St. James's Hospital
Tracheostomy Care Working Group.

Tracheostomy Suctioning Standard Operating Procedure
SJH:N069.5 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) and describes standards for suctioning patients with Tracheostomy.

1.0 Suctioning via a Tracheostomy Tube

Suctioning to remove endotracheal secretions must be undertaken in order to maintain a patent airway and only as needed, i.e. where there is evidence of pulmonary secretions. Suctioning must **not** be undertaken to a pre-set schedule unless specified by the medical team. More frequent suctioning may be required in the immediate post-operative period.

1.1 Selecting appropriate catheter size:

1.1.1 The Health Care Professional (HCP) must select a suction catheter appropriate to the tube size in order to ensure the suction catheter is less than or equal to 1/2 the internal diameter of tracheostomy tube.

1.1.2 This should be identified by using either of the following formula:

- Size of tube x 3 divided x 2. OR
- Adding 4 to the tracheostomy tube size, e.g. with a size 8 tube, the calculated suction catheter is 8+4 = 12 suction catheter used. The smallest suction catheter size available at St. James's Hospital (SJH) is a size 10.

1.2 Suctioning Procedure

1.2.1 **Equipment Required:** The Health Care Professional (HCP) must assemble the following equipments:

- Gloves (Sterile & non-sterile).
- Suitable suction catheters.
- Apron/gown.
- Face mask and goggles (if infection risk identified).

1.2.2 **Standards**

1.2.2.1 Explain the procedure to the patient.

1.2.2.2 Perform hand hygiene and apply gloves.

1.2.2.3 Apply apron/gown, face mask and goggles where necessary for standard universal precautions.

1.2.2.4 Turn on suction apparatus and test that vacuum pressure is > 20Kpa / 100-150mmHg.

1.2.2.5 Where the patient is ventilated, the patient should be hyper-oxygenated (i.e. increase FiO2 to 100%) for greater than 30 seconds prior to suctioning, to minimise hypoxia during and after the suctioning event. This pre-oxygenation is not routinely required where the patient is self-ventilating on ward.

1.2.2.6 Open / expose only the vacuum control segment of the suction catheter and attach to the suction tubing.

1.2.2.7 Apply a disposable sterile glove over the non-sterile glove and withdraw the sterile catheter from the protective sleeve.

1.2.2.8 Maintaining sterility, insert the suction catheter to approximately 15cm (roughly a pens length or a third of the catheter length) without applying suctioning.

1.2.2.9 Smoothly withdraw catheter from the airway applying continuous suction. This procedure from insertion to removal should take less than or equal to 15secs.

1.2.2.10 A new sterile catheter and glove should be used for each suction pass. However, if the patient has copious secretions and an immediate repeat suction is required you are permitted to use the same suction catheter.

1.2.2.11 No more than 3 suction passes should be undertaken at one time. However, on the occasion where a patient has copious secretions, more than 3 suctions may be required. Allow the patient adequate time to recover between suction passes.

1.2.2.12 On completing the procedure, the HCP should ensure patient comfort, return FiO2 to baseline, discard equipment as per hospital policy, perform hand hygiene and document procedure in EPR via 'Lines and Devices-Airway Management'. Refer to Recording Tracheostomy Observations on EPR.

Links to related PPPGs:

- Tracheostomy Care and Management Guideline (SJH:N069)
- Tracheostomy Care and Management Guideline: Associated Documents