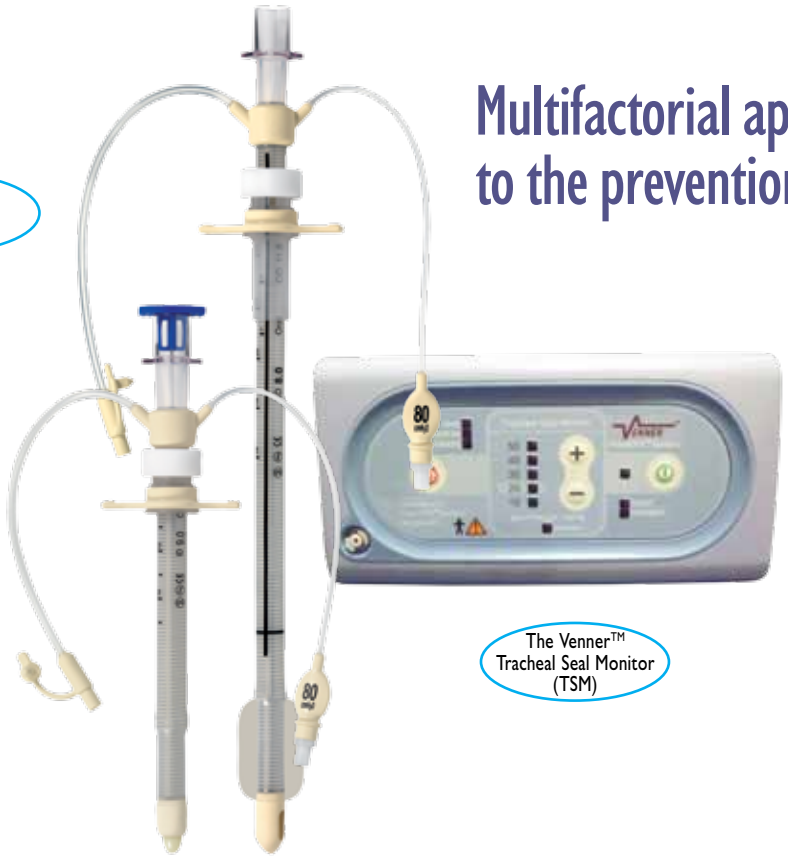
Qualitech HEALTHCARE

TECHNOLOGY-DRIVEN

The PneuX™ System

- a major development in the prevention of Ventilator-Associated Pneumonia (VAP)



Multifactorial approach to the prevention of VAP

REDUCING VAP ● REDUCING TIME IN ICU ● REDUCING COSTS

VAP - the most common nosocomial infection in critically ill patients[1]

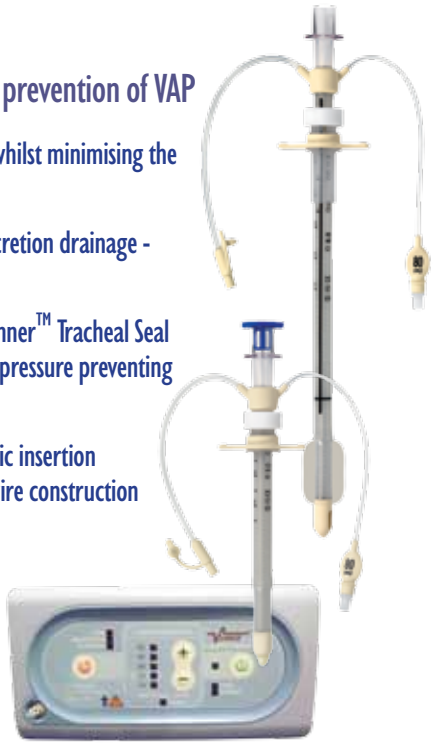
- Up to 20% of patients receiving >48 hours of mechanical ventilation will develop VAP[1]
- Patients with VAP have significantly longer intensive care unit lengths of stay[1] (average of 6.1 days)
- The incidence of VAP increases with the duration of mechanical ventilation. VAP causes longer ICU and hospital stay, higher mortality, and higher hospital costs (up to $40,000/case (approximately £24,000))[2]
- Critically ill patients with VAP are twice as likely to die compared to similar patients without VAP[1]
- Tubes with single subglottic drainage ports frequently fail (48% incidence)[3], and this failure is associated with an increased incidence of VAP[4].

Hourly Subglottic Secretion Drainage (SSD) can reduce the incidence of VAP by up to 64%[5].

	Control group	SSD group	p-value
VAP	22.1%	7.9%	0.001

The PneuX™ System
Multifactorial approach to the prevention of VAP

- Prevents pulmonary aspiration - whilst minimising the risk of mucosal injury
- Permits intermittent subglottic secretion drainage - three subglottic ports
- Protects the tracheal wall - the Venner™ Tracheal Seal Monitor maintains a constant cuff pressure preventing aspiration
- Specifically designed for atraumatic insertion with LVLP cuff - flexible silicone/wire construction which conforms to the airway
- Reduced risk of accidental extubation and oral/lip injury - repositionable flange/securing system with integral bite block



Features of the PneuX™ ETT/TT

Partnered with The Venner™ Tracheal Seal Monitor (TSM) designed exclusively for use with the PneuX™ ETT and the PneuX™ TT maintains a constant cuff pressure preventing aspiration.

A LVLP cuff with no folds, designed such that the tracheal wall pressure is kept at a continuous 30cm H_2O pressure, preventing aspiration whilst minimising the risk of mucosal injury associated with high-pressure cuffs.

Pulmonary aspiration can be prevented by using a low-volume, low-pressure (LVLP) tracheal tube cuff[6]. 89% of patients have been shown to aspirate stomach contents[7].

Protects the tracheal wall and prevents aspiration.

Three subglottic ports remove secretions intermittently from the subglottic space.

A 'boat tip' that minimises forces when intubation is performed in combination with a bougie, exchanger, fiberoptic bronchoscope or stylet and which is designed to lie straight and not push forwards into the tracheal wall[8].

Flexible silicone/wire construction conforms to the airway, yet with strength against kinking.

Medical grade non-stick lining - inhibits the adhesion of biological materials. Bronchoscopes and suction catheters can normally pass without need for additional lubrication, thereby reducing the forces on the delicate laryngeal structures[9].

A repositionable flange and securing system with integral bite block designed for maximum flexibility and security.

Reduced risk of accidental extubation and oral/lip injury (ETT).

References:

1. Safdar N et al. Crit Care Med 2005;**33**(10)**:**2184-2193.
2. Gentile MA et al. Respiratory Care 2010;**55**(2):184-196.
3. Dragoumanis CK et al. Anesth Analg 2007;**105**(4)**:**1083-1085.
4. Rello J et al. Am J Respir Crit Care Med 1996;**154**(1)**:**111-115.
5. Lorente L et al. Am J Respir Crit Care Med 2007;**176:**1079-1083.
6. Young PJ et al. Crit Care Med 2006;**34**(3)**:**632-639.
7. Metheny NA et al. Crit Care Med 2006;**34**(4)**:**1007-1015.
8. Greer JR et al. Anesthesiology 2001;**94**(5)**:**729-731.
9. Steen JA et al. Crit Care Med 1982;**10**(3)**:**186-189.

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