BURNS

Level II

Skill Level: RN

Definition: Partial thickness burns involving destruction of epidermis and part of dermis. Full thickness burns involving destruction of all layers of the skin extending into subcutaneous tissue, muscle, nerves and bone. Compound burns may involve all levels of burns.

Classification Criteria (American Burn Association - Classification of Burn Injury):

Partial Thickness:
- Erythema with blisters.
- Blanching with pressure.
- Firm texture.

Full Thickness:
- Dry; pale, brown or red.
- Firm, leathery appearance.
- Thrombosed vessels may be seen beneath. Charring seen.

MINOR	
Subjective: • "I have a bad burn." • "I have a burn and it is blistered." • Patient complains of blistering and varying degrees of pain following exposure to sun or heat source or chemical.	**Assessment:** • Alteration in skin integrity/Burns (partial thickness/full thickness).
Objective: • Blistering may be present. • No evidence for full thickness burns. Partial thickness burns covering less than 10% B.S.A. • Inquire into Sulfa allergy.	**Plan:** • Cool with tepid water. Cleanse with soap and water. • Tell patient not to use ice. • Place on daily treatment line until healing is evident. • Consider tetanus status - refer to tetanus protocol. • Do not pop blisters - leave skin intact, if blisters rupture remove overlying tissue. • Keep dressing dry & clean. • Increase fluid intake to 10-12 glasses per day. • If signs or symptoms of infection are present, refer to subcutaneous skin infection protocol.

	• Consider provider appointment. At the nurses discretion may use any of the below: • Provide Level I treatment plan plus: • Have patient use meds available on the housing unit to treat pain (handout). • If available meds are not effective, may use Naproxen 500 mg BID x 5 days prn instead. (Always second line.) • **Naprosyn, Aspirin, and Ibuprofen are not recommended for pain management for pregnant patients, please instruct all pregnant patients to use Acetaminophen (available in housing units) for minor pain management.** • If pain seems severe, may contact provider for additional orders. • Consider **thin** layer of Silvadene Cream and cover with Telfa gauze dressing if blisters open. Silvadene is not to be used near the eyes, in patients with Sulfa allergy, or for pregnant women. • Can alternately consider using Betasept or Polysporin Ointment (if available) on Telfa gauze to cover open blisters.

MODERATE	
Subjective: • "I have a bad burn." • "I have a burn and it is blistered." • Patient complains of blistering and various degree of pain following exposure to sun or heat source or chemical.	**Assessment:** • Alteration in skin integrity/Burns (partial thickness/full thickness). • Potential for infection. • Potential for fluid deficit.
Objective: • Full thickness burns covering 2%-10% of B.S.A. • Partial thickness burns covering 15%-25% of B.S.A. • All full thickness burns of the hands, feet, head or genitals are considered severe.	**Plan:** Provide Level II Minor treatment plan and add: • Consider **thin** layer of Silvadene Cream and cover with Telfa gauze dressing if blisters open. • Consider using Convatec products as indicated by the "Solutions Algorithm" for wound treatment. • The goal of this dressing is for it to be left on for 7 days. • Recheck daily until wound is clearly healing. • Contact provider for additional orders. • Schedule with provider at next available time to evaluate wound with you.

MAJOR	
Subjective: • "I have a bad burn." • "I have a burn and it is blistered." • Patient complains of blistering and various degree of pain following heat source or chemical.	**Assessment:** • Alteration in skin integrity/Burns (partial thickness/full thickness). • Potential for infection. • Potential for fluid deficit (actual).
Objective: • Full thickness burns covering 10% or more of B.S.A. • Partial thickness burns covering over 25% of B.S.A. • All full thickness burns on face, hands, eyes, ears, feet or perineum. • All inhalation and severe electrical burns. • All burns complicated by trauma. • All burns in compromised patients. (e. g. Uncontrolled Diabetes)	**Plan:** • Prepare patient for immediate transport to emergency facility. • Obtain vital signs. Treat for shock if indicated. • While waiting for emergency transport, may start IV and run appropriate IV Fluids (such as Lactated Ringers at 200cc/hr). • Oxygen by nasal cannula or mask 4-8L. • May call and notify medical provider while waiting for transport.

Nursing Education:

1. Refer to emergency protocols (Critically Ill Patient, Shock) for treatment of severe burns.
2. Investigate possible self-harm causes, follow-up if necessary.
3. See nursing education sheets on pages that follow.
4. Silvadene, while a soothing intervention, can slow healing, and should not be used near the eyes or for pregnant women. It has been associated rarely with erythema multiforme and neutropenia.

APPROVED:

Medical Services Manager	Date
Chief Medical Officer	Date
Steve Sheldon MD.	2/24/2015
Medical Director	Date

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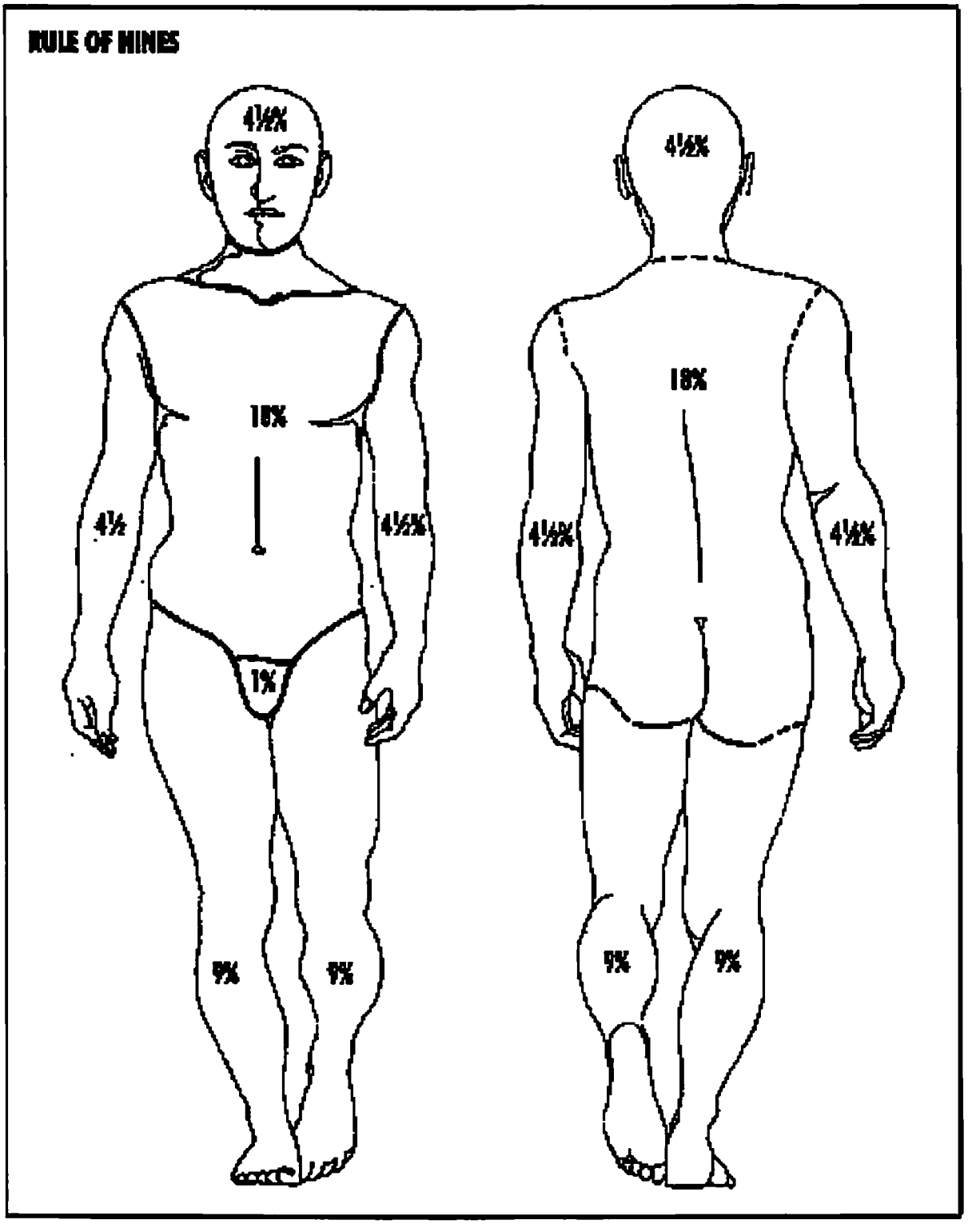
Use the following diagram to estimate the percentage of surface area involved in the burn that is under evaluation:



Additional Nursing Education
Determining the seriousness of a burn

The seriousness of a burn is determined by:

- The depth of the burn
- Superficial partial-thickness burns injure the first and second layers of skin.

  Deep partial-thickness burns injure deeper skin layers.

  Full-thickness burns injure all the skin layers and tissue under the skin.

  Full-thickness burns extend through the skin to injure muscle, ligaments, tendons, nerves, blood vessels, and bones. These burns always require medical treatment.

- The size of the burn.
- The cause (thermal, electrical, chemical, radiation, or friction).
- The part of the body where the burn occurred.
- The age and health of the burn victim.
- Other injuries.

Minor burns
Minor burns include:

- Partial-thickness burns burns covering:
  - Less than 15% of the body of a person between ages 10 and 50.
  - Less than 10% of the body of a person younger than 10 or older than 50.
- Full-thickness burns covering less than 2% of the body.

Moderate burns
Moderate burns include:

- Partial-thickness burns covering:
  - 15% to 25% of the body of a person between ages 10 and 50.
  - 10% to 20% of the body of a person younger than 10 or older than 50.
- Full-thickness burns covering 2% to 10% of the body.

All moderate burns require a visit to a doctor. Some of these burns may be treated at home by carefully following your doctor's instructions. Infection is a concern in moderate burns. It is important to watch for signs of infection. Some moderate burns may require hospital admission and specialized burn care.

Major Burns

All major burns will require immediate evaluation by a doctor for treatment and prevention of complications.

Major Burns include:

- Partial-thickness burns covering:
  - More than 25% of the body of a person between ages 10 and 50.
  - More than 20% of the body of a person younger than 10 or older than 50.
- Full-thickness burns covering more than 10% of the body for all age groups.
- Burns involving the face, hands, feet, or genital area.
- Burns crossing major joints.
- Burns that go completely around (encircle) the chest or a limb.
- Burns complicated by smoke inhalation injury.
- Electrical burns that cause burns to the skin.
- Burns with other injuries, such as fractures.
- Burns to the very young or very old.
- Burn injuries to a person with medical conditions, such as diabetes, peripheral arterial disease, or an impaired immune system.

A partial thickness and full thickness burn-even a small burn-on the face, eyelids, ears, hands, feet, genital area, or over a joint is more serious for several reasons, such as an increased risk of infection and complications from scarring. Scarring is more likely to cause a problem in these areas.

The body tries to heal burns by pulling together the skin around the burned area. When scar Tissue forms, it can change the look or affect the function of the burned area. For example, a severe burn on your hand might affect the function of the fingers and limit your ability to use your hands.

Scarring on the face might cause a misshapen appearance that would require cosmetic surgery to correct it. Large burn areas might need skin graft surgery.

Major Burns may require the patient to stay in the hospital and receive specialized burn care.

It is important to watch for signs of infection during the healing of any burn.