

AnapnoGuard™

Innovative Airway Management Solution

AnapnoGuard: A Powerful Multi-Function Solution

The Need: Airway Management during Prolonged Mechanical Ventilation

Critical aspects in the management of mechanically ventilated patients are controlling of the ventilation procedure and prevention of complications. Both can be related to inappropriate endotracheal tube (ETT) cuff pressure, leading to injury of the trachea tissue and leakage of subglottic secretions into the lungs.



The AnapnoGuard Solution

Hospitech Respiration's AnapnoGuard solution provides a new therapeutic approach, based on a comprehensive Respiratory Guard System, for continuous, closed loop control of trachea sealing and endotracheal cuff pressure.

The AnapnoGuard system aims at preventing complications related to prolonged mechanical ventilation, including air leakage from the lungs, aspiration of subglottic secretions into the lungs, and tracheal tissue injuries.

The AnapnoGuard system integrates two innovative solutions that address crucial aspects of prolonged mechanical ventilation:

- Regulation of cuff pressure based on CO₂ values above the cuff
- Effective rinsing and evacuation of subglottic secretions from above the cuff

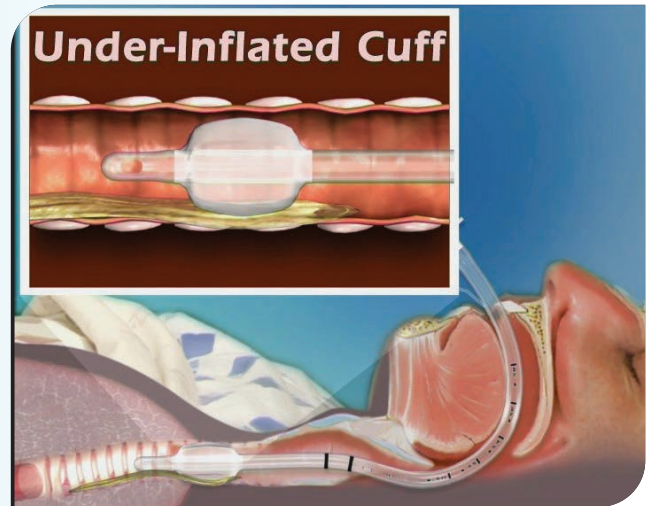
The AnapnoGuard range of innovative products presents a comprehensive answer to airway management in a variety of clinical settings; together with the AnapnoGuard Endotracheal Tube (AG ETT), the AnapnoGuard Control Unit provides automated control over both cuff pressure and secretion evacuation.

In cases where the automated solution is not available, the AnapnoGuard range of products offers easy, simple and accessible disposables for manual operation, such as the AG Manual Aspiration of Subglottic Secretion device - AG MASS and the AG CUFFILL device that is used for simple and accurate measuring and adjustment of cuff pressure.

AnapnoGuard

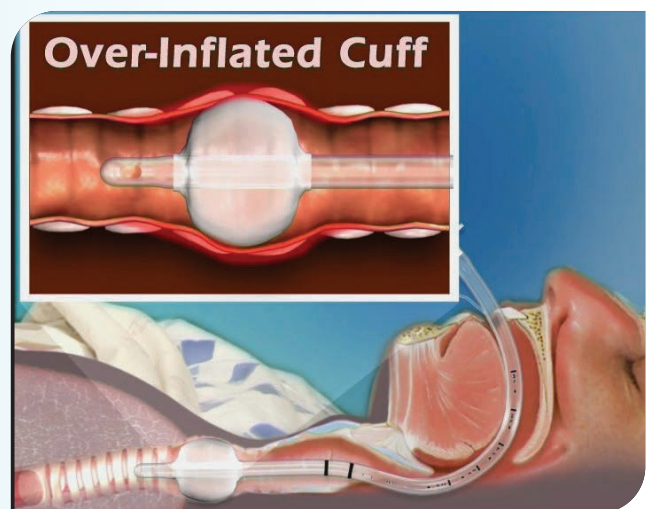
Reducing the Risk of Aspiration

The technology and the design behind the AnapnoGuard solution ensure sealing of the lower airways during intubation period, as well as effective evacuation of subglottic secretions. It reduces the risk of aspiration of secretions into the lungs – the main contributor to the development of Ventilator-Associated Pneumonia.



Reducing the Risk of Tracheal Tissue Injury

The regulation of cuff pressure, included in the AnapnoGuard system, is designed to prevent over-inflation of the cuff, which exert excessive pressure on the tracheal tissue. Such pressure may lead to tracheal injury, such as mucosal tracheal stenosis, ulceration, fistula, granulomas and vocal cord injury. The system determines and maintains the lowest possible pressure to ensure complete sealing.

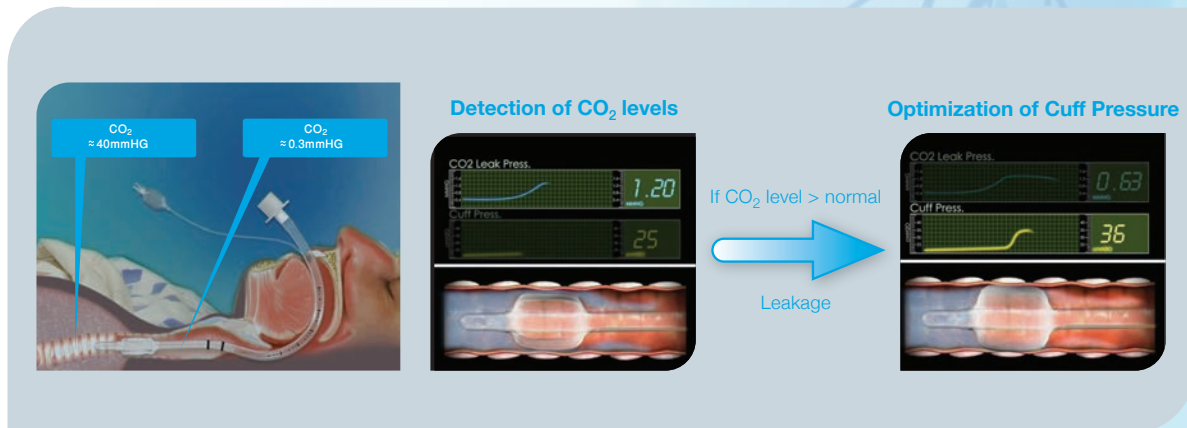


The AnapnoGuard System Mode of Operation

Real-time leakage detection and optimization of cuff pressure

The AnapnoGuard Control Unit and ETT detect air leakage from the lungs based on the measuring of CO₂ level above the cuff. The system continuously monitors irregular CO₂ levels above the cuff and adjusts the cuff pressure to ensure complete airway sealing.

The AnapnoGuard system sets and maintains the minimal cuff pressure required to ensure sealing of the trachea.



In clinical settings where the automated AG Control Unit is not available, easy motoring and adjustment of the cuff pressure can be achieved manually with the AG CUFFILL device.

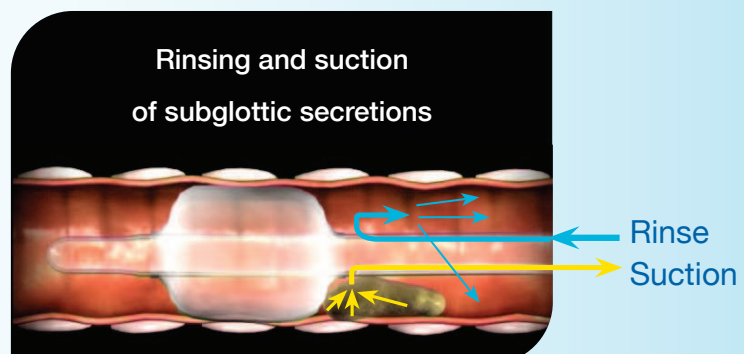
Effective evacuation of secretions

The AnapnoGuard system and ETT include an effective mechanism for the evacuation of subglottic secretions. In addition to the standard cuff inflation lumen, the AG ETT includes three more lumens:

- A lumen positioned at the ventral side of the tube, serving as a CO₂ monitoring lumen, which is also utilized for venting the subglottic volume and for saline rinsing during suction.
- Two lumens, positioned at the sides of the dorsal part of the tube circumference, are used for suction and are designed to prevent blockage and potential damage to the tracheal tissue.

In order to minimize the risk associated with the vacuum applied on the tracheal tissue, the system performs intermittent adjustable suction sequences which include relaxation periods.

The AnapnoGuard system provides effective evacuation of subglottic secretion by simultaneously rinsing with saline from one port while performing suction from the two other suction ports.



In clinical settings where the automated AG Control Unit is not available, effective rinsing and suction of secretions can be achieved manually with the AG MASS device.

The automated solution

AnapnoGuard Control Unit

for automated cuff pressure control and evacuation of subglottic secretions

* Not available in the US

The ETT and disposable solutions

AnapnoGuard Endotracheal Tube (AG ETT)



Manual Aspiration of Subglottic Secretions (AG MASS)



Cuff Pressure Measurement and Adjustment (AG CUFFILL)



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About Hospitech Respiration Ltd.

Hospitech Ltd is committed to the development and commercialization of innovative airway management solutions that are designed to enhance the quality of care, promote patient safety and improve treatment outcome in mechanically ventilated and intubated patients.



ISO 13485 | ISO 9001