

SOLVING THE PROBLEM OF PRESSURE ULCERS RESULTING FROM CERVICAL COLLARS: A STEP-BY-STEP APPROACH.

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Cervical orthotic devices (cervical collars) are integral to the treatment of patients with suspected or confirmed fracture of the cervical spine. Pressure ulcers can develop under the cervical collar on the occipital protuberance and on the chin due to both prolonged immobilization and the collar construction. A multidisciplinary team at a Northwest Ohio trauma center led an investigation of this problem when a one day study of pressure ulcer prevalence revealed that of 4% of nosocomial pressure ulcers, 2% were attributed to cervical collars. To solve this problem, the team visualized risk factors using a fishbone diagram, investigated by calling manufacturers and other institutions and by searching the literature, developed educational programs on skin care and correct collar fitting, conducted a product trial on a new collar, and continuously monitored the results. The conclusions of the team were that the pressure ulcers were the result of the construction of the previous cervical collars used. The product trial resulted in zero skin breakdown for the 20 patients involved. Changes implemented as a result were an improved skin care regimen, education on proper fitting and appropriate choice of collars, and implementation of the new collar for trauma patients.

SELECTED QUOTATIONS

Abstract

“The conclusions of the team were that the pressure ulcers were the result of the construction of the previous cervical collars used. The product trial resulted in zero skin breakdown for the 20 patients involved. Changes implemented as a result were an improved skin care regimen, education on proper fitting and appropriate choice of collars, and implementation of the new collar for trauma patients.” (Pg. 26)

The Problem

“A one day study of pressure ulcer prevalence revealed that 4.18 percent of pressure ulcers were hospital acquired. Four cases, accounting for 1.86 percent of the hospital--acquired ulcers, were attributed to the use of cervical collars on that day.” (Pg. 27)

“It was also determined that the injuries occurred in trauma patients who experienced longer spine immobilization and hospital stays than elective neurosurgery cases.” (Pg. 27)

Action Plan

“At this trauma center, we had been using a closed cell foam collar for many years.” (Pg. 28)

“We discovered that another hard cervical collar [Miami J] had been brought into the institution in March, 1993, just prior to the development of some of the most severe occipital ulcers.” (Pg 28)

Product Trial

“Repeated CQI studies have demonstrated that the problem of pressure ulcers resulting from cervical collars has been eliminated at this institution.” (Pg. 32)

“All patients placed in the new collar [Aspen Cervical Collar] were followed on a daily basis by the trauma case manager for fit and application, and the ET nurses for skin injury. Wear time of the collar varied from 1 to 37 days. During the trial, the 20 patients did not exhibit tissue irritation or breakdown. Also, no compromise of cervical stabilization was found.” (Pg. 32)