

State of California

Mutual Aid Region III

Highly Infectious Disease (HID) Regional Transportation Plan



Learning Objectives

- 1) Understand how to assess HID patients for transportation
- 2) Understand how the transportation of HID patients is managed
- 3) Know the tools available for resource management
- 4) Know the proper PPE guidelines staff for HID patient transport

Plan Purpose & Information

The primary purpose of this plan is to provide information/guidance related to assessment, management and transportation of emergency and interfacility HID patients, utilizing routine EMS system personnel and ambulance transportation resources when appropriate. This plan also provides information/guidance on the utilization of specialty trained/equipped EMS personnel and specialty equipped ambulances to transport specialty HID patients, when determined necessary based on applicable HID specific guidance.

Applicable HID specific guidance will be provided to all EMS prehospital provider agencies and personnel covered under this plan as they are released, and as outbreaks with the need for HID patient transports occur.

Definitions and Abbreviations

Definitions:

Applicable HID Specific Guidance – Current medical/health system guidance, produced and distributed by the CDC, CDPH, EMSA, LEMSA or other recognized source, related to the assessment, identification and management of a patient with a specific HID.

Communicable Disease – Any disease transmitted from one person or animal to another; also called contagious disease. Sometimes quarantine is required to prevent the spread of disease.

Highly Infectious Disease (HID) – A highly infectious disease (HID) that is transmissible from person to person causes life-threatening illness and presents a serious hazard in the healthcare setting and in the community that requires specific control measures.

HID Patient – A patient with HID risk factors and/or signs/symptoms (suspected), or with laboratory-confirmed diagnostic evidence of the HID/virus infection (confirmed).

Protected Exposure – The use of appropriate PPE during direct patient care or decontamination activities involving bodily fluid contact.



Abbreviations:

ASPR Assistant Secretary for Preparedness and Response

CDC Centers for Disease Control and Prevention

CDPH California Department of Public Health

CFR Code of Federal Regulations

DOT Department of Transportation

EMS Emergency Medical Services

EMSA California Emergency Medical Services Authority

HID Highly Infectious Disease

IAB Interagency Board for Equipment Standardization and Interoperability

LEMSA Local Emergency Medical Services Agency

LHD Local Health Department

MHOAC Medical Health Operational Area Coordinator

Nor-Cal EMS Northern California Emergency Medical Services, Inc. (LEMSA)

OSHA Occupational Safety & Health Administration

PPE Personal Protective Equipment

PSAP Public Safety Answering Point (911 dispatch center)

RDMHS Regional Disaster Medical Health Specialist

SARS-CoV-2 the virus that causes COVID-19

S-SV EMS Sierra-Sacramento Valley Emergency Medical Services Agency (LEMSA)

Patient Assessment Criteria and Precautions

- If a PSAP/EMS dispatch center advises EMS personnel of a suspected or confirmed HID patient, EMS personnel shall don all appropriate PPE, as required by applicable HID specific guidance, before entering the scene. During patient assessment/management, EMS personnel should consider and evaluate for HID specific risk factors and signs/symptoms.
- To minimize potential exposure, only one (1) EMS provider should approach the patient and perform the initial screening from at least six (6) feet away from the patient.
- If the EMS provider suspects/confirms that the patient has a HID, appropriate PPE, as required by applicable HID specific guidance, shall be donned before coming into close contact with the patient. Keep other emergency responders further away, while assuring they are still able to support the provider with primary assessment and treatment duties.

Infection Control - Personal Protective Equipment (PPE)

Any HID patient shall be presumed to be actively infectious, and all appropriate PPE, as required by applicable HID specific guidance, shall be utilized.

- EMS personnel shall follow infection control practices and procedures required by applicable HID specific guidance.
- PPE should be donned before entering a scene of a HID patient and should be carefully doffed as directed.
- If blood, body fluids, secretions, or excretions from a HID patient come into direct contact with the EMS provider's unprotected skin or mucous membranes (including PPE breach), then they should immediately stop working. They should wash the affected skin surfaces with a cleansing or antiseptic solution and mucous membranes (e.g., conjunctiva) should be irrigated with a large amount of water or eyewash solution, as per usual procedures. All waste should be placed in a biohazard bag. EMS personnel shall report the exposure to an occupational health provider, supervisor or designated infection control officer for immediate care. The crew member shall be monitored as required by applicable HID specific guidance.

Donning and Doffing PPE

The following principles apply to EMS personnel caring for a HID patient.

- Prior to working with these patients, EMS personnel must have received adequate training, and have demonstrated adequate competency, in performing infection control practices and procedures required by applicable HID specific guidance (specifically donning/doffing all required PPE).
- PPE should be carefully doffed as required by applicable HID specific guidance. Particular attention should be devoted to doffing, as the PPE should be considered contaminated.
- PPE related to the care of a HID patient shall be disposed of at the receiving hospital. If patient transportation is not required, LHD and/or LEMSA officials will provide direction on proper disposal of used PPE.

Patient Management and Treatment

- Use caution when approaching a HID patient and keep them separated from others as much as possible.
- Conduct appropriate patient assessment according to LEMSA policies/protocols and applicable HID specific guidance.
- Limit the number of EMS personnel who provide care for a HID patient. All EMS personnel having direct contact with a HID patient must utilize all PPE required by applicable HID specific guidance.
- Prehospital HID patient treatment is based on applicable HID specific guidance. EMS personnel shall also follow LEMSA policies/protocols that apply to the patient's condition. EMS personnel should contact the closest base/modified base hospital for specific patient treatment consultation as needed.

Patient Management and Treatment continued

- Based on applicable HID specific guidance, the use of needles and other sharps may need to be limited. Any needles/sharps should be handled with extreme care, and disposed of in puncture-proof, sealed containers that are specific to the care of the individual patient, in accordance with Cal/OSHA's Bloodborne Pathogens Standard.
- Due to exposure concerns related to the treatment of a HID patient, EMS personnel must weigh the risks/benefits of specific types of treatments, in compliance with LEMSA policies/protocols and applicable HID specific guidance.
- Due to exposure concerns related to the treatment of HID patients, EMS personnel must weigh the risks/benefits of specific types of treatments, in compliance with LEMSA policies/protocols and applicable HID specific guidance. Aerosol-generating procedures (nebulizer treatments, CPAP, endotracheal intubation, airway suctioning, CPR, etc.) should be avoided when possible, and EMS personnel should consult with the base/modified base hospital for specific patient guidance, as necessary. Performing these procedures in a less controlled environment (e.g., moving vehicle, confined space) increases risk of exposure to EMS personnel. Any of these procedures conducted on a HID patient, should be performed under safer circumstances when possible (prior to loading the patient in the ambulance, stopped vehicle with ambulance patient compartment doors open, etc.).

Routine HID Patient Transport and Destination Considerations

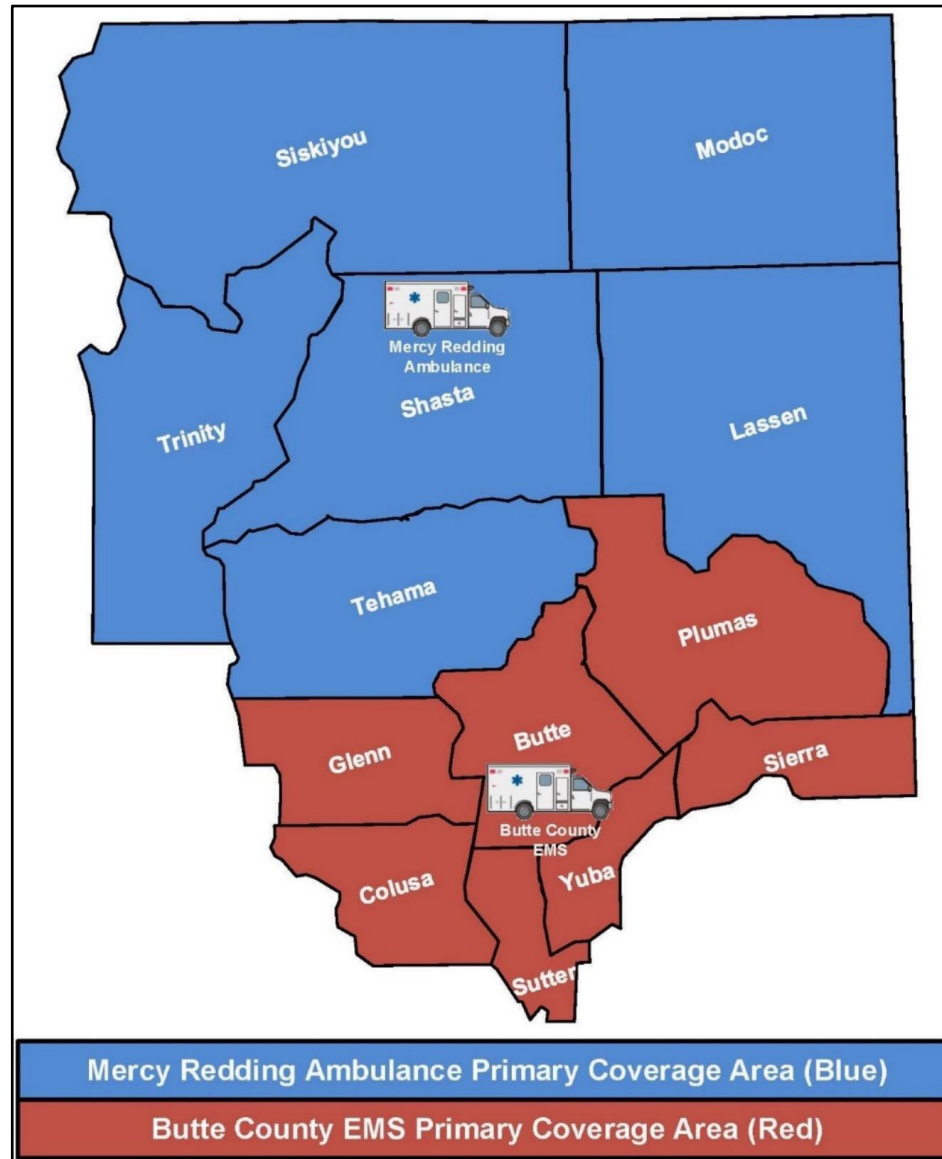
- EMS personnel shall follow LEMSA policies/protocols, and applicable HID specific guidance for HID patient transport direction.
- The receiving facility shall be notified as soon as possible of any transport or special circumstances involving a HID patient.
- In addition to applicable HID specific guidance, the following general guidelines should be utilized when transporting a HID patient:
 - Remove and keep nonessential equipment away from the patient, to minimize contamination on the scene and in the ambulance.
 - Avoid contamination of porous surfaces that are not designated for single use.

HID Specialty Ground Ambulance Transport Providers

If a routine EMS ambulance responds to or is requested to transport a HID patient that requires the use of specialty trained/equipped EMS personnel and specialty equipped ambulances (based on applicable HID specific guidance), they shall immediately contact appropriate LHD, LEMSA and RDMHS officials to request the assistance of a designated HID Specialty Ground Ambulance Transport Provider. The LEMSA and RDMHS will coordinate HID patient transportation, in consultation with appropriate LHD, EMS and hospital personnel. Region III LEMSAs have designated the following HID Specialty Ground Ambulance Transport Providers to transport HID patients when necessary:

- Butte County EMS: Primary coverage area includes Butte, Colusa, Glenn, Plumas, Sierra, Sutter, and Yuba Counties.
- Mercy Medical Center Redding Ambulance: Primary coverage area includes Lassen, Modoc, Siskiyou, Shasta, Tehama, and Trinity Counties.
- If the Region III designated HID Specialty Ground Ambulance Transport Providers are unavailable, the applicable LHD, LEMSA and RDMHS will request HID Specialty Ground Ambulance Transport assistance from a neighboring region.

HID Specialty Ground Ambulance Transport Providers Primary Coverage Areas



Designated HID Specialty Ground Ambulance Transport Providers are equipped with specialty PPE and equipment, including Individual Patient Isolation/Transportation Units (ISO Pods), that may be needed to safely transport a HID patient. Designed for use by EMS, ISO Pods isolate individuals potentially contaminated with communicable infectious diseases, including SARS-CoV-2, novel strains of Influenza, TB, Ebola or others, as identified by applicable HID specific guidance. The ISO POD safely holds patients during EMS emergency and interfacility transports. When connected to the HEPA air filtration system, the ISO Pod creates a negative air pressure environment to protect EMS patient care personnel, and decrease risk of transmission.

ISO POD



HID Specialty Ground Ambulance Preparation

The following guidelines should be utilized when preparing an ambulance for transport of a HID specialty patient.

- Remove and keep nonessential equipment away from the patient, to minimize contamination on the scene and in the ambulance.
- Avoid contamination of porous surfaces that are not designated for single use.
- Cabinets, shelving, ceiling, seating, and the floor should be covered with an impermeable barrier.
- Leave openings around ventilation ports to allow proper air flow and exchange.
- Plastic sheeting should be affixed to the bench seat, jump seat, and walls to create a slight bowl effect in an effort to channel any body fluids towards the center of the floor which will cause fluids to collect in one area.
- The gurney antlers will need to be attached through the plastic sheeting on the floor for safe transport of the gurney and patient.
- The gurney side clamp will need to protrude through the plastic sheeting for safe securement of the gurney.

HID Specialty Ground Ambulance Preparation continued

- Cover rear doors with plastic sheeting and secure.
- All sheeting should overlap prior sheets by a minimum of one (1) inch. All seams should be sealed completely by duct tape or another impermeable sealer.
- Gurney Preparation:
 - Use only a mattress and pillow with plastic/other covering that fluids cannot penetrate.
 - Cover mattress pad with a fitted impermeable mattress cover. If no impermeable mattress cover is available, then use plastic sheeting and overlap each end, sealing with duct tape.
- Consider the need for the following ambulance cab supplies:
 - Spare PPE for EMS personnel, including extra gloves and boot covers.
 - Impermeable Decontamination Disposal Sheet.
 - Multiple DOT approved Red Biohazard Bags.
 - Electronics/other equipment that may be positioned outside the patient compartment.

HID Specialty Ground Ambulance Prepared for Transport of a HID Specialty Patient



HID Specialty Ground Ambulance Destination Determination/Communications

Destination determination must be made in consultation with the LHD/MHOAC, LEMSA, RDMHS, the designated HID Specialty Ground Ambulance Transport Provider, and sending/receiving hospital personnel (if applicable). Pickup location, distance and available resources will be the deciding factors in destination determination, based on applicable HID specific guidance.

Arrival at Destination/Patient Handoff

Hospitals should develop specific procedures for the arrival of any HID patients, to minimize broader contamination of the facility, including care givers, other patients and the public. These procedures should include/address the following:

- EMS personnel should be instructed to stay with the patient in the ambulance until hospital staff are prepared to receive the patient.
- Anticipate patient handoff to hospital staff occurring at the ambulance and not inside the hospital.
- If patient handoff occurs directly in an isolation room in the hospital it may be at a location other than the emergency department.
- Anticipate EMS personnel doffing PPE at the isolation room/anteroom interface or other appropriate location chosen by the hospital staff.
- Coordinate patient handoff with any procedures the hospital may have in place.
- EMS personnel will doff PPE at the hospital, using the hospital procedures and monitor. If no hospital monitor is available, fire department HAZMAT personnel may be available to monitor, or EMS personnel not in PPE may assist in PPE doffing.
- The ambulance utilized for patient transportation shall be decontaminated, according to applicable HID specific guidance, prior to being placed back into service. A specialized decontamination service provider may be utilized by the ambulance transport provider if preferred/necessary.

Additional Patient Transport Situations

HID Patient Death During Transport

In the event a HID patient expires during transport, follow LEMSA policies and any applicable HID specific guidance regarding patient death during transport.

Pediatric HID Patient Considerations

The following are general guidelines for transporting a pediatric HID patient:

- If available, the child's own car seat shall be used for transport. Otherwise, the EMS transport providers car seat or child restraint system may be used. If an EMS transport provider's car seat or child restraint system is used, it shall be decontaminated or disposed of according to applicable HID specific guidance.
- Invasive procedures, including the use of needles and other sharps, should be kept to a minimum.
- (Continued)

Pediatric HID Patient Considerations continued

- Children should not be put in PPE, as it may interfere with the EMS provider's ability to adequately assess the child's clinical status, and may restrict access to the child during transport.
- If allowed by applicable HID specific guidance, a caregiver (child's parent or legal guardian) may accompany the child during ambulance transport. In the event that a parent or legal guardian cannot be present for transport, they may designate an alternative adult caregiver. The caregiver must be observed/assisted in donning and doffing required PPE, as this process requires training and may introduce risk.
- Pediatric patients should be transported to a specialty care center, with a staffed Pediatric Intensive Care Unit (PICU) whenever possible, which is equipped and able to handle a pediatric HID patient.

Patient Tracking/Reunification

An electronic patient care report (ePCR) will be generated for all HID patient transports. This information is automatically transmitted to the applicable LEMSA EMS data system immediately upon completion by EMS personnel. Pertinent patient identification information will be provided to applicable LHD/MHOAC Programs as necessary/requested for patient tracking/reunification purposes. In the event of activation/utilization of the California Statewide Patient Movement Plan, all required patient tracking/reunification processes will be followed.

Waste

All waste generated in the care of HID patients shall be appropriately bagged and given to hospital staff for disposal according to facility medical waste procedures.

- Use authorized containers for sharps.
- Place all waste into a red plastic biohazard bag that meets federal DOT requirements for impact and tear resistance. Wrap any sharp edges of medical waste to prevent puncturing of the bag. Biohazard bags must be 46 gallons or smaller and weigh no more than 22 lbs. when filled.
- Do not overfill the biohazard bag. It is suggested that the biohazard bag only be filled with contaminated waste no more than half of its total volume. This will ensure that there is adequate room for staff to securely close the bag with a knot or other equally effective positive means of closure that will not tear or puncture the outer bag and ensure that any liquid contents (if present) will not leak from the packaging.
- Transfer care of waste to hospital staff who will then transport waste to a dedicated, locked or secure storage area that is not accessible to the public or unauthorized personnel. Do not store this waste in an intermediate or publicly used storage area.

Ambulance & Equipment Decontamination/Disinfection

All reusable medical equipment used for patient care purposes shall be decontaminated according to applicable HID specific guidance. The following are general guidelines for cleaning/disinfecting EMS transport vehicles and reusable medical equipment after transporting a HID patient:

- Personnel performing cleaning/disinfection shall wear all PPE required by applicable HID specific guidance.
- EMS personnel shall use cleaning agents, recommended by applicable HID specific guidance, to clean/disinfect all patient-care surfaces of the ambulance and any reusable medical equipment used for patient care purposes. Follow the cleaning agent's labeled instructions and dispose of the potentially contaminated materials used during the cleaning/disinfecting process as recommended by applicable HID specific guidance.
- Ambulance stretcher wheels, brackets, and other patient care compartment areas are likely to become contaminated and should be cleaned/disinfected thoroughly after each HID patient transport.
- LHD and/or LEMSA officials will provide technical assistance related to decontamination of EMS equipment, as necessary.

Post-Incident Prehospital Personnel Monitoring

- The use of all required PPE during direct patient care or decontamination activities constitutes a protected exposure.
- If required by applicable HID specific guidance, hospital staff shall collect and provide to the LHD, a list of all prehospital personnel (law, fire, EMS) who had direct contact with the HID patient, and the status of required PPE use during such contact, to assist with contact tracing. This information should be provided to the hospital by the EMS transport provider.
- Personnel monitoring strategies and responsibilities will be determined by the LHD, in coordination with applicable prehospital provider agency(s), based on the nature of the incident and patient care/decontamination activities.



Region III Contact Information

REGION III LOCAL EMERGENCY MEDICAL SERVICES AGENCIES (LEMSA)

Nor-Cal EMS, Inc.

Main: (530) 229-3979

Email: mail@norcalems.org

Sierra-Sacramento Valley EMS Agency

Main: (916) 625-1702

On-Call Duty Officer: (916) 625-1710

Email: RDMHS.Region3@ssvems.com

REGION III REGIONAL DISASTER MEDICAL HEALTH SPECIALIST (RDMHS)

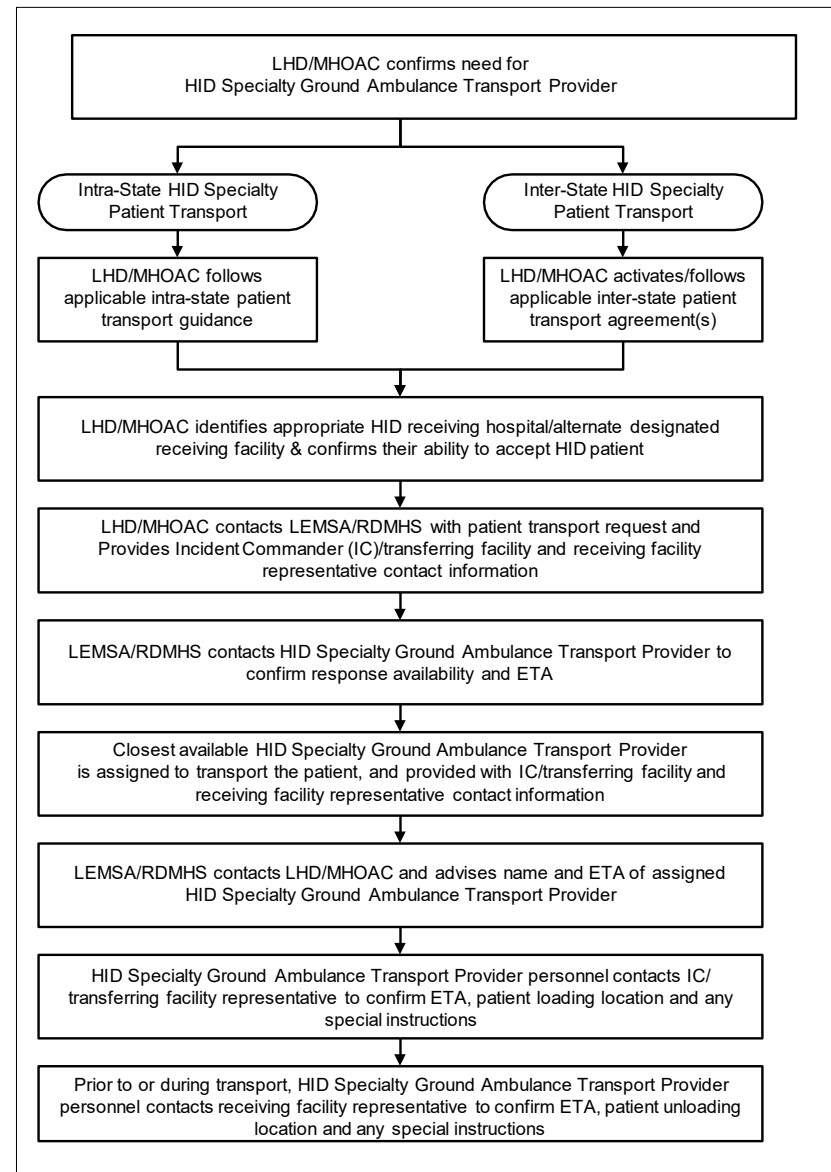
Sierra-Sacramento Valley EMS Agency

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APPENDIX A. HID Specialty Ground Ambulance Transport Provider Communication Process



APPENDIX B. Region III Local EMS Agencies (LEMSAs)

