pre-existing medical conditions
  - Burn accompanied by trauma, where the burn injury poses the greatest risk of morbidity or mortality
  - Burns to children in hospitals without pediatric services
  - Patients with special social, emotional or rehabilitative needs

- All requests to see new patients, whether transfers from another facility or after-hours appointment requests, must be coordinated through the Burn ICU charge nurse (x36502). The Transfer Center (x35709) is utilized for transfer requests from another facility. It is necessary to provide the Transfer Center with:
  - Patient name
  - Date of birth
  - Facility name
  - Contact physician name
  - Contact phone number

- Return Visits: The outpatient staff will evaluate the patient’s insurance status and determine if he or she is eligible to return to the Burn Center for follow-up care. Please instruct patients to call the Outpatient Clinic at 619.543.6505 the following morning to speak with a Clinic staff member.

- Discharge Prescriptions: Remember to provide patients with prescriptions for pain medication as well as supplies for dressing changes, if indicated.

- Suspected Non-accidental Trauma: Child Protective Services/Adult Protective Services and the San Diego Police Department must be contacted. See the Burn ICU charge nurse for assistance.