Preventing Occipital Pressure Injuries in Burn Patients

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Introduction: Patients hospitalized for any significant length of time are prone to the development of pressure injuries. In burn intensive care units (BICUs), risk factors include diminished activity, impaired skin integrity, edema, moisture, nutritional deficits (i.e. loss of serum proteins) and length of stay. Occipital pressure injuries are defined as pressure injuries on the occipital bone caused by pressure, shearing, or friction, ultimately causing tissue ischemia and eventual necrosis. Patients with significant burns are at a greater risk of developing these types of injuries due to increased fluid volume from resuscitation and decreased tissue perfusion. In 2016, The rate of occipital pressure injuries in our BICU was 4.3; this led to a comprehensive program to reduce/eliminate these injuries.

Methods: Early prevention was identified as an area for improvement with the goal of targeting zero occipital hospital-acquired pressure injuries (HAPIs). The burn nursing management team collaborated with the Burn Center Unit Based Practice Council to research a practice change involving fluidized positioners for patients with large surface area burns (TBSA > 20%) and/or any burns to the head and neck.

On admission, all patients meeting criteria, were given a fluidized positioner pillow with a tab (featured to the right) to place under the head. The pillow was positioned with a defined divot in the center and not flattened (which is the way they were currently being utilized) in order to properly disperse pressure over the occiput. This positioning pillow was also used during hydrotherapy and operating room procedures. The patient's head was to be turned and repositioned every two hours while assessing the pillow's integrity. The use of a moisture wicking fabric was utilized over the positioner pillow to prevent maceration, and changed as needed. Nursing staff and burn technicians were educated on these guidelines and practice changes; wound care nurses were available for educational support.

Results: Implementation of these guidelines significantly decreased the occurrence of occipital pressure injuries in our BICU. Since implementation, the rate of occipital pressure ulcers in 2017, 2018 and Q1 and Q2 of 2019 has been 0%.

Conclusion: The application of a fluidized positioner pillow, practice changes, and staff education has greatly decreased the occurrence of occipital pressure ulcers in our Burn ICU.

Applicability of Research to Practice: The utilization of a fluidized positioner pillow in conjunction with the described interventions can lead to a decrease in occipital hospital acquired pressure injuries, and improve patient outcomes in vulnerable patients with burns to the head and neck.