COVID-19 Patient Management

Known active COVID-19 infection

-or-

Symptomatic* and history of direct contact with known COVID+ individual
**Loss of smell or taste, cough, fevers, body aches, shortness of breath*

- or -

Symptomatic* and EMS provider perceives high-likelihood of COVID

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PPE AND PRIMARY ASSESSMENT:

- **Don adequate PPE before making patient contact** (follow your agency-specific recommendations).
  NOTE: *It is advisable to document the PPE used by the crew in the patient care report to assist with contact tracing and workforce protection.*
- If available, **place a simple face mask on the patient**. If the patient requires oxygen, the mask may be placed over the oxygen delivery device (see pictures).
- Whenever possible, assess patient in an open outdoor area. Encourage facilities with congregate residents to bring the patient to the facility entrance.
- **Assess ABCs, including SpO_2, $EtCO_2$, and lung sounds.**
- **Vehicle Operator / Driver:**
  - Continue to wear respiratory protection while driving with patient, but remove gloves, gown, and eye protection. Sanitize or wash hands before driving. Re-don PPE if assisting with patient offloading at hospital.
- Consider applicability of the **CoVID-19 Pandemic Patient Refusal Assessment Tool** (below).

OXYGENATION:

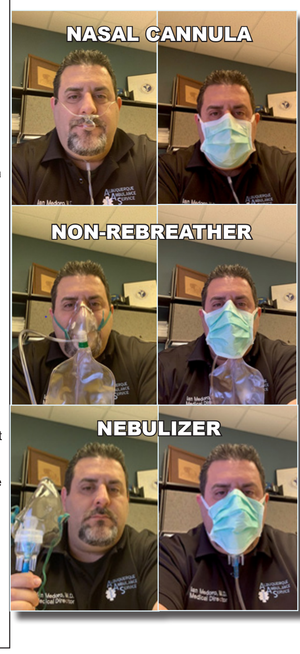
- Apply oxygen, as needed, to **maintain oxygen saturation > 90%**.
- When possible, **attempt to use methods with less aerosolizing potential first.****
  Nasal Cannula > Non Rebreather > CPAP > BVM / EGD
- For patients that are profoundly hypoxic, consider using a nasal cannula with flush-flow oxygen (>15LPM) with an additional NRB placed on top.
- Place patient in their **position of comfort** for duration of transport.

NEBULIZED MEDICATION:

- The use of nebulized bronchodilators does not consistently improve the sensation of breathlessness in patients with COVID-19.
- If a patient has known reactive airway disease/asthma/COPD that is exacerbated by COVID-19:
  1. If the patient has an albuterol multidose inhaler (MDI), assist the patient in adminstering 4-6 puffs and reassess response to treatment.
  2. If the patient does not have an MDI or is unresponsive to initial treatment, treat the patient with nebulized bronchodilators as directed in Adult Reactive Airway Disease protocol.
     - It is recommended to connect a nebulizer to an NRB to help keep the aerosol close to the patient's face (see pictures).
     - Limit the number of EMS providers in the patient compartment of the ambulance to the fewest necessary to perform adequate patient care.
     - Family members should not be transported in the transport vehicle with the patient EXCEPT with pediatric patients, with whom a single parent/guardian may ride, masked, in the patient compartment.
     - If possible, administer nebulized medications in a well-ventilated area. If ambulance is equipped with negative-pressure ventilation, this should be used during administration after for the duration of transport afterwards.
     - If applicable, the partition between the driver compartment and passenger compartment should be sealed.
     - Upon completion of transport, the vehicle should be opened for ventilation and decontaminated per agency protocol.

**
AEROSOLIZING PROCEDURES
MUST USE N95 OR BETTER RESPIRATOR IN ADDITION TO USUAL PRECAUTIONS.

Suctioning
Endotracheal Intubation
EGD
CPAP
BVM
CPR
Nebulized Medications
Nasal Swab



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- **Obtain 12-lead ECG** if complaining of shortness of breath, chest pain, palpitations, or generalized weakness.
- **Consider placing IV**.
- If signs of dehydration are present (e.g. tachycardia, poor skin turgor), administer 500mL bolus of crystalloid. May repeat, as tolerated by patient, to maximum of 2L.
- Adult: If the patient **requires** supplemental oxygen (SpO2 < 90% on room air) or ventilatory support, administer 10mg Dexamethasone IV/IO/PO over 2 min.
- Pediatric: The use of Dexamethasone for COVID-19 is not as well-studied in pediatrics. It is reasonable to consider adminstering 0.6 mg/kg IV/IO/PO over 2 min (max 10 mg) to children that **require** supplemental oxygen or ventilatory support.

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INTUBATION CONSIDERATIONS:

- Many patients with COVID-19 seem to tolerate severe levels of hypoxemia ("happy hypoxia").
- **The decision to intubate should not be made based upon oxygen saturation alone**, and should place greater emphasis on adequacy of ventilation, ability to protect airway, and signs of end-organ dysfunction (e.g. altered mental status or loss of consciousness).
- **When available and practical, a ventilator should be used with ETT or EGD**.
  - Once adequate ventilation is confirmed, the EMS provider may move away from the patient's airway to minimize exposure.
  - If available, the use of a HEPA filter on the exhalation limb of the ventilator circuit is recommended.

THE EVIDENCE FOR EVALUATION AND MANAGEMENT OF PATIENTS WITH COVID-19 INFECTION IS RAPIDLY EVOLVING AND THESE RECOMMENDATIONS MAY CHANGE.

COVID- 19 Pandemic Patient Refusal Assessment Tool

Pandemic declarations can severely stress EMS systems. When the system becomes overwhelmed, it may be reasonable for EMS to suggest home monitoring over hospital transport in patients who appear to be low-risk.

This assessment tool should be reviewed with the patient. If the answers to all exclusion criteria are **NO**, it is reasonable to encourage the patient to decline transport, since they are less likely to benefit from a hospital transport.

This guideline ONLY applies to patients with isolated respiratory infectious symptoms suggestive of COVID-19.
This guideline may **NOT** be used to discourage transport for patients with *any* other complaint (including non-infectious complaints that are *additional* to typical respiratory infectious symptoms).

The patient's informed choice overrides the EMS provider's recommendation.
A patient's request for transport should be honored, even if they meet criteria for EMS-initiated refusal.

EXCLUSION CRITERIA FOR EMS-INITIATED REFUSAL	
Does the patient have difficulty breathing, shortness of breath, increased work of breathing, or otherwise appear ill?	**YES / NO**
Is the patient < 18 or > 60 years old?	**YES / NO**
Does the patient's medical history include: Diabetes, cancer, HTN, heart or lung problems, immunosuppression, or pregnancy?	**YES / NO**
Does the patient have **ONE OR MORE** abnormal vital sign(s)? Respiratory rate < 8 or > 20 SpO2 < 90% on room air Heart rate >110 bpm Systolic blood pressure < 100 mmHg GCS < 15	**YES / NO**
If YES to any of the above, EMS shall offer transport to a hospital. **If NO to all of the above, complete the Patient Support/ Patient Safety checklist below.**	

PATIENT SUPPORT / PATIENT SAFETY
Explain to the patient the risk and benefit of staying at home versus going to the hospital.
Ensure that the patient has family or other social support in the house or nearby. With the patient's permission, discuss your plan with this support person.
Provide the patient with a COVID-19 information packet.
Ensure that the patient's chart is complete, including the patient's contact information.
Remind the patient to call 911 if their condition worsens.
Discuss the case with the on-call UNM EMS Consortium physician.
Provide the patient with the NM DOH Coronavirus Hotline phone number: 855-600-3453