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Coronavirus (COVID-19)



Transporting patients with suspected or confirmed exposure to communicable diseases is not a new situation in the medical transport industry. Whether the common cold, flu or more serious diseases like TB, SARS, MERS, or Ebola, planning for and mitigating risk of crew exposure and transmission remains challenging for any transport program. The latest on the scene is COVID-19.

Transporting a patient with an emerging infectious disease, like COVID-19, requires planning and training to protect the health and welfare of crewmembers and other patients. This checklist is intended to provide a guide to evaluating current policies and practices used by medical transport programs. Program Directors and Medical Directors should work collaboratively to address all operational aspect of the transport service, assuring appropriate infection control measures are implemented.

- Protocol Review: Review and amend current patient care guidelines as necessary for treating patient with suspected or confirmed COVID-19 infection to align with current WHO, CDC and local health department recommendations.
- Call Intake and Pre-transport Assessment: Review initial call intake form to include information regarding suspected or confirmed exposure of patient and other passengers to communicable infectious diseases.
 - Transport request procedures need to include risk assessment and mitigation steps ensuring appropriate mode of transport and pre-transport infection control preparations. Obtain information regarding fevers, respiratory illness, travel outside the country in the last 14 days, and close proximity to individuals with confirmed COVID-19 persons within 14 days of symptoms/illness onset.
 - Evaluate and revise medical direction processes to appropriately address transport needs of patients with suspected or confirmed COVID-19 exposure or illness.
- Universal Precautions & PPE: Emphasize strict universal precautions, use of personal protective equipment (PPE) and hand hygiene.
 - **Droplet precautions** – used when germs are spread by droplets from the mouth, or nose from sneezing or coughing, as well as transmitted to surfaces with contaminated hands. Medical crews, pilots and drivers should follow universal precautions and use appropriate PPE—gloves, mask/face shield, eye protection.
 - **Source control** – Patients (or other passengers) with suspected exposure, confirmed infection, or symptomatic for COVID-19 infection should wear N95 mask. Patients receiving nasal cannula oxygen should wear a facemask over the cannula. If patient is unable to wear mask due to respiratory distress, aerosolizing devices or if performing CPR, crewmembers will need to wear masks.



- Use alcohol-based hand sanitizer during transport after removal of gloves. Wash hands with soap and water when feasible.
- All cloth/porous seats and surfaces should be covered to minimize droplet contamination.
- **Patient loading/unloading** – Pilots and drivers assisting in loading and unloading patients and luggage need to observe same precautions and recommended PPE as medical crew. Once personal belongings and patient are loaded, pilots and drivers may remove and dispose of mask and gloves.
- Luggage and other personal belongings should be placed in a plastic bag before loading on ambulance or aircraft. Load belongings first, then patient. Reverse order for disembarking aircraft or ambulance.
- **Aircraft/Vehicle Air Circulation and Environmental Control** –
 - Close compartment curtains and doors to minimize proximity of pilot/driver to patient. Care should be given to ensure adequate communication between medical crew and pilots/drivers.
- Ground ambulances can create a negative pressure gradient by opening outside air vents in the driver's cab and turning the rear exhaust ventilation to the highest setting.
- Choice of aircraft for air ambulance must include direction of interior airflow. Aircraft with rear/tail outflow vents should be used to maintain a forward-to-aft airflow direction.
- Collaborate with maintenance on replacement procedures for HEPA filters.
- Maintaining cabin temperature on the cooler side will help to minimize incubation environment of pathogens and minimize crewmember discomfort during prolonged use of PPE.
- Cleaning and Disinfecting
 - **All surfaces** of aircraft/ambulance and durable equipment must be wiped down and disinfected after every patient transport. If it can be touched, it needs to be cleaned and disinfected. This includes medical platform, stretcher, rails, control panels, floors, walls, work surfaces, headsets, helmets, radios, etc.
 - Aircraft/ambulance should be left open to allow for surfaces to completely dry and evaporative fumes to “air out”.
 - **Disinfecting solutions:**
 - Collaborate with maintenance personnel to ensure disinfecting solutions will not have caustic effects on sensitive aviation components.
 - Only EPA-registered, hospital-grade products approved for use against emerging viral pathogens are effective against COVID-19 or similar pathogens. If there are no available EPA-registered products that have an approved emerging viral pathogen claim, products with label claims against human coronaviruses should be used according to label instructions. A mixture of 1:1 bleach and warm water is also effective.
 - **Aerosolized fogging** – Disinfecting aerosolized fogging may be used to fumigate the cabin and patient compartment. However, since COVID-19 is spread through droplets and not airborne,



the greater concern is for surfaces where droplets fall rather than hard-to-reach hidden areas. If fumigating is used, maintenance personnel should first be consulted to assure aerosolized chemicals will not have corrosive effects on sensitive aircraft/vehicle components.

- **Biohazardous waste** - Follow standard operating procedures for the containment and disposal of used PPE, regulated medical waste and linens. Avoid shaking linens.
- **Uniforms** – Disposable gowns should be worn over uniforms when caring for or in close proximity patient. Uniforms should be laundered after transporting any patient exposed to or confirmed with COVID-19 or other emerging viral pathogen.
- **Stock Inventory of PPE and Disinfecting Supplies**: Monitor availability of PPE and other supplies including alcohol-based hand disinfectants, gloves, etc. for caring for patients exposed or infected with COVID-19. Develop a contingency plan for supply shortages and recommendations for alternatives.
- **Post-Exposure Plan (PEP)**: Review and revise (as applicable) current Post-Exposure Plan to address staff exposures. Plan needs to include guidance for:
 - Monitoring for signs of staff illness, self-reporting, etc.;
 - Reporting to applicable civil health agencies;
 - Staff access to medical care and financial coverage;
 - Contingency staffing to cover any quarantine requirements.
- **Staff Training**: “Standard operating procedures” may need to be revised to provide the appropriate level of care for COVID-19 exposures as well as post-transport disinfecting procedures. Make sure all transport crewmembers have a documented N95 mask-fit test completed. Reinforce training of staff on any changes in policy.
- **Reporting and Public Relations**: Discussions and planning need to include required state/federal reporting requirements. This will be coordinated with federal/state/local regulatory agencies. Additionally, procedures should be reviewed and revised for dissemination of information to media entities or in public statements.
- **Utilization Management**: Administration should establish guidelines and KPI’s to ensure thorough review and management of COVID-19 patient transports.

RESOURCES

- Information for Healthcare Providers (CDC)
- Interim Guidance for Emergency Medical Services (CDC)

Best Regards,

Roylen Griffin
Executive Director
roylengriffin@naamta.com

Amy Arndt
Operations Director
amyarndt@naamta.com

Nancy Purcell
Director of Clinical Operations
nancypurcell@naamta.com