PICNet
PROVINCIAL INFECTION CONTROL NETWORK OF BRITISH COLUMBIA
A program of the Provincial Health Services Authority

Decision Summary: Tracheostomy

The B.C. Aerosol Generating Medical Procedure (AGMP) Expert Committee reviewed whether **Tracheostomy** are aerosol generating. In conjunction with the UBC Therapeutics Initiative group, the AGMP Expert Committee conducted a literature review to identify relevant primary evidence, review articles, and guidelines/recommendations from governing bodies, medical societies and other expert groups. The search results were assessed for evidence quality and source using the provincial AGMP decision framework. The expert group does not provide personal protective equipment (PPE) guidance.

The AGMP Expert Committee determined that **Tracheostomy** is a **Possible AGMP**.

Summary

Tracheostomy or tracheotomy is considered a possible AGMP, mainly when it involves direct manipulation of the airway that would increase the risk of airborne transmission of respiratory viruses[1].

Risk of aerosolization is more influenced by the type of activity taking place as procedures such as tracheostomy tube change or suctioning are associated with higher aerosols generation[2]. The risk of aerosolization during tracheostomy placement can be even influenced by the insertion technique, as comparative studies suggest surgical tracheostomy may generate fewer particles than percutaneous techniques[3].

Majority of the available literature emerged during the COVID-19 pandemic, and the evidence is mostly driven from indirect data, as there is limited direct data demonstrating transmission to healthcare providers during tracheostomy placement[2].

Risk assessments are extrapolated from prior evidence, including older systematic review data from the 2003 SARS outbreak, which showed transmission associated with airway manipulation[1].

References

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2. Berges AJ, Lina IA, Ospino R, Tsai HW, Brenner MJ, Pandian V, Rule AM, Hillel AT. Quantifying Viral Particle Aerosolization Risk During Tracheostomy Surgery and Tracheostomy Care. JAMA Otolaryngol Head Neck Surg. 2021 Sep 1;147(9):797-803. doi: 10.1001/jamaoto.2021.1383. PMID: 34292321; PMCID: PMC8299368.

3. Tüzemen G, Kaya PK. Aerosol-generating procedure; percutaneous versus surgical tracheostomy. Am J Otolaryngol. 2022 May-Jun;43(3):103401. doi: 10.1016/j.amjoto.2022.103401. Epub 2022 Feb 17. PMID: 35210114.