

Author and Co-authors:	Kaitlin A. Pruskowski, PharmD; Bradley Rittenhouse, MD; Craig Ainsworth, MD United States Army Institute of Surgical Research, Burn Center, Ft. Sam Houston, TX
Objective:	Upon completion of the lecture, attendees should be better prepared to: <ul style="list-style-type: none">▪ Describe the impact of illicit drug use on fluid resuscitation requirements after burn injury• Describe the impact of illicit drug use on risk of mortality
Abstract:	<p>Introduction: Illicit drug use is a large and increasing public health problem with approximately 3.8% of the world population using cannabis, 0.77% using amphetamines and 0.35% using cocaine in 2017. With a world population of 7.6 billion, that equates to tens of millions of people. The use of illicit drugs, including cocaine, have been associated with more severe traumatic injuries. In burn patients, illicit drug use has been associated with larger burn size and longer length of stay. However, the effect of illicit drug use on initial resuscitation has not been evaluated.</p> <p>Methods: Adult patients admitted to the USAISR Burn Center between January 2013 and March 2018 with a burn size of 20% TBSA or more and who tested positive for cocaine, amphetamines, and/or cannabis were included in this retrospective chart review. Descriptive statistics were used to analyze demographic data, fluid resuscitation requirements, need for continuous renal replacement therapy (CRRT), and disposition settings.</p> <p>Results: Fifty-six patients with a median burn size of 31.75% were included in this analysis. Of these, 15 tested positive for cocaine, 36 for amphetamines, and 21 for cannabis. 28.6% of patients also presented with inhalation injury. Patients who tested positive for any illicit drug required an average fluid resuscitation of 4.3 ± 1.6 mL/kg/% TBSA burned within the first 24 hours after admission. Patients who tested positive for cocaine required the largest volume fluid resuscitation, with an average of 4.7 ± 4.9 mL/kg/% TBSA, while patients to tested positive for cannabis and amphetamines required 4.6 ± 1.5 mL/kg/% TBSA and 4.1 ± 1.5 mL/kg/% TBSA, respectively. All groups received more than the resuscitation volume required as predicted by the Parkland formula (4 mL/kg/% TBSA) or the modified Brooke formula (2 mL/kg/% TBSA). Sixteen patients (29%) required CRRT for a median of 14 days during their hospital stay. Eighteen (32.1%) patients required fasciotomies or escharotomies (4 and 14 patients, respectively) during the resuscitation period. Twenty three patients (41%) of patients were discharged home after hospital admission, while twelve (21.4%) of patients died during their hospital stay.</p> <p>Conclusions: Illicit drug use has physiologic consequences. This study suggests that</p>

these consequences may limit a patient's ability to compensate for burn injury, and therefore require larger resuscitation volumes to maintain adequate tissue perfusion and urine output. These findings may account for the high observed mortality.

References and Resources

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Disclosure:

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