

Pressure Ulcers

A pressure ulcer can develop when there is pressure on any part of the body for an extended period of time. Blood flow gets cut off to areas of the skin where pressure is present causing cell death. This results in the skin to breakdown, and if left untreated an ulcer can form. This puts the patient at risk for infections. Common areas for pressure ulcers to form over bony areas where pressure can be higher. Common areas are: tailbone, buttocks, elbows, heels, shoulders, and ears. Risk factors include prolonged immobilization, neurological disease, or decreased level of consciousness. This disease can be divided into four stages: Stage 1: Intact Skin with Non-blanchable Erythema. Stage 2: Partial Thickness Skin Loss. Stage 3: Full thickness skin loss without fascial involvement, and stage 4: Full-thickness skin loss with fascial involvement. Management includes wound care and surgery. Considerations include septicemia, osteomyelitis, and the importance of prevention.



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Risk Factors

Prolonged Immobilization

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Patients who are immobilized for extended periods, such as after surgery or trauma, are more susceptible to pressure ulcers. Immobilization impairs venous return and promotes pooling of blood. In addition, prolonged pressure on bony prominences, such as those on the hips or shoulders, can lead to local ischemia and necrosis.

Neurologic Disease

Nerve-guy Diseased

Patients with neurologic disease are more susceptible to pressure ulcers. Prior cerebrovascular disease or diabetic nephropathy can lead to impaired sensory perception. This can lead to patients not being aware of pain and pressure, which over time can lead to local ischemia and necrosis.

Decreased Level of Consciousness

Down-arrow Lock-halo

Patients with a decreased level of consciousness are more likely to develop pressure ulcers. During normal sleep, periodic movement can be observed- this serves to promote circulation and prevent prolonged pressure on different parts of the body. Patients with a decreased level of consciousness do not move on their own, and thus are more likely to develop pressure ulcers.

Classification

Stage 1: Intact Skin with Non-blanchable Erythema

Stage (1) Wand: Intact Skin with Nun-bleachable Earth-red

Stage 1 pressure ulcers are characterized by intact skin with non-blanchable erythema. In this stage the skin is still intact. This is typically the first indication of skin breakdown, and frequent turns should be initiated while avoiding putting pressure on the reddened area. To determine if the reddened area is a stage one, push a finger into the reddened area. If the skin does not turn white, then it has entered stage one. It is important to be aware that erythema may not be as apparent in patients with darker skin tones. In this patient population, it is imperative to look for variance in color, texture, and temperature of the skin to the surrounding areas. The skin may be painful, firm or soft, and appear hyperpigmented or hypopigmented, with a dark bluish-purple tint at the site of the pressure ulcer. Remember, early signs of skin damage may include increased warmth to the ulcer compared to the neighboring areas, but with time, the tissue may become cooler to touch.

Stage 2: Partial Thickness Skin Loss

Stage (2) Tutu: Partial Skinless

Stage 2 pressure ulcers are characterized by partial thickness skin loss. In stage two, the ulcer can be classified as partial thickness open or partial thickness closed. The ulcer will either develop a blister (closed) or become an open sore. The skin is not intact at this stage and at risk for becoming infected.

Stage 3: Full-thickness Skin Loss without Fascial Involvement

Stage (3) Tree: Full-glass Skinless without Fascial-fashion

Stage 3 pressure ulcers are characterized by full-thickness skin loss without fascial involvement. In stage three the ulcer has cratered into the dermis and subcutaneous tissue. Fat could be visible with sloughing of the tissue. Nerve damage can also occur at this stage. This stage usually requires surgical intervention.

Stage 4: Full-thickness Skin Loss with Fascial Involvement

Stage (4) Fork: Full-glass Skinless with Fascial-fashion

Stage 4 pressure ulcers are characterised by full-thickness skin loss with fascial involvement. Bone is exposed in stage four. Sloughing of skin and eschar formation may be present. The wound could also have undermined or tunneled into the surrounding tissue. Surgery is indicated for these patients.

Management

Wound Care

Wound Care-bear

Patients with pressure ulcers should be managed supportively, with good wound care provided throughout. This includes regular dressing changes, maintaining regular humidity and temperature, and cleaning/ clearing of pus.

Surgery

Surgeon with Scalpel

Patients with stage 3 and 4 pressure ulcers may require surgical intervention. This may include debridement of necrotic tissues, drainage, and/or packing of the wound.

Considerations

Septicemia

Sepsis-snake

Patients with pressure ulcers are more likely to develop infections. These may spread into the bloodstream and cause sepsis. Patients who have new-onset fever, tachycardia, increased respiratory rate, or other signs of infection should be evaluated for sepsis.

Osteomyelitis

Skeleton-in-flames

Superficial skin infections, especially if deep, may spread to the bone and cause osteomyelitis. Patients should be monitored for signs and symptoms of infection and osteomyelitis.

Prevention

Prevention

Most pressure ulcers are preventable, yet contribute considerably to hospital morbidity, mortality, and cost. Regular repositioning of patients or the use of mattresses designed to alleviate pressure points can be of considerable benefit to patients.