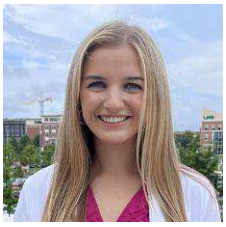
Injury Prevention in the Emergency Department



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Background: Safe storage practices have been shown to decrease incidence of medication ingestion and firearm related injuries in pediatric patients. This abstract describes successful approaches using different personnel in a busy pediatric emergency department setting to improve safe storage among parents.

Methods: Various educators (public health student, medical student, full time social service providers) were used in the emergency department to assess feasibility of ED as site for intervention and education, sustainability of various educators and impact of education and equipment on parental behaviors.

Results: The initial stage of this project used a public health student as educator and resulted in 98% enrollment with 363 families receiving education and 843 total children impacted and increased reported correct storage for meds (9% to 85%) and firearms (45% to 67%). The second stage used a medical student as educator and resulted in 93% enrollment with 106 families receiving education and 199 children impacted. Both students were time limited when they returned to classwork. The study was refined to utilize medical social workers who are employed within the hospital with follow-up calls by a medical student. This has resulted in 78 families educated (271 children impacted) to date and began in July 2022. Follow up phone calls for those educated by social services (68% follow up rate) resulted in 24% of families utilizing the firearm lock and 72% using the medication box.

Conclusions: The emergency department is an effective location to provide families with education about safe storage of medication and firearms regardless of educator utilized. The project was effective when using students as educators but found this to be unsustainable due to scheduling conflicts and time restraints. The implementation of full-time hospital employees as educators provided a more sustainable model.

Objectives:
1. Understand the importance of safe storage practices in prevention of ingestion and firearm-related injuries.
2. Describe the materials and education provided to families in this study.
3. Illustrate differences in outcomes when utilizing various educators in the emergency department.

Characteristics of Pediatric Emergency Department Encounters for Fractures Concerning for Abuse

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Background: Childhood fractures affect an estimated 20% of children, with approximately 12-20% of fractures caused by abuse. While the literature has described fracture patterns that should prompt a child abuse evaluation, little is known about the characteristics of the emergency department (ED) encounters themselves (e.g., time of day, day of week) and associated patient demographics among children for whom a child abuse pediatrician (CAP) consult is obtained. The objective of this study was to describe ED encounter arrival and disposition characteristics and demographics of children ages 0-5 years presenting to a tertiary pediatric ED with fractures who did and did not have a CAP consult.

Methods: This study was part of a larger retrospective observational study of 2,991 patients aged 0-5 with an ED discharge diagnosis including fracture who were seen in a regional tertiary pediatric ED in New England between January 2014 and December 2021.This institutional dataset includes all ED-encounter full-text clinician notes, radiology reports, and discrete variables (e.g., demographics, ICD-9/10 codes, triage acuity). Descriptive analyses of ED encounter arrival and disposition characteristics, patient demographics, and presence of a CAP consultation were completed.

Results: There were 2,991 unique patient encounters for fractures during the study period, of which 193 (6.5%) had a completed CAP consult. Compared to children without a CAP consult, children who had a CAP consult had proportionately fewer weekend presentations (21.7% versus 31.9%) and more Monday presentations (21.8% versus 14.3%), a higher proportion of visits between 11p-7a (17.1% versus 8.7%), and a higher proportion of more acute triage ESI designations (68.9% ESI 2 versus 35.0% ESI 2). 86% of ED encounters with a CAP consult resulted in an admission, versus 9.9% of visits without a consult. Children with a CAP consult had a lower median age (0.5 years, IQR 1.2 versus 3.3 years, IQR 2.8), with a higher proportion of children identified as Black race (11.4% vs 8.5%) and with government insurance (45.0% vs 35.9%).

Conclusions: We found distinct ED encounter arrival temporal patterns for children with fractures who had a CAP consult, namely an increased proportion of visits on Mondays and decreased proportion of weekend visits, as well as an increased proportion of visits overnight. There was a higher proportion of more acute triage ESI designations and a higher proportion of admissions compared to children without a consult. Patient demographic trends were similar to prior publications about abusive injuries. These ED temporal patterns should be further studied to understand why they occur and may inform the development of child abuse prediction models.

Objectives:
1. Fractures are a common childhood injury and up to 20% may be due to abuse.
2. Children who had a child abuse pediatrics consultation had a