Nursing Grand Rounds

November 2025

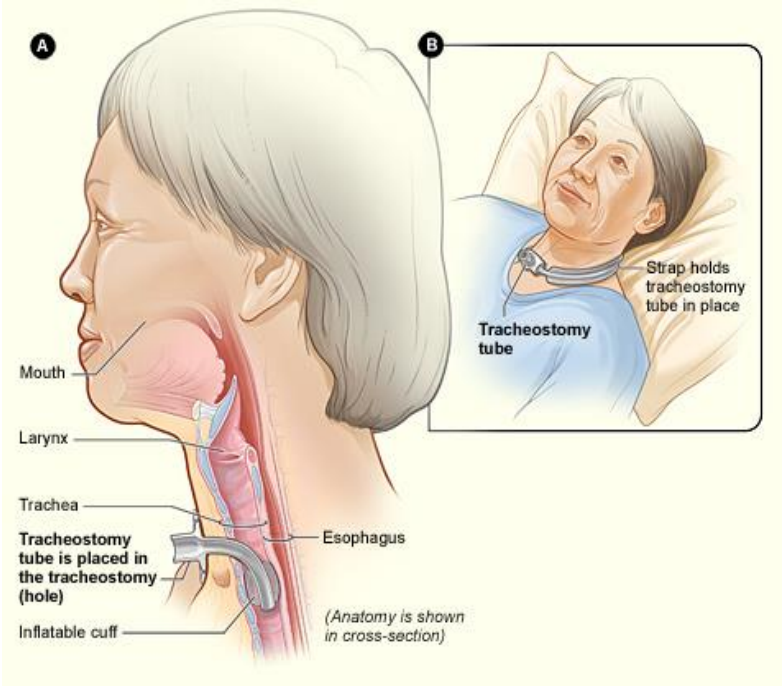
Tracheostomies and Tracheostomy Management

Objectives:

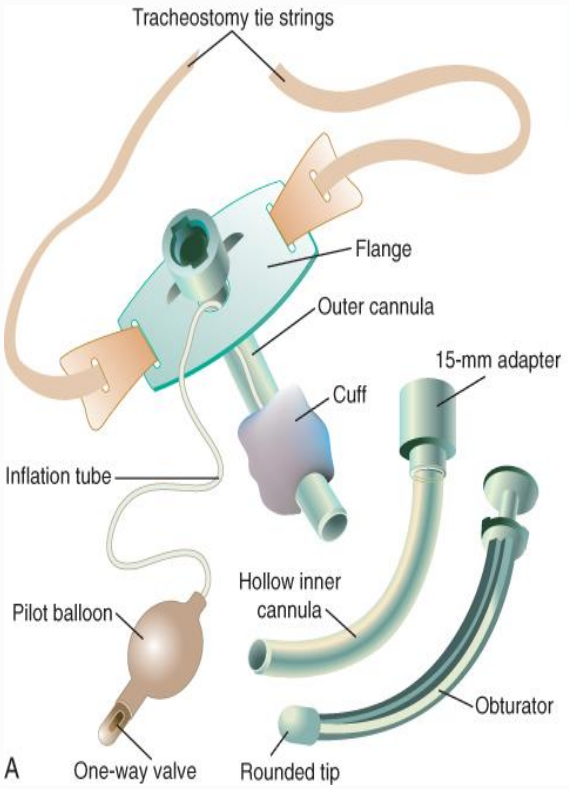
- ✓ Discuss tracheostomy tubes used in the hospital setting.
- ✓ Evaluate the tracheostomy site and manage care.
- ✓ Discuss oxygen modalities and equipment used.
- ✓ Identify specific patient needs when patient will be leaving the unit (test, procedures, etc.)
- ✓ Review data regarding inpatient trach patient volume

To Trach or not to Trach?

- to bypass an obstructed upper airway
- to clean and remove secretions from the airway
- to more easily, and usually more safely, deliver oxygen to the lungs



Trach Pieces and Parts



DEFINITIONS

- **Tracheostomy**: Surgically created hole through the front of the neck and into the trachea.
- **Percutaneous Tracheostomy**: A procedure which is used to secure airway access in a patient. It is the less invasive of the two methods which can be used to create a tracheostomy.
- **Inner Cannula**: Sits inside the outer cannula and can be removed for cleaning or replacement to help manage secretions.
- **Outer Cannula**: The main body of the tube that is inserted into the trachea.
- **Obturator**: Device that that guides the insertion of a tracheostomy tube. Removed immediately when tracheostomy tube is in place.
- **Flange**: Where the ties or sutures are connected to secure the tube in place. Numbers and letters that indicate what kind of trach tube is in place as well as the dimensions of the tube can be seen on the flange.
- **Fenestration**: A hole in the shaft of the tracheostomy tube, above the curvature, and therefore also above the cuff of a cuffed trach tube. The purpose of a fenestration is to allow for airflow upward and through the vocal cords.

Common Tracheostomy Tubes at SMM

Shiley

Portex

Portex and Shiley Trach Portfolio Available

More options to better customize to patient anatomy

Size Differences

- Shiley – "Jackson" Sizing
- Portex – "ISO" Sizing

Shiley "Jackson" Sizing	Portex "ISO" Sizing with Color Coding
4	6.0 mm
5	7.0 mm
6	7.5 mm
7	8.0 mm
8	8.5 mm
9	9.0 mm
10	10.0 mm

Cuff Differences

Shiley – Tapered

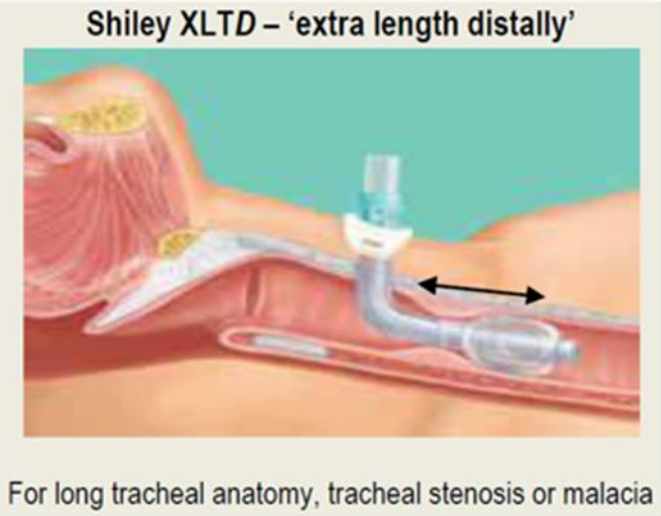
Portex – Symmetrical

Supplies

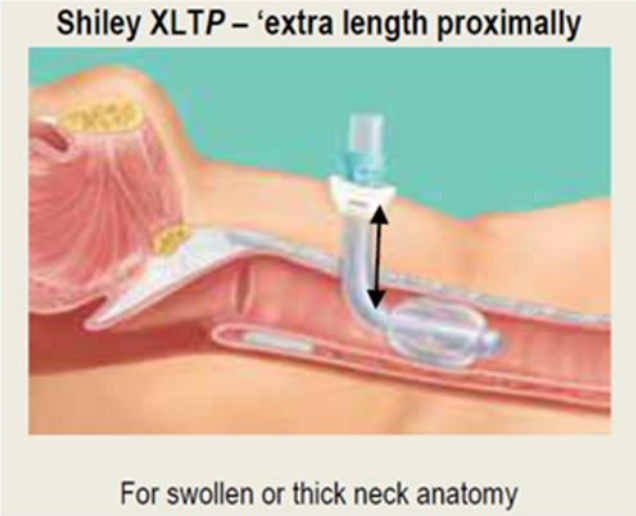
- Trachs will be stocked by RT only
- Ensure correct inner cannula size (either Shiley or Portex) is at bedside
- Trach ties, cleaning supplies, speaking valves are all universal

Difference between XLT
Distal vs Proximal

Distal



Proximal



Metal Tracheostomy Tubes

Advantages of Jackson Metal Trach:

- Durability
- Ideal for patients requiring a permanent or long-term trach
- Easy Cleaning and Reuse
- Reduced Airway Resistance
- No Cuff or Pilot Balloon
- Comfort and Biocompatibility
- Stability and Fit

Tracheostomy vs. Laryngectomy

Is there a difference?

Laryngectomy

Removal of larynx and separation of the airway from the mouth, nose and esophagus

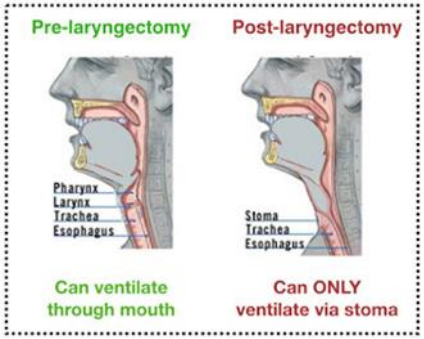
Usually for patients with laryngeal cancer

Since there is no connection between patient's mouth and airway…oxygen will ALWAYS have to be administered via STOMA SITE

Tracheostomy

Opening between cartilage rings in trachea

Oxygen can be delivered via mouth AND stoma site



Adult Tracheostomy Supplies

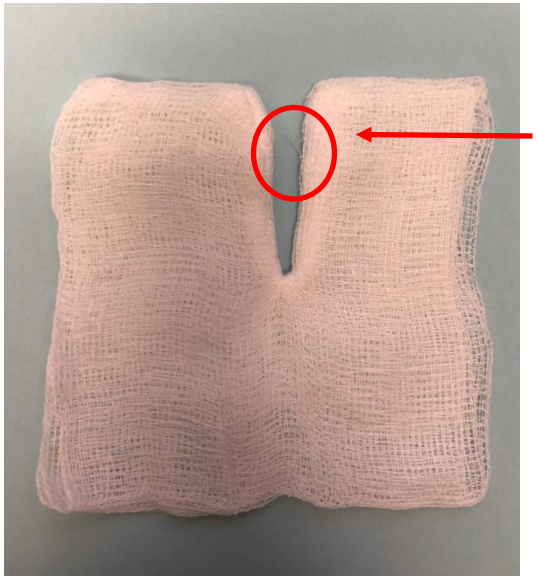
Current Trach Kits

In reviewing the disposable supplies for Trach Patients, it was discovered that the Radical Neck supply box is no longer stocked in Material Services and orderable from the outside vendor.

The picture on the left shows the contents that are included in the current Trach kit in Material Services.

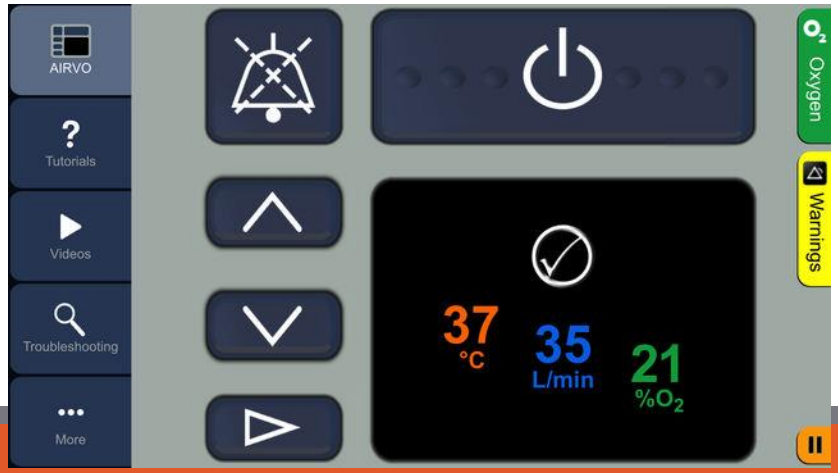
This kit contains all necessary supplies for a Trach patient, however, there is a concern regarding the drainage sponge, which is pictured on the right.

Current Trach Kit – Drainage Sponge

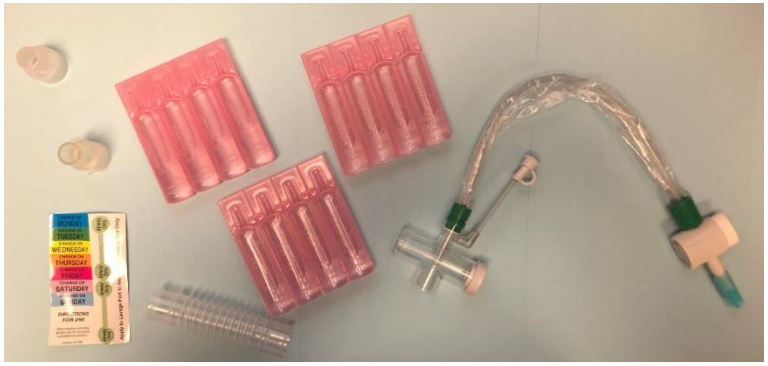


If you look closely at this drain sponge, there are frayed ends on the gauze that could inadvertently get caught in the patient's stoma or airway causing both discomfort and longer healing times of the stoma site due to potential infection.

Heated Tracheostomy Equipment



Inline ***Trach*** Suction Catheters



The inline suction catheter kit shown here is for patients with a Tracheostomy tube in place for their airway.

Some key features of this catheter:

- ✓ It ***SHOULD*** be used on tracheostomy patients in 2E, 5W and 5NW only.
  - ✓ May be used on inpatient floor after consulting RT
- ✓ Do NOT use this catheter on patients with ETT as ineffective suction will occur.
- ✓ The catheter should be advanced 3-4cm (1.5-2in) into the Trach tube.
- ✓ The catheter should be changed out with a new inline suction catheter every 24 hours to decrease the potential for nosocomial infection.

MDI Spacer

These spacers can be obtained from the Respiratory Therapy department for use with trached patients that are receiving MDI therapy/medications.

Speaking Valve

A speaking valves is a one-way valve that is placed onto the tracheostomy tube.

Speaking valves allow air to enter through the tube and exit through your mouth and nose allowing phonation to occur.

- Restores communication
- Improves swallowing and may reduce aspiration
- Restores natural positive airway pressure
- Facilitates secretion management
- May improve oxygenation
- Expedites ventilator weaning and decannulation
- Facilitates infection control
- Improves smell, taste and sensation

Can a patient eat/drink with a Trach?

- Having a tracheostomy usually will not affect the patient's eating or swallowing patterns
- Sometimes there are changes in swallowing dynamics that require adjusting to
- Consider a Speech Therapy consult to assess swallowing ability
- If swallowing problems do occur, it is usually due to limited elevation of the larynx or poor closure of the epiglottis and vocal cords, which allows food or fluids into the trachea.

“If the patient has a hole in their neck…..

Call RT!”

RED Trach Bin Setup

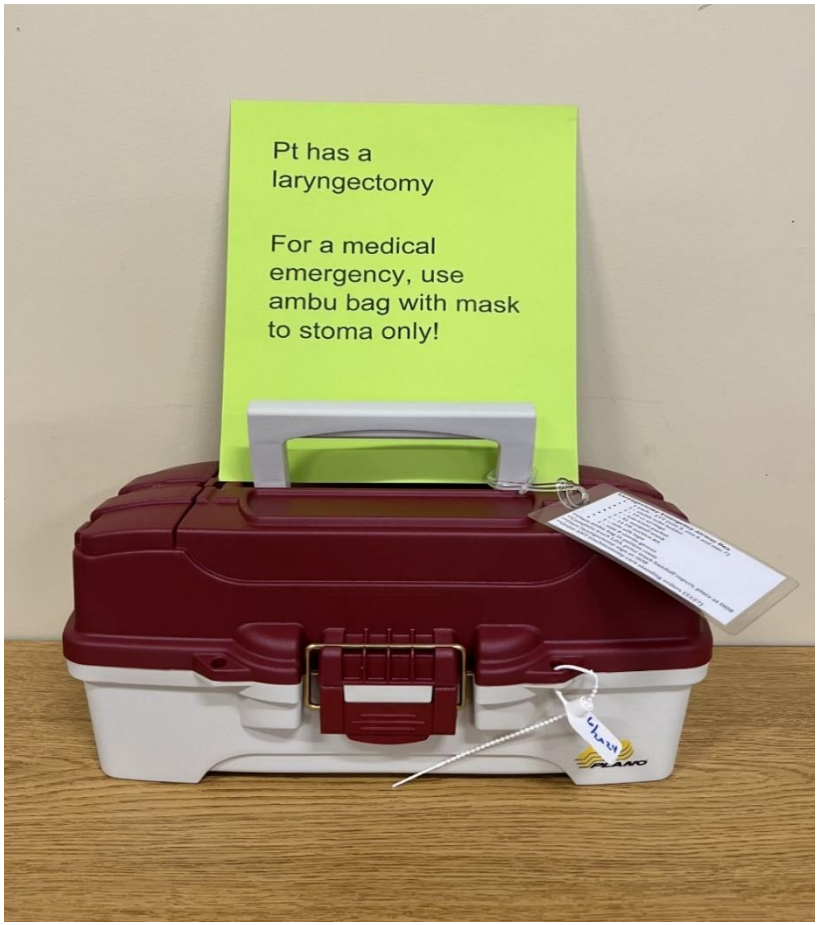
RT responsible for ensuring supplies are stocked at bedside for each trach patient

Compartments are labeled as following (suggested par levels included):

- Inner cannula (1)
- Sterile Water (1)
- Trach Ties (2)
- Suction Catheters (3)
- Sterile Scissors (2)
- Q Tips (4)
- Mepilex XT (2)
- Gauze (2)
- 1 Size Smaller Trach
- 1 Same Size Trach

- Clean, empty ***RED*** bins to be stored in RT equipment room
- RT to use unit stock from Central Supply room to fill bin once ENT Tracheostomy Order Set is initiated

Laryngectomy Tool Box



‘Tool Box’ for staff to place at bedside for laryngectomy patients

Head of bed signage with box

Includes emergency airway items if needed

Stored in RT Department

Laryngectomy Emergency Airway Supplies

1 each – ETT (size 5, 6, 7)
1 ETT holder
1 – 10cc syringe
1 – lubricant package
1 – XL neopuff mask
1 – 14fr suction kit
1 role silk tape
1 – size 8 sterile gloves

AMBU bag should be placed in patient room

Complete trach LDA, print trach handoff report, place at HOB

Place laryngectomy sign at HOB

Order ENT tracheostomy care standing orders (5127)

ENT Tracheostomy Order Set (5127)

ENT TRACHEOSTOMY CARE STANDING ORDERS (IP-SSMH-WI AFF EXCEPT CGCMC-CCH-EHHS) [5127]

Nursing

Treatment for Existing Tracheostomy [396402]

☑ DRESSING CHECK [NUR401]	Routine, BID AND PRN
☑ TRACHEOSTOMY SITE ASSESSMENT [NUR1466]	Routine, BID AND PRN
☑ TRACH SAFETY SUPPLIES TO BEDSIDE [NUR1600]	Details

Tracheostomy Care Instruction [396408]

☑ CHECK CUFF PRESSURE [RT22]	Routine, BID AND PRN
☑ TRACHEOSTOMY SUCTION [NUR370]	Routine, PRN, When clinically necessary
☑ TRACHEOSTOMY CARE [NUR362]	Routine, BID AND PRN, Clean inner cannula if required. TYPE: SUCTION LENGTH:
☑ TRACHEOSTOMY TIES [NUR1123]	Routine, CONTINUOUS
☑ REPLACEMENT TRACH AVAILABLE AT BEDSIDE [NUR1124]	Routine, CONTINUOUS, ...Replacement trach and obturator should be available at bedside. When transporting out of room, bring with patient.
☑ CHANGE TRACHEOSTOMY DRESSING [NUR400]	Routine, DAILY (0900) Wound Location: Dressing Change Frequency: Primary Dressing: Secondary Dressing: Held in place by: Tertiary Dressing: Special Instructions: With Tracheostomy Care and PRN

Consults

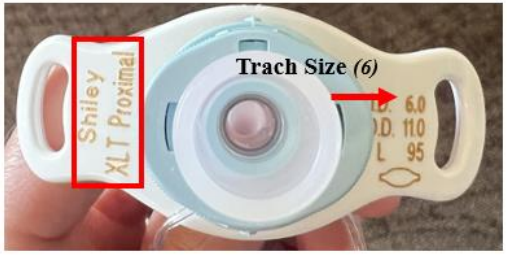
Consults [396409]

☑ IP CONSULT TO RESPIRATORY [CON92]	Routine REASON FOR CONSULT? Trach assessment and O2 needs. Has Respiratory Therapy been notified? No, please notify Respiratory Therapy of this consult.
☑ ST EVAL AND TREAT [SLP2]	Routine Reason for SLP?

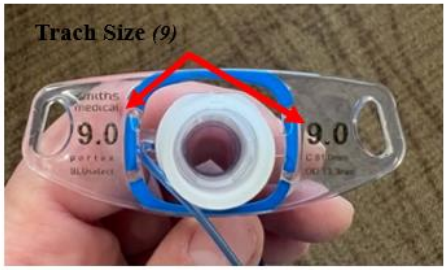
How to add Trach LDA

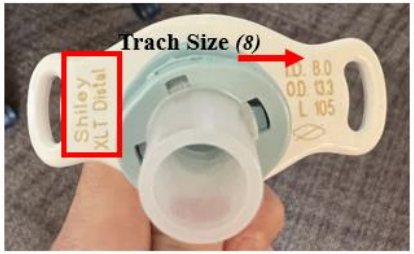
1. Select Brand
2. Select Cuffed vs. Uncuffed
3. If XLT, select Proximal or Distal
4. Type in Trach Size

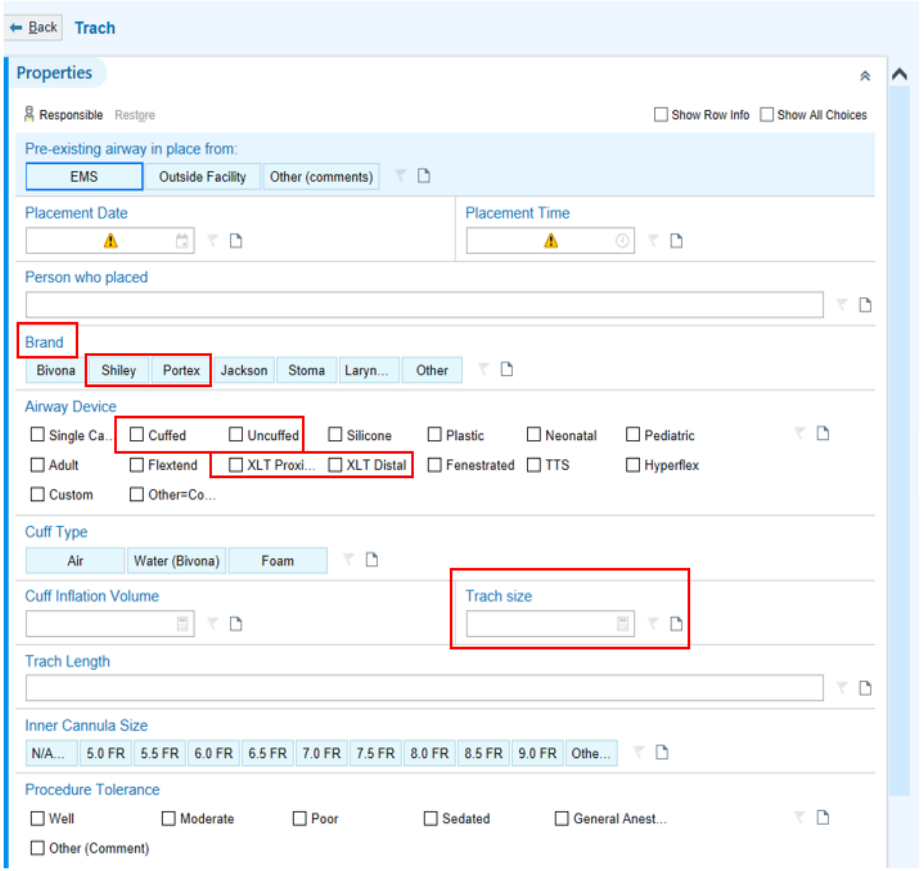
Shiley



Portex







Assessment:

- Begin tracheostomy care only upon receipt of an order by a physician.
- Assess patency and ease of respirations and that tracheostomy ties or holding device is/are secured.
- **Suction only when clinically necessary**:

    1.) Presence of audible or visible secretions that can't be cleared by cough

    2.) Excessive coughing

    3.) Increased airway pressure

    4.) Suspicion of aspiration

    5.) Drop in oxygen saturation

Tracheostomy Care

- New tracheostomy sites are not to be cleansed within 24 hours of insertion.
- **Tracheostomy care is performed twice per day and PRN**.
- Mepilex UP is used around tracheostomy unless the trach plate is sutured to skin or there are physician orders not to place a dressing.
- Disposable inner cannulas are to be discarded and replaced daily.
- Minimal Leak technique for cuff pressures should be followed. Keep cuff pressure < 25 cm H2O
- Contact wound nurse or begin wound care for tracheostomy sites showing redness or possible infection.

Items Available At Bedside:

- ❑ Obturator (may be kept in unopened tracheostomy tube box at bedside)
- ❑ Extra tracheostomy tubes (same size/type and one size smaller)
- ❑ Suction gauge, canister, tubing and catheter kit
- ❑ 10 cc syringe
- ❑ Resuscitation bag with facemask
- ❑ Oxygen flowmeter
- ❑ Pulse oximeter per physician order

Transportation of patients with tracheostomy:

- Notify Respiratory Care (or Anesthesia for immediate post-operative tracheostomy) for consult prior to any tracheostomy patient transport to ensure oxygen devices and all emergency equipment are available for transport
- Items to take with any tracheostomy patient transport:
  - Obturator
  - Extra tracheostomy tubes (same size/type and one size smaller)
  - Resuscitation bag with mask
  - Suction catheter kit
  - 10 cc syringe

Tracheostomy Dislodgement

- Indications of a tracheostomy dislodgement:
  - Increased resistance when ventilating
  - Low O2 saturation unresolved with suction or increased oxygen
  - Inability to pass a suction catheter through the tracheostomy tube
  - Presence of subcutaneous emphysema
  - Ventilator patients:
    - High peak pressures
    - Low exhaled volumes
    - Lack of end tidal CO2 measurements
- Dislodgement of new Tracheostomy (5 or less days old) is a medical emergency - call a Code Blue/Medical Emergency immediately.
- Dislodgement of tracheostomy (greater than 5 days old) and unable to ventilate is a medical emergency - call a Code Blue/Medical Emergency immediately.
- Dislodgement of tracheostomy and patient is able to breathe or be ventilated - call Rapid Response.

Elsevier Clinical Skills

Clinical Skills

Search for skills and patient education

Home Skills Patient Education

Tracheostomy Tube: Care and Suctioning - CE

Home > Skills > Tracheostomy Tube: Care and Suctioning - CE

Quick Sheet Extended Text Supplies Demos Illustrations Test Checklist Related

Quick Sheet

Print Quick Sheet

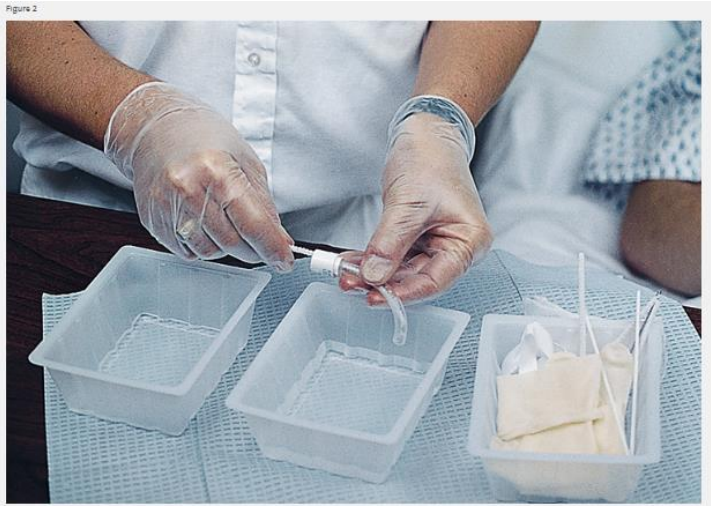
ALERT

To reduce the risk of infection, perform tracheostomy care using sterile technique. Suction the patient's tracheostomy tube only as clinically indicated and not as a routine, fixed-schedule treatment.

Limit each suction pass to less than 15 seconds.

Immediately withdraw the catheter and provide additional oxygen if the patient develops respiratory distress, cardiac decompensation, or any adverse effects during the procedure.

1. Perform hand hygiene before patient contact.
2. Introduce yourself to the patient.
3. Verify the correct patient using two identifiers.
4. Determine when the patient was last suctioned and tracheostomy care was last performed.
5. Observe the patient for signs and symptoms that tracheostomy care is needed.
6. Observe the patient for signs and symptoms that suctioning is needed.
7. Assess the patient's hydration and nutritional status.
8. Assess the patient's vital signs, oxygen saturation, breath sounds, respiratory pattern, and ability to clear the airway.
9. If the patient is receiving oxygen therapy, verify that the supplemental oxygen is humidified.
10. Assist the patient to a position that allows safe access to the tracheostomy tube.
11. Place a drape or towel across the patient's chest.
12. Place the patient on a pulse oximeter.



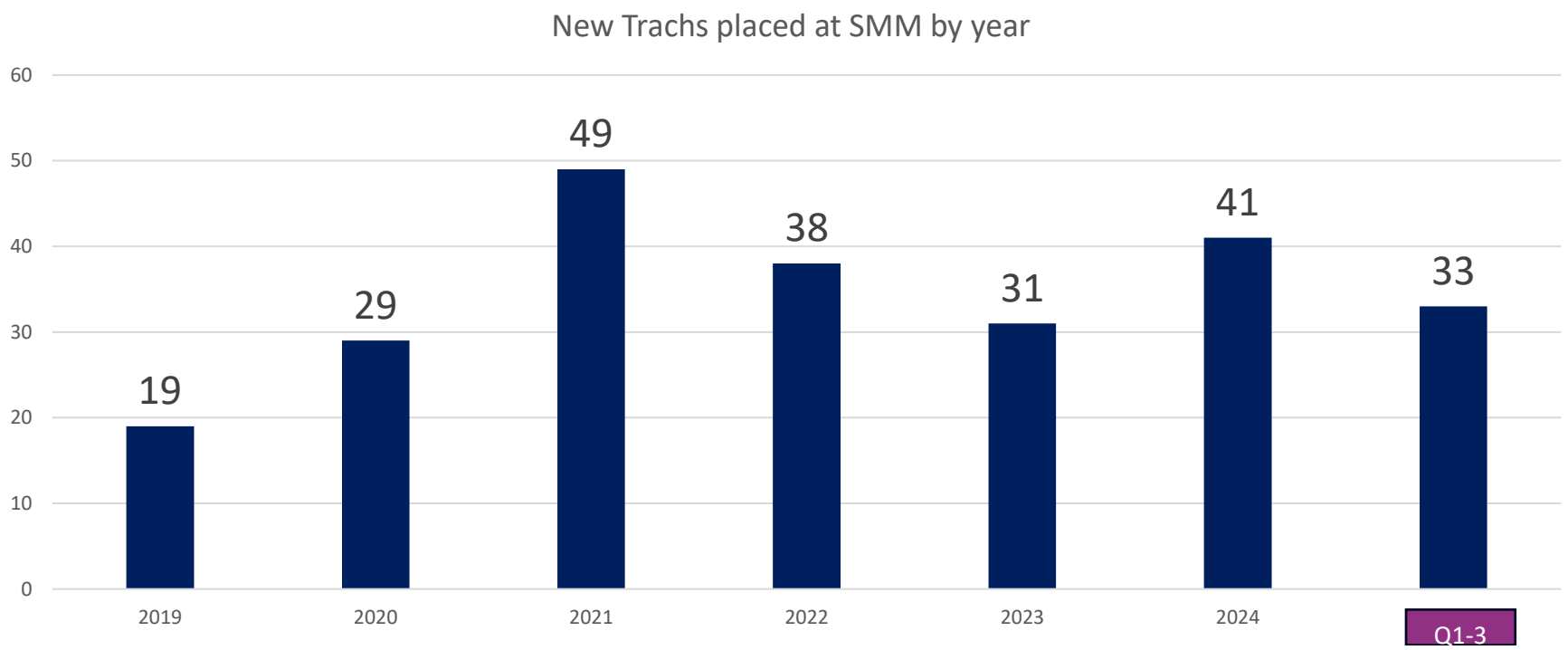
Trach outcomes

2025

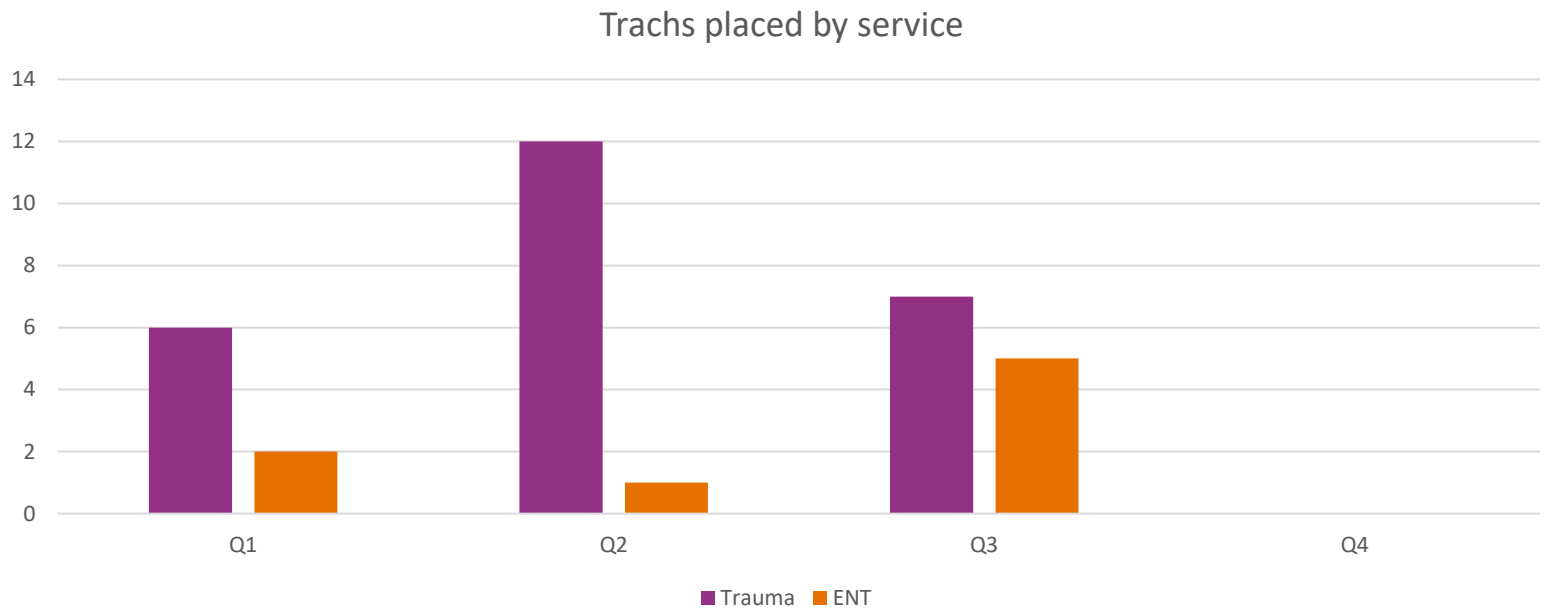
Data collection: Brenda O'Brien and Kathryn Miller

Data analysis/presentation content: Kathryn Miller

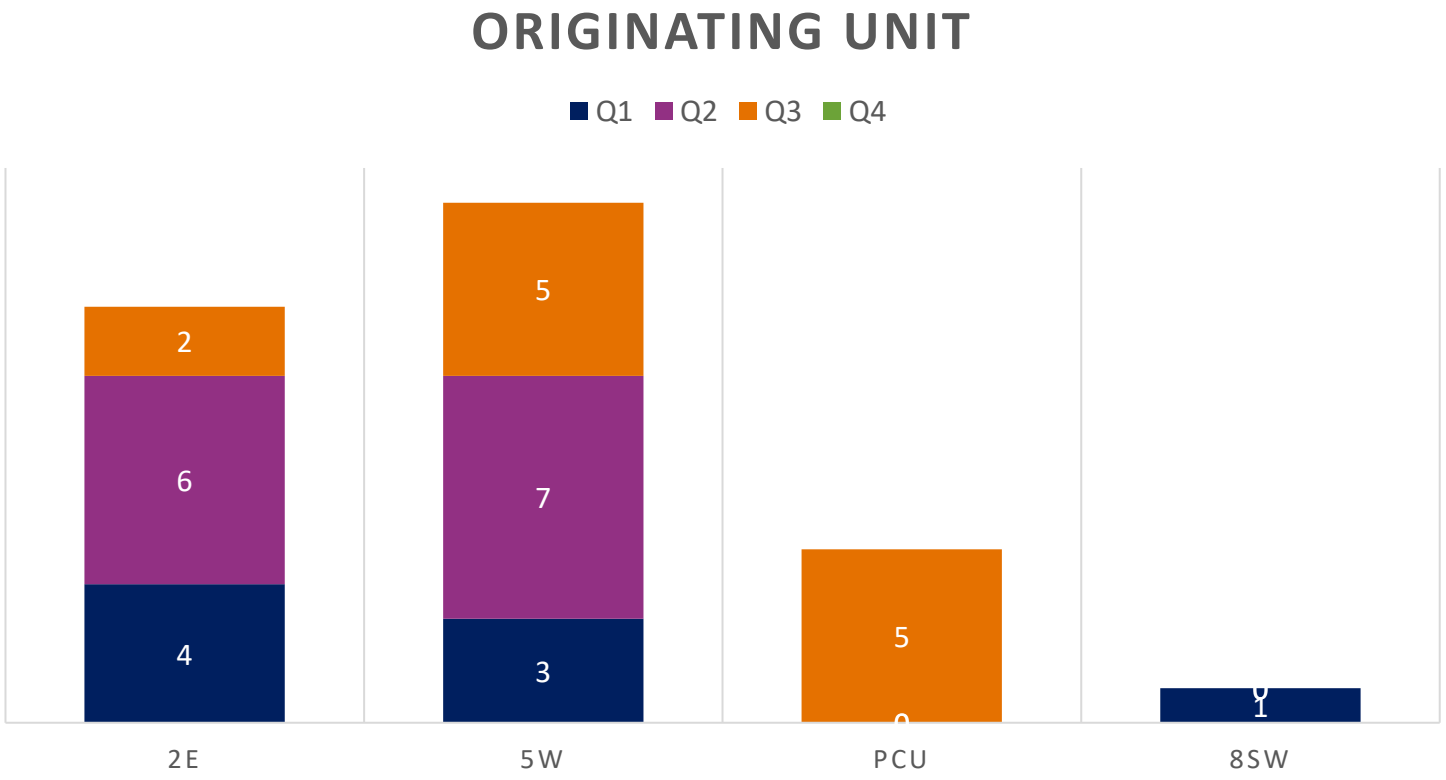
Trach Volumes



SMM Trach data 2025



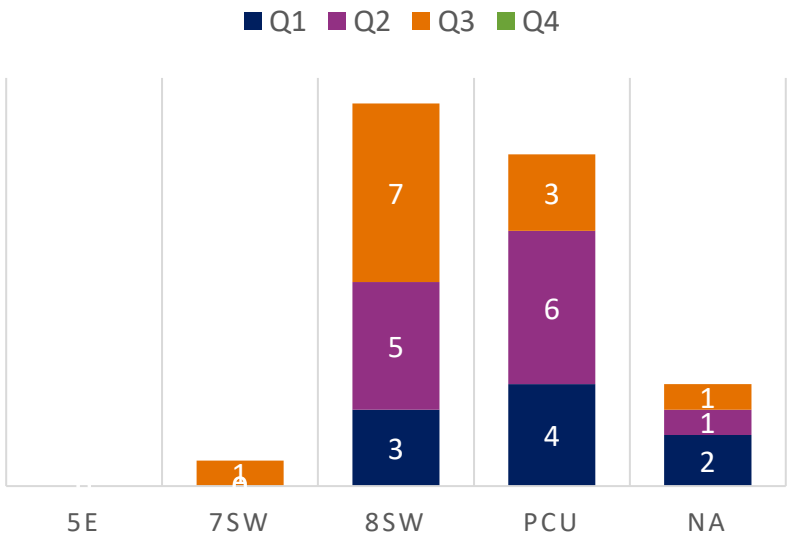
Care Continuum



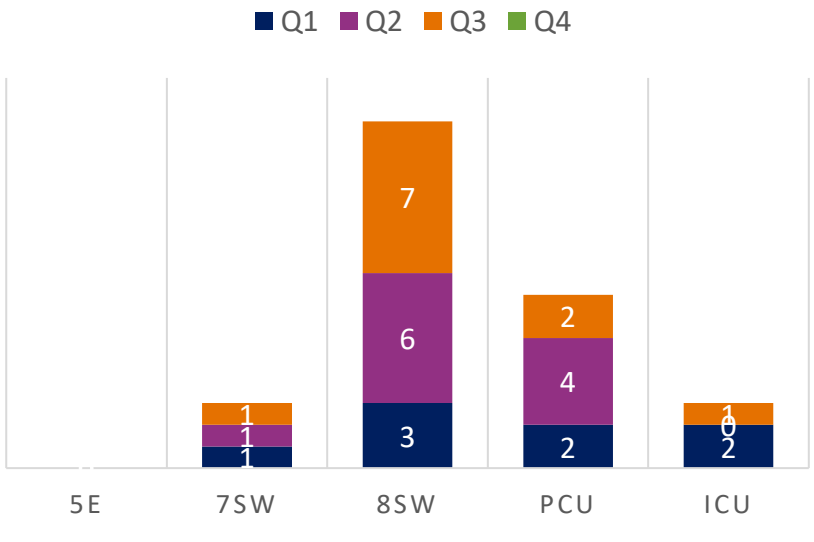
SSMHealth

Care Continuum

ORIGINAL (1ST) OOU LOCATION



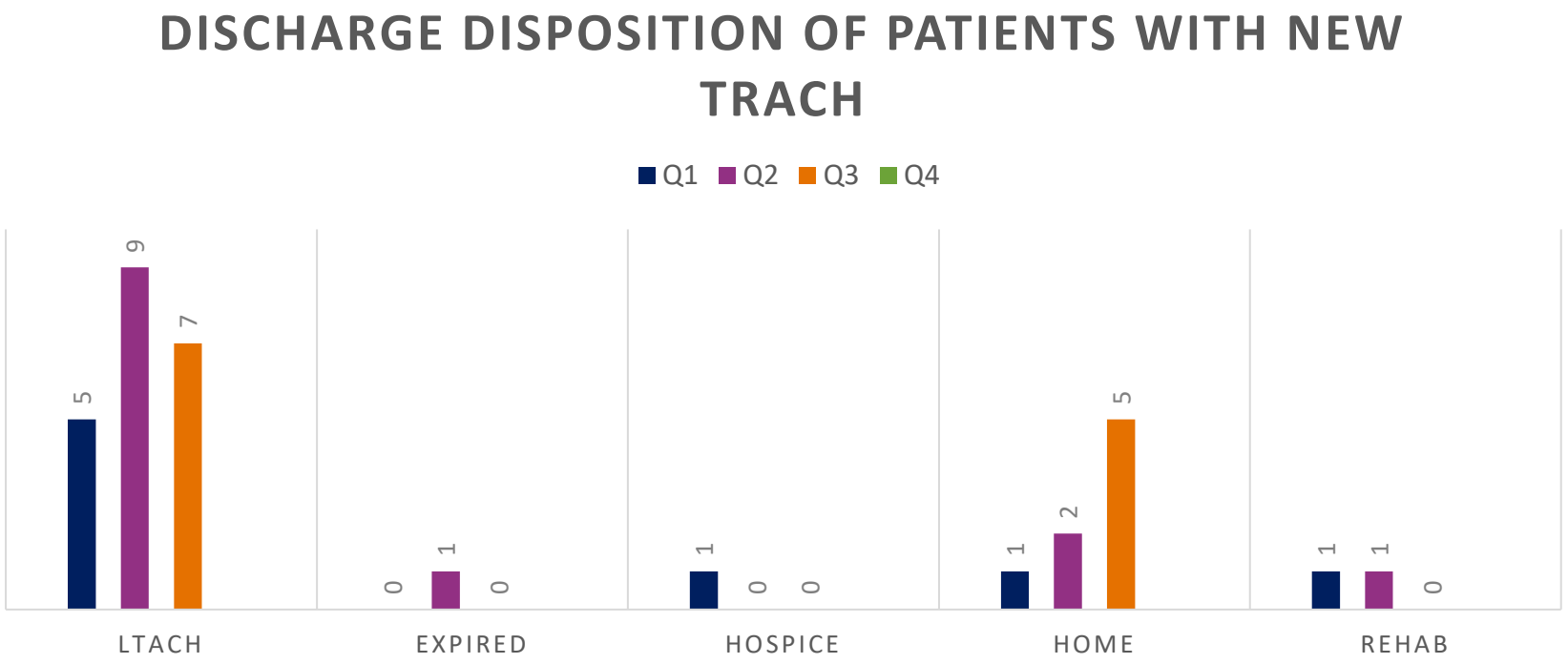
UNIT AT TIME OF DISCHARGE



Includes expired patients

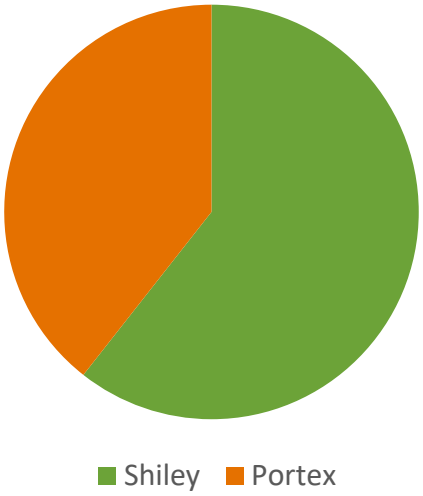
SSMHealth

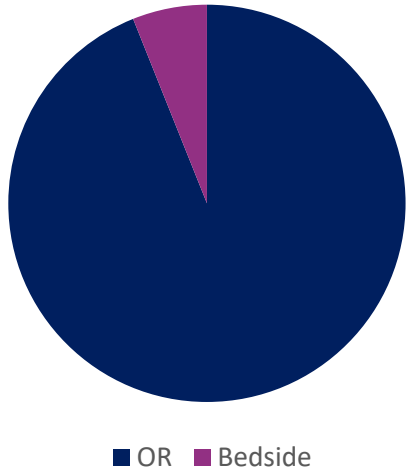
Care Continuum



SSMHealth

Trach info





SSMHealth

Care elements

Vent days of intubation prior to Trach

	Avg (days)	Max (days)	Extubation trials (# of patients)
Q1	6.6	16	2
Q2	11.5	24	5
Q3	9.1	15	2
Q4			

Vent support OOU	IMC (8SW)	PCU
Q1	1	4
Q2	3	6
Q3	2	2

Events	Q1	Q2	Q3	Q4
Documented Cuff leaks	0	0	0	
Return to OR	0	0	0	
Device related pressure injury	**0**	**2**	**1**	
48h Bounce back	**1**	**1**	**0**	

SSMHealth

References

http://www.aarc.org/resources/clinical-resources/clinical-practice-guidelines/

https://www.hopkinsmedicine.org/tracheostomy/living/eating.html

https://www.medtronic.com/covidien/en-us/products/tracheostomy.html

https://www.passy-muir.com/


thank you!