

Burns Considerations

Special considerations are made for the unstable patient following burn injury. These include minimizing the risk of infection, maintaining body temperature, preventing the development of Curling's ulcer, and avoiding contractures. Other considerations include VTE prophylaxis, excision and grafting, and adequate nutrition.



PLAY PICMONIC

Maintain Body Temperature

Body Thermometer

Since the skin helps maintain body temperature, burn injuries destroy skin tissue and cause the body to lose heat and develop hypothermia. Maintaining the patient's body temperature is critical in stabilizing the patient's condition. Burn units are often kept warm (approximately 85°F) to prevent shivering and hypothermia.

Increased Risk of Infection

Up-arrow Risk Bacteria

Increased risk of infection is a concern when dealing with burns, and minimizing this risk is critical in unstable patients with burn injury. Infection precautions and aseptic technique must be maintained during burn wound care. During burn wound care, masks are worn and minimal time is spent to minimize open exposure. Since patients with respiratory burns usually die of pneumonia, infection prevention is critical for optimal care. Administer antibiotics to decrease the risk of infection. To prevent infection due to anaerobic burn wound contamination, tetanus toxoid is administered. If the patient hasn't received an active tetanus immunization within the past 10 years, then tetanus immunoglobulin may be given.

Venous Thromboembolism (VTE) Prophylaxis

Vines Trombone Elmo with Purple-axes

Burn patients are at risk for developing venous thromboembolism (VTE) due to alterations in blood circulation. VTE prophylaxis is initiated as soon as possible. VTE prophylaxis includes administration of low-molecular-weight heparin (enoxaparin) to prevent clot formation and applying compression stockings or sequential compression devices to promote venous circulation.

Curling's Ulcer

Curling-iron

During burn injury, there is decreased blood flow to the GI tract as the body shunts the blood to the cardiovascular system. The patient may develop Curling's ulcer caused by increased gastric acid secretion and mucosal erosion. Prophylactic H2-histamine blockers and proton pump inhibitors are used to neutralize stomach acid and inhibit gastric acid secretion. Administering feedings as soon as possible after burn injury helps prevent Curling's ulcer.

Excision and Grafting

Exorcist and Giraffe-graft

Full-thickness burn wounds require early surgical excision and skin grafting to help restore function and minimize scar tissue. Depending on the level of injury, eschar is excised down to the subcutaneous or muscle tissue. Afterwards, a graft is placed on the viable tissue and may be sutured or stapled

into place. An autograft using the person's own skin is used whenever possible. The grafted area must be protected from shearing, friction, and pressure during the healing time. Assess the patient's body image as they adjust to changes in their appearance.

Adequate Nutrition

Nutritional-plate

Following burn injury, adequate nutrition within the first two days is critical to promote healing. While the wounds remain open, the patient is in a hypermetabolic state and requires a diet high in calories, protein, and carbohydrates. Inadequate nutrition delays wound healing. A dietician calculates the burn patient's daily caloric needs and adjusts as the patient's condition changes. Since appetite is usually decreased, encourage the patient to eat their favorite foods. Enteral feeding is administered if the patient cannot tolerate oral intake. Record the patient's daily caloric intake and obtain their weight on a weekly basis. Lab values such as albumin and total protein should be regularly monitored.

Contractures

Contractors at contractures

A common complication after burn injury is the development of contractures or abnormal joint flexion and fixation. A contracture develops as the scar tissue shortens in the flexor tissues of a joint. Ligaments and tendons surrounding the joint also tend to shorten during the healing process. To avoid the development of contractures, encourage the patient to exercise and maintain proper positioning for at least one year after burn injury.