

PRODUCT

Sensor-based airway navigation tracking system.

INDICATIONS

Airway management.

VALUE PROPOSITION

- Provides a real-time virtual image of the position of the bronchoscope in relation to patient anatomical landmarks.
- Mitigates the complexity and skill-dependency associated with intubation and optimizes clinical technique.

DEVELOPMENT STAGE Proof of concept system developed.

INTELLECTUAL PROPERTY Patent Pending.

CONTACT INFORMATION

Bill Kolosi Director, Medical Device Business Development and Licensing <u>kolosiw@ccf.org</u> 216.630.3875

IDF# 2017-076

Airway Navigation Device

Kamal Maheshwari, MD MPH, Andrew Zura, MD

PROBLEM

Airway management remains one of the most common lifesaving medical procedures and may be performed by a wide range of healthcare providers including first responders, critical care physicians, anesthesiologists, and emergency room personnel. Recent studies have shown that respiratory compromise is among the most common preventable safety concerns occurring in U.S. hospitals and is strongly associated with more intensive hospitalizations and greater mortality rates. Bronchoscopes are widely considered to be the gold standard for airway management procedures but fail to demonstrate total success rate in all clinical situations. Commonly cited challenges include poor optical imaging (due to the presence of secretions, fogging, or blood), maintaining position in the airway (lateral positioning and/or depth), and a severe dependency on operator technique or training level.

SOLUTION

Researchers at Cleveland Clinic have developed a novel airway navigation system that uses a patient's anatomical landmarks in combination with EM tracking to display the real time position of the scope in a virtual image of the airway. Use of this navigation system can minimize user error and optimize clinical technique required to successfully perform an airway management procedure.

