

Caring for long-term care residents on CPAP/BiPAP during a COVID-19 outbreak

Continuous positive airway pressure (CPAP) and bilevel positive airway pressure (BiPAP) are aerosol generating procedures (AGPs) that may increase COVID-19 transmission risk. Whenever possible, AGPs should be performed in a negative pressure environment for residents who are on COVID-19 isolation precautions. If this cannot be provided, many residents who only require CPAP or BiPAP while sleeping may tolerate temporary substitution of 2-4 L oxygen (O2) via nasal cannula until isolation precautions are discontinued. When considering a temporary wean of nocturnal CPAP or BiPAP to nasal cannula O2, a trial wean is recommended to confirm tolerability of therapy.

If weaning of CPAP or BiPAP is not feasible for a resident with COVID-19, place them in a private room, close the resident's door, and make sure staff use appropriate personal protective equipment (PPE). These actions can lower transmission risk. If you have any questions about these recommendations contact your local health department or email the state Healthcare Associated Infections Program at HAI@utah.gov.

Note: The following recommendations are general guidelines to be implemented at the discretion of a physician or qualified medical provider.

Identify appropriate candidates

Weaning should only be considered if the CPAP/BiPAP is used exclusively during sleep. Weaning is **not** advisable if any of the following conditions are present, unless conducted in a fully monitored setting:

- Resident is 18 years old or younger
- Moderate to severe chronic obstructive pulmonary disease (COPD)
- Class III or IV congestive heart failure (CHF)
- Established or suspected diagnosis of central sleep apnea
- Recent increased oxygen requirements
- History of stroke (CVA) in the past 30 days
- Resident takes opiate medications and cannot tolerate temporary discontinuation
- Body mass index (BMI) > 50 OR BMI > 33 AND elevated serum bicarbonate
- Obesity hypoventilation syndrome

Obtain an order

CPAP/BiPAP are medically prescribed therapies and cannot be discontinued, even temporarily, without an order from a physician or qualified provider.

Confirm tolerability

Any of the following can be considered satisfactory evidence of tolerability:

- The resident is largely non-compliant with CPAP/BiPAP without a report of adverse effects.
- A recent sleep study or overnight oximetry test conducted without CPAP/BiPAP (with or without O2) demonstrated minimal risk.
- A recent overnight hospitalization(s) with overnight oximetry monitoring without use of CPAP/BiPAP or ventilation demonstrated minimal risk.
- The facility may conduct their own tolerability test with pulse oximetry worn overnight.
- The physician/provider sets appropriate goals for overnight heart rate and oxygen saturation.
- Staff will check on the resident and record oximetry readings at least hourly during sleep. Preferably, monitoring equipment can also be set to alarm if it becomes dislodged or for readings outside of set goals.
- After one night of demonstrated tolerability, monitoring may be discontinued.

For the purposes of this document, recent is defined as: within the past 12 months with no significant change in condition.

Recommendations of the Long-Term Care Facility Subcommittee of the Utah Governor's COVID-19 Community Task Force