Mitigating Use of Aerosolizing Respiratory Treatments in LTC

There are some shifts to how health care providers must deliver care to meet the needs of patients and minimize risk of disease transmission during the COVID-19 pandemic. One key area is how we are delivering respiratory treatments that are known to aerosolize respiratory particles during administration. This includes administration of inhaled medications via nebulizer therapy and non-invasive airway support via C-PAP and Bi-PAP to residents with suspected or confirmed COVID-19 infection. Guidelines recommend these treatments should be performed in a negative pressure isolation room for people who are COVID positive and these rooms are not in any long term care facilities.

Current recommended best practice is to shift to use of an MDI, or Metered-Dose Inhaler, administration as opposed to nebulized treatments for all LTC residents. This will need to be done in consultation with the resident’s medical provider. A spacer, or chamber, may be used with the MDI for residents who have difficulty timing inhalation during administration; the spacer/chamber is also helpful for getting more of the medication into the lungs vs. coating the oral/pharyngeal surfaces, which can also lead to topical irritation and infection. Spacer/chamber may be added to the prescription order and supplied with the MDI from the pharmacy or they can be purchased through suppliers without an MD order. Ensure proper cleaning between uses per standards of care and do not share the device among multiple residents.

There may be situations that arise that require the use of nebulizer therapy. In these situations, if a resident with confirmed or suspected COVID-19 infection must receive a medication via nebulizer, the following strategies may be taken to mitigate the risks of spread to others:

- Have resident, if able to, self-administer via mask to prevent unnecessary HCW exposure - if nurse must remain in room, full PPE including fit-tested N95 & eye protection is needed.
- Remove roommate (if applicable) prior to treatment and they must remain out of room for minimum of 1 hour post treatment (dependent upon airflow in room).
- If possible, open the window a couple inches and use fan to direct airflow out of room during treatment and until at least 10 minutes after completion.
- Keep privacy curtain drawn around resident for duration of procedure (may draw back 10 minutes after treatment completed if window/fan in use to circulate air; if not must keep drawn for 1 hour after completion of treatment.
- Have resident wear a surgical mask over nebulizer mask to filter viral particles.
- Keep door closed throughout treatment and for one hour post treatment. If possible, open the window further for increased air circulation.
- After treatment, disinfect all surfaces around the resident with an EPA approved cleaner.

For residents infected with COVID-19 and who have C-PAP, BiPAP, or require the use of a high flow nasal cannula (HFNC) due to increased oxygen demands or airway obstruction – close coordination with the ordering provider must occur to determine whether these interventions can be provided in the LTC setting. Consider alternatives such as supplemental O2 via regular mask if possible. Ultimately, if the resident’s condition requires the use of one of these Aerosol Generating Procedures (AGP) – follow mitigation strategies as listed above for nebulizer use. Due to infection control concerns, current best practice recommendations are to avoid aerosolizing procedures and to use mitigation strategies to reduce risks when they are medically indicated.