

Yosemite

Yosemite National Park has the single highest call-volume of technical rescues in any of the National Park Service areas. Due to the high call-volume and varied types of rescues as well as the unique problems associated with big wall rescues, Yosemite National Park formed a rescue team known as YOSAR (Yosemite Search And Rescue). The YOSAR team is available 24 hours a day, 365 days a year. The organization is a community-based team with National Park Service rangers at the foundation.

Search & Rescue

In July 2009, I set off for a two week Wilderness Medicine rotation in Yosemite National Park working with the YOSAR team. The rotation is for medical providers, such as physicians and midlevels, to expand their wilderness medicine skills and gain experience in the search and rescue milieu. In return, medical lectures and training are given to the rangers and volunteers. The calls were varied- from simple dehydration to death and everything else in between. One of the most interesting days was not exactly medical, but really highlighted the skill and professionalism of the YOSAR team.

On July 14th, I joined the YODOGS, a team of volunteer search dogs, to search for a missing body. The body was that of a German tourist who had fallen into the Merced River two months earlier. The headlines read, "Woman falls into Merced, presumed drowned" (May 18, 2009). During a violent thunderstorm on May 18th, a female hiker fell from the Mist Trail into the raging Merced River, which was at peak spring runoff. Her family witnessed her fall. The water was approximately 43 degrees, and the spring snowmelt had made this stretch of the river into class V rapids. Initial search efforts were futile.

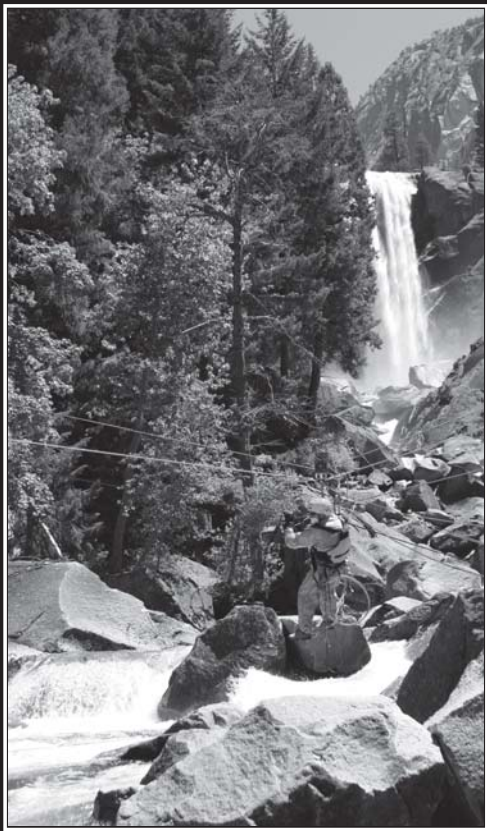
The water level had gone down significantly, by a factor of 10, since its peak in May. This was hard to believe, as the river was still raging. While searching with the YODOGS, I was on the opposite shoreline scanning the river's edge along the trail with binoculars. While

A Message From The Division Chief



Erik Barton, MD, MS, MBA

"Adapt, overcome, improvise..." has often been the motto for the military in dealing with the challenging environment of war. We often feel the same here in the Emergency Department! From the swine flu (aka: H1N1, novel flu strain, "the pandemic of 2009", etc.) to "white powder" scares in our department, we are often faced with unfamiliar episodes, patient surges, and challenging events. One of the things that I am most proud of is the initiative, industry, and imagination of each and every one of our faculty and staff displayed every time one of these episodes occurs! For example, the hospital "Flu Clinic" that is planned to start as early as November 1st is completely staffed by our ED personnel...stepping up to provide that extra service when needed most. Please join me in giving our front-line folks a hearty "thank you" for being able to adapt, overcome, and improvise on a daily basis!



YOSAR team member preparing for rescue

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DATES TO REMEMBER

- Western States Winter Conference • Jan 31 - Feb 4, 2010 • hosted by the Univ of Utah •
- AAEM Scientific Assembly • February 2010 • Las Vegas, Nevada •
- MedWARS Utah • February 18, 2010 • Park City, Utah •
- Western Regional Meeting • March 2010 • Sonoma, California •
- National EMS Week • May 16-22, 2010 •

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panning across the river, a strange looking object caught my eye. At first I thought it looked like a rock with orange lichen, but after looking at it further, I knew it was a partially submerged body. It was wedged between a rock and a log in a swift water section of the river approximately 150 yards downstream from the point where she was last seen. After reporting my findings to command, final confirmation was made that it was indeed a body. At this point, the complex planning for the body recovery began. The river was too swift and treacherous to enter the water, so it was decided a highline would be used.

The following morning, two drooping high lines were used in the recovery operation – one for the rescuer and one for the body. Park forestry personnel, using tree climbing equipment, established the anchor points for the high lines about 80 feet up the cedar trees located on each side of the river. With YOSAR teams on both sides of the river, we were able to control the rescuer's movements up and down, side-to-side, and front to back. Without much difficulty, the rescuer was able to snare the body and it was pulled from the river. After two months, the decomposition was not as much as I had expected. This was probably due to the body being submerged in fast moving forty degree water. The Mist Trail along the Merced River was closed for approximately one hour during the recovery. Sixteen technical rope rescue personnel participated in the operation. The recovery went well without any further loss or injury, thus a success for YOSAR and closure for her family.

This was an amazing experience that I won't soon forget. Below are the websites to Yosemite National Park and YOSAR. <http://www.friendsofyosar.org/rescues/rescues.html> & <http://www.nps.gov/yose/>
-By Marion McDevitt, DO

International EM Rotation



Here at the University of Utah we have begun collaborating with Canterbury Health to send our residents to Christchurch Hospital in the southern island of New Zealand. Our second and third year residents are treated as senior "registrars" there; meaning they are given all the responsibilities of senior emergency medicine physicians.

Christchurch hospital has a bustling ED with around 75,000 patient visits per year and an 80% admission rate. The city itself is the largest in the south island and the only large trauma center. New Zealand's health care system is government run and very similar to the United Kingdom's system.

During my month long rotation, in September of 2009, I was engulfed in a completely different health care system; and in my experience, forced to question our own style of emergency medicine practice. For example, in New Zealand the physical exam is paramount, CT scans are rare, 80% of all ED patients are admitted, and consults are called based on acuity of illness rather than a diagnosis and often within minutes of patients arriving in the ED.

Overall, the experience has afforded me the luxury of analyzing my own practice. I don't think I would have ever been able to do that without this experience of a totally different system. I was the first resident to do this rotation and found it to be invaluable. -By Mike Mallin, PGY3

YODOG Rescue Dog



ANNOUNCEMENTS & AWARDS

- Scott McIntosh, MD is the Summit County Medical Director**
- Erika Schroeder, PGY3 was elected the Vice-Chair of the EMRA International Medicine Interest Group**
- Susan Stroud, MD was awarded the SAEM Assistant Program Director's Award**
- Eric Swanson, MD was awarded the Air Medical Physician's Association Distinguished Physician Award**
- Scott Youngquist, MD was awarded the Young Investigators Award from the American Heart Association**



Making pizza at the Opening Social in September

early exposure among medical students to the field of emergency medicine; improving research opportunities for medical students; creating teaching opportunities for residents; and improving preparation for fourth year of medical school and the match. To this end, we have several activities, lectures and labs planned.

In September we had a fantastic opening social, hosted by Dr. Susan Stroud with wonderful attendance by students, residents and staff. November will mark the inception of Medial Student Journal Club, where residents will teach the basics of evidenced based medicine using core journals from the Emergency Medicine literature, as well as discuss topics such as "the undifferentiated patient," ACLS, ATLS, "tubes and lines," and disaster triage. Other lectures throughout the year include: Scheduling your fourth year and away rotations; Faculty Talk on choosing EM; How to succeed on your EM and away rotations; How to succeed in fourth year and the Match, as well as the annual post-match panel discussion by graduating fourth year students.

This year we are also starting the Resident-Student mentorship program. Each interested medical student will be paired with an emergency resident, who will be available to meet and offer advice about choosing this specialty, how to match, as well as to shadow in the ED.

And last, look for changes to the EMIG section of our Division home page, with information about research opportunities and links to articles and interesting cases. We look forward to a fun and productive year! -By Courtney Wilson, PGY2

R e c e n t P u b l i c a t i o n s

Dart RC, Borron SW, **Caravati EM**, et al; Antidote Summit Authorship Group. Expert Consensus Guidelines for Stocking of Antidotes in Hospitals That Provide Emergency Care. *Ann Emerg Med*. 2009 May 5.

Milne M, **Crouch BI**, **Caravati EM**. Buprenorphine for opioid dependence. *J Pain Palliat Care Pharmacother*. 2009;23(2):153-5.

Gee C, **Phanthavady T**, **McGuire T**, **Bledsoe J**, **Madsen T**. New Generation CT Scanners Demonstrate Higher Sensitivity for Subarachnoid Hemorrhage. *Ann Emerg Med* (2009) 54(3):S12-S13

Groke S, **Knapp S**, **Dawson M**, **Strate L**, **Stroud S**, **Davis V**, **Hartsell S**, **Bledsoe J**, **Sturges Z**, **Madsen T**. Evaluating Applicants to a New Emergency Medicine Residency Program: Characteristics of Applicants Who Used the Electronic Residency Application Service Vs. Applicants Who Did Not. *Ann Emerg Med* (2009) 54(3):S10

Groke S, **Zink A**, **Bennett A**, **Knapp S**, **Phanthavady T**, **Bledsoe J**, **Madsen T**. Factors Predicting Return Visits Among Emergency Department Patients With Psychiatric Complaints. *Ann Emerg Med* (2009) 54(3):S46

Madsen T, Pearson R, Muhlestein J, Lappe D, Bair T, Horne, B, & Anderson, J. (In Press). Risk of nephropathy is not increased by the administration of larger volume of contrast during coronary angiography. *Critical Pathways in Cardiology*.

Madsen T, **Bledsoe J**, **Bossart P**. Appropriately screened geriatric chest pain patients in an observation unit are not admitted at a higher rate than nongeriatric patients. *Crit Pathw Cardiol*. 2008 Dec;7(4):245-7.

Madsen T, **Bledsoe J**, & **Bossart P**. Physician documentation of nonspecific EKG changes predicts hospital admission among observation unit chest pain patients. *Critical Pathways in Cardiology*. 2009 Mar;8(1): 34-7.

Madsen T, **Bledsoe J**, **Bossart P**. Observation unit admission as an alternative to inpatient admission for trauma activation patients. *Emerg Med J*. 2009 Jun;26(6): 421-3.

Madsen T, **Bennett A**, **Groke S**, **Zink A**, **McCowan C**, **Hernandez A**, **Knapp S**, **Byreddy D**, **Mattsson S**, & **Quick N**. (In Press). Emergency department patients with psychiatric complaints return at higher rates than controls. *Am J Emerg Med*.

Madsen T, **Bossart P**, **Bledsoe J**, **Bernhisel K**, **Cheng M**, **Mataoa T**, **Bartlett J**, **McKellar A**, **Rivas W** & **Quick N**. (In Press). Patients with coronary disease fail observation status at higher rates than patients without coronary disease. *Am J Emerg Med*.

Madsen T, **Dawson M**, **Bledsoe J**, & **Bossart P**. (In Press). Serial hematocrit testing does not identify major injuries in trauma patients in an observation unit. *Am J Emerg Med*.

Madsen T, **Mallin M**, **Bledsoe J**, **Bossart P**, **Davis V**, **Gee C**, & **Barton E**. Utility of the emergency department observation unit in ensuring stress testing in low-risk chest pain patients. *Critical Pathways in Cardiology*, 2009 Sep(8), 122-4.

Mallin M, & **Madsen T**. (In Press). A novel technique for ultrasound-guided supraclavicular subclavian cannulation. *Am J Emerg Med*.

Shah AP, Niemann JT, **Youngquist S**, et al. Plasma endothelin-1 level at the onset of ischemic ventricular fibrillation predicts resuscitation outcome. *Resuscitation*. 2009 May;80(5):580-3. Epub 2009 Apr 10.

Youngquist ST, et al. The central nervous system cytokine response to global ischemia following resuscitation from ventricular fibrillation in a porcine model. *Resuscitation*. 2009 Feb;80(2):249-52. Epub 2008 Oct 26.

Youngquist ST, Henderson DP, Gausche-Hill M, Goodrich SM, Poore PD, Lewis RJ. Paramedic Self-efficacy and Skill Retention

tion in Pediatric Airway Management. *Acad Emerg Med*. 2008 Oct 25. [Epub ahead of print]

RECENT GRANTS

Troy Madsen (PI), **Virgil Daves (PI)** 07/01/2009 - 06/30/2010
University of Utah Medical Group
Evaluation of Emergency Department Observation Unit Protocols for Efficacy and Compliance
The major goal of this project is to evaluate the chest pain and trauma protocols in the Emergency Department Observation Unit (Extended Care Unit). We are evaluating these protocols for appropriate risk stratification of patients, potential complications or missed injuries, and the efficacy of physician assistant-performed Focused Abdominal Sonography in Trauma (FAST) on patients under observation.

Gary Donaldson (PI), **Troy Madsen (Co-investigator)**
07/17/2009 – 06/20/2011
NIH National Institute of Nursing Research, R21 NR010778--01A2
The Visual Time Analog Scale for Enhanced Measurement of Acute and Chronic Pain
The broad objective of this application is to improve measurement of pain in the behavioral and health sciences by developing a novel assessment method and demonstrating its feasibility in patients with acute and chronic pain.

Consultant / Humanitarian Awards

Leina Brady

Nurse ER

Melissa Crebs

Nurse ER

Darin Johnson

Tech ER

Mark Mahwhinney

Surgery

Sri Tantrahavi

Medicine

Kevin Walker

Neuro



MedWAR
Utah

February 18, 2010

<http://www.medwar.org/utah/>

New Nurse Manager

My name is Julie Schmidt. I am the new nurse manager for the Emergency Department. I was born and raised in Bountiful, Utah and relocated to Maryland in 1986. I began my nursing career after graduating with my ADN. My first job as a nurse was at the R Adams Cowley Shock Trauma Center, University of Maryland in the Multi Trauma ICU. I continued to work in the Emergency Department and critical care units. After moving our family back to Utah I started with the University of Utah in 2003 as a staff RN. I obtained my BSN here at the College of Nursing at the University of Utah. After my most recent position as the CNC at the Orthopaedic Clinics I have come back to where it all began. My first love is trauma and emergency.

I commute to work from Coalville where I live with my husband and our three children. People often comment on the long commute but it is worth every minute. The bucolic community, serenity and views that we are afforded are priceless. My husband, Duane, is the mayor of Coalville and also operates Humpty Dumpsters. Our oldest son, Zachary, is employed here at the University of Utah. Our daughter, Brianna, is a senior in high school and lucky to be alive. She suffered a traumatic brain injury as well as many other injuries after an ATV accident in May of this year. Our youngest son, Matthew, is a junior in high school participating in football, wrestling and baseball. I enjoy many activities with our family and love the outdoors.



It's exciting to be back in the Emergency Department. I am committed to the patients, staff and physicians of the University. I look forward to many years of success as an integral part of this department. I am always available for your questions, comments and concerns.

-By Julie Schmidt, BSN, RN

January 31-February 4, 2010



P A R e s e a r c h

The midlevel providers in the Emergency Department are currently involved in several research projects involving the ED Extended Care Unit (formally known as ED Observation Unit) . Kelly Sherwood, PA-C, MPAS has taken over coordination of midlevel research projects in cooperation with Dr. Troy Madsen, Research Director for the Division of Emergency Medicine. Current projects underway include:

1. Evaluation of fasting lipid profiles and an associated questionnaire on all ECU chest pain admits to assess the feasibility of starting patients identified with elevated cholesterol with risk factors for heart disease on antihyperlipidemic medication.
2. A FAST ultrasound protocol that has trained the ED PAs in performing ultrasound FAST exams. The next phase will be studying the efficacy of repeat FAST exams on Trauma patients admitted to the ECU.
3. A descriptive review for publication on the utilization of midlevel providers in staffing an emergency department observation unit.
4. An ECU study that will assess satisfaction with the midlevel providers in the ECU among patients, consultants and ED physicians.

-By Steve Sugerman PA-C, MPAS