Northeast Ohio Regional
EMS Protocol

COVID-19 Response Protocols
and Standard of Care Exceptions

04.16.2020

A Product of Collaboration

Cleveland Clinic
MetroHealth
Southwest General
University Hospitals

The most current version of this protocol can be found at
COVID-19 EMS Protocol Supplement

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## COVID-19 PPE and EXPOSURE

### PPE REQUIREMENTS

**PPE Requirements**

**suspected or known COVID-19 patients**

- Surgical mask on patient during care where available
- Surgical mask minimum on all providers, N95 preferred.
- Gown preferred where available, follow departmental policy
- Gloves
- Eye Protection

**PPE Requirements**

**WITH Aerosol Generating Procedures**

Such as Breathing Treatments, Suction, CPAP, Airway Management, CPR

- Surgical mask on patient when not actively managing airway
- N95 or greater level respiratory protection
- Gown where available
- Gloves
- Eye Protection

### PPE KEY POINTS

- Follow CDC guidelines for proper donning / doffing of PPE – PPE requirements may change frequently, check for updates
- Surgical masks are to be used and reused throughout a shift unless soiled, damaged or exposed to person of concern (ex: coughing, aerosol generating procedure / treatment).
- All providers are to wear at minimal a surgical mask, gloves and eye protection on all patient encounters. N95 Preferred.
- If your PPE supply allows, all patients are to arrive at the hospitals wearing a surgical mask. If limited surgical mask, prioritize mask placement on patients with fever, cough, dyspnea or other flu like symptoms discussed in prior updates. Receiving EDs may want to place a mask on patients when then arrive.
- N95 masks can be used by a single EMS provider until soiled, damaged, or exposed to a person of concern. This could mean multiple shift use for N95 mask. Consider placing initials on masks that are being reused and storing in a paper bag to allow moisture in a used mask to dissipate.
- Departments using CAPR / PAPRs please follow your department policies for use and cleaning.
- If gowns are not available and concerning droplet exposure occurred, change into a clean uniform, remembering to wash hands after touching soiled clothing.
- Higher level of respiratory protection in excess of N95 include N99 mask, N100 mask, PAPR / CAPR, or full or partial facemasks with N95 or greater filters.
- Remove and discard (if not being re-used) All PPE, including gloves after patient drop off and wash hands or disinfect in patient room. Disinfect and reuse durable eye protection, consider reuse of mask per current departmental practice.
- Re-don PPE prior to decontamination of equipment.
- Follow Medical Direction or departmental directives for reuse of scarce equipment.
- Patient surgical masks may be replaced at the receiving hospital, 1:1 exchange for other PPE may vary by facility.

### EXPOSURE

**Exposure to COVID-19 Positive Patient WITH Appropriate PPE**

- Safe to return to work without restrictions
- Self - monitor for symptoms
- If symptoms develop during the shift, the provider should wear a surgical mask, place themselves in self-isolation and notify the receiving hospital’s Infection Control Department or follow departmental policy

**Exposure to COVID-19 Positive Patient WITHOUT Appropriate PPE**

- Notify the receiving hospital’s Infection Control Department and follow departmental exposure policies
- The provider is to complete an exposure form
- Self – monitor for symptoms following departmental policy
- If symptoms develop during the shift, the provider should wear a surgical mask, place themselves in self-isolation

### EXPOSURE KEY POINTS

- Self-Monitoring for symptoms includes taking temperature at least twice per day
- Self-Monitoring programs are being initiated by many departments to assure staff are well and not reporting to work with possible symptoms. Departments may decide to use these for routine employee monitoring or just after possible exposure.

### ADDITIONAL PERSONAL PROTECTION RECOMMENDATIONS

- During regional outbreaks it is recommended to wear surgical masks if available at station to prevent provider to provider contamination.
- Maintain social distancing of at least 6’ while at station and while sleeping.
- Clean and disinfect common areas frequently.
- Wash hands frequently.
- Self-monitor per departmental policy including temperature.
- Outside of patient care, it is recommended that surgical masks still be worn while on duty to help limit exposure and spread of the SARS-CoV-2 virus. It should be up to the individual departments to determine policy and exceptions.
This protocol is intended to be used in place of the standard Adult Respiratory Distress protocol and Adult Airway protocol for patients who present with viral symptoms.
**COVID-19 RESPIRATORY DISTRESS and AIRWAY**

**UNIVERSAL PATIENT CARE PROTOCOL**
- PPE Minimum
- Surgical Mask / Gown / Gloves / Eye Protection
- Surgical Mask on Patient

**IV / IO PROCEDURE**
- This protocol is intended to be used in place of the standard Pediatric Respiratory Distress protocol and Pediatric Airway protocol for patients who present with viral symptoms

**Mild – Symptoms**
- Refer to COVID-19 TRANSPORT SUPPLEMENT PROTOCOL
- OXYGEN By Nasal Cannula Under Surgical Mask if Transferred

**Moderate / Severe Distress**
- **CAPNOGRAPHY PROCEDURE**
  - OXYGEN By Least Aerosol Producing Method to Maintain SpO2 - NC / NRB
  - Consider and Prioritize Injectable Bronchodilators Over Inhaled
  - EPINEPHrine (ADRENALINE)
    - 0.01 mg / kg / hr of
    - 1 mg / ml (1:1000)
    - Max dose 0.5 mg
  - methylPREDNISolone
    - (SOLU – MEDROL)
    - 2 mg / kg / IV / IO
    - Max Dose 125 mg
  - Only for Use in Cases Where Underlying Asthma Are Likely Being Exacerbated by The Virus
  - **ENHANCED PPE**
    - Minimum PPE PLUS N95 or Higher-Level Protection REQUIRED
  - Obtain and Assist with Administration of Patients MDI Albuterol (Proventil)
    - if Available – Preferred ALL PROVIDERS
    - Administer 2 Puffs
    - May Repeat if no results
  - Treat with aerosol(s)
    - DUONEB (ALBUTEROL / IPRATROPium)
  - Give in Location Other Than Ambulance if Able Without Risk to Others

**Requires AIRWAY Management**
- **CAPNOGRAPHY PROCEDURE**
  - ENHANCED PPE
    - Minimum PPE PLUS N95 or Higher-Level Protection REQUIRED
  - BASIC MANUVERS FIRST
    - Open Airway
    - Nasal / Oral Airway
    - Bag-Valve-Mask
  - If Patient Spontaneously Breathing
    - Place NRB on Patient While Preparing to Manage Airway
  - If Not Spontaneously Breathing or Insufficient Breathing
    - BVM With 2 Hand Mask Seal to Minimize Leakage
    - Use Viral Filter on BVM Where Available

**Extraglottic (BIAD) AIRWAY Device**
- No Medications Down Extraglottic (BIAD) Airway
- EMT Use in Pulseless & Apneic Patient Only

**INTUBATION PROCEDURE**
- Use the Following Only in Extremis and Not Responding to Above Treatments
- Max 2 Intubation Attempts
- AEMT Apneic Patient Only
- Document Failed Attempt(s)

**TRANSPORT to appropriate facility CONTACT** receiving facility with **EARLY NOTIFICATION** of potential COVID 19 case AND VERIFY HOSPITAL ARRIVAL / ACCESS PROCESS before taking patient inside CONSULT Medical Direction where indicated APPROPRIATE transfer of care

**CONTACT**
- EMT Intervention
- AEMT Intervention
- PARAMEDIC Intervention
- Online Medical Control

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**Northeast Ohio Regional EMS Protocol SUPPLEMENT** - 5/0
# COVID-19 RESPIRATORY DISTRESS

<table>
<thead>
<tr>
<th>History</th>
<th>SIGNS AND SYMPTOMS</th>
<th>DIFFERENTIAL DIAGNOSIS</th>
</tr>
</thead>
</table>
| • Flu-like Illness | • Fever greater than 100.4 F  
• Dyspnea  
• Upper respiratory infection  
• Cough  
• Chills  
• Weakness  
• Body Aches  
• Diarrhea, plus one of the above | • Cancer / tumors / lymphoma  
• Medication or drug reaction  
• Hyperthyroidism  
• Heat related emergency  
• Meningitis  
• Pneumonia  
• Influenza A / B or RSV |

## COVID-19 TREATMENT POINTS

**General Management**
- If your PPE supply allows, all patients are to arrive at the hospitals wearing a surgical mask. If limited surgical mask, prioritize mask placement on patients with fever, cough, dyspnea or other flu like symptoms discussed in prior updates. Receiving EDs may want to place a mask on patients when then arrive.
- Known of suspected COVID-19 patients should be transported to a full-service hospital with ICU capabilities.

**Airway Management**
- When high risk droplet procedures are required, the provider is recommended to wear a minimum of eye protection, gown, gloves and a N95. This may include intubation, CPAP, suction, aerosol treatments or care management of symptomatic tracheostomy patient.
- If BVM management of patient is required, use 2 hand mask seal and gentle reduced volume ventilation to help prevent aerosolization of virus.
- If a patient has an unstable airway, don PPE as described above and place an advanced airway. An extraglottic airway creates less exposure to aerosols / droplets and is preferred. Intubation is permitted as a backup. Consider placing a towel around a properly secured airway to help prevent sprayed droplets.
- Video laryngoscopy is preferred to help assure distance from the patient during intubation when it is required.
- Do not use delivery of high flow oxygen via nasal cannula during intubation procedure in COVID-19 cases.
- In-line HEPA filters, where available, should be utilized during ventilation of patients with ETT or supraglottic airway. Use with CPAP or nebulized treatments can vary with product. If using in-line sampling capnography as well, make sure the HEPA filter is placed closest to the patient and capnography sampling connector is after the HEPA filter.

**Oxygen Delivery**
- Place oxygen delivery devices (nasal cannula / non-rebreathers) under surgical mask to help prevent aerosolization of virus, particularly if the patient is coughing.

**Inhaled Medications**
- If the patient has a metered dose inhaler, make sure this goes with the patient if transported. EMS may utilize patients MDI in place of standard aerosol treatments to help minimize risk of these procedures in these patients.
- If nebulized treatments must be given, attempt to give in location other than the ambulance, but also nowhere that will expose others. Assure receiving facility is aware of this in EMS to Hospital report.
- Consider the use of IM epinephrine or IV magnesium per standard respiratory distress protocols for severe cases. This is indicated earlier and for milder symptoms in these cases to help minimize the risk associated with nebulized treatments.

**Cardiac Arrest**
- In the absence of ROSC, follow termination of resuscitation guidelines.

**Transfer of Care Management**
- To limit exposure to others in common areas, discontinue all aerosol treatments / CPAP / BVM ventilation without HEPA filter immediately prior to entering ED and resume immediately in the patient’s room with the door closed.

## GENERAL KEY POINTS

- **Status asthmatics** - severe prolonged asthma attack unresponsive to therapy - life threatening!
- If the patient is over 50 years of age, has a history of cardiac disease, or if the patient’s heart rate is >120 EPINEPHrine (Adrenaline) may precipitate cardiac ischemia.
- Monitor pulse oximetry continuously during treatment and transport.
- A silent chest in respiratory distress is a pre - respiratory arrest sign.
- Be alert for respiratory depression in COPD patients on prolonged high flow oxygen administration.
- DO NOT withhold oxygen from hypoxic patients.
- If Albuterol (Proventil) and / or Ipratropium (Atrovent) is given, monitor the patient’s cardiac rhythm.
- Assure enough expiration time when ventilating COPD or asthma patients to prevent breath stacking and Co2 elimination.
- Albuterol (Proventil) and Ipratropium (Atrovent) can be given down an ETT or Tracheotomy during ventilation if there is evidence of bronchoconstriction.
- ETCO2 measurement is mandatory with all methods of intubation. Document results of SpO2.
- Limit intubation attempts to 2 per patient max.
- If unable to intubate, continue BVM ventilations, transport rapidly, and notify receiving hospital early.
- Do not assume hyperventilation is psychogenic - use oxygen, not a paper bag.
- Continuous pulse oximetry should be utilized in all patients with an inadequate respiratory function.
- Consider c-collar to help maintain airway placement for all managed airway patients.
- Consider the use of intubation aids such as a bougie or video laryngoscope to facilitate intubation.
- Extraglottic airway device / BIAD (Blind Insertion Airway Device) Examples (not limited to); King Airway, LMA, Combitube, iGel
 Known or suspected COVID-19 Patient

One or more viral symptoms present;

- Fever
- Cough
- Nasal / Chest Congestion

- Sore Throat
- Body Aches
- Dyspnea

Provider and Patient PPE for droplet precautions per most current guidelines

Limit number of providers with patient contact, only as many as required for indicated interventions

UNIVERSAL PATIENT CARE PROTOCOL

Conduct Patient Assessment – EMS Taken Vitals

Vital Signs – **All**

- SBP > 100
- Resp < 22
- Spo2 > 94 RA

Vital Signs – **Any**

- SBP < 100
- Resp > 22
- Spo2 < 94 RA

Patient Medical History - **All**

- Age < 60 > 3 years
- Not ESRD on dialysis
- No CAD/HF

Patient Medical History - **Any**

- Age > 60 < 3
- ESRD on dialysis

Patient Complaint - **Any**

- Chest Pain, Shortness of breath, or Syncope

Determine Suitability for Home Care

- Appropriate Care Givers are available (if needed)
- There is separate space for the patient to recover without sharing with others
- The patient has access to food, water, and other necessities
- There are no household members with high risk history (Noted above)

Release without transport to care of self with standard non-transport release if patient consents to non-transport. Contact Medical Control only if the patient does not consent. Medical Control contact not required if within above criteria.

Provide patient resources for hotlines, testing, and / or telemedicine.

Complete thorough PCR regarding assessment and instructions given.

**ALS ASSESSMENT (WHERE AVAILABLE)**

Minimize aerosol or droplet producing procedures unless required such as CPAP and aerosol treatments

Obtain phone numbers for key family / caregivers and provide to receiving Hospital as visitation / access to patient likely to be restricted. Give to receiving facility

**TRANSPORT** to appropriate facility

**CONTACT** receiving facility as early as possible to indicate a person of interest for COVID-19.

Follow Hospital instructions for access to Hospital once at destination.

**CONSULT** Medical Direction where indicated

Remove PPE with caution following established doffing techniques and discard appropriately.

Through decontamination for ambulance and equipment following current disinfection standards.

**EMT Intervention** **AEMT Intervention** **PARAMEDIC Intervention** **MED CONTROL Consult**
**COVID-19 TRANSPORT**

<table>
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<td>Cancer / tumors / lymphoma</td>
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<td></td>
<td>Dyspnea</td>
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<tr>
<td></td>
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</tr>
<tr>
<td></td>
<td>Weakness</td>
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<td></td>
<td>Body Aches</td>
<td>Influenza A/B or RSV</td>
</tr>
<tr>
<td></td>
<td>Diarrhea, plus one of the above</td>
<td></td>
</tr>
</tbody>
</table>

**KEY POINTS**

- If a patient is not transported from a location other than home, discourage the use of public transportation.
- Turn on vent fan and HVAC to create negative pressure in ambulance during transport.
- Please do not enter the Emergency Department with a suspected COVID-19 patient until you have verified the ED is ready to receive the patient. This usually involves clearing hallways of other personnel/patients, preparing isolation rooms, and closing other patient’s doors.
- Consider finishing or halting aerosol producing treatments during transition from ambulance to the Emergency Department.
- If patient is transported, obtain phone numbers for family and/or caregivers if applicable as the visitation of the patient is likely to be restricted at the hospital. Give this information to the receiving facility.
- For calls in apartment buildings, multi-family dwellings, or skilled nursing facilities, the patient should wait in their residence and public safety providers will meet them there. This will allow public safety providers to place a mask on the patient, limiting droplet spread in common areas.
<table>
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</thead>
<tbody>
<tr>
<td>• Age</td>
<td>• CP (pain, pressure, aching, tightness)</td>
<td>• Trauma vs. medical</td>
</tr>
<tr>
<td>• Medications</td>
<td>• Location (substernal, epigastric, arm, jaw, neck, shoulder)</td>
<td>• Angina vs. myocardial infarction</td>
</tr>
<tr>
<td>• Past medical history (MI, angina, diabetes)</td>
<td>• Radiation of pain</td>
<td>• Pericarditis</td>
</tr>
<tr>
<td>• Allergies</td>
<td>• Pale, diaphoresis</td>
<td>• Pulmonary embolism</td>
</tr>
<tr>
<td>• Recent physical exertion</td>
<td>• Shortness of breath</td>
<td>• Asthma / COPD</td>
</tr>
<tr>
<td>• Onset</td>
<td>• Nausea, vomiting, dizziness</td>
<td>• Pneumothorax</td>
</tr>
<tr>
<td>• Palliation / Provocation</td>
<td></td>
<td>• Aortic dissection or aneurysm</td>
</tr>
<tr>
<td>• Quality (crampy, constant, sharp, dull, etc.)</td>
<td></td>
<td>• GE reflux or hiatal hernia</td>
</tr>
<tr>
<td>• Region / Radiation / Referred</td>
<td></td>
<td>• Esophageal spasm</td>
</tr>
<tr>
<td>• Severity (1-10)</td>
<td></td>
<td>• Chest wall injury or pain</td>
</tr>
<tr>
<td>• Time (duration / repetition)</td>
<td></td>
<td>• Pleural pain</td>
</tr>
</tbody>
</table>

**Anti-Platelet and Anti-Coagulant Medications**
Clopidogrel (Plavix), Prasugrel (Effient), Ticagrelor (Brilinta), Ticlopidine (Ticlid), Apixaban (Eliquis), Dabigatran (Pradaxa), Edoxaban (Savaysa), Fondaparinux (Arixtra), Rivaroxaban (Xarelto), Warfarin (Coumadin, Jantoven), Betrixaban (Bevyxxa)

**KEY POINTS**

- During COVID-19 outbreak some hospitals may manage patient in the ED rather than send to the Cath lab. Call before all administrations of Ticagrelor (Brilinta) or Heparin as these interventions may interfere with medical management of these cases. This applies to all cases, not just suspected or known COVID-19 cases with ACS.
- Make the scene safe: All chest pain patients must have an IV and 12 Lead EKG.
- Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extremities, Neuro.
- If patient has taken Nitroglycerin (Nitro-stat) without relief, consider potency of the medication.
- If positive ECG changes, establish a second IV while enroute to the hospital.
- Monitor for hypotension after administration of Nitroglycerin (Nitro-stat) or FentaNYL (Sublimaze).
- Nitroglycerin (Nitro-stat) or FentaNYL (Sublimaze) may be repeated per dosing guidelines in the MEDICATIONS SECTION.
- Diabetics / geriatric patients often have atypical pain, vague, or only generalized complaints. Be suspicious of a “silent MI”.
- Refer to the BRADYCARDIA PROTOCOL (HR < 60 bpm) or NARROW COMPLEX TACHYCARDIA PROTOCOL (HR > 150 bpm) if indicated.
- If the patient becomes hypotensive from Nitroglycerin (Nitro-stat), FentaNYL (Sublimaze) administration, place the patient in the Trendelenburg position and administer a Normal Saline bolus.
- Be prepared to administer Narcan (Naloxone) if the patient experiences respiratory depression due to FentaNYL (Sublimaze) administration.
- If pulmonary edema is present, refer to the CHF / ACUTE PULMONARY EDEMA PROTOCOL. Consider other causes of chest pain such as aortic aneurysms, pericarditis, esophageal reflux, pneumonia, pneumothorax, costochondritis, pleurisy, pancreatitis, appendicitis, cholecystitis (gallbladder), and pulmonary embolism.
- Aspirin can be administered to a patient on Coumadin (Warfarin), unless the patient’s physician has advised them otherwise.
- If the patient took a dose of Aspirin that was less than 324 mg in the last (24) hours, then additional Aspirin can be administered to achieve a therapeutic dose of 324 mg.
- DO NOT administer Nitroglycerin (Nitro-stat) to a patient who took an erectile dysfunction medication; Sildenafil (Viagra), Tadalafil (Cialis), Vardenafil (Levitra), etc. within the last 24 hours due to potential severe hypotension.
- Nitroglycerin (Nitro-stat) can be administered to a patient by EMS if the patient has already taken their own prior to your arrival. Document it if the patient had any changes in their symptoms or a headache after taking their own Nitroglycerin. Nitroglycerin (Nitro-stat) can be administered to a hypertensive patient complaining of chest discomfort without Medical Direction permission.
- Nitroglycerin (Nitro-stat) can be administered without an IV as long as patient has a BP greater than 120 mmHg, without signs of inferior wall MI.
- DO NOT treat PVC’s with Amiodarone (Cordarone) unless patient develops runs of V-Tach, or has sustained V-tach.
- Pulse oximetry is not an indicator of myocardial perfusion.
- Only administer oxygen if the patient is hypoxic with a SpO2 of less than 94. Do not withhold oxygen from patients that are short of breath regardless of SpO2.
- Once applied to a known or suspected ACS patient do not remove a 12 lead EKG, even if the initial EKG is unremarkable. Some devices continue to look for ST segment changes and will alert if there are changes.
CARDBIAC ARREST EXCEPTION

**UNIVERSAL PATIENT CARE PROTOCOL**

- Criteria for Death
- Criteria for DNR

**Begin CPR Immediately**

- Consider ITD During CPR
- Attach Cardiac Monitor Defibrillator / AED as soon as available

**Deliver Shock x 1 if Shockable**

- Immediately Resume CPR - 2 minutes

**IV / IO PROCEDURE**

**AIRWAY PROTOCOL**

- Deliver Shock x 1 if Shockable
- Maintain CPR / Airway
- Follow AED Prompts (if applicable)

**Continue CPR**

**TRANSPORT to appropriate facility**

**CONTACT** receiving facility

**CONSULT** Medical Direction where indicated

**APPROPRIATE transfer of care**

**Review DNR Comfort Care Guidelines**

**CONTACT ONLINE MEDICAL CONTROL**

**IF ALS CARE AVAILABLE IN FIELD**

Patients in cardiac arrest SHOULD be worked on scene UNLESS special resuscitation circumstances exist that would benefit from hospital treatment unavailable in the field

**Termination of Resuscitation**

1. Unwitnessed arrest by EMS
2. Non-shockable rhythm
3. No ROSC within 20 mins

Contact Medical Control as Required by Local Policy

**BLS Termination of Resuscitation are now in place. This applies to ALS and BLS providers. Traditional tools still helpful in guiding decision making, but previous parameters not required.**

**AT ANY TIME**

Return of Spontaneous Circulation (ROSC)

**GO TO POST RESUSCITATION CARDIAC CARE**

**REFER TO DOA GUIDELINES CONTACT ONLINE MEDICAL CONTROL**

**EMT Intervention**

**AEMT Intervention**

**PARAMEDIC Intervention**

**Online Medical Control**
# Adult Protocol

## Cardiac Arrest Exception

### History

- Events leading to arrest
- Estimated downtime
- Past medical history
- Medications
- Existence of terminal illness
- Signs of lividity, rigor mortis
- DNR

### Signs and Symptoms

- Unresponsive
- Apneic
- Pulseless

### Differential Diagnosis

- Medical vs. trauma
- V-fib vs. pulseless V-tach
- Asystole
- Pulseless electrical activity (PEA)

### Key Points

- Termination of Resuscitation with NO transport to the hospital should be performed when there is an unwitnessed arrest, a non-shockable rhythm (either by manual or AED interpretation), and no field ROSC within 20 minutes.
- Patients may always be transported from unsafe scenes to assure provider welfare.
- Contact Medical Control as required by local policy for field termination.
- Always minimize interruptions to chest compressions.
- Consider attachment of ITD to enhance circulation with chest compressions. Remove if there is a return of spontaneous circulation (ROSC).
- Success is based on proper planning and execution. Procedures require space and patient access, make room to work.
- Reassess airway frequently and with every patient move.
- Maternal arrest - Treat mother per appropriate protocol with immediate notification to Online Medical Control and rapid transport.
- If the patient converts to another rhythm, refer to the appropriate protocol and treat accordingly.
- Attempt to obtain patient history from family members or bystanders.
  - Estimated down time
  - Medical history
  - Complaints prior to arrest
  - Bystander CPR prior to EMS arrival
  - AED use prior to EMS arrival
  - Administer Dextrose only if the patient has a blood glucose level < 70 mg/dl. Dextrose should be administered as soon as hypoglycemia is determined.
  - Reassess the patient if the interventions do not produce any changes.
  - If indicated, refer to the TERMINATION OF RESUSCITATION EFFORTS POLICY.
  - If patient is pregnant and in cardiac arrest, manually manipulate the uterus to the left during CPR.
# COVID-19 EMS Protocol Supplement Change Log

## 03.31.2020

<table>
<thead>
<tr>
<th>Page</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-0</td>
<td>Added orange box in upper right-hand corner regarding following field termination protocols</td>
</tr>
<tr>
<td>1-0</td>
<td>Added “Drip” to Magnesium Sulfate administration</td>
</tr>
<tr>
<td>3-0</td>
<td>Field termination bullet point added</td>
</tr>
<tr>
<td>5-0</td>
<td>Added last bullet point regarding multifamily dwellings and SNF’s.</td>
</tr>
<tr>
<td>6-0</td>
<td>Changed left column of top chart to “without aerosol generating procedures” to “suspected or known COVID-19 patients”</td>
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<tr>
<td>6-0</td>
<td>Added “where available” to gowns and surgical masks</td>
</tr>
<tr>
<td>6-0</td>
<td>Added “CPR” to such as descriptions of with aerosol generating procedures in right column of top chart.</td>
</tr>
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<td>6-0</td>
<td>Added “Remove and discard (if not being re-used) All PPE, including gloves after patient drop off and wash hands”</td>
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<td>6-0</td>
<td>Added “Follow Medical Direction or departmental directives for reuse of scarce equipment.”</td>
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<tr>
<td>6-0</td>
<td>Added Additional Personal Protection Recommendations chart at bottom of page</td>
</tr>
<tr>
<td>6-0</td>
<td>Added “Patient surgical masks may be replaced at the receiving hospital, 1:1 exchange for other PPE may vary by facility”</td>
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<tr>
<td>7-0</td>
<td>Created change log page</td>
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<tr>
<td>3-0</td>
<td>Added transport to hospital with ICU capabilities</td>
</tr>
<tr>
<td>6-0</td>
<td>Clarified “regional” outbreak</td>
</tr>
<tr>
<td>6-0</td>
<td>Added while on duty bullet point</td>
</tr>
</tbody>
</table>

## 04.09.2020

<table>
<thead>
<tr>
<th>Page</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td>1-0</td>
<td>Added cover page with web link to online access</td>
</tr>
<tr>
<td>2-0</td>
<td>Added table of contents page</td>
</tr>
<tr>
<td>ALL</td>
<td>Re-ordered pages, putting PPE first in order</td>
</tr>
<tr>
<td>4-0</td>
<td>Changed verbiage for sedation prior to airway management to match base protocol</td>
</tr>
<tr>
<td>6-0</td>
<td>Grouped COVID treatment points by topic</td>
</tr>
<tr>
<td>6-0</td>
<td>Added bullet point for BVM gently</td>
</tr>
<tr>
<td>6-0</td>
<td>Added bullet point for video laryngoscopy</td>
</tr>
<tr>
<td>6-0</td>
<td>Added bullet point for oxygen delivery devices</td>
</tr>
<tr>
<td>8-0</td>
<td>Added bullet point regarding HVAC and vent in ambulance</td>
</tr>
<tr>
<td>9-0</td>
<td>Added exception for ACS protocol for systems giving prehospital ticagrelor(brilinta) or heparin requires receiving hospital contact prior to admin</td>
</tr>
<tr>
<td>10-0</td>
<td>Added ACS exception key points page with ticagrelor(brilinta) or heparin administration points</td>
</tr>
<tr>
<td>11-0</td>
<td>Added cardiac arrest protocol exception with BLS field termination points</td>
</tr>
<tr>
<td>12-0</td>
<td>Added cardiac arrest protocol key points exception with BLS field termination points</td>
</tr>
</tbody>
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## 04.15.2020

<table>
<thead>
<tr>
<th>Page</th>
<th>Change</th>
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<tbody>
<tr>
<td>3-0</td>
<td>Added considerations for reuse of masks per departmental policy and reuse of durable eye protection</td>
</tr>
<tr>
<td>6-0</td>
<td>Added consideration for the use of a towel over a secured airway to help with droplet mitigation</td>
</tr>
<tr>
<td>6-0</td>
<td>Reworded ROSC / field termination bullet point</td>
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</table>