

To start off the adventure and learning experience I wanted to say this was a once in a life time opportunity for knowledge and experience for my development as a student and as a physician in a pre-hospital environment. This course takes one through the technical aspects of how to do and what to do if the situation demands it. It is then followed up by text book guidance of when it is appropriate to do so. The evening sessions discussed how all of medicine, especially its implementation in the expedition setting is trial and error. Significant gains in medical knowledge are not gained through intense lab research but rather through anecdotal circumstance that pre-hospital worker X used drug X while at this altitude and temperature and it produced effect Y. The use of the prescription drugs for prevention and treatment of AMS, HAPE and HACE are all used based on the experiences of other health care workers in this field. Learning those stories was the point of this trip for me.

I arrived 2 days early leaving the U.S. on Wednesday and getting there on Friday. Otago, NZ is a small, tourist town on the South Island of New Zealand with an outrageous cost of living. The landscaped looks like that of Alaska where the beautiful, clear, crisp massive lake terminates at the base of huge mountains that surround the small town and the valley of water below. I arrived to rain which was followed by snowing which after time turned into rain again. The town was quickly growing legs as everyone was running to the buses to get into the mountains for fresh powder whether it was for down-hill, cross country or snow shoeing.

Otago however was not my destination. I stayed in town for two nights sleeping in a hostel with a whole host of gender, culture, and smells. Those days before I left was spent going for a hike or long run around the lake followed by amazing food at some of the local pubs. The two nights were spent enjoying two matches of Rugby. The term Jet Lag is inadequate for what I went through that first night. It should be called Jet Stop or Jet Death-Bed. I was very exhausted yet despite the bed calling me to stay in it for two days straight, the call of NZ and adventure was greater.

Sunday arrived! This was the day of travel and meeting with the rest of the group. I rendezvoused with group at the hostel called Pinewood and boarded a bus destined for the mountains near a couple of majestic ranges and ski slopes that would find Aspen in Colorado, USA even jealous. Snow Farm Lodge was what one would find in an area that needs to be rugged but attempt to maintain safety but also be nice so people will come to it. It basically was a warehouse where they carpeted the floors. I equated it to feeling that Jack Nicholson had in "The Shining", but I was just happy it had water. I found out that this place was where they held the world championship cross country ski and Biathlon races the past several years and where many of the world came to train in complete isolation away from the things of man.

The beginning of the week focused on learning and working with sled dogs, cross-country skis and snowmobiles. We learned the care, maintenance, and instruction on use for all of them. During which we learned common issues that arose with the incorporation of these tools into the transport of ourselves as well as the patient. We conducted scenarios with them in use and one day we had the opportunity to take the dogs on a run. Hands down the best experience of the trip. My lead dog had been involved in 5 Iditarod races and was just as chipper as ever. They

are truly amazing work animals. The snow machines are amazing transport vehicles but they can get you into lots of trouble and be the cause of many of the medical emergencies that are seen when they are available. The skiing was necessary due to the creation of improvised sleds and litters while providing the experiential teaching point of the body's ability to not only generate lots of heat but also give you the possibility of a cold weather emergency even during the mid-day sun.

The more didactic sessions were on glacier and mountain movement. These included the proper use of the radio, GPS, map, stars, and compass. These were then all integrated as we took to the snow and ice and learned the correct method of evaluating a casualty, stabilizing and evacuating a casualty, roping into a team, crevasse rescue, self-arrest, pulley systems, and self-rescue out of a crevasse. During those training evolutions we employed all of the above while lowering one of our own down off a small cliff face in sort visibility during the worst blizzard we had while I was there.

The didactic sessions also included all of the cold weather emergencies such as Hypothermia, Frostbite, AMS, and all of the preventative health medical issues associated with living in close quarters on the ice. The next topics were focused on the expedition side of the house where planning, logistics, screening, insurance, customs, culture, salary, and kit were all discussed surrounding the setting up of an expedition. We all heard from the wealth of knowledge that presented there. I sat at the feet of giants as they discussed what they did to first map the Antarctic with dog sleds and the creation of the first ice camp down there near the tip of South America called Union Glacier. We discussed Land Search and Rescue (LSAR) and how to get involved with that in our area along with everything involved with the planning and implementation of rescue which will, not if, happen if you are out on the mountain or the ice.

The end of the week found us split into camp teams as we trekked out into the white landscape ready to make camp for two days and one night. We were tasked with building a snow shelter and setting up "life" for one month. We had to do the planning for kit, food, medications, etc. for that time and then divided the weight among ourselves. With all of the planning done, we set off. The time out in the mountains was breath-taking. We had one person (not in my group), develop a cold weather injury on one finger-tip and one toe. I am not sure how they ended up as time will tell with frost injuries. The sky, Southern Cross, Milky Way and the silence was amazing.

There is nothing like learning to live outside of your physical means in an environment that will take your and patient's life quickly should you lose your edge. The knowledge of self and your own capabilities, the ability to work under significant stress and conditions that are less than unpleasant, and the knowledge of how small you are in the world are all amazing and invaluable lessons from this trip. The task doesn't diminish when you are out there, rather the margin for error disappears. One mistake out there turns a blister into a fatality, a cold into HAPE. All you have is your high index of suspicion and the Art of Medicine to draw from. Knowing yourself, the environment, and staying focused while calm no matter what situation presents with will mean the difference between success and failure.