

Clinical Pearls

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Clinical Pearl 03/05/22

Each week we will aim to bring out a concise email that provides 4-5 key pieces of information addressing a specific issue in clinical therapeutics.

This week: The Use of Continuous Positive Airway Pressure (CPAP) with Coronavirus (COVID-19) at Nursing Home Level

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There is no specific data about the risks of having obstructive sleep apnoea (OSA) and contracting COVID-19 or if the severity will be worse. Patients with OSA should follow the same government advice that applies to the general community. (1)

Can CPAP worsen COVID-19 if a resident is diagnosed? (2)

There is no evidence to suggest CPAP therapy will worsen COVID-19 symptoms. Positive airway pressure therapies are commonly used in the treatment of severe lung infections.

If a resident has COVID-19 can CPAP use transmit the infection to others?

Yes, it can if precautions are not taken. (1)

There are two main ways in which COVID-19 is transmitted. Firstly, by the spread of contaminated droplets from an infected person's lungs and airways through the air and secondly, by direct contact with contaminated people, objects, or surfaces.

- Droplet propagation can be increased by using positive airway pressure treatments such as CPAP. This process is called aerosolization of secretions. Aerosolized virus particles may remain floating in the air for an hour or more.
- Contaminated CPAP masks and tubing can also increase disease transmission through direct contact. COVID-19 can persist on surfaces for hours or even days.

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What can a facility do if a resident has COVID-19 and uses CPAP? (2)

- Residents with known or suspected COVID-19 must be isolated in a separate room with doors closed including while using CPAP.
- There are changes that can be made to CPAP equipment to decrease the risk to others, including use of a different face mask and viral filters.
- CPAP equipment must be cleaned after every use and the room environment kept clean and disinfected including careful attention to the casing of the CPAP device.
- Cleaning instructions may include:
 - Disconnecting masks from the CPAP machine.
 - Disassembling the mask's 3 parts: head straps, cushion and frame.
 - Cleaning these mask parts and tubing in mild soap and warm water.
 - Placing them on a towel on a flat surface out of direct sunlight to dry.
 - Doing this after every use.
 - Washing hands regularly

Side effects from using CPAP with a resident diagnosed with COVID-19:

Any respiratory infection can make it more difficult to use CPAP. It's important to persist, but if wearing CPAP makes resident feel worse, then stop until respiratory symptoms improve.

Important points to consider in OSA:

Helping resident to sleep more upright, or on their side, avoiding alcohol and smoking may help as alternatives to CPAP in reducing OSA a little in this period. OSA symptoms are likely to worsen over the week but will resolve when CPAP is restarted.

References:

1. Sleep Health Foundation. 2022. *Coronavirus (COVID-19) and using CPAP Treatment for Sleep Apnea*, Available at: [Coronavirus \(COVID-19\) and using CPAP Treatment for Sleep Apnea \(sleephealthfoundation.org.au\)](https://www.sleephealthfoundation.org.au/coronavirus-covid-19-and-using-cpap-treatment-for-sleep-apnea) [Accessed 14 April 2022].
2. Guidance for using continuous positive airway pressure (CPAP) regarding coronavirus (COVID-19), Adapted from advice by Dr Sonya Craig and Dr Sophie West with the OSA Alliance (incorporating British Thoracic Society, British Sleep Society, Association for Respiratory Technology and Physiology, Sleep Apnoea Trust Association (March 2020)

Please consider these issues when preparing or interpreting RMMR reports or education sessions. Contributions of content or suggested topics are welcome and should be sent directly to natalie@wardmm.com.au