TRACOE
Secretion Management

- Individual solutions
- VAP prevention in ventilated patients
- Relief through technology
- Avoid follow-up costs
Secretion management and VAP prevention

Pneumonia is one of the nosocomial infections that puts patients most at risk. Even today, considering all types of nosocomial infection, the number of deaths from pulmonary infections is exceptionally high. The particular significance of pneumonia is also due to its incidence. Throughout hospitals, lower respiratory tract infections represent about 20% of all nosocomial infections. Extrapolating from this figure, it can be assumed that some 60,000 cases of pneumonia develop during hospitalization in Germany. Lower respiratory tract infections even account for more than 50% of the nosocomial infections diagnosed on intensive care units. The economic impact on the hospitals arises from the fact that the case budget covers only 60% of the costs of diagnosis, treatment, and a stay on the intensive care unit prolonged by an average of 6 days. Costs in the USA have been estimated to be USD 40,000 per nosocomial pneumonia.1

In the treatment of ventilated or spontaneously breathing patients with tracheostomies, effective and individualized secretion management is essential, as the physiological cleaning function of the lungs, e.g., coughing or mucociliary clearance, is often disrupted or obstructed. There is also a lack of natural moistening because of the tracheostomy tube, creating a different climate in the lungs, which usually leads to an increase in secretions.2

The goal is to ventilate the airways, improve oropharyngeal perception, prevent increased formation of secretion, and thus avert infections (e.g., VAP). Above cuff vocalization (ACV) is possible in many cases. It counteracts some of the patient’s frustration and encourages motivation. This in turn improves the patient’s quality of life and avoids costs.3

Various measures4,5 can be introduced and used in the individual patient:

- Use of tracheostomy tubes with inner cannulas (ICs)
- Use of tracheostomy tubes with ICs and subglottic suction
- Good cuff pressure management
- Airway climate control
- Above cuff vocalization – ACV

Although they will not be addressed in detail here, further examples of possible measures include:

- Positioning the patient
- Mobilizing the patient
- Pharmacotherapy
- Inhalation
- Use of endotracheal tubes with subglottic suction
- Tracheal/endotracheal suction
- Assisted coughing
- Adjuvant approaches (supplementary or supportive therapeutic measures)

Subglottic suction

TRACOE extract tracheostomy tubes

Individualized selection for each patient – six types of tubes from the TRACOE vario, TRACOE twist and TRACOE twist plus product lines provide targeted suction of subglottic secretions at the lowest possible point above the cuff. For insertion after percutaneous dilation, also pre-mounted on the minimally traumatic inserter for the first insertion or reinsertion (TRACOE experc sets).

The extract tubes are approved (CE only) for use with above cuff vocalization (ACV).

TRACOE vario extract (REF 470) and TRACOE vario XL extract (REF 471)
- Single-lumen tracheostomy tubes with adjustable neck flange and embedded subglottic suction tube
- Sizes 07-10

TRACOE twist extract (REF 306)
- Tracheostomy tube with 2 inner cannulas, movable curved neck flange and subglottic suction
- The thin wall ensures a good OD/ID ratio
- The suction tube is glued to the outer cannula
- Sizes 04-10

TRACOE twist plus extract (REF 316)
- Tracheostomy tubes with 2 inner cannulas and a novel efficient subglottic suction channel. Compared with the previous model, secretions above the cuff can be removed more quickly and completely.
- It combines all the advantages of TRACOE twist, but is somewhat longer and has an even thinner wall. This offers the patient the largest possible lumen with a small external diameter.
- Sizes 07-10
TRACOE twist extract (REF 888-306) and twist plus extract (REF 888-316) multifunctional tubes with additional fenestration:

**Ventilating • Subglottic suctioning • Sensitizing • Communicating • Weaning • Decannulating**

Combined with the TRACOE phon assist I speaking valve in the early stages of weaning, to improve oropharyngeal perception and the use of ACV. The TRACOE humid assist I, III or IV HMEs provide a good climate in the lungs.

The twist is available in sizes 06-10 and the twist plus in sizes 07-10.

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Speaking valve with oxygen supply port

TRACOE phon assist I (REF 650-TO, transparent)
Numerous therapeutic options thanks to the adjustable side openings

TRACOE phon assist I (REF 650-TO-C, in bright orange)
Brightly colored to distinguish from other accessories, for greater safety

**Infinitely adjustable side openings**
- Airway resistance can be adjusted individually
- Expiration occurs partly through the openings and the natural airways

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Heat/moisture exchangers (HMEs)
The inspired air is filtered, moistened, and warmed (“artificial nose”)

TRACOE humid assist I (REF 640-CT)
- With foam filter

TRACOE humid assist III (REF 641)
- With paper filter
- Optional oxygen supply port can be turned through 360°

TRACOE humid assist IV (REF 642)
- With foam filter
- Integrated oxygen supply port
- Pressure relief valve for coughing

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TRACOE phon assist I speaking valve in the early stages of weaning, to improve oropharyngeal perception and the use of ACV. The TRACOE humid assist I, III or IV HMEs provide a good climate in the lungs.
Continuous monitoring and regulation of the cuff pressure

TRACOE smart Cuff Manager (REF 730)
The cuff manager maintains internal pressure in the high-volume low-pressure (HVLP) cuffs of endotracheal or tracheostomy tubes between 20 cm H₂O and 30 cm H₂O. Control at a glance!

Studies have shown that the VAP rate falls further with continuous monitoring of the cuff pressure, and likewise the incidence of cuff underinflation episodes.8, 9, 10

- Easy use and visual verification make the daily routine less demanding
- Regulates and monitors independently cuff pressure in tracheostomy and endotracheal tubes
- The pressure is maintained between 20 and 30 cm H₂O

TRACOE cuff pressure monitor - cpm (REF 720)
Sensitive handheld manometer fills and monitors the pressure in the high-volume low-pressure cuffs of tracheostomy and endotracheal tubes.

- Easy operation for filling the cuff
- Precise and reproducible pressure indicator
- Extra-large easy-to-read scale with color coding of the pressure range to be set
- Stable metal hook

TRACOE cuff pressure monitor sensitive - cpms (REF 721)
Handheld manometer for inflating and deflating as well as monitoring the pressure in the high-volume low-pressure cuffs of tracheostomy and endotracheal tubes.

- Easy and safe inflation and deflation
- Scale marking with color code
- Vacuum valve for deflating

References

Literature:
9. Leonardo Lorente et al. (2014), Continuous endotracheal tube cuff pressure control system protects against ventilator-associated pneumonia. Critical Care, 18/R77

Cover photo:
eliska-motisova-FPQxHQryM-unsplash

Further information material is available.