Augmented Videolaryngoscopy System

Medical Devices

System for monitoring tracheal intubation using procedure-specific data that improves patient care and facilitates physician workflow.

Technology Type

Anesthesiology
Intubation
Laryngoscope

Stage of Development

Bench prototype developed.

IP Protection

U.S. utility patent filed.

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Technology Summary

Tracheal intubation requires placing a tube into the windpipe through the nose or mouth. This procedure is frequently performed in critically injured, ill, or anesthetized patients to facilitate lung ventilation and prevent asphyxiation or airway obstruction. The vast majority of tracheal intubations involve optical instruments, such as a video laryngoscope, to improve airway and vocal cord visualization. Conventional video laryngoscopes, unfortunately, fail to provide sufficient information to guide intubation.

The Augmented Videolaryngoscopy System integrates with traditional video laryngoscopes, adding sensors, a microprocessor, and network connectivity. The new video laryngoscopy system provides improved visualization, audio and voice control features, onscreen display of auxiliary information, image information extraction for display, analysis, and processing. It also facilitates information-based treatment. This device can be applied to perioperative anesthesia, critical care, emergency medicine, and battlefield trauma situations.

Features and Benefits

- Improves quality of care.
- Enables remote supervision of intubations.
- Provides important contextual information, detects process steps, and alerts physicians to issues and potential risks.
- Optimizes physician workflow.

Inventor Profile

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