What is the Global Tracheostomy Collaborative?

We are a multidisciplinary team of physicians, nurses, allied health clinicians and patients/caregivers from around the world working together to disseminate best practices and improve tracheostomy outcomes.

We are incorporated as a 501(c)(3) not-for-profit organization in the USA.

"Leaders in our collaborative have demonstrated that tracheostomy-related adverse events can be radically reduced through team care. We are partnering with hospitals around the world to help spread these innovative care models."

- Dr. David Roberson, GTC Founder and President
Otolaryngologist, Harvard Medical School

our model

A Quality Improvement Collaborative is a group of hospitals who agree to rapidly disseminate improvement strategies, track outcomes, share data and work together to improve care.

our methods

1. Assist member hospitals in tracking and benchmarking outcomes using a secure, HIPAA-compliant database.
2. Creating centre-wide, interdisciplinary tracheostomy policies and procedures.
3. Providing coordinated, interdisciplinary education.
4. Facilitating access to worldwide experts in high-quality tracheostomy care.
5. Implementing tracheostomy Quality and Risk management systems.
6. Advocating and providing support for families, patients and their caregivers.

our vision

Improving the care of adults and children with tracheostomies throughout the world

"The aims of the GTC are great. Coordinated tracheostomy care improves safety, enhances outcomes and promotes excellence."

- Tannis Cameron, GTC Vice President
Speech-Language Pathologist, Melbourne, Australia

our motivation

- Tracheostomy care is high risk with significant morbidity and mortality.1,2
- Patients with tracheostomy are often cared for on wards where staff have little, if any, of the specialist skills required to manage these patients.3
- Some hospitals have shown dramatic improvement around tracheostomy care through collaborative interventions such as the implementation of tracheostomy teams.4
- It is currently difficult to benchmark quality of care internationally.

"As a parent and caregiver, it gives me great hope that the GTC is dedicated to improving the safety and quality of tracheostomy care."

- Erin Ward, GTC Board of Directors, Parent and Caregiver
join us

1. Implement or expand upon best practices at your institution.
2. Participate in the Global Tracheostomy Collaborative (GTC) Database, allowing you to track your institution's tracheostomy care.
3. Benchmark with other centres.
4. Monitor adverse events.
5. Track changes in outcome as you implement interventions.
6. Receive support and education from international experts.
7. Learn directly from world leaders in tracheostomy care.

"It is incredibly exciting to work on a project of this magnitude; rarely in our careers do we have the opportunity to improve care for patients around the world."
- Dr. Rahul Shah, GTC Executive Director
Otolaryngologist, Children's National Medical Center

All centres, regardless of level of expertise or coordination, will benefit from joining the GTC to allow their centre to benchmark, try new interventions and to evaluate risks and improve quality. If your centre already has teams and protocols in place, you will have the opportunity to share what you have learned with many other centres worldwide.

For more information, or to join, please visit our website or contact us at info@globaltrach.org

WWW.GLOBALTRACH.ORG
This patient has a LARYNGECTOMY and CANNOT be intubated or oxygenated via the mouth.

Follow the LARYNGECTOMY algorithm of breathing difficulties.

Performed on (date) ..............................................

Tracheostomy tube size (if present) ......................

Hospital / NHS number ...........................................

Notes:

There may not be a tube in the stoma.
The trachea (wind pipe) ends at the neck stoma.

Emergency Call:  Anaesthesia  ICU  ENT  MaxFax  Emergency Team

www.tracheostomy.org.uk
This patient has a **TRACHEOSTOMY**

There is a potentially patent upper airway (Intubation may be difficult)

Surgical / Percutaneous

**Performed on (date)** ........................................

**Tracheostomy tube size (if present)** ........................

**Hospital / NHS number** ........................................

Notes: Indicate tracheostomy type by circling the relevant figure. Indicate location and function of any sutures. Laryngoscopy grade and notes on upper airway management. Any problems with this tracheostomy.

**Percutaneous**  **Björk Flap**  **Slit type**

**Emergency Call:**  **Anaesthesia**  **ICU**  **ENT**  **MaxFax**  **Emergency Team**

www.tracheostomy.org.uk
Emergency tracheostomy management - Patent upper airway

Call for airway expert help
Look, listen & feel at the mouth and tracheostomy
A Mapleson C system (e.g. 'Waters circuit') may help assessment if available
Use waveform capnography when available: exhaled carbon dioxide indicates a patent or partially patent airway

Is the patient breathing?

No
Call Resuscitation Team
CPR if no pulse / signs of life

Yes
Apply high flow oxygen to BOTH the face and the tracheostomy

Assess tracheostomy patency

No
Remove speaking valve or cap (if present)
Remove inner tube
Some inner tubes need re-inserting to connect to breathing circuits

Yes
Can you pass a suction catheter?

No
Deflate the cuff (if present)
Look, listen & feel at the mouth and tracheostomy
Use waveform capnography or Mapleson C if available

Yes
The tracheostomy tube is patent
Perform tracheal suction
Consider partial obstruction
Ventilate (via tracheostomy) if not breathing
Continue ABCDE assessment

Tracheostomy tube partially obstructed or displaced
Continue ABCDE assessment

Is the patient stable or improving?

No

REMOVE THE TRACHEOSTOMY TUBE
Look, listen & feel at the mouth and tracheostomy. Ensure oxygen re-applied to face and stoma
Use waveform capnography or Mapleson C if available

Call Resuscitation team
CPR if no pulse / signs of life

Yes
Continue ABCDE assessment

No

Primary emergency oxygenation

Standard ORAL airway manoeuvres
Cover the stoma (swabs / hand). Use:
Bag-valve-mask
Oral or nasal airway adjuncts
Supraglottic airway device e.g. LMA

Tracheostomy STOMA ventilation
Paediatric face mask applied to stoma
LMA applied to stoma

Secondary emergency oxygenation

Attempt ORAL intubation
Prepare for difficult intubation
Uncut tube, advanced beyond stoma

Attempt intubation of STOMA
Small tracheostomy tube / 6.0 cuffed ETT
Consider Aintree catheter and fibreoptic 'scope / Bougie / Airway exchange catheter

Emergency laryngectomy management

Call for airway expert help
Look, listen & feel at the mouth and laryngectomy stoma
A Mapleson C system (e.g. 'Waters circuit') may help assessment if available
Use waveform capnography whenever available: exhaled carbon dioxide indicates a patent or partially patent airway

No
Is the patient breathing?

Call Resuscitation Team
CPR if no pulse / signs of life

Yes

Apply high flow oxygen to laryngectomy stoma
If any doubt whether patient has a laryngectomy, apply oxygen to face also*

Assess laryngectomy stoma patency

Most laryngectomy stomas will NOT have a tube in situ

Remove stoma cover (if present)
Remove inner tube (if present)
Some inner tubes need re-inserting to connect to breathing circuits
Do not remove a tracheoesophageal puncture (TEP) prosthesis

Can you pass a suction catheter?

Yes
The laryngectomy stoma is patent
Perform tracheal suction
Consider partial obstruction
Ventilate via stoma if not breathing
Continue ABCDE assessment

No
Deflate the cuff (if present)
Look, listen & feel at the laryngectomy stoma or tube
Use waveform capnography or Mapleson C if available

Is the patient stable or improving?

Yes
Continue ABCDE assessment

No

REMOVE THE TUBE FROM THE LARYNGECTOMY STOMA if present
Look, listen & feel at the laryngectomy stoma. Ensure oxygen is re-applied to stoma
Use waveform capnography or Mapleson C if available

Call Resuscitation Team
CPR if no pulse / signs of life

No
Is the patient breathing?

Yes
Continue ABCDE assessment

No
Primary emergency oxygenation

Laryngectomy stoma ventilation via either Paediatric face mask applied to stoma
LMA applied to stoma

Secondary emergency oxygenation

Attempt intubation of laryngectomy stoma
Small tracheostomy tube / 6.0 cuffed ETT
Consider Aintree catheter and fibreoptic 'scope / Bougie / Airway exchange catheter

Laryngectomy patients have an end stoma and cannot be oxygenated via the mouth or nose
* Applying oxygen to the face and stoma is the default emergency action for all patients with a tracheostomy

**Flange, phalange:** the part of the tracheostomy tube that fixed against

**Inflation Line:** the tubing that connects the pilot balloon with the

**Laryngectomy:** person who has had a laryngectomy.

**Laryngectomy:** removal of the larynx, (vocal cords, or voicebox

**Mucus plug:** an accumulation of mucus that can obstruct the air

**Obturator:** the removable piece of the tracheostomy tube that functions only to insert the tube. It should be alwa

**Pilot Balloon:** a balloon that is attached to the cuff. When the balloon is inflated, there is air in the cuff. When th-

**Speaking valve:** usually a one-way valve that fits on the tracheostomy tube. It allows air to pass into the trachea,

**Stoma:** literally means "mouth". It refers to the skin around the op

**Suctioning:** removal of tracheal secretions.

**Heat Moisture Exchanger, HME:** a device that fits on the tracheostomy tube and collects exhaled water vap-

**Phonation:** using the voice

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**NON-PROFIT ORGANIZATION**

The GTC is a 501(c)(3) non-profit organization listed under the title of Global Tracheostomy Quality Improvement Collat

all members operate on a volunteer basis for the cause. Learn how you can help contribute to our nonprofit through don

and spreading awareness.

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Tracheostomy 101

What are tracheostomy

Tracheostomies are surgically created holes that pass from the front of the neck into the windpipe. They allow patent airway access and adequate breathing. Tracheostomies may be temporary in the case of airway emergencies or for patients who require a tracheostomy for long-term respiratory support.

Why is there a need for improvement

Several hundred patients die each year from tracheostomy-related events. Many of these deaths are potentially preventable with better patient and family education, or by ensuring that tracheostomies require care from multiple specialties, patients often require long-term care and expensive care.

The Global Tracheostomy Collaborative

collective research and education, we can improve outcomes.

Common Terms

Tracheotomy, tracheostomy: People often use these terms interchangeably. Technically, the suffix -otomy means “an incision into”. So, a tracheotomy is the surgical procedure to create a tracheostomy, or the opening in the neck. Cannula, inner: the part of the tracheostomy tube that can be removed and cleaned. Cannula, outer: the part of the tracheostomy tube that stays in place. Cuff: the balloon at the end of the tracheostomy tube. Decannulation: removal of the tracheostomy tube.

Fenestrated tracheostomy tube: The word fenestration comes from the French word, la fenêtre, meaning ‘window’. A fenestrated tracheostomy tube is designed with an opening that allows air to pass through it. When it is fit properly, it can allow people who are ventilator-dependent to communicate directly with the environment.

http://globaltrach.org/stories/tracheostomy

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