

## **First Video Laryngoscopic Intubation Performed via Telemedicine**

### **Emergency Department at the University of Arizona College of Medicine Uses GlideScope® Video Laryngoscope to Perform First “Telebation”**

Bothell, Wash., (September 28, 2009) – The Department of Emergency Medicine at The University of Arizona College of Medicine Tucson, led by Dr. John C. Sakles, recently performed the first telemedicine-assisted video laryngoscopic intubation using the GlideScope® Video Laryngoscope to assist Northern Cochise Community Hospital, a small, rural healthcare facility in Southern Arizona.

An elderly patient, with a severe COPD exacerbation, presented to the ED at Northern Cochise Community Hospital in Willcox, Arizona. She was aggressively treated with conventional medical therapies and noninvasive ventilatory support, but failed to respond. The decision was made by the treating physician, Dr. Jacob Poulsen in Willcox, to perform an emergent intubation using the GlideScope® Video Laryngoscope. Dr. Poulsen contacted the Tucson Telebation group at the University of Arizona for assistance. Receiving the call at 10:30 pm, Dr. Sakles, assisted by George Hadeed, MPH, arrived at the University Medical Center (UMC) telemedicine office to supervise the remotely-performed video laryngoscopic intubation.

Over the telemedicine network, Dr. Sakles was able to watch Dr. Poulsen in Willcox prepare the patient for intubation. After the rapid sequence intubation drugs were administered to the patient, and observed via the telemedicine camera view in Tucson, the monitor view was transferred to the view coming from the GlideScope® Cobalt Video Laryngoscope in use by the team in Willcox. The Tucson Telebation Team observed the airway view coming from the GlideScope® Cobalt in the hands of Dr. Poulsen, and provided real-time intubation guidance as the procedure took place. The intubation went extremely smoothly with no complications, and once the patient was stabilized, she was flown by helicopter to a Tucson hospital for further intensive care management.

“We were delighted that the system performed as we expected,” stated Dr. John Sakles, Professor, Department of Emergency Medicine, University of Arizona – Tucson. “The view coming in remotely from the GlideScope® video laryngoscope enabled us to clearly see the airway and provide feedback to the Willcox team during tube placement. We believe this case demonstrates the potential utility that Telebation has in assisting remote hospitals with difficult airways. This is a very promising technology and definitely warrants further study and development.”

Dr. Jack Pacey, general and vascular surgeon and inventor of the GlideScope® product added, “We’ve been keen to help develop telemedicine applications using the GlideScope® video laryngoscope, and we’re pleased we could partner with Dr. Sakles and his team in Arizona in their innovative Telebation work. The world is becoming increasingly connected, and it is my belief that our collaboration is developing practical, totally new approaches to delivering quality health care remotely.”

The Telebation Program at the University of Arizona is built upon the novel Southern Arizona Teletrauma and Telepresence Program (SATT), directed by Dr. Rifat Latifi, Professor of Clinical Surgery and Director of Telemedicine Services at UMC. The SATT program facilitates the virtual presence of an experienced trauma surgeon using high quality live audio and video which is streamed from a dedicated telemedicine network. The Telebation Program piggybacks on the existing Teletrauma Network and adds emergency airway assistance to the existing trauma/critical care consultation. In addition to the hospital based Telebation Program, The SATT network is a T1-wired network between UMC and several southern Arizona rural facilities. There are Telebation capabilities at the two busiest hospitals in the vicinity. Dr. Sakles has also developed a pre-hospital Telebation Program in collaboration with Dr. Latifi and members of the Tucson Fire Department, including Dr. Terry Valenzuela, TFD Medical Director and Dr. Michael Hudson, TFD Deputy Medical Director. The Tucson Fire Department “ER-Link” Network is a stand-alone, mobile network that wirelessly links all TFD ambulances with the UMC ED. The network allows the Telebation Team at UMC to assist TFD paramedics in difficult airways encountered in the field that use modified GlideScope® Ranger video laryngoscope units fitted with a Wi-Fi transmitter. Dr. Jarrod Mosier, Chief Resident in Emergency Medicine at the University of Arizona, has been

instrumental in spearheading this program and says "Paramedics deal with some of the most difficult airways out there and often are forced to intubate in less than ideal conditions. It's nice that we can now offer them real time assistance with difficult airways in the field."

### **About the University of Arizona College of Medicine**

The Department of Emergency Medicine at The University of Arizona College of Medicine is close to 40 faculty members strong and has over 50 residents in its 3 year training program. As part of University Medical Center (UMC)'s Level One trauma center and the University Physicians Hospital at Kino Campus, the Emergency Department sees more than 70,000 patients annually at UMC, 30,000 at UPHK and is responsible for almost 50 percent of both hospitals' admissions. The Emergency Medicine Residency program at The University of Arizona in Tucson is known throughout the United States as one of the best programs out of 120+ programs in the country. The Combined Emergency Medicine/Pediatric Residency program is the only program of its kind west of the Mississippi and one of three in the country. Emergency Medicine faculty and residents have authored more than 500 publications. Emergency Medicine faculty have also received several million dollars in grants and contracts.

#### Telebation Participants:

The remote hospital was:

Northern Cochise Community Hospital  
901 W Rex Allen Drive  
Willcox, Arizona, 85643

The Telebation facility was:

University Medical Center  
Arizona Health Sciences Center  
1501 N Campbell Ave  
Tucson, AZ 85724

### **About GlideScope®**

Minimizing the need for "blind" intubation procedures, GlideScope® video laryngoscopes provide a real-time view of the airway and of endotracheal tube placement. The GlideScope® Cobalt and Ranger single-use designs, which eliminate the need for disinfecting the "blade," are based on the popular GlideScope® GVL reusable video laryngoscope that achieves a Cormack-Lehane Grade I or Grade II view 99 percent<sup>1</sup> of the time. GlideScope® Cobalt and Ranger Single Use designs consist of: a slim reusable video baton which houses a high-resolution camera with an anti-fogging mechanism to resist lens contamination; a non-glare color monitor; and single-use, sterile GVL® Stats in various sizes that offer unique blade angulation.

### **About Verathon Inc.**

Verathon designs and manufactures reliable, state-of-the-art medical devices and services that offer a meaningful improvement in patient care to the health care community. The company's noninvasive BladderScan® instrument is a standard of care in quick, portable ultrasound, bladder volume measurement. The brand is found in over 60 countries in Urology and Primary Care practices, as well as Acute Care and Extended Care facilities. With the January 2006 acquisition of Saturn Biomedical Systems in Vancouver, Canada, Verathon entered Anesthesiology, Critical Care and Emergency markets with the GlideScope® Video Laryngoscope (GVL®) brand. Verathon is headquartered in Bothell, Washington and has approximately 400 employees worldwide. For more information, please visit [www.verathon.com](http://www.verathon.com).

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<sup>1</sup> Cooper, RM. Cardiothoracic Anesthesia, Respiration and Airway; Early clinical experience with a new videolaryngoscope (GlideScope®) in 728 patients. Canadian Journal of Anesthesia 2005; 52: 2: 191-198