

First Line Newsletter

A Quarterly Newsletter

Volume VI, Fall 2008



Thoughts from the Editor Ellyn Meshel MD, BCEM,ABIM

We hope to see some of our members at the AAFP Emergency and **Urgent Care Course in Jackson**ville, Florida on October 22-26, 2008. At last year's conference, we were treated to an enlightening talk by Antonio Dajer MD recounting his first hand experiences on 9/11/ 2001 near Ground Zero. We have lined up another great speaker, Carlos Camargo MD, to give a lecture entitled "Workforce Issues: The Family Physicians Place in the World of Emergency Medicine" for this year's conference. This is also a great opportunity for your CME needs. You can register for the course, if interested, at http://www.aafp.org/online/en/hom e/cme/aafpcourses/clinicalcourses/e mergencycare.html In addition, please come to the AEP booth and meet with the board members. Let us know what issues you feel are important and should be pursued by the board of directors.

It's election time again! You should be receiving an e-mail ballot for the election of new and returning board members this week. Please return your ballots in a timely manner. We look forward to an exciting year and an infusion of great new ideas from our board of directors.

AEP will continue to support legislative issues that are extremely important to our membership. We will continue to fight for the continued recognition of the Board of **Certification in Emergency Medi**cine (BCEM) in Florida for those AEP members affected by this issue. While at the Florida legislature, we will also support the passage of a Prescription Monitoring Program that has been defeated for the last several years. In addition, the board is interested in exploring rural health initiatives which will impact a significant portion of our membership. Another issue that affects all practicing physicians is how to treat the "frequent fliers". These patients are getting inadequate and quite expensive care for these chronic ailments. AEP will be working on a proposal for attempting to curtail this inappropriate behavior that will require the collaboration of emergency physicians, primary care physicians and healthcare systems nationwide.

Stop by our booth at the conference and give us your thoughts, as we are in the preliminary stages of drafting this proposal. Please let us know of other legislative issues that impact your practice and how we can be of assistance.

For legacy physicians that are members of ACEP (non-emergency medicine residency trained, non-**American Board of Emergency** Medicine certified and initially members of ACEP prior to 12/31/ 1999), you might be eligible for a fellowship in ACEP. This option is being challenged but AEP board members, Luis Saldana MD and John Newcomb MD will be at this month's ACEP Scientific Assembly to maintain the fellowship as a viable option. We appreciate their efforts on behalf of the AEP members that will be impacted by this action. If you are interested in an ACEP fellowship, please see if you meet the criteria for option 2 at: http://www.acep.org/ACEPmembe rsh

ip.aspx?id=23254

We are hoping that some of you will become more involved in AEP and consider becoming a fellow of the organization. This is a great opportunity to show your commitment to AEP, your primary hospital, continuing education and emergency medicine as a whole. Please see our website for further details at

http://aep.org/fellowship.asp

Members should also visit our website at <u>www.aep.org</u> for more details on some included benefits of membership. Please take advantage of our discounted CME opportunities and CME recognition awards. Please report any broken links to the AEP webmaster via our website contact information.

Please send any articles, pearls of wisdom or items of interest for the First Line newsletter to me at <u>emeshel@ftc-i.net</u>

Please see schedule for upcoming AAFP Emergency and Urgent Care Course below:



October 22-26, 2008 Jacksonville,FL

Visit <u>www.aafp.org</u> to register.

Note: Course content and times are subject to change.

Tuesday, October 21, 2008

5:00 p.m. - 8:00 p.m. Registration

Wednesday, October 22, 2008

7:00 a.m. - 8:00 a.m. General Registration

7:15 a.m. - 7:45 a.m. Breakfast Provided

- 7:45 a.m. 8:00 a.m. Welcome and Overview
 Robert Dachs, MD
- 8:00 a.m. 8:45 a.m. Acute Allergic Reactions, including Anaphylaxis - Robert J. Dachs, MD
- 8:45 a.m. 9:15 a.m. Is it Flu, Bronchitis or Pneumonia? - Steve Playe, MD

- 9:15 a.m. 9:30 a.m.Q&A/Panel Discussion
- 9:30 a.m. 9:45 a.m. Break
- 9:45 a.m. 10:15 a.m.Infectious Disease Update CA-MRSA Update - Steve Playe, MD
- 10:15 a.m. 10:45 a.m. Meningitis and Encephalitis Bud L. Higgins, III, MD, FACEP
- 10:45 a.m. 11:15 a.m. Stop Spreading Microbes: What Health Professionals Need To Do - Steve Playe, MD
- 11:15 a.m. 11:30 a.m. Q&A/Panel Discussion
- 11:30 a.m. 11:45 a.m. Break
- 11:45 a.m. 12:30 p.m. Sepsis and Goal Directed Therapy - Mark A. Graber, MD
- 12:30 p.m. 12:45 p.m. Q&A/Panel Discussion
- 12:45 p.m. 2:00 p.m. Lunch Provided
- 2:00 p.m. 5:20 p.m. Breakouts:
- Roadside and Inflight Emergencies Robert J. Dachs, MD
- Toxicology Today James Ducharme, MD
- A Potpourri from the Sea Steve Playe, MD
- Look What Medicare is Planning for You? P4P, Physician Profiling and More - Robert Hatlelid, MD
- The Patient with Elevated Blood Pressure -Bud L. Higgins, III, MD, FACEP
- Difficult Patient Encounters: The "Frequent Flyer", Agitated Patients and Others - Mark A. Graber, MD

Thursday, October 23, 2008

- 7:15 a.m. 7:45 a.m. Breakfast Provided
- 7:45 a.m. 8:15 a.m. Mandatory Reporting Laws - Jay Elias, JD
- 8:15 a.m. 8:45 a.m. CHF: Evaluation and Management - Mark A. Graber, MD
- 8:45 a.m. 9:00 a.m. Q&A/Panel Discussion
- 9:00 a.m. 9:15 a.m. Break
- 9:15 a.m. 9:45 a.m. Radiology and Radiation Exposure: Truth and Consequences - James Ducharme, MD
- 9:45 a.m. 10:15 a.m. The PERC Rule and Pulmonary Emboli - Robert J. Dachs, MD
- 10:15 a.m. 10:45 a.m. Does This Patient with Headache Need a CT? - James Ducharme, MD
- 10:45 a.m. 11:00 a.m. Q&A/Panel Discussion
- 11:00 a.m. 11:15 a.m. Break
- 11:15 a.m. -12:15 p.m. Best of the Medical Literature I Robert J. Dachs, MD; Rebecca Jeanmonod, MD; James Ducharme, MD; Mark A. Graber, MD; Bud L. Higgins, III, MD, FACEP
- 12:15 p.m. 1:30 p.m. Lunch Provided
- 1:30 p.m. 4:50 p.m. Breakouts:
- Irregular Beats and Buzzes: Arrhythmia Identification and Implantable Defibrillators - Bud L. Higgins, III, MD, FACEP
- Complications of Body Art Steve Playe, MD
- C-Spine Evaluation in Trauma Mark A. Graber, MD
- Complicated Pain James Ducharme, MD

- Consent, Capacity and Medical-legal Conundums - Jay Elias, JD
- Orthopedic Controversies of the Upper Extremity - Rebecca K. Jeanmonod, MD

Friday, October 24, 2008

- 7:15 a.m. 7:45 a.m. Breakfast Provided
- 7:45 a.m. 8:15 a.m. Amputation: Managing People and Their Parts - Rebecca K. Jeanmonod, MD
- 8:15 a.m. 8:45 a.m. Transfusion Medicine: The Basics and the Essentials - Bud L. Higgins, III, MD, FACEP
- 8:45 a.m. 9:00 a.m. Q&A/Panel Discussion
- 9:00 a.m. 9:15 a.m. Break
- 9:15 a.m. 12:30 p.m. Seminars
- Procedural Sedation Robert J. Dachs, MD
- Chest Pain Evaluation James Ducharme, MD
- ENT Procedures Rebecca K. Jeanmonod, MD
- Non-stroke Related Neurologic Emergencies - Mark A. Graber, MD
- 12:30 p.m. 1:45 p.m. Lunch On Your Own
- 1:45 p.m. 5:00 p.m. Seminars:
- Common Opthalmic Problems John Creasman, MD
- Orthopedic Physical Examination Pearls: The Shoulder and Knee Exam - Mark S. Williams, DO and Jennifer Roth, MD

- Pearls from the Pediatric Literature Robert J. Dachs, MD and Bud L. Higgins, III, MD, FACEP
- Dental Emergencies Kip Benko, MD
- Paid Optional Session (separation registration and fee required)
- 5:45 p.m. 8:15 p.m.
 Local and Regional Anesthesia Workshop (Box dinner provided to registrants of this session)
 James M. Marinucci, PhD; Katherine Doug-

lass, MD; Amy Keim, PA-C

- Saturday, October 25, 2008
- 7:30 a.m. 8:00 a.m. Breakfast Provided
- 8:00 a.m. 8:45 a.m. Baby Hearts: What You Need to Know - Rebecca K. Jeanmonod, MD
- 8:45 a.m. 9:30 a.m. Pediatric ER Rashes -Amber Isley, MD
- •
- 9:30 a.m. 9:45 a.m. Q&A/Panel Discussion
- 9:45 a.m. 10:00 a.m. Break
- 10:00 a.m. 11:00 a.m. Best of the Medical Literature II - Robert J. Dachs, MD; Rebecca K. Jeanmonod, MD; James Ducharme, MD; Mark A. Graber, MD; Bud L. Higgins, III, MD, FACEP
- 11:00 a.m. 11:15 a.m. Q&A/Panel Discussion
- 11:15 a.m. 11:30 a.m. Break
- 11:30 a.m. 12:15 p.m. Workforce Issues: The Family Physicians Place in the World of

Emergency Medicine - Carlos Camargo, MD

- 12:15 p.m. 12:30 p.m. Q&A/Panel Discussion
- 12:30 p.m. 1:45 p.m. Lunch on Your Own
- 1:15 p.m. 7:30 p.m.
- <u>SAM Health Behavior (extra fee and sepa-</u> rate registration)
- 1:45 p.m. 5:15 p.m.
- Optional Sessions

Sunday, October 26, 2008

- 7:00 a.m. 1:30 p.m.
- <u>SAM-Depression (extra fee and separate</u> registration)
- 8:00 a.m. 11:30 a.m.
- Optional Sessions
- 11:30 a.m. Adjourn
- OPTIONAL HANDS-ON SESSIONS
- Joint Injection / Joint Aspiration -- Saturday, October 25, 1:45 p.m. - 3:30 p.m.
- <u>Basic Suturing</u> -- Saturday, October 25, 1:45 p.m. - 5:15 p.m.
- <u>Slit Lamp</u> -- Saturday, October 25, 1:45 p.m. - 5:15 p.m. or Sunday, October 26, 8:00 a.m. - 11:00 a.m.
- <u>Common Fracture and Splinting Tech-</u> <u>niques</u> -- Sunday, October 26, 8:00 a.m. -11:30 a.m.
- <u>Advanced Suturing</u> -- Sunday, October 26, 8:00 a.m. - 11:30 a.m.
- <u>Airway Management: Who, When and How</u> <u>the Airway Should be Secured</u> -- Saturday, October 25, 1:45 p.m. - 5:45 p.m.

- Local and Regional Anesthesia Workshop
- -- Friday, October 24, 5:45 p.m. 8:15 p.m.
- Note: Breakfast provided Wednesday through Saturday.

In A Place Far, Far Away !!!



SANAE IV By Dr. Ross Hofmeyer

Welcome to my Emergency Department. Local population: 10 to 100, dependent on the season. Staff: 1. Nearest referral hospital: 4500 km (2800 miles), but no referral, transfer or evacuation possible for 8 months each year. Welcome to SANAE IV, Antarctica. SANAE IV is the current yearround research station of the South **African National Antarctic Expedi**tion. An original signatory of the **1959** Antarctic Treaty which put territorial claims on ice, and dedicated the White Continent to peaceful scientific research, South Africa is a member of a fraternity of around 20 other countries which maintain year-round stations in Antarctica, using the unique conditions as a massive laboratory for research in diverse sciences – physics, geomorphology, geology, glaciology, biology, space weather, astronomy, astrophysics, magnetoand ionospheric observations, meteorology and medical research. Nothing is simple in Antarctica, however. Research teams across the continent, which equals the USA in surface area, have to contend with living in the harshest environment on Earth. Unlike the Arctic, which is essentially a sea of ice surrounded by land which modulates the temperature, Antarctica is a land mass mostly covered by kilometers thick ice surrounded on all sides by thousands of miles of open ocean, which isolates it from the rest of the globe

and makes conditions extremely severe. It is the coldest place on the surface of the planet, with temperatures dipping towards -90°C (-130°F) near the South Pole; the windiest by far, with hurricaneforce winds an almost weekly phenomenon; the highest, averaging 1860m (6100 ft) above sea level; and despite having more than 70% of the planet's fresh water trapped as 97% of the world's ice, it is the greatest desert with the Dry Valleys area of Antarctica having not seen precipitation in millions of years. During the frigid darkness of the austral winter, the sea around the continent freezes for hundreds of kilometers, doubling its surface area. Even in the height of summer, less than 2% of the land surface is not covered by ice and snow. Against this backdrop, it is unremarkable that Antarctica has no indigenous population. Less than 1000 people are to be found on the entire continent in the winter, scattered amongst the isolated research stations like tiny candles in the perpetual darkness; during summer this number swells to somewhere over 4000 as the influx

of summer field researchers, support and logistics personnel, and a rapidly increasing number of tourists (more than 40,000 in the last year) head south to enjoy the fine weather ('barely' subzero) and long hours of sunlight.



SANAE IV on Vesleskarvet

Typically, the national research bases are situated around the coast. A plethora are to be found along the Antarctic Peninsula, which reaches a long curved finger towards South America, crossing out of the Antarctic Circle and sustaining far warmer temperatures and much more life during summer. A handful of nations, such as South Africa, Russia and Norway, have bases slightly further inland, but still within striking distance of the coast to allow resupply. There are

only a few bases in the far interior the American station at the South Pole, Amundsen-Scott, and Russian Vostok Station (where the worldrecord low of -89.6°C or -129°F was recorded) are prime examples. The massive East Antarctic Ice Sheet is several kilometers thick (the enormous mass of ice has actually forced the underlying tectonic plate deeper into the magma below) placing most stations on the high plateau at more than 3000m (10,000 ft) altitude, and thus vulnerable to much lower temperatures than found on the coast. The rewards for braving the otherworldly conditions on the plateau in the interior are numerous. For instance, the altitude and clear, cold air make this an ideal location for astronomy, and ice-core drilling of the 3 km thick ice sheet has allowed amazing insight into the nature of our atmosphere over millennia. However, the risks are multitudinous. Stations near the pole experience 6 months of perpetual darkness through winter, and are completely isolated from the rest of the world. Flying into Antarctica in the winter is a nearimpossibility; indeed, it has been

suggested that it is logistically simpler to evacuate a casualty from the International Space Station than from Antarctica in winter. While many would find providing medical care in this environment incredibly daunting, for a handful of adventurous medics it is a dream come true.



Aurora over SANAE IV

My interest in Antarctica began as a child, when I first heard and read the stories of the epic explorers. Beyond the tales of heroism and dedication, I detected the undercurrent of wonder. Here was a place which brought the dry and stoic Shackleton to observe that "We had pierced the veneer of outside things... grown bigger in the bigness of the whole. We had seen God in all his splendor, heard the text that Nature renders." Antarctica often left my boyhood hero, naturalist David Attenborough, speechless. I think I always knew that I would find a way to journey to the continent, to welcome its wildness into the wild place in my own heart, and to witness firsthand what Admiral Richard E Byrd described as "...a feeling which transcended reason; that went to the heart of man's despair and found it groundless."

Born and raised in the heat of Africa, albeit at the cosmopolitan tip, South Africa, my dreams of exploration were shelved for years of medical study at the University of Stellenbosch in Cape Town. During my studies, volunteering on the local ambulance service gradually developed into a deep interest in acute medicine. Fortunately, South Africa affords undergraduates a potent combination of Third World patterns of disease and First World medical training. A keen student can gain experience extremely rapidly. As a native Capetownian, I stayed in the Mother City to complete my internship and community service years, selecting rotations with as much emergency medicine, surgical and critical care experience as possible, with an eye to pursuing specialization in one of these fields. I became an ATLS instructor and volunteered with the mountain/wilderness search and rescue team. Thoughts of career progression were dominant, and thoughts of distant adventure relegated to the back of my mind. One day, however, I came down from a mountain hiking trip to find a message on my phone from the hospital superintendent. The South African **National Antarctic Expedition was** looking for a doctor for the next expedition, and he wanted to put forward my name. Immediately, I was enthusiastic, although it was only later that I realized the scope of what I was embarking upon.

Like other countries who have year-round stations, the US and British Antarctic Survey, for instance, South Africa deploys overwintering teams for a bit more than a year at a time. The new team arrives at the beginning of summer, taking over responsibilities gradually, and then manages the base

and scientific equipment through the winter, before handing over the next summer. Teams vary dramatically in size (at SANAE IV we are a group of 10, whereas the **USA's MacMurdo station has** around 250 through the winter) and comprise two basic groups: the scientific researchers and the support personnel including engineers, mechanics, administrators, and, of course, a medic. Typically, this is a doctor. In winter, evacuation is not an option and any medical problems which arise must be treated on site, usually with limited equipment, and usually by the solo practitioner.

There are no published common standards for selecting an Antarctic expedition doctor, but there are certainly common themes observable. Most expeditions favor some form of surgical experience, with an emphasis on trauma, and good general practice and general medicine knowledge is essential. Participants in the expeditions are usually very thoroughly vetted prior to departure, but still the majority of the medical case load is similar to a general practice. Mi-

nor respiratory and GI tract ailments are common. In addition, bumps, scrapes and scratches are regular occurrences. Psychological problems pertaining to the isolation and physiological disturbances of working in such an unusual environment for long periods in close quarters with other personnel are frequent. Sleep disturbances due to the perpetual daylight in summer and darkness in winter are the most ubiquitous diagnosis. Contrary to expectation, local and systemic cold injuries such as frostbite, hypothermia, and other environment-specific illnesses like snow-blindness are notably uncommon because of the prominent educational programs for expedition staff. The most prevailing concern is that of significant trauma through ice-related falls, cargo handling, etc. and hence the preference towards doctors with good trauma experience. Clearly, the broad skills of the emergency physician are well suited to this practice environment. Other 'peripheral' skills common in EPs which are of value on the continent are experience with disaster planning and mass-casualty incidents,

aeromedical skills, and the ability to use outside assistance via forms of telemedicine successfully.

I was fortunate that my own background fit the profile and barely before I was able to draw a breath, I had accepted the position of expedition doctor and team leader for the 47th SANAE expedition. After a few brief months of preparation (it's a blur now but I recall telling myself on a regular basis that I would sleep once aboard the ship), we departed on a warm December day from Cape Town aboard the research and supply vessel SA Agulhas. An additional duty, albeit a very pleasurable one, was that I served as the ship's doctor to the 140 passengers and crew for the southbound voyage. This proved longer than expected, as the ship became firmly stuck in the pack ice until after Christmas. But at the turn of the new year, we arrived at the towering ice shelf and flew 160 km (100 miles) inland to SANAE IV by helicopter. We knew that we would not be leaving until March, 15 months later.

As suggested by the name, this is the fourth SANAE base. The first three were built on the ice shelf and were gradually buried by snow and crushed in the ice which forced them to be decommissioned (much like the older Amundsen-Scott base is being decommissioned now in favor of a new design). To escape this fate, SANAE IV was built inland atop a nunatak (mountain peak projecting through the ice cap) known as Vesleskarvet in the **Oueen Maud Land region. Several** other nations have bases in this area. The German research station, Neumayer II, and Norwegian station, Troll, are to be found about 200 km (125 miles) west and east of SANAE. Despite these 'neighbors', we are essentially isolated as to make an overland voyage to either station is a journey fraught with danger from crevasses and severe weather conditions. During the brief summer, however, the base population swells from 10 to nearly 100 persons and a local air network is established to move personnel and supplies. As a central location, SANAE is equipped with a larger than average medical

facility in order to provide medical support.



SANAE IV clinic

'My' emergency department consists of three main rooms. A consulting room/office is equipped with the usual items: examination table, basic diagnostic equipment, computer, and modest medical library in a bookshelf. An interconnecting door leads to the clinic area, which contains a single hospital bed with non-invasive monitoring. A mobile x-ray machine allows me to perform plain films, which I develop by hand in an adjoining darkroom. Across from the bed is my 'lab' which consists of a centrifuge, light microscope and all the paraphernalia to perform smears and cell counts. We are also lucky to have a test strip based machine to perform basic blood chemistry, although unfortunately not blood gases. A small autoclave allows sterilization of equipment. The other corner of the room is dedicated to dental work with a fullsized dentist's chair, small instrument platform powered by a portable compressor and a mobile suction unit.

Leading off from the clinic area is the operating theater which doubles as a resuscitation room. Although austere, there is a basic operating table, a no-frills anesthetic machine (with one vaporizer containing halothane!), non-invasive monitoring and wall gases (oxygen and nitrous oxide). Suction is provided by mobile units and the dental light is used for additional illumination. We stock basic but versatile surgical equipment including sets for thoracotomy, laparotomy, amputation and craniotomy and

smaller 'expansion packs' for vascular surgery, skin transplants and more minor wounds. Although there is a brief period in the summer when the old and new doctors overlap, for most of the time only a single practitioner is present. For this reason, I have trained other team members to become my assistants. The radar engineer is my anesthetic 'nurse', the meteorologist is a floor nurse and a young scientist is my surgical assistant. Fortunately, we have not had reason to test this system outside of drills and practice sessions, but it has been used in other places in the past. Famously, a Russian doctor removed his own appendix under local anesthesia at the Novolazarevskaya base about 500 km (310 miles) from SANAE IV, using various teammates as assistants.

The expedition doctor in Antarctica has to be many things at the same time and requires the skills of an emergency physician, general practitioner, psychologist, surgeon, anesthetist, radiographer, dentist, pharmacist and laboratory technician. Most national expeditions include a pre-departure training program which addresses these needs, particularly the ancillary roles which are not part of most physician's experience, such as dental work and taking and developing x-rays. Emergency physicians are good candidates for this type of work where excellent diagnostic skills and a broad understanding of the full spectrum of disease can fill the void created by the absence of advanced imaging and laboratory investigations. For instance, the most serious illness I have faced during this expedition occurred when a team member developed clinical signs of meningitis a few days after evacuation of a minor dental abscess. Assisted by a diesel mechanic as my 'nurse', I made the diagnosis on clinical grounds then performed a lumbar puncture and initiated empiric treatment. In the lab, using the centrifuge, microscope and some basic equipment, I was able to establish a raised white blood count and erythrocyte sedimentation rate. I then performed a CSF stain and identified Staphylococcus as the pathogen. The patient recovered rapidly on the appropriate treatment. However, the episode reinforced my belief that as doctors (and especially emergency physicians), we should not allow ourselves to become distanced from clinical and laboratory procedural skills such as microscopy that form an integral part of acute medicine. We cannot always rely on results to arrive as if by magic on a computer screen or lab printout.

Mastering these 'alternative' diagnostic skills is highly useful in the expedition environment or any situation where an emergency physician might be practicing away from easy access to sophisticated equipment. Beyond a high level of skill in the pillars of physical examination, i.e. inspection, palpation, percussion and auscultation, there lies a great spectrum of special investigations which may be performed at or near the bedside with a minimum of equipment. Microscopy of blood and urine samples, simple stains, cell counts and recognition of common casts are all easily learned and can make a diagnosis swiftly in the absence of a 'normal' laboratory. Bedside determination of hemoglobin, hematocrit, clotting times and erythrocyte sedimentation rate are simple. In the field of medical imaging, digital x-rays have made image capture far simpler although machines are still bulky and not truly portable. But the profusion and rapidly improving quality of mobile ultrasound machines open up possibility to remote medics or those working under the constrains of a disaster response scenario.

A less serious but far more unexpected diagnosis here at SANAE IV serves to further illustrate the point. A middle-aged male member of the summer support team presented to the clinic one day complaining of continuous fatigue. Initially suspecting it was sleep disturbance manifesting due to the 24hour daylight, I nearly neglected to take a systematic history. I was taken by surprise when he mentioned nocturia, increased urinary frequency and infrequent terminal hematuria. I requested a sample, spun it down, put it under the microscope and made my first diagnosis of schistosomiasis since leaving pathology classes behind at

university. The irony of the fact that this was in Antarctica was not lost on me. He, however, was hardly surprised, coming from an area with endemic bilharzia.

At all but the largest research stations, the medical case-load is (fortunately) very light which leaves plenty of time for the doctor to explore other activities. Most are given additional duties. At SANAE IV, the doctor is also responsible for monitoring the food supplies and inspecting the sewage processing system (all human waste is processed inside the base, with only clean water as a by-product). I'm not sure whether this is better than my colleagues at the Japanese Syowa Station, who have the duty of digging the paths clear of snow after every storm! All team members take turns cooking and cleaning, as well as shoveling snow into a melting machine to generate water for the base. As the expedition leader, I am kept very busy with administrative tasks, personnel management and planning for the next summer season. Despite this, there is plenty of time to pursue hobbies,

to study and to enjoy the surrounding environment.

Antarctica is without doubt the most beautiful place I have ever been. Even when the temperature is forty below zero, it is a privilege to walk around the mountain or simply sit and listen to the ice crack as the glaciers move imperceptibly onwards. The frequent storms bring both terror and wonder, as the winds scour the landscape and static electricity sparks on every surface. The light is forever changing and it appears as if the stars are so close that one can almost touch them. There are dark skies filled with twisting aurora, the low sun setting the ice aglow with every shade of red, orange, pink and purple and the midsummer pure white glare. Simply to journey to Antarctica truly takes one beyond expectations, beyond normality, and into that place that 'transcends reason'. Although not suited to everyone, to be able to use your career as a vehicle to see the White Continent in all her moods is an opportunity beyond your greatest dreams.

For more information: More thoughts, stories, pictures and musing are to be found at Ross' blog, 'Antarctic Doctor' "<u>http://www.doctorross.co.za</u>/" Details regarding South Africa's research program in Antarctica and the sub-Antarctica islands can be found at the South African National Antarctic Program website, "<u>http://www.sanap.org.za</u>

More general information on Antarctica, and links to the various national research programs can be found by starting at "<u>http://en.wikipedia.org/wiki/Anta</u>

<u>rctica</u>

Contact Dr. Ross Hofmeyer with any questions at <u>ross@wildmedix.com</u>



The author at a nearby nunatak during the summer

ASK PAW PAW

by John Rogers MD

Dear Paw Paw:

The Director of our EMS got mad at me and my partner the other day. We picked up an old lady who was unresponsive, sweating, cold and breathing funny. Family claims they told us she was a diabetic on insulin, but I couldn't hear them too good above my Sony Walkman. Our Director got really huffy and said we were a bunch of slackers for not checking her glucose, starting an IV line and giving her some D50. We were only 9 miles away from the hospital, so we just loaded her up and took her to the ED. After all, we needed to get back to the station for dinner and to watch America's Funniest Home Videos. Besides they can do all that and check her vital signs once she gets to the ED just as well as we can.

Lazy and Sorry from Wyoming

Dear Lazy and Sorry:

Are you guys serious? You need an I-Pod! Walkmans are so "last year". I agree with your Director, if you can't upgrade your music listening accessories and start stealing songs off the Internet, you obviously don't have enough ambition in life. You should be fired immediately.

Oh, by the way, expect a call from this poor old lady's attorney. You can look forward to hours of depositions, and weeks of rest and relaxation in your county courthouse explaining yourself to 12 of your friends and neighbors. They will actually expect that you do your job which is to provide emergency medical service. After all you are part of the Emergency Medical <u>Service</u> aren't you? Isn't that why they call it EMS?

Hypoglycemia is an emergency. It should always be considered in unresponsive patients and treated promptly. Glucose is the sole energy source for the brain. And so the longer the brain goes without an adequate level, the greater the risk of neurological problems. Hypoglycemia can mimic strokes, TIA's, seizures, and psychotic episodes. Be wary and check finger stick blood sugars.

If patients are awake enough to take food or liquids orally, that should be the method used to treat low blood sugar. Sometimes giving something sweet to rapidly elevate the glucose can be given. But to achieve sustained elevations, food in the form of complex carbohydrates and protein should be given, like a sandwich or real food.

Hypoglycemia is a common problem in patients on insulin, but it can occur with oral hypoglycemics such as the sulfonylureas like Diabinase (chlorpropamide) and other conditions as well. Sulfonylureas can cause prolonged hypoglycemia, and patients who have overdoses on sulfonyureas usually should be admitted as recurrent hypoglycemia is common. Insulinomas are unique pancreatic tumors that secrete insulin and cause frequent hypoglycemic episodes. The diagnosis is made when the cpeptide fragment of insulin is elevated coincident with a low blood Measuring the c-peptide sugar. fragment distinguishes endogenous insulin from exogenous which has no measurable c-peptide fragment.

Malnourished alcoholics or small infants commonly suffer from hypoglycemia. Intravenous dextrose D50 is often used, but because of irritation of the veins, D25 is used in children and D10 in neonates. Glucagon, which can be given intramuscularly, causes conversion of glycogen to glucose. But in alcoholics, the malnourished and infants, glycogen stores in the liver are often depleted and glucagon may not work. The dose is 1 - 2 mg IM or IV.

The usual dose for IV dextrose is 0.5 – 1 gram/kg. D50 has 0.5 gram/ ml, D25 has 0.25 gram/ml and D10 has 0.10 gram/ml. High concentrations can cause pain, phlebitis and tissue necrosis if extravasated. Also D25 and D50 are hyper-osmolar. It is for these reasons that D10 is used in infants and neonates.

You guys need to decide if you want to do your job or not. If you merely want to drive a meat wagon and not care for patients, then go immediately to the nearest Oscar Mayer plant and see if there is an opening. You two should be hired on the spot since you are both full of baloney.

Paw Paw

Paw Paw answers your questions As related through his Great Great Grandson Dr. John Rogers Please send you questions for Paw Paw To Dr. Rogers at

johnrogersmd@bellsouth.net

Officers and BoD Members

Steven Henson, MD- Chairman of the Board Jeff Bates, MD - President Ellyn Meshel, MD - Co Vice President James Hayes, MD - Co Vice President Luis Saldana, MD, FAEP - Board Member John Newcomb, MD - Board Member Gregory Neyman, MD - Board Member Darryll Barksdale, DO - Board Member Ramachandran Madhavan, MD - Board Member

C. Alan Scott, MD - Board Member Janis Deitch, MLS - Office Manager

- **Executive Committee:** Jeff Bates, Steven Henson, Jan Deitch
- Electronic Media Committee (including web site): Jan Deitch, Mnason Misko
- Education Committee: Ellyn Meshel MD, Jeff Bates MD

AEP Newsletter Editorial Staff

Ellyn Meshel, MD <u>emeshel@ftc-i.net</u> Jan Deitch, MLS <u>aep@aep.org</u> Next issue will be published in Winter 2008-2009. Please contact Jan Deitch at <u>aep@aep.org</u> for submissions, issues or concerns relating to the newsletter.

Benefits:

* 10% discount on PEPID ED for your handheld Palm, Windows devices and BlackBerrys. Starting at \$144 for a one year subscription.

* 10% discount on Epocrates for your handheld Palm and Windows devices. Starting at \$134 for a one year subscription.

* 10% discount on NetCE (for your online CME needs). Over 200 credits available and courses run from \$17-\$80 (less than \$4 a credit).

* \$194 savings on Emergency Medicine Reports for 75 CME credits or less than \$4.70 a credit hour! Member price \$350 instead of \$544.

* In negotiation for a discount on Med Challenger Emergency Medicine.

* Links to free and discounted CME sites (updated every 6 months)

* Quarterly newsletter with pertinent info for emergency physicians and updates on the legal challenges facing our profession.

Future offerings will be added to the website as they become available to our members.

First Line is the newsletter of the Association of Emergency Physicians. Visit <u>www.aep.org</u> to learn how to join for only \$250 a year. Become a lifetime member for a one-time fee of \$1995 or three payments of \$750.