



Information note on the use of nebulizers during the Covid-19 epidemic.

Given the epidemic due to the Covid-19 virus and the large number of hospitalized patients, the working group on aerosol therapy (GAT) of the Société de Pneumologie de Langue Française (SPLF) would like to draw particular attention to the use of inhalation systems in the hospital setting in this context.

Nebulizers are widely used in hospitals and at home for the administration of aerosol medications in patients with respiratory failure. These devices may have to be used in patients with Covid-19 infection.

It has been proven that:

- nebulization could induce patient coughing which may contaminate the air and the nebulizing device
- nebulization could cause aerosol losses into the ambient air
- the nebulizer tank could be contaminated with the patient's saliva during the inhalation session and consequently aerosolize the Covid-19 virus in the ambient air.

Recent studies have reported an effective virulence of the Covid-19 in the ambient air up to 3 hours after its nebulization in the form of droplets.

Consequently, the GAT recommends using as a first line, instead of nebulization, ready-to-use inhalers such as pressurized metered dose inhalers (pMDIs) and dry powder inhalers (DPIs), especially in emergency situations such as during asthma exacerbations.

When metered dose inhalers are not available or suitable, the GAT recommends the preferential use of disposable nebulizers (a single use, nebulizer marked with a number 2 with a line through it) and/or nebulizers equipped with an expiratory gas filter.

The GAT recommends performing the nebulization session in a ventilated room separated from other people.

The GAT recommends wearing a FFP2-type mask for at least 3 hours after the nebulization session for anyone who has to be in the room where the nebulization has been performed.

The GAT draws attention to the fact that the use of ventilatory support, such as high-flow nasal cannula or ventilation device (in particular with humidifier), may also induce particle diffusion either from the patient or from the device which should therefore be handled carefully.

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References:

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2. Amirav I, Newhouse MT, RE: Transmission of Corona Virus by Nebulizer- a serious, underappreciated risk!, *Cmaj*, 2020, march, <https://www.cmaj.ca/content/re-transmission-corona-virus-nebulizer-serious-underappreciated-risk>
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