Emerging Diseases
(Respiratory Diseases)

History
- Positive 911 EMD / PSAP Screening
- Travel history to - or residence in -
- **a region with prevalent Category A disease within 21 days in conjunction with signs and symptoms listed within this Clinical Operating Guideline.**

Signs and Symptoms
- Fever of > 100.4 ^{O} F
- Severe Headache
- Muscle Pain
- Weakness
- Diarrhea
- Vomiting
- Abdominal Pain
- Unexplained Hemorrhage

Differential (Life threatening)
- **Cold / Influenza**
- Electrolyte Imbalance
- Hyperglycemia
- Other Viral/Bacterial Infections.

If you respond to an incident where an Emerging Disease (Category A) risk may be present, as determined by prescreening – IMMEDIATELY contact your DHEC Regional Public Health Epidemiology (EPI) as listed below. EPI will conduct a further risk assessment to determine what, if any, actions are necessary for disease containment or monitoring and assist in determining resources needed.

UPSTATE:	MIDLANDS	PEE DEE:	LOWCOUNTRY:
Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union	Aiken , Barnwell, Chester, Edgefield, Fairfield, Kershaw, Lancaster, Lexingtron, Newberry, Richland, Saluda, York	Chesterfield, Clarendon, Darlington, Dillon, Florence, Georgetown, Horry , Lee, Marion, Marlboro, Sumter, Williamsburg	Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg
866.298.4442	**888.801.1046**	**843.915.8845**	**843.441.1091**

Appropriate **Personal Protective Equipment** in conjunction with current CDC recommendations **PRIOR** to entering scene, Consider patient masking as tolerated.

* No routine aerosol generating procedures unless absolutely medically necessary. This includes CPAP / BiPAP / Nebulized Medication Procedures
Advanced airway procedures should be performed under controlled conditions while not in motion.

Age Appropriate Airway C.O.G. If indicated *

B

Vital Signs
Pulse Oximetry
Does NOT include auscultation of Breath Sounds

Consider Supplemental Oxygen by NRB if SpO2 < %; Respiratory Distress; Altered LOC; or > 20 weeks pregnant

Provide Supportive Care
Continue to calm and reassure the patient(s)

Cardiac Monitor/12 Lead ECG Acquisition / Interpretation
If symptomatic for cardiac related complaint

Patient Stable?

YES → Provide for Transport to Appropriate Facility following orders from Incident Commander

NO → Exit to Appropriate Clinical Operating Guideline. Transport Immediately.

Notify Destination or Contact Medical Control

If your agency is providing transport, ALERT the Receiving Medical Facility:
- As soon as feasible, confidentially notify the Receiving Facility that you are transporting a potential higly infectious patient.
- **DO NOT TAKE THE PATIENT INTO THE MEDICAL FACILITY UNTIL YOU ARE INSTRUCTED TO DO SO.**
- **MEDICAL FACILITY PERSONNEL WILL DIRECT YOU TO THE PROPER ROOM THROUGH A SAFE ENTRANCE**

Emerging Diseases
(Respiratory Diseases)

Category A Pathogens:
The U.S. public health system and primary healthcare providers must be prepared to address various biological agents, including pathogens that are rarely seen in the United States. High-priority agents include organisms that pose a risk to national security because they:

- can be easily disseminated or transmitted from person to person;
- result in high mortality rates and have the potential for major public health impact;
- might cause public panic and social disruption; and
- require special action for public health preparedness.

PEARLS

- **Recommended Exam: Mental Status, Skin, HEENT, Heart, Extremities, Neuro**
- **Transport Destination is chosen based on the EMS System Plan with EMS pre-arrival notification.**
- IF your agency is providing transport, ALERT the Receiving Medical Facility:
  - ❖ As soon as feasible, confidentially notify the Receiving Facility that you are transporting a potential highly infectious patient.
  - ❖ DO NOT TAKE THE PATIENT INTO THE MEDICAL FACILITY UNTIL YOU ARE INSTRUCTED TO DO SO.
  - ❖ MEDICAL FACILITY PERSONNEL WILL DIRECT YOU TO THE PROPER ROOM THROUGH A SAFE ENTRANCE.
- Application of Cardiac Monitor should be utilized IF the patient is symptomatic for cardiac related complaint.
- *** No routine aerosol generating procedures unless absolutely medically necessary. This includes CPAP / BiPAP /Nebulized Aerosol Treatments. Advanced airway procedures should be performed under controlled conditions while not in motion.**
- **❖ ONLY Personnel who have been well trained in use of PPE and know how to put it on and take it off safely and properly**
- **should enter contaminated zone.**
- **❖ There should be NO exposed skin once full PPE has been put on prior to entry.**
- **❖ Per CDC Guidelines, withhold invasive procedures unless, absolutely necessary:**
  - ➢ **Do not attempt any invasive procedures while in motion to minimize exposure risk(s).**
- **❖ Always have a monitor for the doffing procedure to insure there is no provider contamination during doffing.**
- **❖ There should be a standardized procedure for donning and doffing that is monitored by a Safety Officerr.**
- **❖ Remain cognizant that potential patients may experience heightened anxiety due to situation and EMS Responder in PPE**
- **Key Documentation Elements**
  - ❑ Vital Signs including SpO2 and Temperature
  - ❑ Procedures performed and patient response
- **KEY PERFORMANCE MEASURES:**
  - ❑ Documentation of notification/pre-notification of receiving facility
  - ❑ Appropriate PPE use

Emerging Diseases
(Respiratory Diseases)

PEARLS

- Every patient contact should be considered to have potential for infection. Limit number of personnel when caring for patients to limit exposures and PPE use.
- Place facemask on any patient complaining of respiratory problems with or without a fever.
- **Dispatch Screening:**
  - If caller interrogation results in positive screen first responders are assigned based on local agency direction.
  - This screening process will result in many False Positive screens in order to be very sensitive.
- **First Responder and EMS Screening:**
  - Limit distance initially to ≥ 6 feet and conduct a quick screening using the EMD specific question.
  - If this results in a positive screen, immediately place a facemask on the source patient and all providers don appropriate PPE and limit provider number to that which necessary for patient care.
- Close Contact and Duration Definition:
  - Healthcare provider exposure is defined as being within 6 feet for ≥ 15 minutes in a patient with suspected illness.
  - Unprotected (no or incorrect PPE) with direct contact with body fluids, including respiratory generated body fluids.
- **Transport:**
  - Occupants in cab of vehicle all should wear facemasks. Riders should be discouraged in order to limit PPE use.
  - Limit number of providers in vehicle required to provide patient care in order to limit exposures.
  - Ensure use of correct PPE for crew and passengers when aerosol-producing procedures utilized.
- Recommend facemask and gloves with every patient contact. It is reasonable to wear eye protection on every patient contact.
- **Negative Pressure in care compartment:**
  - Door or window available to separate driver's and care compartment space:
    - Close door/window between driver's and care compartment and operate rear exhaust fan on full.
  - No door or window available to separate driver's and care compartment space:
    - Open outside air vent in driver's compartment and set rear exhaust fan to full.
  - Set vehicle ventilation system to non-recirculating to bring in maximum outside air.
  - Use recirculating HEPA ventilation system if equipped.
- **Airborne precautions:**
  - Standard PPE with fit-tested N95 mask (or PAPR respirator) and utilization of a gown or coveralls, change of gloves after every patient contact, and strict hand washing precautions.
  - This level is utilized with Aspergillus, SARS/MERS/COVID-19, Tuberculosis, Measles (rubeola) Chickenpox (varicella-zoster), Smallpox, Influenza, disseminated herpes zoster, or Adenovirus/Rhinovirus.
- **Contact precautions:**
  - Standard PPE with utilization of a gown or coveralls, change of gloves after every patient contact, and strict hand washing precautions.
  - This level is utilized with GI complaints, blood or body fluids, C diff, scabies, wound and skin infections, MRSA.
  - Clostridium difficile (C diff) is not inactivated by alcohol-based cleaners and washing with soap and water is indicated.
- **Droplet precautions:**
  - Standard PPE plus a standard surgical mask for providers who accompany patients in the treatment compartment and a surgical mask or NRB O2 mask for the patient.
  - This level is utilized when Influenza, Meningitis, Mumps, Streptococcal pharyngitis, Pertussis, Adenovirus, Rhinovirus, and
  - undiagnosed rashes.
- **All-hazards precautions:**
  - Standard PPE plus airborne precautions plus contact precautions.
  - This level is utilized during the initial phases of an outbreak when the etiology of the infection is unknown or when the causative agent is found to be highly contagious (e.g. SARS, MERS-CoV, COVID-19).

Emerging Diseases
(Respiratory Diseases)

Decontamination Recommendations

EMS Personnel Requires Decontamination

Driver:
- Should wear full PPE as described when caring for patient.
- Remove all PPE, except respiratory (N95, PAPR, or equivalent) and perform hand hygiene prior to entering cab to prevent contamination of driver's compartment. Cab occupants only need to wear facemasks if respirator not already used.

Wash hands:
- Thoroughly after transferring patient care and/or cleaning ambulance

Maintain records:
- All prehospital providers exposed to patient at the scene and during ambulance transport (self-monitoring for symptoms for 14 days is recommended, even if wearing appropriate PPE).
- This does not mean the providers can no longer work.
- List all prehospital provider names (students, observers, supervisors, first response etc.) in the Patient Care Report.

EMS Equipment / Transport Unit Requires Decontamination

Safely clean vehicles used for transport:
- Follow standard operating procedures for the containment and disposal of regulated medical waste.
- Follow standard operating procedures for containing and reprocessing used linen.

Wear appropriate PPE when:
- Removing soiled linen from the vehicle. Avoid shaking the linen.
- Clean and disinfect the vehicle in accordance with agency standard operating procedures.
- Personnel performing the cleaning should wear a disposable gown and gloves (a respirator should not be needed) during the clean-up process; the PPE should be discarded after use.
- All surfaces that may have come in contact with the patient or materials contaminated during patient care (e.g., stretcher, rails, control panels, floors, walls, work surfaces) should be thoroughly cleaned and disinfected using an EPA-registered disinfectant appropriate for the suspected Category A pathogen in accordance with manufacturer's recommendations. Keep doors open to patient care compartment while cleaning to allow air exchanges.

EMS Provider Exposure Risk & Monitoring Recommendations

Close Contact
Less than 6 feet for ≥ 15 minutes
Source Patient: NOT Wearing a Mask

PPE Utilized	Exposure Risk	Monitoring	Work Restrictions
NONE	HIGH	SELF-Monitor Supervision	**If symptomatic:** Fever and Respiratory symptoms (cough, difficulty breathing or other respiratory symptoms) **THEN** **Exclude from work:** • At least 72 hours after fever resolution with no use of fever reducing medications. **AND** • At least 10 days since symptom onset.
No facemask (N95 or PAPR)	HIGH		
No Eye Protection	MEDIUM		
No Gown/Coveralls or Gloves	LOW		
ALL Recommended PPE – EXCEPT standard facemask INSTEAD OF N95 or PAPR	LOW		

Close Contact
Less than 6 feet for ≥ 15 minutes
Source Patient: WEARING a Mask

PPE Utilized	Exposure Risk	Monitoring	Work Restrictions
NONE	MEDIUM	SELF-Monitor Supervision	**If symptomatic:** Fever and Respiratory symptoms (cough, difficulty breathing or other respiratory symptoms) **THEN** **Exclude from work:** • At least 72 hours after fever resolution with no use of fever reducing medications. **AND** • At least 10 days since symptom onset.
No facemask (N95 or PAPR)	MEDIUM		
No Eye Protection	LOW		
No Gown/Coveralls or Gloves	LOW		
ALL Recommended PPE – EXCEPT standard facemask INSTEAD OF N95 or PAPR	LOW		

Placing a simple/surgical mask on the patient within 15 minutes of contact decreases exposure risk.
Refer to Current CDC Guidelines for Return to Work Practice and Work Restrictions regarding Category A Exposures.
Prior to duty shift, measure temperature and assess for illness symptoms either by provider, infection control officer, or occupational or public health.
- Self-monitoring with oversight by agency's infection control officer, occupation or public health department per agency policy.
- Wear mask at all times and restrict care of immunocompromised patients (Cancer, Transplant, Steroid use) until all symptoms have resolved or 14 days after onset of illness, whichever is longest.
- Social distance: Employee should maintain 6 feet of separation as work duties permit in the workspace.
- Remove from work if employee becomes symptomatic.

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html
https://www.cdc.gov/coronavirus/2019-ncov/healthcare-facilities/hcp-return-work.html
https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2-covid-19

Emerging Diseases
Viral Hemorrhagic Fevers

History
- Positive 911 EMD / PSAP Screening
- Travel history to - or residence in -
- **a region with prevalent Category A disease within 21 days in conjunction with signs and symptoms listed within this Clinical Operating Guideline.**
- **Those areascurrently designated by the CDC as being high risk**
- **See C.O.G. 700-002 for DHEC Notifications.**

Signs and Symptoms
- Fever of > 100.4 ^{O} F
- Severe Headache
- Muscle Pain
- Weakness
- Diarrhea
- Vomiting
- Abdominal Pain
- Unexplained Hemorrhage
- Delirium
- Coma
- Multi-Organ Failure

Differential (Life threatening)
- Cold / Influenza
- Electrolyte Imbalance
- Hyperglycemia
- Other Viral/Bacterial Infections.

Viral Hemorrhagic Fevers
- **Dengue**
- **Ebola**
- **Lassa**
- **Marburg**
- **Yellow Fever**
- **Hanta Virus**
- **Rift Valley Fever**

Appropriate **Personal Protective Equipment** in conjunction with current CDC recommendations **PRIOR** to entering scene

Obtain a travel history / exposure history and assess for clinical signgs and symptoms.
EMS Immediate Concern
1. Traveler from area with known VHF with or without symptoms
2. Traveler from locations currently designated by the CDC as being high risk

AND

Fever	Headache	Joint and/or Muscle Aches
Fatigue	Abdominal Pain	Vomiting and/or Diarrhea
Anorexia	Weakness	Bleeding

Exit to Appropriate C.O.G. If indicated *

EMS Personal Protective Equipment
- Place surgical mask on Patient.
- Use Non-rebreather mask if Oxygen Needed
- Donning and Doffing Guidelines

NO Routine Aerosol Generating Procedures
- Avoid aerosol generating procedures UNLESS medically Necessary.
- NIPPV / Nebulizer therapy / Intubation / BIAD-SGA / Suctioning

NO Routine IV / IO Procedures
- Avoid routine IV or IO Access unless medically Necessary.
- If IV/IO necessary – STOP VEHICLE to lessen exposure risk

Patient Stable?

YES → Provide for Transport to Appropriate Facility following orders from Incident Commander

NO → Exit to Appropriate Clinical Operating Guideline. Transport Immediately.

EMS Personnel / Equipment / Transport Unit REQUIRES Decontamination

Notify Destination or Contact Medical Control

If your agency is providing transport, ALERT the Receiving Medical Facility:
- As soon as feasible, confidentially notify the Receiving Facility that you are transporting a potential highly infectious patient.
- **DO NOT TAKE THE PATIENT INTO THE MEDICAL FACILITY UNTIL YOU ARE INSTRUCTED TO DO SO.**
- **MEDICAL FACILITY PERSONNEL WILL DIRECT YOU TO THE PROPER ROOM THROUGH A SAFE ENTRANCE**

SPECIAL: VIRAL HEMORRHAGIC FEVERS

Emerging Diseases
Viral Hemorrhagic Fevers

PARTICULAR ATTENTION MUST BE PAID TO PROTECTING MUCOUS MEMBRANES OF THE EYES, NOSE, and MOUTH FROM SPLASHES OF INFECTIOUS MATERIAL OR SELF INOCULATION FROM SOILED PPE / GLOVES.
THERE SHOULD BE NO EXPOSED SKIN

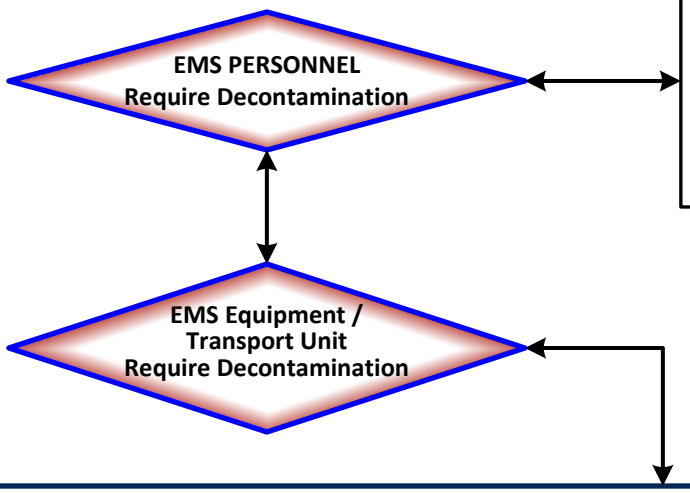
- **DONNING PPE:** **BEFORE** you enter the patient area.
  - **Recommended PPE:**
  - **PAPR:** A PAPR (Powered Air Purifying Respirator)with a full face shield, helmet, or headpiece. Any reusable helmet or headpiece must be covered with a single-use (disposable) hood that extends to the shoulders and fully covers the neck and is compatible with the selected PAPR.
  - **N95 Respirator:** Single-use (disposable) N95 respirator in combination with single-use (disposable) surgical hood extending to shoulders and single-use (disposable) full face shield. If N95 respirators are used instead of PAPRs, careful observation is required to ensure healthcare workers are not inadvertently touching their faces under the face shield during patient care.
  - **Single-use (disposable) fluid-resistant or impermeable gown** that extends to at least mid-calf or coverall without integrated hood. Coveralls with or without integrated socks are acceptable.
  - **Single-use (disposable) nitrile examination gloves with extended cuffs.** Two pairs of gloves should be worn. At a minimum,
  - outer gloves should have extended cuffs.
  - **Single-use (disposable), fluid-resistant or impermeable boot covers** that extend to at least mid-calf or single-use (disposable) shoe covers. Boot and shoe covers should allow for ease of movement and not present a slip hazard to the worker.
  - **Single-use (disposable) fluid-resistant or impermeable shoe covers** are acceptable only if they will be used in combination with a coverall with integrated socks.
  - **Single-use (disposable), fluid-resistant or impermeable apron** that covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea. An apron provides additional protection against exposure of the front of the body to body fluids or excrement. If a PAPR will be worn, consider selecting an apron that ties behind the neck to facilitate easier removal during the doffing procedure

- **DOFFING PPE:** **OUTSIDE OF PPE IS CONTAMINATED! DO NOT TOUCH**
  - PPE must be carefully removed without contaminating one s eyes, mucous membranes, or clothing with potentially infectious materials.
    - **Use great care while doffing your PPE so as not to contaminate yourself (e.g. Do not remove your N-95 facemask or eye protection BEFORE you remove your gown). There should be a dedicated monitor to observe donning and doffing of PPE. It is very easy for personnel to contaminate themselves when doffing. A dedicated monitor should observe doffing to insure it is done correctly. Follow CDC guidance on doffing.**
  - PPE must be double bagged and placed into a regulated medical waste container and disposed of in an appropriate location.
  - Appropriate PPE must be worn while decontaminating / disinfecting EMS equipment or unit.
  - Re-useable PPE should be cleaned and disinfected according to the manufacturer's reprocessing instructions.
    - Hand Hygiene should be performed by washing with soap and water with hand friction for a minimum of 20 seconds.
    - Alcohol-based hand rubs may be used if soap and water are not available.
    - EVEN IF AN ALCOHOL-BASED HAND RUB IS USED, WASH HANDS WITH SOAP AND WATER AS SOON AS FEASIBLE.
- THE USE OF GLOVES IS NOT A SUBSTITUTE FOR HAND WASHING WITH SOAP & WATER
- For any provider exposure or contamination contact occupational health.
- If the patient is being transported via stretcher then a disposable sheet can be placed over them

PEARLS

- **Transmission to another individual is the greatest after a patient develops fever. Once there is fever, the viral load in the bodily fluids appears to be very high and thus a heightened level of PPE is required.**
- **Patient contact precautions are the most important consideration.**
- **Incubation period 2-21 days**
- Ebola must be taken seriously; however using your training, protocols, procedures and proper Personal Protective Equipment (PPE), patients can be cared for safely.
- When an infection does occur in humans, the virus can be spread in several ways to others. The virus is spread through direct contact (through broken skin or mucous membranes) with a sick person's blood or body fluids (urine, saliva, feces, vomit, an semen) objects (such as needles) that have been contaminated with infected body fluids.
- Limit the use of needles and other sharps as much as possible. All needles and sharps should be handled with extreme care and disposed in puncture-proof, sealed containers. Safety devices must be employed immediately after use.
- Ebola Information: For a complete review of Ebola go to:
  - **http://www.cdc.gov/vhf/ebola/index.html**

Suspected Viral Hemorrhagic Fevers Decontamination



If EMS personnel are exposured to blood, bodily fluids, secretions, or excretions from a patient with suspected or confirmed Ebola should immediately:

- Stop working and wash the affected skin surfaces with soap and water.
- Mucous membranes (e.g., conjunctiva) should be irrigated with a large amount of water or eyewash solution

- **EMS personnel performing decontamination / disinfection should wear recommended PPE**
- **When performing Decontamination EMS Personnel MUST wear appropriate PPE, which includes:**
  - Gloves (Double glove)
  - Fluid resistant (impervious) Tyvek Like Full length (Coveralls)
  - Eye protection (Goggles)
  - N-95 face mask
  - Fluid resistant (impervious)-Head covers
  - Fluid resistant (impervious)-Shoe / Boot covers
- Face protection (N-95 facemask with goggles) should be worn since tasks such as liquid waste disposal can generate splashes.
- Patient-care surfaces (including stretchers, railings, medical equipment control panels, and adjacent flooring, walls and work surfaces) are likely to become contaminated and should be decontaminated and disinfected after transport.
- A blood spill or spill of other body fluid or substance (e.g., feces or vomit) should be managed through removal of bulk spill matter, cleaning the site, and then disinfecting the site.
  - For large spills, a chemical disinfectant with sufficient potency is needed to overcome the tendency of proteins in blood and other body substances to neutralize the disinfectant s active ingredient.
  - An EPA-registered hospital disinfectant with label claims for viruses that share some technical similarities to Ebola (such as, norovirus, rotavirus, adenovirus, poliovirus) and instructions for cleaning and decontaminating surfaces or objects soiled with blood or body fluids should be used according to those instructions.
  - (Alternatively, a 1:10 dilution of household bleach (final working concentration of 500 parts per million or 0.5% hypochlorite solution) that is prepared fresh daily (i.e., within 12 hours) can be used to treat the spill before covering with absorbent material and wiping up. After the bulk waste is wiped up, the surface should be disinfected as described in the section above).
- Contaminated reusable patient care equipment should be placed in biohazard bags (double-bagged) and labeled for decontamination and disinfection.
- Reusable equipment should be cleaned and disinfected according to manufacturer's instructions by appropriately trained personnel wearing correct PPE.
- Avoid contamination of reusable porous surfaces that cannot be made single use. Use only a mattress and pillow with plastic or other covering that fluids cannot get through.
- To reduce exposure, all potentially contaminated textiles (cloth products) should be discarded. This includes non-fluid-impermeable pillows or mattresses. They should be considered regulated medical waste and placed in biohazard red bags. They must be double-bagged prior to being placed into regulated medical waste containers.

Suspected Viral Hemorrhagic Fevers Deceased Subjects

Decedent Known or suspected carrier of VHF / Ebola Requires Transportation

- Only personnel trained in handling infected human remains, and wearing FULL PPE, should touch or move any Ebola (VHF)-infected remains
- Handling of human remains should be kept to a minimum.

Donning / Doffing PPE

PPE should be in place BEFORE contact with the body

- Prior to contact with body, postmortem care personnel must wear PPE consisting of: surgical scrub suit, surgical cap, impervious TyvexCoveralls, eye protection (e.g., face shield, goggles), facemask, shoe covers, and double surgical gloves.
- Additional PPE (leg coverings,) might be required in certain situations (e.g., copious amounts of blood, vomit, feces, or other body fluids that can contaminate the environment)

PPE should be removed immediately after and discarded as regulated medical waste.

- 1) Use caution when removing PPE as to avoid contaminating the wearer.
- 2) Hand hygiene (washing your hands thoroughly with soap and water or an alcohol based hand rub) should be performed immediately following the removal of PPE. If hands are visibly soiled, use soap and water.

Preparation of Body Prior to Transport

- At the site of death, the body should be wrapped in a plastic shroud. Wrapping of the body should be done in a way that prevents contamination of the outside of the shroud.
- Change your gown or gloves if they become heavily contaminated with blood or body fluids.
- Leave any intravenous lines or endotracheal tubes that may be present in place.
- Avoid washing or cleaning the body.
- After wrapping, the body should be immediately placed in a leak-proof plastic bag not less than 150 µm thick and zippered closed The bagged body should then be placed in another leak-proof plastic bag not less than 150 µm thick and zippered closed before being transported to the morgue.

Surface Decontamination

- Prior to transport to the morgue, perform surface decontamination of the corpse-containing body bags by removing visible soil on outer bag surfaces with EPA-registered disinfectants which can kill a wide range of viruses.
- Follow the product s label instructions. Once the visible soil has been removed, reapply the disinfectant to the entire bag surface and allow to air dry.
- Following the removal of the body, the patient room should be cleaned and disinfected.
- Reusable equipment should be cleaned and disinfected according to standard procedures

Trasportation of Deceased / VHF Remains

- PPE is required for individuals driving or riding in a vehicle carrying human remains. DO NOT handle the remains of a suspected / confirmed case of Ebola The remains must be safely contained in a body bag where the outer surface of the body bag has been disinfected prior to the transport.

PEARLS

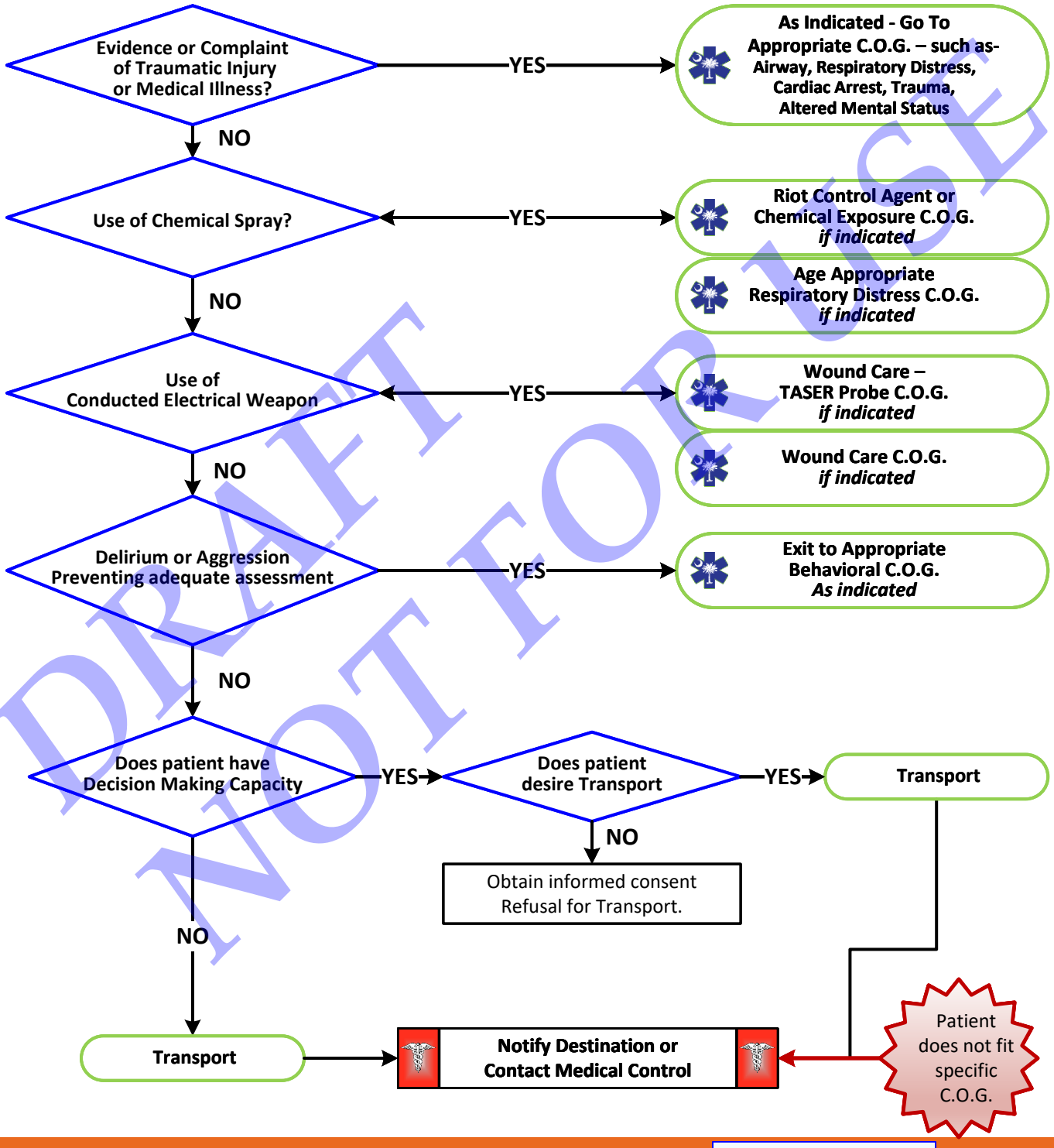
- **Ebola Information: For a complete review of Handling Remains of Ebola Infected Patients go to:**
  - **http://www.cdc.gov/vhf/ebola/hcp/guidance-safe-handling-human-remains-ebola-patients-us-hospitals-mortuaries.html**

Law Enforcement Custody

History:
- Traumatic Injury
- Drug Abuse
- Cardiac History
- History of Asthma
- Psychiatric History

Signs and Symptoms
- External Signs of Trauma
- Palpitations
- Shortness of Breath
- Wheezing
- Altered Mental Status
- Intoxication/Substance Abuse

Differential
- Delirium with Agitation Secondary to Psychiatric Illness
- Delirium with Agitation Secondary to Substance Abuse
- Traumatic Injury
- Closed Head Injury
- Asthma Exacerbation
- Cardiac Dysrhythmia



SPECIAL: LAW ENFORCEMENT CUSTODY

Law Enforcement Custody

PEARLS:

- **Recommended Exam: Mental Status, Skin, Heart, Lungs, Neurologic status**
- **EMS agency should formulate a policy with local law enforcement agencies concerning patients requiring EMS and Law Enforcement involvement simultaneously.**
- **Agencies should work together to formulate a disposition in the best interest of the patient, however, decisions regarding best medical care resides with the Senior medic on scene.**
- **Law Enforcement:**
  - **Any patient who is handcuffed or restrained by Law Enforcement and transported by EMS, must be accompanied by law enforcement during transport capable of removing the devices.**
  - **Patient should not be transported with upper extremities hand-cuffed behind back as this prevents proper assessment and could lead to injury.**
- **Maintain high-index of suspicion for underlying medical or traumatic disorder causing or contributing to behavioral disturbance. Medical causes more likely in ages < 12 or > 40.**
- **Sedating agents are never utilized upon request of Law Enforcement.**
  - **Medications are not to be used solely to aid in placing an individual into police custody.**
  - **Physical and/or chemical restraints are reserved for a medical emergency in order to prevent imminent injury to a patient and/or providers.**
  - **Utilization of a sedating medication should be made by the Senior Medical personnel on scene and with guidance of the Clinical Operating Guidelines.**
- **Restraints:**
  - **Do not position or transport any restrained patient is such a way that could impact the patients respiratory or circulatory status.**
  - **When EMS providers have utilized medical restraints in accordance with Restraint Procedure, the law enforcement agent may follow behind the ambulance during transport.**
- The responsibility for patient care rests with the highest authorized medical provider on scene per South Carolina law.
- If an asthmatic patient is exposed to pepper spray and released to law enforcement, all parties should be advised to immediately contact EMS if wheezing/difficulty breathing occurs.
- Patients exposed to chemical spray, with or without history of respiratory disease, may develop respiratory complaints up to 20 minutes post exposure.
- All patients with decision-making capacity in police custody retain the right to participate in decision making regarding their care and may request care or refuse care of EMS.

Key Documentation Elements:

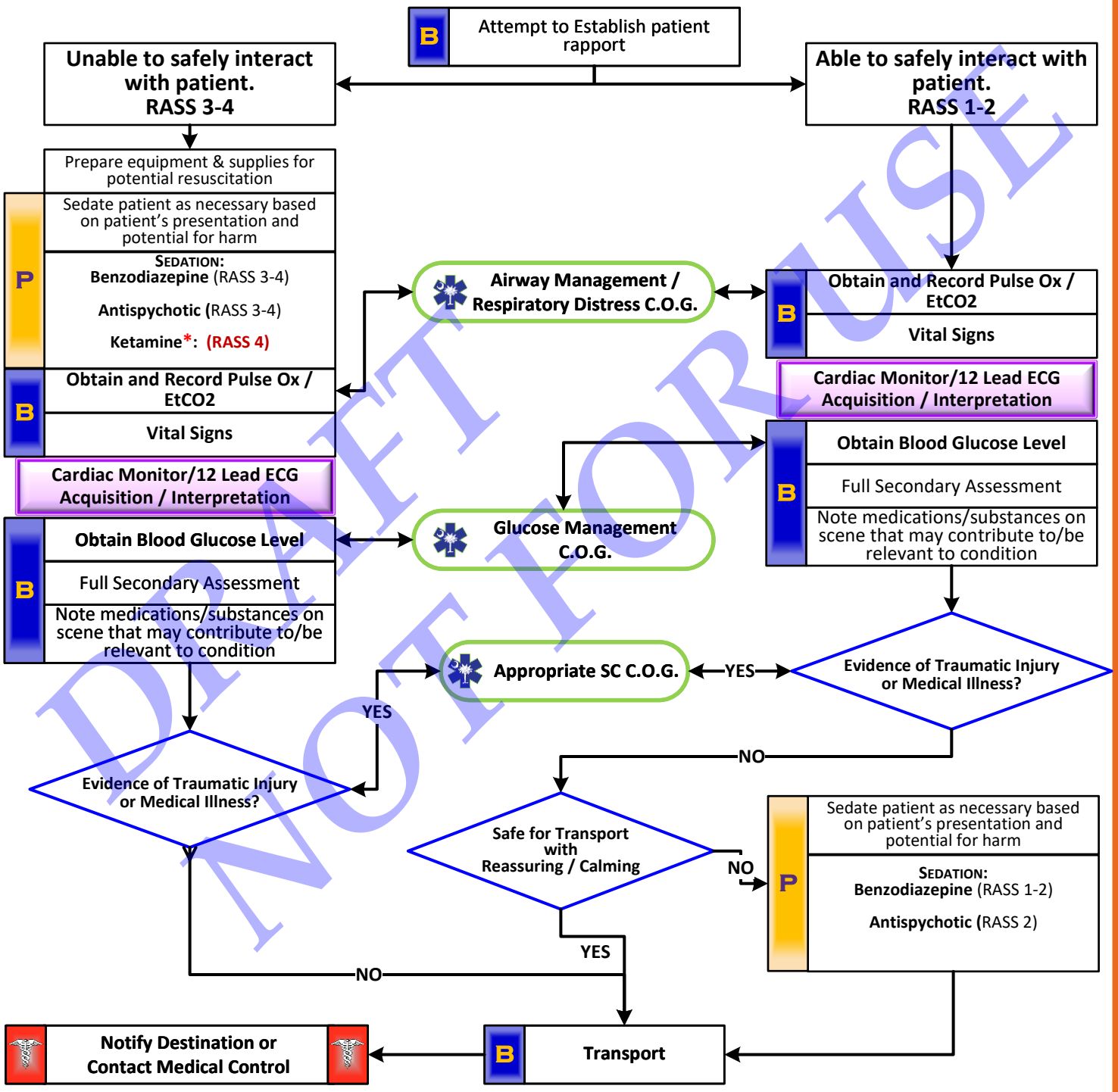
- ❑ Etiology of agitated or violent behavior if known
- ❑ Patient's medications, other medications or substances found on scene
- ❑ Patient's medical history or other historic factors reported by patient, family, or bystanders
- ❑ Glasgow Coma Score (GCS) or AVPU description
- ❑ Vital Signs including Temperature (when able); Oxygen Saturation, Pulse Rate, Cardiac Rhythm, Respiratory Rate
- ❑ Examination Including: Pupil and neck; evaluation of perfusion and skin exam were performed
- ❑ Recorded EKG with documentation of Cardiac rhythm and changes (if obtained)
- ❑ Blood glucose measurement (if obtained).
- ❑ If darts removed, document the removal location in the patient care report
- ❑ Physical evidence or history of trauma. Physical exam trauma findings
- ❑ Dose, route, and number of doses of pharmacologic management medications administered
- ❑ Clinical response to pharmacologic management medications
- ❑ Any and all repeated assessments should be documented.
- ❑ Communications with EMS medical direction
- ❑ Initiation and duration of engagement with law enforcement
- ❑ Discussions regarding Capacity, Informed Consent, and Refusals.
- ❑ Patient and medic safety were considered

Behavioral Emergency
Agitated or Violent Patient

History:
- Situational crisis
- Psychiatric illness/ medications
- Injury to self or threats to others
- Medical alert tag
- Substance abuse / overdose
- Diabetes

Signs and Symptoms
- Anxiety, agitation, confusion
- Affect change, hallucinations
- Delusional thoughts, bizarre behavior
- Combative / Violent
- Expression of suicidal / homicidal thoughts

Differential
- Delirium with Agitation Secondary to Psychiatric Illness or Substance Abuse
- **See *Altered Mental Status differentials***
- **Alcohol intoxication**
- **Toxin / Substance abuse**
- **Medication effect/ overdose**
- **Withdrawal syndromes**
- **Depression / Anxiety disorder**
- **Bipolar (manic-depressive)**
- **Schizophrenia**
- **Seizure / Postictal**



SPECIAL: BEHAVIORAL EMERGENCY – VIOLENT OR AGITATED PATIENTS

Behavioral Emergency
Agitated or Violent Patient

PEARLS:

- **Recommended Exam: Mental Status, Skin, Heart, Lungs, Neurologic status**
- **Patient does not have to be in police custody or under arrest to utilize this protocol.**
- **EMS agency should formulate a policy with local law enforcement agencies concerning patients requiring EMS and Law Enforcement involvement simultaneously.**
- **Agencies should work together to formulate a disposition in the best interest of the patient.**
- **Law Enforcement:**
  - **Any patient who is handcuffed or restrained by Law Enforcement and transported by EMS, must be accompanied by law enforcement during transport capable of removing the devices.**
  - **Patient should not be transported with upper extremities hand-cuffed behind back as this prevents proper assessment and could lead to injury.**
  - **Consider multidisciplinary coordination with law enforcement to approach verbal de-escalation, restraint, and/or take-down restraint procedure.**
- **Restrained or sedated patients are NEVER to be transported or positioned in a prone position**
- **Maintain high-index of suspicion for underlying medical or traumatic disorder causing or contributing to behavioral disturbance. Medical causes more likely in ages < 12 or > 40.**
- **Medications are not to be used solely to aid in placing an individual into police custody.**
- **Physical and/or chemical restraints are reserved for a medical emergency in order to prevent imminent injury to a patient and/or providers.**
- These patient should be monitored continuously for deterioration. Including – but not limited to hemodynamic and respiratory compromise.
  - Monitoring should be continuously observational and should be expanded to include – at a minimum
    - The use of pulse oximetry, cardiac and vital sign monitoring as soon as it is safe to do so.
  - Decompensation may occur rapidly.
  - **EMS Providers should be prepared to resuscitate *before* administering sedating agents.**
- Direct medical oversight may be contacted at any time for advice, especially when patient's level of agitation is such that transport may place all parties at risk.
- Stretchers with adequate foam padding, particularly around the head, facilitates patient's ability to self position the head and neck to maintain airway patency.
- For patients with key-locking devices, applied by another agency, consider the following options:
  - Remove device and replace it with a device that does not require a key.
  - Administer pharmacologic management medication then remove and replace device with another non-key-locking device after patient has become more cooperative.
  - Transport patient, accompanied in patient compartment by person who has device key.
- Use **SAFER** model:
  - **S**tabilize the situation by containing and lowering the stimuli (remove unnecessary personnel, remove patient from stress, reassure, calm and establish rapport.) Keep hands in front of your body (non-threatening posture.) Only one provider should communicate with patient. Outline the patient's choices and calmly set some boundaries of acceptable behavior.
  - **A**ssess and acknowledge crisis by validating patient's feelings and not minimizing them.
  - **F**acilitate resources (Friends, family, police, chaplain).
  - **E**ncourage patient to use resources available and take actions in their best interest.
  - **R**ecovery or referral: Leave patient in care of responsible person, professional or transport to medical facility.
- Restraints:
  - All patients who receive either physical or chemical restraint must be continuously observed by ALS personnel on scene or immediately upon their arrival.
  - Do not position or transport any restrained patient is such a way that could impact the patients respiratory or circulatory status.
  - However, when EMS providers have utilized physical restraints in accordance with Restraint Procedure, the law enforcement agent may follow behind the ambulance during transport.
  - Restraint Form should be completed if restraints are utilized.
- The responsibility for patient care rests with the highest authorized medical provider on scene per South Carolina law.
- All patients with decision-making capacity in police custody retain the right to participate in decision making regarding their care and may request care or refuse care of EMS.
- If extremity / chemical / law enforcement restraints are applied, follow Restraint Procedure.
- **Delirium Syndrome with Agitated Features and/or Violent:**
  - Medical emergency: Combination of delirium, psychomotor agitation, anxiety, hallucinations, speech disturbances, disorientation, violent / bizarre behavior, insensitivity to pain, hyperthermia and increased strength.
  - Potentially life-threatening and associated with use of physical control measures, including physical restraints.
  - Most commonly seen in male subjects with a history of serious mental illness and/or acute or chronic drug abuse, particularly stimulant drugs such as cocaine, crack cocaine, methamphetamine, amphetamines or similar agents.
  - Alcohol or substance withdrawal as well as head trauma may also contribute to the condition.
- **If patient suspected of Delirium Syndrome with Agitated Features and/or Violent suffers cardiac arrest, consider a fluid bolus and sodium bicarbonate early.**

Behavioral Emergency
Agitated or Violent Patient

Richmond Agitation Sedation Scale (RASS)			
SCORE	TERM	DESCRIPTION	*Recommended Treatment*
4	*Combative*	Overtly combative, violent, immediate danger to self or personnel	**Benzodiazepine - or Antipsychotic - OR - KETAMINE***
3	*Very Agitated*	Pulls or removes tubes or catheters; aggressive	**Benzodiazepine - or - Antipsychotic**
2	*Agitated*	Frequent non-purposeful movement, fights interventions or ventilator	**Benzodiazepine - or - Antipsychotic**
1	*Restless*	Anxious - but movements not aggressive - vigorous	**Verbal Reassurance and calm patient - or Benzodiazepine**
0	*Alert & Calm*		
-1	*Drowsy*	Not fully alert, but has sustained awakening (eye-opening/eye contact) to voice (> 10 seconds)	
-2	*Light Sedation*	Briefly awakens with eye contact to voice (<10 seconds)	
-3	*Moderate Sedation*	Movement or eye opening to voice (but no eye contact)	
-4	*Deep Sedation*	No response to voice, but movement or eye opening to physical stimulation	
-5	*Unarousable*	No response to voice or to physical stimulation	

Use of KETAMINE * requires notification of Local Medical Director within 24 hours for completion of QA Policy

SPECIAL: BEHAVIORAL EMERGENCY – VIOLENT OR AGITATED PATIENTS

PEARLS:

- **PERTINENT ASSESSMENT FINDINGS**
  - **Continuous monitoring of:**
    - **Airway patency**
    - **Respiratory status with pulse oximetery and capnography**
    - **Circulatory status with frequent blood pressure measurements**
    - **Mental status and trends in level of patient cooperation**
    - **Cardiac status, especially if the patient has received pharmacologic management medication**
    - **Extremity perfusion with capillary refill in patients in physical management device**
- **KEY DOCUMENTATION ELEMENTS:**
  - ❑ Etiology of agitated or violent behavior if known
  - ❑ Patient's medications, other medications or substances found on scene
  - ❑ Patient's medical history or other historic factors reported by patient, family, or bystanders
  - ❑ Measures taken to establish patient rapport and de-escalation
  - ❑ Glasgow Coma Score (GCS) or AVPU description
  - ❑ Vital Signs including Temperature (when able); Oxygen Saturation, Pulse Rate, Cardiac Rhythm, Respiratory Rate
  - ❑ Examination Including: Pupil and neck; evaluation of perfusion and skin exam were performed
  - ❑ Recorded EKG with documentation of Cardiac rhythm and changes (if able to be done)
  - ❑ Blood glucose measurement
  - ❑ IV fluids given for poor perfusion
  - ❑ If darts removed, document the removal location in the patient care report
  - ❑ Physical evidence or history of trauma. Physical exam trauma findings
  - ❑ Measures taken to establish patient rapport
  - ❑ Dose, route, and number of doses of pharmacologic management medications administered
  - ❑ Clinical response to pharmacologic management medications
  - ❑ Number and physical sites of placement of physical management devices
  - ❑ Duration of placement of physical management devices
  - ❑ Repeated assessment of airway patency; respiratory rate, effort, pulse oximetry/capnography
  - ❑ Repeated assessment of circulatory status with blood pressure, capillary refill, cardiac monitoring
  - ❑ Repeated assessment of mental status and trends in the level of patient cooperation
  - ❑ Repeated assessment of capillary refill in patient with extremity securing devices
  - ❑ Communications with EMS medical direction
  - ❑ Initiation and duration of engagement with law enforcement
  - ❑ Patient and medic safety were considered
- **KEY PROCESS IMPROVEMENT ELEMENTS**
  - ❑ **Incident of injuries to patient, EMS personnel or others on scene or during transport**
  - ❑ **Medical or physical complications (including sudden death) in patients**
  - ❑ **Use of Ketamine triggers Medical Director review**

Behavioral Emergency
Agitated or Violent Patient

RESTRAINT CHECKLIST	
Patient Name	
ePCR Number	**Date**
It is STRONGLY recommended that a Restraint Checklist be completed with any restraint use.	
1. Reason for restraint (check all that apply)	
☐Patient attempting to hurt/harm self	
☐Patient attempting to hurt/harm others	
☐Patient attempting to remove medical necessary devices	
☐Other:	
2. Attempted Verbal reassurance/redirection/de-escalation?	
☐YES	☐NO
3. Attempted environmental modification (i.e. remove patient from stressful environment)	
☐YES	☐NO
4. Received medical control order for restraints?	
☐YES	☐NO
Medical Control Authorizing Retraints:	
5. Time and Type of Restraint utilized (Check all that apply):	
Date:	Time:
Limb Restraints:	
☐LUE ☐LLE	☐RUE ☐RLE
Chemical Restraing	☐YES ☐NO
If YES – Drug Used	
If YES – Total Drug Dose	
6. Vital signs and extremity neurovascular exam should be taken every 15 minutes	
7. Transport Position (Patient should NOT be in prone position)	
☐Supine Position	☐Lateral Recumbent Position