Tracheostomy – from first tube in to last tube out
Smiths Medical are proven experts with over a quarter century of experience in the field of Tracheostomy. Smiths Medical have a range of tracheostomy products for all applications, from accident and emergency through ENT theatre, ICU, general hospital wards and into the community home use.

Through Blue Line Ultra®, Bivona® and ULTRAperc® kits, Smiths Medical cover every eventuality and surgical preference with an unrivalled tracheostomy product range from neonatal to large and difficult anatomy tube types.

**Customisation service**

The Bivona® customised tube service allows you to select the tube shaft style, curvature, length, internal and external diameters, and many more parameters to best meet the needs of the patient.
Portex®
Blue Line Ultra®
- Blue Line Ultra® tubes with or without inner cannula, easy to use and robust, can be used up to 30 days.
- Comprehensive range of cuffed, un-cuffed, fenestrated, un-fenestrated tubes and inner cannula.
- Clear soft flange, clear radio-opaque tube. Ensures aesthetic acceptability and enables confirmation of tube position.
- Thermo sensitive medical grade PVC construction, safe and conforms to individual patients anatomy.
- Obturator with rounded tip provides rigidity for tube insertion with minimal trauma.
- SOFT-SEAL™ cuff – low pressure high volume with large trachea resting diameter provides effective seal with minimal trauma.
- Fenestrated tubes have multiple fenestration to minimise risk of occlusions.

Bivona®
- Bivona® silicone tubes provide a range of single patient, reusable tubes for adult, paediatric and neonatal patients.
- Cost effective, can be used up to ten times on an adult, five times on paediatrics.
- A range of cuff designs to suit patients requirements include:
  - Fome Cuf®, conforms to individual patient’s trachea, greatest protection from aspiration.
  - TTS™ (Tight to shaft) A cuffed tube with the profile of an un-cuffed tube, complete or partially inflatable, versatile use.
  - Aire-Cuf® tubes. Traditional designed cuffed tubes.
  - Hyperflex™. Wire reinforced shafts but flexible to conform to unusual anatomy, adjustable or fixed neck flange, Aire-Cuf® or TTS™ cuff option.

PDT Kits
- Convenient PDT kits packaging includes all instruments required to carry out the procedure.
- Integrally designed components avoiding mismatch.
- Use of Blue Line Ultra® tubes with tailor made introducer to minimise trauma on insertion.
- ULTRAPerc™ kit available with Blue Line Ultra® Suctionaid® tube, to help prevent aspiration.

UniPerc™ PDT Kits
The UniPerc™ range is particularly suitable for patients with:
- Large necks
- Muscular necks
- Short necks
- Obese necks
- Bull necks

Cost effective and available though NHS supplies or direct from Smiths Medical.
Blue Line Ultra® is the clear choice for Inner Cannulae use

Blue Line Ultra® offers a comprehensive range of tracheostomy tubes designed to provide the clinician with a clear choice of tube options that best suit the patients' needs. All the Blue Line Ultra® tubes are made from clear thermosensitive PVC and have a soft clear flange for patient comfort and aesthetic acceptability. The Blue Line Ultra® tubes are an established tracheostomy tube system that can be used with or without an inner cannula. The inner cannula is provided either plain (no fenestrations) or as a colour coded fenestrated inner cannula.

Other features of the Blue Line Ultra® range,
- SOFT-SEAL™ cuff,
- Twist lock obturator,
- Suctionaid® option,

Continued development of the Blue Line Ultra® range,
All combine to ensure Smiths Medical continue to provide a quality and innovative tracheostomy product range for now and the future. These tracheostomy products are all backed up with a range of educational material that includes DVD’s, CD’s and the “How to Guides”. In addition a knowledgeable support team from Smiths Medical are available to answer your inquiries at any time.
Bivona® silicone technology

Silicone technology for cost effective specialist applications

The Bivona® silicone range of tracheostomy tubes provide a specialist tube for challenging patient applications. These challenges include neonatal and paediatric patients as well as long term adult tracheostomy tube users. A comprehensive range of tubes are available that include,

- **Adjustable flange Hyperflex™**: Instantly customisable wire reinforced tube for difficult anatomies. Adult and paediatric sizes available
- **FlexTend™ Plus tube**: Flexible one piece, kink resistant, wire reinforced silicone shaft with independent flexing proximal and distal shafts.
- **Uncuffed, Fome-Cuf® and TTS™ cuffed paediatric tracheostomy tubes provide flexibility to conform to a wide range of anatomical variations found in paediatric patients.

The Bivona® silicone technology is more biocompatible than PCV, is less effected by time, light and surface encrusting. It is also more economical compared to PVC as it allows longer time between tube changes and can be re-processed which minimises per use costs. Customisation service is also available for the Bivona® product range to further improve patient comfort and outcome.
UniPerc™ Adjustable Flange Tracheostomy Tube

- Graduated reinforced PVC material provides a high level of flexibility with ultimate kink resistance.
- Tapered tip to assist percutaneous placement capable of fitting patients with up to 50mm of pre-tracheal soft tissues.
- Curved for maximum patient comfort and features a SOFT-SEAL™ cuff.
- MRI conditional, can be safely used in MRI. The image in close proximity to the tube may be distorted, see instructions for use that accompany the product.
- The distinctive markings on the tube permit easy setting of the flange at the correct depth.
- The large transparent flexible wings for improved patient comfort.
- Positive locking clamp - simple to use with positive feel and visual conformation.

Reusable flexible inner cannula

- Fully flexible and manufactured from PTFE to minimise secretion adherence.
- Single patient use design and can be reused for up to 29 days.
- Blue ring pull provides easy identification when in situ and aids easy insertion and removal.
- Does not reduce the inner diameter as the tracheostomy tube is sized at its narrowest point. The inner cannula fits against this point and therefore when in situ does not reduce the stated diameter of the UniPerc™ tube.

UniPerc™ Adjustable Flange Tracheostomy Tube Initial Flange Settings

<table>
<thead>
<tr>
<th>Internal Diameter (mm)</th>
<th>Suggested Initial Flange Setting (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.0</td>
<td>skin to trachea distance plus (+) 50mm</td>
</tr>
<tr>
<td>8.0</td>
<td>skin to trachea distance plus (+) 55mm</td>
</tr>
<tr>
<td>9.0</td>
<td>skin to trachea distance plus (+) 60mm</td>
</tr>
</tbody>
</table>
Introducing the first dedicated percutaneous tracheostomy kit for patients with larger necks

Smiths Medical, has developed a unique new range of percutaneous tracheostomy tubes and kits specially designed for patients with large necks. The increasing prevalence of obesity in the general population is reflected in the rising numbers of obese patients admitted to intensive care units [1-3]. The limitations of existing tracheostomy products when treating patients with large necks, present clinicians with a number of challenges. The Portex® UniPerc™ tracheostomy range was developed to meet the changing needs of clinicians. All UniPerc™ products and their components have been designed to make percutaneous insertions into large necks quick, safe and effective.

**UniPerc™ Percutaneous Dilation Tracheostomy kit contents**

- Scalpel with a number 15 blade.
- Curved forceps for the blunt dissection of pre-tracheal tissues.
- 10ml syringe for aspiration.
- Extra long 14g graduated needle and cannula.
- Extra long graduated pre-dilator.
- Extra long guiding catheter.
- Hydrophilic graduated single stage dilator.
- UniPerc™ cuffed adjustable flange tracheostomy tube.
- Tracheostomy tube introducer.
- Flexible reusable inner cannula.
- Swabs x 10.
- Tracheostomy tube holder.
- Tracheostomy cleaning swab.
- Sterile lubricating jelly.
- Point-Lok® needle protection device for introducer needle.
- Tracheostomy tube disconnection wedge.
- Fenestrated drape with transparent window [not shown].
- Trolley drape [not shown].

**References**

3. Tremblay A, Bandi V. Impact of body mass index on outcomes following critical care. Chest 2003; 123: 1202 -1207
ULTRAperc® percutaneous dilational tracheostomy kits offer a range of totally integrated PDT procedure kits for use in intensive care and theatre. ULTRAperc® kits include every component required from initial incision to final tube insertion, benefiting from the features of the Blue Line Ultra® range of tracheostomy tubes that includes the Suctionaid® tube.

- Safe and cost effective option for performing tracheostomy procedures.
- Tapered tube tip is designed to fit introducer, so minimising trauma upon insertion.
- ULTRAperc® kits available with and without tracheostomy tubes.

ULTRAperc® can be supplied direct from Smiths Medical or can be purchased from the NHS catalogue.

Convenient Package includes tubes

Ergonomic Design Single Stage Dilator

Griggs Forceps Kits

ULTRAperc® PDT kits

1. Scalpel
2. 14G Needle and Cannula
3. 10ml Syringe
4. Guidewire and Introducer
5. 14FR Short Dilator
6. Guiding Catheter
7. Pre-lubricated Single Stage Dilator
8. Blue Line Ultra® Tracheostomy Tube
9. Blue Line Ultra® Tracheostomy Tube Introducer
10. Sterile Lubricating Jelly 5g
11. 4 Swabs
12. Blue Line Ultra® Inner Cannula (x2)
13. Tracheostomy Tube Holder / Cleaning Brush
As leaders in the field of tracheostomy, Smiths Medical provide a range of accessories. Related and specialist products including:-

- Portex® SuctionPro™ 72 – range of closed suction catheters.
- Thermovent® T and T2 – range of HME devices.
- Cuff Inflator Pressure Gauges.
- Tracheostomy Tube Holders.

Please see Tracheostomy and Respiratory Product Selector catalogue or your local sales representative for the full range of accessories.

**PressureEasy®**

**Disposable Cuff Pressure Controller**

- Continuously monitors cuff pressure level between 20-30cm H₂O.
- Guards against aspiration and tracheal damage.
- Pressure feedback line designed to eliminate cuff leaks at peak inspiratory pressure.
Associated Products

• Portex® PCK - Portex emergency cricothyroidotomy kit
• Bivona® Inner Cannula - The first for use with silicone tracheostomy tubes
• TBA Care® Suction Alert - Reduce the complication of "ineffective airway clearance"
• Guedel & Berman Airways - Maintains an unobstructed oro-pharynge during general anaesthesia
Service that goes beyond

**Training and Educational Support**

Smiths Medical are pleased to support our products and services with educational materials. These educational supports are both product and clinically based material on either CD, DVD or in hard copy format. Listed below are some of the topics covered.

- **Tracheostomy Patient Support Guide.** To help patients and relatives understand physical effects and implications of having a tracheostomy.
- **Tracheostomy Educational Support Guide.** To help Nursing and ward staff understand what a tracheostomy is, the types of tracheostomy tubes and tracheostomy care.
- **St George’s Guide Lines.** The second edition of the tracheostomy care policy as practised at St George’s Hospital London. Basic policy that will provide high quality patient care.
- **Ventilator Associated Pneumonia (VAP), A Nurses Guide.**
- **How to Guide.** Tracheostomy tube management, produced in association with Care of the Critically Ill.
- **How to Guide.** Pitfalls in tracheostomy care, produced in association with Care of the Critically Ill.
- **How to Guide.** Percutaneous tracheostomy, produced in association with Care of the Critically Ill.
- **Going Down the Tubes DVD.** Practical training DVD for healthcare practitioners who undertake care of patients with tracheostomies.
- **Single Dilator Percutaneous Tracheostomy Technique DVD.**
- **Fome-Cuf® DVD.** Teaching the function and application of Fome-Cuf® tracheostomy systems.
- **PCK DVD.** Educational DVD demonstrating the PCK Cricothyrotomy devices.
- **UniPerc™ Percutaneous educational DVD for difficult airways.** Also Contains the ULTRAPerc™ educational video.

**Further information**

The complete range of Blue Line Ultra®, Bivona® and ULTRAPerc® kits and full accessories are available in the ‘Airways and Tracheostomy Product Selector’.

Further information on tracheostomy can be found on www.tracheostomy-uk.com, a Smiths Medical supported website.