



Burn Strong Initiative: U.S. Army Burn Center's Response to Fire Department Needs

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Introduction

The project was motivated by a perceived gap in burn education for the San Antonio Fire Department (SAFD). Here, we describe the progress made in closing this gap. In a combined effort between both institutions, a partnership has been developed to help new paramedic firefighters and existing firefighters understand the burn-care process and improve patient outcomes.

Since its inception in August 2018, the Burn Strong Initiative has had 3 focuses:

- 1) Train burn center personnel
- 2) Train SAFD personnel
- 3) Conduct community outreach

Objectives

The purpose of this project is to enhance burn education, both inside and outside the Burn Center.

Methods

- **Aim 1 – Burn Center Staff Training.** To improve our clinical skills and to enhance our ability to serve as educators in the community, we committed to achieving Advanced Burn Life Support (ABLS) certification for > 90% of our Burn Center clinical staff.
- **Aim 2 – Firefighter Training.** The city requested that we develop and implement a new 2-hour Thermal Injury Update class delivered weekly for a total of 36 weeks to EMTs and paramedics, starting January 2019 thru December 2019.
- **Aim 3 – FD Medical Staff Training.** The city requested that the Burn Center provide an ABLS course for the SAFD's physician staff.

Burn Strong Initiative

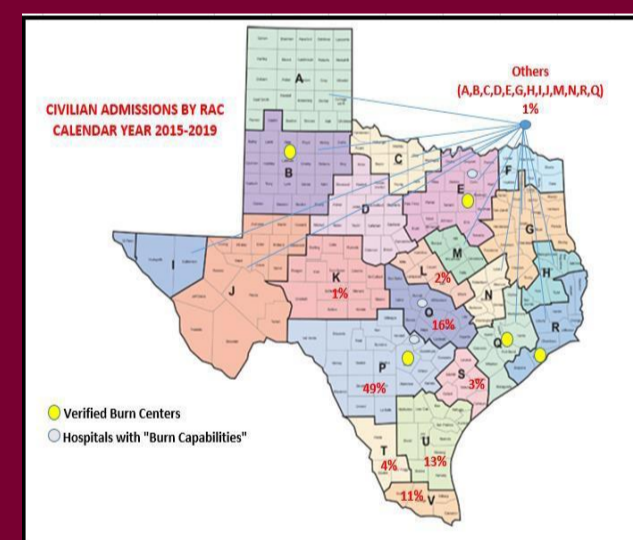


Course Learning Objectives:

- Differentiate pathology of burns vs trauma
- Initial assessment/problems with burns
- Management of burn patient
- Review burn fluid resuscitation
- Estimate and know extent and depth of burns
- Characteristics of burns that affect secondary survey
- Common and uncommon burn injuries
- Treatment of cold injury and its effects on tissue
- Management of hypothermia and rewarming risks
- Review transfer criteria to a burn center

Impact of Burn Strong:

- Approximately only 1-2 paramedics in each course had responded to a large burn victim 90% TBSA
- Request for lactated Ringer's to be fluid given to burn patients, currently using normal saline
- Intramuscular injections had been a common practice for narcotic pain control, importance of intravenous pain control was emphasized
- Hypothermia was not a major concern for burn patients
- Change of EMS practice to Cyanokit administration



Outreach expansion:

Burn Strong Thermal Injury course to be offered to our primary and secondary trauma service areas, county fire departments, and emergency room personnel.

Results

- **Aim 1** – To date, we have trained 130 Burn Center staff in ABLS, 22 of whom became ABLS instructors and 9 instructor candidates.
- **Aim 2** – Burn Strong completed 36 Thermal Injury Update classes for 861 FD paramedics/EMTs in 2019. All participants received 2 CEU credits for this course.
- **Aim 3** – We trained 19 SAFD physicians in ABLS, 4 of whom have become ABLS instructors. We trained an additional 15 personnel at our Southern Texas Regional Advisory Council conference.

Conclusions

- This training effort has better prepared us to treat these complex patients, and has become the initial point of entry into an immersive partnership between the burn center and the city FD. Training firefighters requires ongoing commitment and an understanding of the pre-hospital environment. We plan to continue and expand our partnership with the city and the region to improve burn care and patient outcomes.

Future Directions

- Deepen efforts to incorporate pre-hospital burn care training into the educational process for our regional fire departments.
- Continue to build relationships with local and national fire department organizations.

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