Aerosol-generating procedures = any medical procedure performed on a patient that can induce production of aerosols and droplet nuclei.

Transmission by air is complex and involves multiple factors:

- **Environmental conditions**: Humidity, temperature, air flow, ventilation, indoor vs outdoor.
- **Method of generating aerosols**: Breathing quietly vs vocal projection (shouting, singing).
- **Use of proper personal protective equipment (PPE)**: By both infectious and uninfected people.
- **Social Distancing**.

Aerosol-generating procedures include:

1. Aerosols
2. Droplets
3. Contact, direct (skin to skin) or indirect (fomites or surfaces).

Overview of Viral Transmission:

1. Aerosol
2. Droplet
3. Direct Contact
4. Indirect Contact

Respiratory viruses—including SARS-CoV-2—spread by three major routes:

1. Aerosols
2. Droplets
3. Contact, direct (skin to skin) or indirect (fomites or surfaces).
What you see coming out of the nebulizer is medicine, not infectious aerosol!

Aerosols generated by nebulizers are derived from medication in the nebulizer, according to the CDC.

The importance of PPE is evidence based.

The lack of appropriate PPE use makes it difficult to determine the risk of infection from nebulization.

PROPER USE OF INHALED THERAPIES

Using inhaled therapies, including nebulization, correctly helps reduce the need for hospital visits, which

- Reduces the potential for exposure to uninfected individuals.
- Reduces the burden on hospital systems.

All inhalation medicines have the potential to generate cough. Always sneeze or cough into your arm or sleeve.

Wash hands and use proper hygiene. Clean nebulizers per instructions and follow CDC guidelines.

Inhaled therapy helps patients. Regardless of type, proper use is best for disease management.

To learn more, go to chestfoundation.org/copd

Read the CHEST Foundation Patient Education Disclosure at https://foundation.chestnet.org/patient-education-disclosure/