



Predicting Failure of Intravenous Access

When intravenous (IV) access cannot be established using traditional methods of inspection and palpation, substantial delays in care may occur. Predicting the likelihood of failure would be helpful. This study uses data collected in a clinical trial setting to estimate the risk of failure, using a prior need for advanced techniques. The results showed that a prior need for advanced techniques was associated with a 14% (confidence interval, 7-22) increase in the risk of failure to establish IV access by traditional methods. Overall, traditional methods failed in 4.7% of patients

Hit By a Train: Injury Burden and Clinical Outcomes

Train vs. pedestrian (TVP) is associated with a significant injury burden. This is a retrospective National Trauma Data-bank study of trauma patients sustaining TVP injury from January 2007 to July 2012. TVP was found to be an independent predictor for higher injury burden, Injury Severity Score ≥ 25 , immediate operative need, and complications. Compared to automobile vs. pedestrian (AVP), TVP patients also have higher rates of mechanical ventilation and transfusion, longer length of stay, and higher in-hospital mortality.

Scientific Publication Productivity of Emergency Physicians

There has been a significant increase in scientific research in Emergency Medicine (EM) in the past 10 years. The aim of this study was to analyze the contributions of emergency physicians (EPs) to the EM literature during a recent 10-year period (2008-2017). Manuscripts published by EPs in Emergency Medicine journals in the Science Citation Index Expanded database were analyzed. A total of 15,281 original articles were published by EPs in 24 journals worldwide. In this 10-year period, the highest number of Emergency Medicine articles were published by EPs from the United States.

Factors Associated with Poor Outcome in Pediatric Near-Hanging

Hanging injury is the most common method of suicide among children 5-11 years of age. This retrospective,

single-center study was performed to identify the clinical factors associated with poor neurologic outcome in children after near-hanging. Patients with an unfavorable outcome had significantly higher rates of intensive care unit admission, respiratory complications, anoxic brain injury, and multi-organ failure. An initial Glasgow Coma Scale score of 3T and prehospital cardiac arrest were uniformly associated with poor neurologic outcome.

Feasibility of a Modified Strategy for 2-Rescuer CPR

Cardiopulmonary resuscitation (CPR) requires effective chest compressions and ventilations to circulate and oxygenate the blood. It has been established that a 2-handed mask seal is superior when providing bag-valve-mask ventilation. However, a 1-handed technique is the standard that most health care providers have been trained to use when performing 2-rescuer CPR. This study sought to determine if a modified 2-rescuer CPR technique that incorporates a 2-handed mask seal during ventilation can be accomplished without compromising chest compression quality during a simulated cardiac arrest. Forty-seven medical student pairs were enrolled to test the modified technique using manikins. There were no statistically significant differences found between the intervention (modified technique) and controls (standard technique). Two-rescuer CPR incorporating a 2-handed face mask seal can be effectively performed without compromising the quality of chest compressions during simulated cardiac arrest.

Monthly Progression of Emergency Medicine Resident Efficiency

This retrospective study describes the rate at which Emergency Medicine resident efficiency improves during each month of residency training, in terms of patients seen per hour. Fifty-one consecutive months of patient logs from 110 residents were analyzed. The results showed that EM resident efficiency increases monthly, with most improvement occurring in the PGY1 year. Understanding this improvement might aid in resident performance evaluation and help predict resident workflow.