2.02.01 – Specimen Collection from Patient with Tracheostomy

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Individuals with pre-existing tracheostomies have altered anatomy and may have two potential sites of colonization/infection with the novel coronavirus that may be isolated from each other:

- Nasopharyngeal (NP) colonization - even if no airflow is occurring through the nose, hand contamination and face-touching could lead to contamination at the anterior nasal surface and mucociliary transport could result in NP colonization.

- Tracheal colonization - the stoma could become colonized through either hand contamination/touching, as is required during phonation and routine trach care, or from aerosolized exposure should they be close to an individual carrying the virus who sneezes or coughs.

For initial diagnostic testing for COVID-19, CDC recommends collecting:

- Upper respiratory tract specimens (nasopharyngeal swab)
- Lower respiratory tract specimens (tracheal swab)

Points for consideration:

- NP swabs may be collected in standard fashion.

- Full PPE should be worn while collecting tracheal swabs (N95 respirator, gown, gloves, and protective eyewear) because of the risk of aerosolization should a cough be induced during specimen collection.

- Tracheal swabs must be collected while trying to minimize the risk of coughing/aerosolization during collection.
  - No effort should be made to induce sputum.
  - If the patient wears a device – a tracheostomy tube, laryngectomy tube- the tube should be left in place.
  - If mucous is present externally around the tube, this may be used for specimen collection.
  - If a Heat/Moisture Exchange (HME) filter is worn, this should be removed; mucous accumulated on the HME should not be utilized for testing as it may contain virus from an inhaled exposure that has not resulted in infection.
  - If a tracheostomy tube is present that contains an inner cannula, this inner cannula may be removed and distal end swabbed for any visible mucous.
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- If patient does not have a tracheostomy tube with an inner cannula but has a tube in the stoma, while stabilizing the tube with one hand to prevent motion, a swab should be gently inserted through the inside of the tube with the intent of reaching the distal end of the tube (5 cm for a standard laryngectomy tube, 7 cm for a standard Adult size 6 tracheostomy tube). The swab should be rotated 360 degrees and then removed and inspected. If there is no visible mucous on the swab the procedure should be repeated, with careful attention to getting the swab deep enough, to obtain visible mucous on the swab.

- If a cough is stimulated, any expectorated mucous may be used for the swab.

While test results are pending (PUI status), an HME should be worn over the stoma/tracheostomy tube, to prevent potential spread via aerosolization.

Full version of guidance can be found here.

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References:

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