

Ultrasound Reaching New Heights

Mobisante Mobile Ultrasound on Mount Everest with Dr. Paul Auerbach



BACKGROUND

Dr. Paul Auerbach not only is Professor of Surgery in the Division of Emergency Medicine at Stanford University School of Medicine, but he also pursues outdoor adventures including scuba diving and mountain climbing and is a medical expert in wilderness medicine.

THE SCENARIO - MOUNT EVEREST BASE CAMP

When climbing any significant mountain, especially Mount Everest, high altitude exposure makes the risk of pulmonary edema (fluid in the lungs) a dangerous reality. Because high altitude pulmonary edema (HAPE) requires immediate emergency treatment, quick identification is crucial. If not treated, HAPE can be life-threatening. In remote areas such as the side of a mountain, traditional diagnostic tools are an unrealistic luxury; the difficult conditions make it essential to keep the amount and weight of gear to a minimum. The very idea of having a medical ultrasound available for diagnosis would appear to be a luxury, but how might a smaller, portable system change outcomes for climbers suffering from HAPE?



Dr. Auerbach was on his way to Mount Everest base camp to meet up with climbers waiting to make the ascent. At approximately 14,500 feet, a normally healthy male complained of symptoms consistent with pulmonary edema due to a rapid ascent from Kathmandu. Dr. Auerbach pulled out his MobiUS™ SP1 smartphone ultrasound system to aid in assessing the trekker's lung condition. Auerbach was able to check for fluid and rule out the presence of pulmonary edema right away, putting the climber's mind at ease during a very intense and harrowing circumstance. Over the next 2,000 feet of the ascent, the patient experienced the same symptoms two additional times and Dr. Auerbach was ultimately able to rule out edema on all three occasions. Another condition eventually caused this climber to be evacuated from the mountain. Happily, he suffered no long term injuries.



The quick assessment on Mount Everest demonstrates how innovations in medical and mobile technology are providing new opportunities in care management. Mobisante's mobile ultrasound systems provide clinicians a tool that can potentially extend better, more comprehensive medical care to their patients rather than referring them to specialists.

In addition, local doctors in rural or remote areas especially benefit; having diagnostic tools at their fingertips means sending

fewer patients to specialists who might be miles away. The convergence of mobile and medical technology offers doctors the capability to deliver quality healthcare with better patient outcomes.

