

Utah EM Research News

Research News and Updates from the Division of Emergency Medicine, University of Utah

Summer 2008

Faculty, Residents Receive National Research Awards

University faculty and residents have recently received several awards and honors recognizing their research accomplishments.

Scott McIntosh, Eric Swanson, and Anna McKeone received the First Place Research Award for their presentation “Location of Airway Management in Air Medical Transport” at the national Critical Care Transport Medicine Conference in March.

Peter Taillac has been appointed to the editorial board of *Prehospital Emergency Care*.

Troy Madsen has been awarded “Top Reviewer” for *Annals of Emergency Medicine* for a consecutive year and has been named a Senior Reviewer for the journal.

Joey Bledsoe and **Burke Hatch** presented their research at the national meetings of the Society for Academic Emergency Medicine (SAEM) in Washington, DC, in May. Joey presented research on chest pain patients in the ED observation unit, while Burke presented the results of his study on obstetrical ultrasound education methods.

Joey Bledsoe will be presenting three abstracts at the national meeting of the American College of Emergency Physicians (ACEP) in Chicago, Illinois, in October. His abstracts address geriatric chest pain patients, observation unit positive stress testing rates, and the use of the observation unit for trauma patients.

“Utah EM Research News” is published four times per year. Please contact Troy Madsen, division research director, at troy.madsen@hsc.utah.edu with any news, comments, or suggestions.

Division Research Continues in Diverse Areas of EM

Faculty continue to develop research in all areas of emergency medicine. Residents are working with faculty on several of the projects, and new interns are welcome and encouraged to work with faculty in these areas. Specific faculty interest areas and projects are listed below:

Erik Barton: Airway management, prehospital care

Deb Battaglia: Emergency ultrasound

Kurt Bernhisel: Observation medicine

Phil Bossart: Observation medicine

Marty Caravati: Toxicology

Dave Fosnocht*: ED pain management, toxicology

Steve Hartsell: Resident education

Deanne Long: International medicine

Troy Madsen*: Observation medicine, emergency obstetrics, psychiatric emergencies

Christy McCowan*: winter resort trauma, air medical transport

Scott McIntosh: Prehospital care, air medical research, avalanche injuries

Robert Stephen: Patient information resources

Susan Stroud: Medical education

Eric Swanson: Prehospital care, air medical transport

Scott Youngquist: Prehospital care, airway management, cardiology

Peter Taillac: Prehospital care

Todd Allen* (IMC): Electronic medical record, community-acquired pneumonia

Tim Wolfe* (Jordan Valley): Intranasal pain medication

If you're interested in working with any faculty, please contact the faculty member or Troy Madsen. Those faculty marked with an asterisk (*) have specifically requested resident assistance with projects.

Barton, McCowan, McIntosh, Swanson with Recent Papers

Erik Barton, Gerry Doyle (former faculty), Christy McCowan, Scott McIntosh, and Eric Swanson have recently published papers in *Journal of Trauma* and *American Journal of Emergency Medicine*.

“Cricothyrotomy in Air Medical Transport” was published in *Journal of Trauma* in June by Scott McIntosh, Eric Swanson, and Erik Barton. The study reports a review of 14,994 air medical transports and 17 cricothyrotomies performed during these transports. Seven of the patients receiving cricothyrotomy survived, while 10 died during the procedure or during hospitalization. They conclude that air medical personnel have a high success rate with this procedure, which is as high as or higher than that of other emergency personnel. Their abstract has been included (see adjacent box).

“Amyand hernia: a case of an unusual inguinal herniace,” by Gerry Doyle and Christy McCowan, appeared online on June 3 in *American Journal of Emergency Medicine*. The article describes the case report of a 50-year-old male diagnosed with an Amyand hernia, an uncommon variant of an inguinal hernia.

Additionally, faculty and residents have recently had papers accepted for publication. Scott McIntosh, Eric Swanson, Anna McKeone (PGY3), and Erik Barton had “Location of Airway Management in Air Medical Transport” accepted by *Prehospital Emergency Care*.

“Risk Assessment in Winter Backcountry Travel” was accepted by *Wilderness and Environmental Medicine*. The authors are Natalie Silverton (PGY 2), Scott McIntosh, and Han Kim.

Cricothyrotomy in air medical transport

McIntosh SE, Swanson ER, Barton ED. *J Trauma* 2008 Jun;64(6):1543-7

BACKGROUND: Airway management is an essential skill for air medical transport (AMT) providers. The endpoint of airway maneuvers is a cricothyrotomy which may be live-saving if other measures fail. We reviewed cricothyrotomy cases in our AMT program to evaluate the success rate and the circumstances surrounding the procedure.

METHODS: This was a retrospective review of cases in which a cricothyrotomy was performed at the University of Utah AirMed flight program during the years of 1995 to 2004. Data included incidence, indications, complications, neurologic outcome, and success rates of the procedure.

RESULTS: Of the 14,994 transports during the study period, 17 cricothyrotomies were performed. Airway obstruction by blood and/or vomit was the most frequent indication (47%) followed by airway edema/distorted anatomy (24%). The total number of cricothyrotomies decreased during the study period. Seven (41%) patients survived with a reasonable neurologic outcome. The remaining 10 patients died during initial treatment or subsequent hospitalization. Success rate of the procedure in our series was 100%. These results were compared with those of other cricothyrotomy studies.

CONCLUSION: Cricothyrotomy has become less common as an emergency rescue technique. However, AMT personnel have a high success rate when performing the cricothyrotomy procedure. This rate is as high as or higher than other emergency personnel.