Small-Volume Nebulization Procedure
FOR CLINICIANS
Hospital Setting

BEFORE ENTERING THE ROOM

Treat every patient as potentially infectious—asymptomatic patients infected with SARS-CoV-2 can still spread the virus.

- Thoroughly wash hands.
- Don personal protective equipment (PPE) for aerosol and droplet protection, including an N95 mask, face shield, gown, and gloves.
- If available, consider utilizing a PAPR (powered air-purifying respirator) or performing nebulization in a negative-pressure room with a high air exchange rate (minimum 6–12 exchange cycles/hour).

AFTER ENTERING THE ROOM

1 Prepare Nebulizer Treatment

- Assemble the nebulizer equipment, following the manufacturer’s guidelines.
- Add medication to the nebulizer cup according to physician orders.
  - Utilize a mouthpiece with a viral/bacterial filter attached to the exhalation port, if available.
  - Attach the nebulizer tubing to a gas source with a flow rate of 6 to 8 L/min, according to the manufacturer’s guidelines.

2 Administer Nebulizer Treatment

- Position patient upright in a chair or bed.
- Keep the nebulizer cup upright during the treatment.
- Place the mouthpiece in the patient’s mouth and ask the patient to breathe normally (tidal volume breathing), keeping lips sealed around the mouthpiece.
- If possible, maintain a minimum distance of 3 to 6 feet from the patient during the treatment.
- If the patient requires a break during the treatment, turn off flow to the nebulizer cup to decrease medication loss.
- Continue treatment for approximately 5 to 12 min (total time will vary depending on nebulizer type, flow rate, and volume of medication in the cup).
- Tap cup near the end of the treatment time to ensure all medication is delivered. You may hear a sputter sound, signaling the end of the treatment.

3 After Nebulizer Treatment

- Instruct patient to replace their mask (cloth/surgical).
- Discard any residual medication in the nebulizer cup.
- Clean and disinfect the equipment, which may include rinsing nebulizer parts with warm, soapy water; air drying parts; and placing the nebulizer in a plastic bag.
- Change out the nebulizer daily or according to hospital guidelines.

BEFORE EXITING THE ROOM

Doff PPE (dispose of in accordance with hospital guidelines) and wash hands thoroughly.

To learn more, go to foundation.chestnet.org/copd

Read the CHEST Foundation Patient Education disclosure at chestfoundation.org/patient-education-disclosure/