
562 Influence of the COVID-19 Pandemic on Emergency Room Visits for Burn Injury

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Introduction: The COVID-19 pandemic was a devastating occurrence that left millions in critical condition in emergency rooms (ER) across the country. While hospitalizations due to COVID-19 increased exponentially in the last year, several reports have indicated declines in ER use due to common non-COVID related problems. There is currently a dearth of literature examining the effect of the COVID-19 pandemic on emergency room use for acute burn injuries. Thus, we performed a retrospective database analysis using the TriNetX database to quantify the effects of COVID-19 on United States ER visits for acute burn injuries. We hypothesize that ER visits due to burn injury decreased, especially in patients with severe burn injuries—defined as burned total burn surface area (TBSA) >20%.

Methods: Patients who visited the ER from 2010-2020 due to burn injury were identified using ICD-10 codes. We then stratified these patients by age (< 18 and ≥18), severe (>20% TBSA) vs. non-severe (< 20% TBSA) burn injury, and by change over time in 1-year intervals from 2010 to 2020. Extracted data was analyzed using chi-square with $p < .05$ considered significant.

Results: We identified a total of 24,620,393 ER visits from 2010-2020. Of these, 142,007 (0.58%) were due to burn injury. A large majority of burn-related ER visits were for non-severe burns ($n=134,120$, 94.4%). ER visits for acute burn injury decreased by 21.6% during 2020 when compared to years prior. Stratification by age group revealed that pediatric patients (< 18) had more significant decreases in ER Visits than adult patients (≥18). Pediatric patients visited the ER 71.6% less than adults during 2020. When stratified by burn severity, patients with severe burns (>20% TBSA) and patients with non-severe burns (< 20% TBSA) had similar decreases in ER usage during 2020 when compared to years prior (21.7% and 24.6%, respectively). Further age analysis revealed that both pediatric patients with severe burns and pediatric patients with non-severe burns visited the ER less than their adult counterparts (71.4% and 60.9%, respectively). All of the above differences were statistically significant ($p < .05$).

Conclusions: During the COVID-19 pandemic in 2020, there was a sharp decrease in ER usage by patients with severe and non-severe burn injuries. This decrease was particularly salient in pediatric populations across all TBSA data points measured.

563 Fire safety in homeless encampments

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Introduction: It is well known that people experiencing homelessness are at a greater risk for burn injury. Our burn centre saw an increase in admissions of homeless individuals during the pandemic. Typically, we partner with our hospital's communications staff to share burn prevention public service announcements. But our usual method of broadcasting information through media like newspapers, blog posts, Facebook, or Instagram was not necessarily going to reach people sleeping rough. This report describes the development of a partnership between a burn centre, outreach workers, and people with lived experience of homelessness to improve fire safety in encampments.

Methods: Our goal was to create a Fire Safety Manual and hold Fire Safety Training Sessions. We conducted surveys that asked encampment residents questions like, "What do you use fires for?" "What fire hazards do you see at encampments?" and "How do you think fires could best be prevented?". We used the results of this survey to guide the training manual and held workshops to engage encampment residents and incorporate feedback into the manual.

Results: The manual uses harm reductions strategies and focuses on real-life situations encountered by folks living outdoors—the manual outlines how to safely start a fire and what to do if a fire occurs. The reality is that people are trying to survive freezing winters while sleeping outside; this means that some safety standards are not possible, and the guide had to reflect that. For example, we practiced fire escape plans during training sessions and had to think about obstacles like tents with only one way out. A solution was to keep a utility knife inside and outside the tent in case one had to cut through to escape or free someone. An encampment resident suggested hiding the knives so they would not be used as weapons. We purchased fire extinguishers, fire blankets, and first aid kits that we distributed during training.

Conclusions: Education is critical to prevent burn injuries. Burn centre staff may be experts on burn prevention, but we are not experts on surviving outside. We have to be accountable to this community. This means listening, building trust, and partnering with people living outdoors. People who did training sessions were empowered to start fire brigades in their encampments. Crucial concepts are to meet people where they are and always to include people with lived experience: "Nothing about us without us."