

Research - R195

Oral

Abstract Title:

Is There A Knowledge Deficit Among Adult Practicioners in Assessing and Treating Pediatric Patients with Acute Burns?

Authors:

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Background & Purpose:

Literature has suggested that there is an inconsistency or lack of education among general emergency room practitioners regarding the triage of pediatric burn patients. The lack of education that nurses have in regard to triaging pediatric burn patients leads to over triaging and under triaging this population, thus causing delays in definitive care or unnecessary admission to the hospital. This study was conducted to explore the issues in the triaging and assessment of the pediatric burn patient in the general emergency room, specifically patients with thermal burns.

Study/Project Design:

A 2 year retrospective chart review to complete a descriptive analysis of pediatric burn assessment.

Setting:

This single-center research project was conducted at an urban pediatric level I trauma center.

Sample:

A convenience sample of 200 burn patients, ages 21 and younger, male and female, and inclusive of all racial and ethnic backgrounds was reviewed.

Procedures:

This project is a retrospective chart review of all burn referrals that are made to the critical care transport team at an urban pediatric level I trauma center during a 2 year period. Data has been extracted from the intake sheet used by the critical care transport team. The variables that have been collected include: documentation of the burn from both the referring hospital as well as the critical care transport team (this documentation includes: Lund and Browder evaluation, type of burn, and percentage total body surface area of the burn); patient's vital signs upon arrival to the urban pediatric trauma center; and whether or not fluid resuscitation was necessary and given. A correlation has been used to compare the relationship between variables from both facility's burn documentation.

Findings/Results:

At this time we have been able to make conclusions based on 1 year of the data. The 2nd year of data will be analyzed within the next month. The first and second year will be compiled and be analyzed as one whole sample. During the first year of this project, we reviewed 68 pediatric burn patients' charts from the critical care transport database. Of those patients that were reviewed, vital signs were normal in 36% of the patients, normal in 52%, and 27% of the patients had missing components of vital signs, such as no blood pressure reading or no respiratory rate. Fluid management was appropriate in 42 patients and inappropriate in 18 cases, based on the burn percentage by the referring hospital. Upon review and comparison of the 2 burn assessments, burn percentages were over estimated 55% of the time, underestimated 11% and correctly estimated 31% of the time.

Discussion/Conclusions/Implications:

The results of this retrospective chart review show that general emergency room inaccurately estimate burn percentages and also fail to recognize abnormal vital signs in the pediatric patient, which then lead to poor fluid management. We can conclude that there is a need for education regarding the management of pediatric burns. The next steps will be to develop an education program for general emergency room practitioners who refer pediatric patients to this pediatric tertiary hospital. Once the education has been given this study should be duplicated to evaluate its effectiveness.