



**St. James's Hospital
Tracheostomy Care Working Group.**

Tracheostomy: Closed Suction Technique SOP

SJH:N069.6 version 5.

This Standard Operating Procedure (SOP) is effective from September 2020 onwards and is due for renewal in September 2023. It will be reviewed during this time as necessary to reflect any changes in best practice, law, and substantial organisational, professional or academic change. This SOP is supplementary to the [Tracheostomy Care and Management Guideline \(SJH:N069\)](#). This SOP describes standards for performing closed suction procedure.

1.0 Prepare the equipment required for suctioning.

- Wall suction/Suction machine fitted with filter.
- Suction tubing.
- Closed suction system.
- 10ml syringe filled with NaCl.
- Gloves.
- Bottle of sterile water/saline to rinse suction tubing – change daily.
- Face mask with visor/ goggles.

2.0 Perform hand hygiene.

3.0 Don appropriate PPE.

4.0 Confirm that the appropriately sized in-line closed system suction catheter is in use. Sizes: 12 Fr or 14Fr Length 34cm. Multiply Tracheostomy tube size x 3 and divide by 2 i.e. Size 7 = 12, Size 8 = 12, Size 9 = 14.

5.0 Check that the wall suction is functioning (if not please report it to the nurse-in-charge).

6.0 Confirm that the in-line closed system suction catheter in use is dated and has been in use for less than 7 days.

7.0 Check the level of wall suction in the following manner;

- Prior to inserting the suction catheter into the patient's airway depress the "lock" button on the closed suction until the vacuum level stabilises.
- Adjust the vacuum level until the desired level of ≤ 20 kPa / ≤ 150 mmHg is achieved.
- **Do not suction the airway at pressures greater than this as can cause trauma.**

8.0 Explain the procedure to the patient.

9.0 Consider pre-oxygenating the patient with 100% oxygen for 1 minute immediately prior to suctioning.

10.0 Insert the suction catheter into the patient's airway without applying suction.

11.0 When the patient coughs, withdraw the catheter about 1cm then apply suction (or when at 15cm mark).

- 12.0 Withdraw the suction catheter continuously applying suction.
- 13.0 Do not rotate the suction catheter while applying suction.
- 14.0 Complete the suction procedure in less than 15 seconds.
- 15.0 Suction the patient's airway no more than three times in one instance.
- 16.0 Observe the patient's haemodynamic and respiratory response throughout the entire suctioning procedure.
- 17.0 Flush in-line closed system suction catheter and tubing using 10 mLs of NACL or sterile water injected through flush port on the in-line closed system suction catheter.
- 18.0 Discard 10 ml syringe after use. Do not leave the syringe attached to the in-line closed system suction catheter.
- 19.0 Turn suction valve to locked position and turn off wall suction/suction machine when not in use.
- 20.0 Observe colour and consistency of sputum obtained.
- 21.0 If necessary send a sputum specimen for culture and sensitivity.
- 22.0 To collect sputum sample from a closed suction system, attach the sputum trap to the suction tubing and closed suction unit.
- 23.0 Assess the patient following the suction procedure.
- 24.0 Dispose of any waste appropriately.
- 25.0 Record the procedure in the ICCA notes if in ICU or EPR tracheostomy monitoring form via lines and devices if in the ward setting.

Links to related PPPGs:

- [Tracheostomy Care and Management Guideline \(SJH:N069\)](#)
- [Tracheostomy Care and Management Guideline: Associated Documents](#)

Appendix: 1 **INSTRUCTIONS FOR USE – OPTIFLO CLOSED SUCTION use in SELF VENTILATING, TRACHEOSTOMY PATIENT**

Turn on Wall Suction at < 150mmHG for adults.

Unlock Suction Valve.

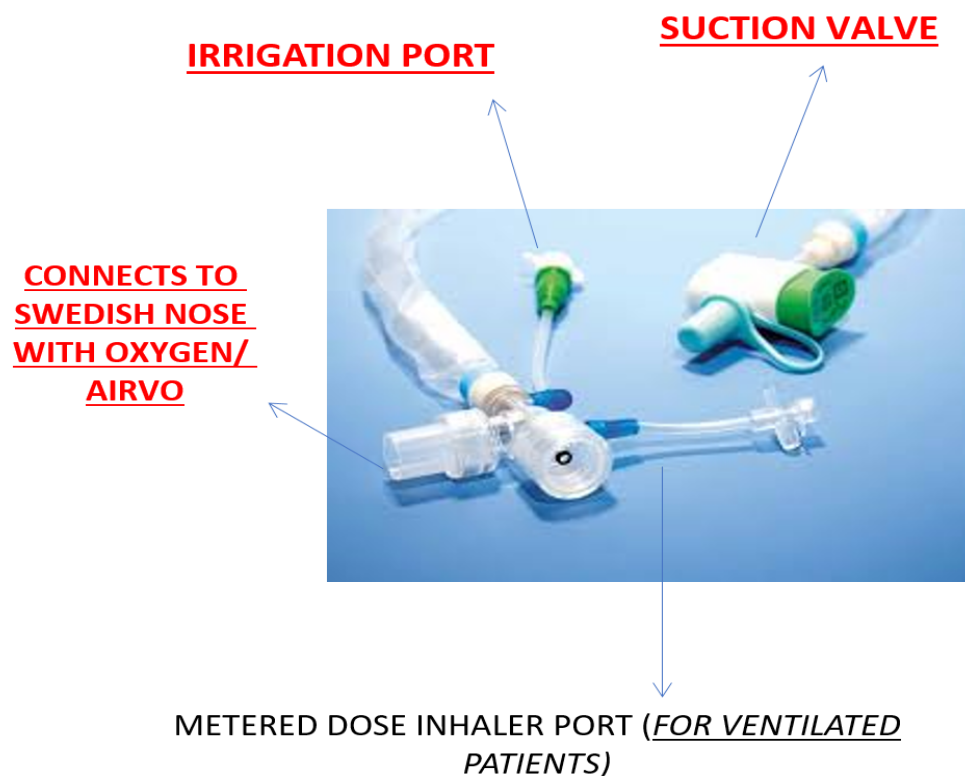
Advance catheter to desired depth (do not apply suction during advancement).

During expiration, withdraw the catheter while depressing the suction valve to activate suction. **Do not suction for longer than 15 seconds**

Clean catheter after each suctioning. To clean catheter, attach syringe with .9% Saline to Irrigation Port. **Simultaneously**, depress Suction Valve to apply suction and instil saline to clean catheter. Close Irrigation Port.

LOCK THE SUCTION VALVE (to avoid inadvertently applying suction) by rotating halfway.

Turn off Wall Suction.



AARC Clinical Practice Guidelines Endotracheal Suctioning of Mechanically Ventilated Patients with Artificial Airways 2010. Respiratory Care. Vol 55 No 6.