



TO: All San Diego County Emergency Departments, Hospitals, and Medical Transport Agencies

OXYGEN DELIVERY MODALITIES FOR INTERFACILITY TRANSPORT ARE NOW AVAILABLE

High Flow Nasal Cannula (HFNC) has become a successful frontline therapy for COVID-19 patients. It provides warmed, humidified oxygen at higher fractions of inspired oxygen and flow rates than conventional oxygen therapy, reducing the need for intubation and mechanical ventilation. However, interfacility transport for patients on HFNC has been challenging. The in-hospital HFNC machines are not designed for transport and require power for heating, humidification, and a large O₂ supply system. Additionally, any equipment used on aeromedical vehicles must meet FAA regulations for equipment function at altitude. Air and ground critical care transport (CCT) providers have struggled to overcome these issues. They continue to review possible HFNC equipment options that would be suitable for transport.

To meet immediate CCT transfer needs during the COVID-19 pandemic, several options are available for patients treated with HFNC. These modalities can be used to bridge patients during transport to the receiving facility where HFNC can be resumed.

Patients can be transported using the following modalities:

- RAM cannula to direct oxygen. Facemask or other method of source control over RAM with flow up to 25 liters per minute.
- RAM cannula to vent. Facemask or other method of source control over RAM with nasal CPAP. This option can provide PEEP.
- Full-face BiPAP or CPAP using a closed system mask
- Non-rebreather
- Intubated patients with viral filter.

Transporting units need to allow for a sufficient oxygen supply to facilitate a safe transfer of care at the receiving facility, which may require an increased preparation time for the transporting ambulance. When scheduling CCT for patients treated with HFNC at your facility, please confirm your patient's oxygen delivery modality. The RAM cannula option provides the most similar modality to HFNC, however not all CCT providers regularly carry RAM cannulas for adults. This option should be confirmed with the CCT provider early or be supplied at the time of patient pick up.

It is essential to inform all receiving facilities on the type of oxygen delivery/respiratory therapy used during transport. There has been some confusion reported regarding facility protocols that have resulted in CCT crews asked to discontinue aerosol-generating procedures (AGPs) upon their arrival with one or more of these modalities in use. Whenever CCT providers implement one of these treatment options, specific methods to mitigate AGPs, including source control masking, closed systems, and filters, allow the patient to be transported safely through the facility to their room destination. Additionally, the transport crew will maintain full PPE while accompanying the patient to immediately provide appropriate patient care through the facility to the patient's room.

Please contact Jaime Pitner, EMS Coordinator (Jaime.Pitner@sdcountry.ca.gov) with any questions you may have as we work together to further our coordination on this vital care to patients.

Respectfully,

Kristi L. Koenig, MD, FACEP, FIFEM, FAEMS, Medical Director
Emergency Medical Services
County of San Diego Health & Human Services Agency