TECHNOLOGY-DRIVEN

The Venner PneuX™ System

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

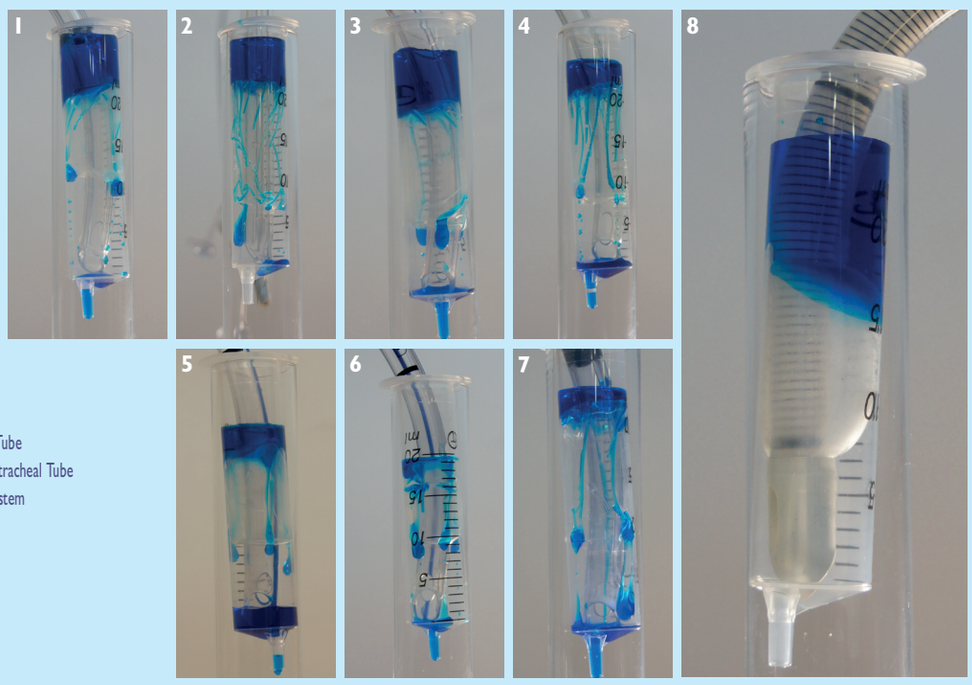
Aspiration -
Why take the risk?

The **Venner PneuX™** System has the ONLY endotracheal tube (ETT) to consistently prevent ANY aspiration past the cuff when directly compared to other ETTs.[1]

The **Venner PneuX™** System has been recognised as providing an evidence-based solution to minimising VAP.[1]

Leakage of ETTs after 1 hour of placing in the 'model trachea'

Each cuff was inflated to the correct pressure according to the manufacturer's instructions using a hand-held manometer. If continuous cuff pressure monitors were recommended, these were used to maintain cuff inflation during experiments.



1. Mallinckrodt™ TaperGuard™ Evac Oral Endotracheal Tube
2. KimVent™ MICROCUFF™ Subglottic Suctioning Endotracheal Tube
3. Mallinckrodt™ Hi-Lo Oral Endotracheal Tube, Lanz System
4. Mallinckrodt™ SealGuard™ Evac Endotracheal Tube
5. Portex Soft Seal® Cuff Tracheal Tube
6. Portex SACETT™ Suction Above ET Cuff
7. Teleflex ISIS® HVT™
8. Venner PneuX™ ETT

Photographs taken as part of the Mariyaselvam et al study[1]

The Qualitech Healthcare Team would like to take the opportunity to present the **Venner PneuX™** System to the Critical Care Team.
Please contact us to arrange a demonstration – info@qualitechhealthcare.co.uk

Multifactorial approach to the prevention of VAP



VAP - the most common nosocomial infection in critically ill patients[2]

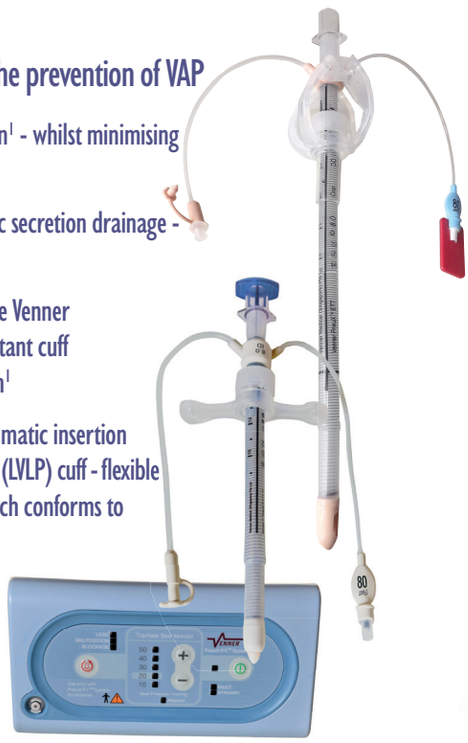
- Up to 20% of patients receiving >48 hours of mechanical ventilation will develop VAP[2]
- Patients with VAP have significantly longer intensive care unit lengths of stay[2] (average of 6.1 days)
- The incidence of VAP increases with the duration of mechanical ventilation. VAP causes longer ICU and hospital stay, higher mortality, and higher hospital costs (up to $40,000/case (approximately £24,000))[3]
- Critically ill patients with VAP are twice as likely to die compared to similar patients without VAP[2]
- Tubes with single subglottic drainage ports frequently fail (48% incidence)[4], and this failure is associated with an increased incidence of VAP[5].

Hourly Subglottic Secretion Drainage (SSD) can reduce the incidence of VAP by up to 64%[6].

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

The Venner PneuX™ System
Multifactorial approach to the prevention of VAP

- Prevents pulmonary aspiration[1] - whilst minimising the risk of mucosal injury
- Permits intermittent subglottic secretion drainage - three subglottic ports
- Protects the tracheal wall - the Venner PneuX TSM™ maintains a constant cuff pressure preventing aspiration[1]
- Specifically designed for atraumatic insertion with low-volume, low-pressure (LVLP) cuff - flexible silicone/wire construction which conforms to the airway



Features of the Venner PneuX™ System

Partnered with the Venner PneuX TSM™ designed exclusively for use with the Venner PneuX™ ETT and the Venner PneuX™ TT maintains a constant cuff pressure, minimising bacterial leakage[7] and preventing aspiration[1].

A LVLP cuff with no folds, designed such that the tracheal wall pressure is kept at a continuous 30cm H_2O pressure, preventing aspiration[8] whilst minimising the risk of mucosal injury associated with high-pressure cuffs[1,8].

Pulmonary aspiration can be prevented by using a low-volume, low-pressure (LVLP) tracheal tube cuff[9]. 89% of patients have been shown to aspirate stomach contents[1,9,10].

Protects the tracheal wall and prevents aspiration[1].

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[11].

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[12].

References:

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6. Lorente L et al. Am J Respir Crit Care Med 2007;**176:**1079-1083.
7. Mariyaselvam et al. Intensive Care Medicine Experimental 2015, **3**(Suppl 1)**:**A382.
8. Gopal S et al. J Hosp Infection 2017,**95:**81-86.
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10. Metheny NA et al. Crit Care Med 2006;**34**(4)**:**1007-1015.
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12. Steen JA et al. Crit Care Med 1982;**10**(3)**:**186-189.

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