

MIDSTATE EMS



Protocol Handbook

2012

This Page intentionally left
blank

DRAFT

ROUTINE MEDICAL CARE

INTERMEDIATE

The following procedures will be performed on medical emergencies requiring Advanced Life Support:

- Assure scene safety
- Bring ALS equipment to the patient and utilize as indicated:
 - AED, Pulse oximetry, Oxygen, Suction
 - Advanced airway equipment, Continuous waveform capnography
 - Glucometer, IV access
 - Capability for field to hospital communications
- Initial patient assessment and vital signs; blood pressure, pulse, and respirations every 5- 15 minutes and after every treatment (first BP manually)
- Reassurance and proper positioning
- Medical Control notification as soon as reasonable

INTERMEDIATE STOP

CRITICAL CARE

- Monitor/defibrillator
- Medications
- 12 Lead ECG if appropriate

CRITICAL CARE STOP

PARAMEDIC

PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Multiple Patient Procedures:
 - If a potential MCI exists, contact 911 center and medical control ASAP. The medical control physician may authorize standing orders during the MCI. Document incident commander's name and affiliated agency.
- Upon completion of patient assessment and identification of need for ALS, ILS transporting units need to request and then rendezvous with ALS units or transport to hospital, whichever is closer.

ROUTINE TRAUMA CARE

INTERMEDIATE

- Establish large bore Normal Saline IV/IO
- Intercept with ALS

● INTERMEDIATE STOP

CRITICAL CARE

- ECG
- If indicated consider Fluid Challenge
- If in traumatic cardiac arrest consider bilateral chest decompression

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Apply and inflate PASG/MAST (if available) for adult patients with signs and symptoms of shock and severe hypotension with systolic BP < 50 mmHg or hypotension with systolic BP < 90 mmHg with signs and symptoms of an unstable pelvic fracture
- Patients meeting NYS Major Trauma Criteria will be transported to a designated Trauma Center, unless one of the following conditions exists transport to nearest hospital:
 - Patient in Cardiac Arrest
 - Unmanageable Airway
 - Directed by Medical Control

AIRWAY MANAGEMENT

INTERMEDIATE

- Manually open the airway
- Suction as needed
- Insert oropharyngeal or nasopharyngeal airway
- Ventilate patient with Bag-Valve Mask and 100% oxygen
 - May perform endotracheal intubation up to 3 times on patients in respiratory or cardiac arrest. Consider using GumBougie. (If unsuccessful place appropriate secondary advanced airway device)

● INTERMEDIATE STOP

CRITICAL CARE

- May attempt endotracheal intubation if patient has an altered mental status, respiratory rate < 10, and tolerates an oropharyngeal airway.

● CRITICAL CARE STOP

PARAMEDIC

- If direct laryngoscopy is impossible, digital intubation may be attempted.
- If abdominal distention occurs, pass an Orogastric Tube.

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- In trauma, manual stabilization is required.
- Confirm and monitor airway device with continuous End-Tidal CO₂ waveform capnography. If capnography unsuccessful, confirm position with EDD or End-Tidal CO₂ Detector.

FACILITATED INTUBATION

CRITICAL CARE

- Spray hypopharynx with topical anesthetic spray (optional)
- Etomidate 20 mg IV over 30 to 60 seconds
- If needed, repeat Etomidate 20mg IV over 30 to 60 seconds
- After successful intubation, consider medical control option for continued sedation

CRITICAL CARE STOP

PARAMEDIC

MEDICAL CONTROL ORDER

- For continued sedation, Midazolam 5 mg IV
- Midazolam 5 mg IV in place of Etomidate
 - If Intubation unsuccessful, may repeat Midazolam 5 mg IV

Key Points/Considerations

- SPO₂ monitoring is required.
- Continuous End-Tidal CO₂ waveform capnography is required.
- Confirm and document proper ETT placement.
- Confirm and monitor airway device with continuous End-Tidal CO₂ waveform capnography. If capnography unsuccessful, confirm position with EDD or End-Tidal CO₂ Detector.
- Consider transport time to Emergency Department

RAPID SEQUENCE INTUBATION (RSI)

PARAMEDIC

- Prepare Equipment:
 - Suction and BVM with reservoir connected to 100% oxygen
 - Endotracheal Tube with Stylet and Commercial tube holder device
 - Laryngoscope with blade and functioning light
 - Venous Access and Required medications prepared
 - Cardiac monitor with continuous waveform capnography & SPO₂
 - Secondary confirmation device
 - Secondary advanced airway
 - Surgical airway kit
- Routine Medical Care and Preoxygenate patient
- Presedate:
 - Lidocaine 100mg IV and
 - For Suspected Head Injury or Stroke:
 - Vecuronium 1 mg IV or Lidocaine 1.0 – 1.5mg/kg IV
 - For Bradycardia:
 - Atropine 0.5 mg IV
- Sedate:
 - Etomidate 0.2 – 0.4 mg/kg IV (20-40mg IV)
- Paralysis:
 - Succinylcholine 1- 2 mg/kg IV (100 – 200 mg IV) OR
 - For severe burns, major crush injury or pre-existing spinal cord injury
 - Rocuronium 0.6 mg/kg IV (up to 60 mg IV)
 - Intubation: 3 attempts with GumBougie and applying cricoid pressure
 - Confirm tube placement using primary & secondary methods
- Successful Intubation:
 - Monitor heart rate, continuous waveform capnography & SPO₂
 - Versed 2 - 4 mg IV every 5 minutes as needed
 - Vecuronium 0.1 mg/kg IV (up to 10 mg)
- Unsuccessful Intubation:
 - Utilize secondary advanced airway OR
 - BLS airway & ventilations OR Surgical cricothyroidotomy

PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- This procedure requires two paramedics to be present. For ground, both paramedics must be credentialed for this procedure by the REMAC & Regional Medical Director.
- Patient requires sedation and/or paralysis to secure airway. Includes combative patient that threatens airway, spinal cord stability or safety of crew and/or patient.
- Contraindications: Patients unable to be effectively ventilated using BVM should not receive paralytics prior to establishment of a definitive airway.

IV/IO THERAPY

INTERMEDIATE

- Patients 16 years and older: May establish Normal Saline IV/IO

● INTERMEDIATE STOP

CRITICAL CARE

- Patients 6 years and older: IV/IO access
- Patients < 6 years in cardiac arrest: IV/IO access

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Conscious / Responsive Patients

Key Points/Considerations

- Normal Saline Lock or Normal Saline IV with macro drip
- Critical Patients no more than 90 seconds to obtain IV if available consider IO
- For Critical Care Technicians and Paramedics:
 - Consider use of EJV in unresponsive patients
 - Any vascular access device with an external hub (ex. PICC or Central Line) for patients in cardiac arrest or profound hypoperfusion with alteration in mental status.

FLUID CHALLENGE

INTERMEDIATE

- Routine Medical / Trauma Care
- Infuse 500 mL Normal Saline rapidly
- Reassess and reconfirm indications
- Infuse 500mL Normal Saline rapidly

● INTERMEDIATE STOP

CRITICAL CARE

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Paramedic:
 - Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

Key Points/Considerations

- Reassess lung sounds

ACUTE RESPIRATORY DISTRESS ASTHMA OR COPD

INTERMEDIATE

- Routine Medical Care
- Asthma Patients Only:
 - Albuterol Sulfate 2.5 mg in 3ml NS
 - Repeat x 2 (total of 3 unit doses can be given)

● INTERMEDIATE STOP

CRITICAL CARE

- Albuterol Sulfate 2.5 mg in 3mL NS mixed with Ipratropium 0.5 mg (one unit dose) via nebulizer at a flow rate of 6 lpm O₂
- Consider CPAP if:
 - Patient is and remains alert; No active vomiting
 - Is able to follow commands
 - No history of pneumothorax
- If no relief: Methylprednisolone 125 mg IV
- Albuterol Sulfate 2.5 mg in 3ml NS Repeat x 2
- Epinephrine 1:1000 0.3 mL IM
- If no relief Terbutaline 0.25 mg subq
- Consider 12 Lead ECG

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Critical Care Technicians:

- Epinephrine 1:1000 0.3 mL IM

Critical Care Technicians and Paramedics:

- Albuterol 2.5mg in 3mL NS (4th dose and higher) via nebulizer

Key Points/Considerations

DRAFT 2012

AIRWAY OBSTRUCTION

INTERMEDIATE

- Follow NYS BLS Protocol
- Use direct laryngoscopy and Magill forceps
- If unsuccessful, insert an ET tube in attempt to push through the obstruction or push it into the right mainstem bronchus
- If unsuccessful, continue efforts and transport

INTERMEDIATE STOP

CRITICAL CARE

CRITICAL CARE STOP

PARAMEDIC

- If unable to adequately ventilate with BLS techniques, perform Needle Cricothyroidotomy. Refer to Needle Cricothyroidotomy Protocol.

PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Upon completion of patient assessment and identification of need for ALS, BLS and ILS transporting units need to request and then rendezvous with ALS units or transport to hospital, whichever is closer.

ALLERGIC REACTION/ANAPHYLAXIS

INTERMEDIATE

- Routine Medical Care
- Epi-Pen Autoinjector
- If systolic BP < 90 mmHg with no signs and symptoms of pulmonary edema, perform Fluid Challenge



INTERMEDIATE STOP

CRITICAL CARE

Adequate Perfusion with hives and no respiratory compromise:

- Diphenhydramine 50 mg slow IV or IM

Inadequate perfusion with respiratory distress, stridor, wheezing, hypotension, altered level of consciousness, throat tightness, or shock:

- Epinephrine 1:1000 0.3mg IM
- Diphenhydramine 50mg slow IV or IM
- Methylprednisolone 125mg slow IV or IM
- Albuterol Sulfate 2.5mg in 3 mL NS via nebulizer may repeat as needed



CRITICAL CARE STOP

PARAMEDIC

- Repeat Epinephrine 1:1000 0.3mg IM if no improvement
Or
- Consider Epinephrine 1:10,000 0.5 mg IV



PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Critical Care Technician:
 - Epinephrine 1:1000 0.3mg IM for repeat dose
Or
 - Consider Epinephrine 1:10,000 0.5 mg IV
- Critical Care Technician and Paramedic:
 - Diphenhydramine 50 mg IV or IM for repeat dose
 - Glucagon 1mg IM for patients on beta-blockers
- Paramedic:
 - Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

Key Points/Considerations

ALTERED MENTAL STATUS/HYPOGLYCEMIA

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- Check Blood Glucose
 - **Hypoglycemia:**
 - If Blood Glucose < 80 mg/dL:
Dextrose 50% 50 mL via IV
 - If repeat Blood Glucose < 80 mg/dL:
Consider 2nd Dose of Dextrose 50% 50mL via IV
 - If no IV access: Glucagon 1mg IM
 - **Hyperglycemia:**
 - If Blood Glucose > 300mg/dL, consider Fluid Challenge without signs and symptoms of pulmonary edema
- Signs and symptoms of opiate overdose with unmanageable airway:
 - Naloxone 2mg slow IV or IM or IN

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Consider other etiologies if no response:
 - Poisoning
 - Head Injury
 - Stroke

SEIZURES

INTERMEDIATE

- Routine Medical Care
- Protect patient from harm
- Blood Glucose check

● INTERMEDIATE STOP

CRITICAL CARE

- If Blood Glucose < 80 mg/dL, D50 50 ml IV
- If unable to start IV: Glucagon 1mg IM
- Versed 5 mg IV/IM (Active Seizures Only)
- After seizures are controlled, 12 lead ECG

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Versed 5 mg IV/IM, May repeat if seizures continue

Key Points/Considerations

- Consider other etiologies:
 - Hypoglycemia
 - Cardiac
 - Overdose
 - Obstetric Complications

POISONING / OVERDOSE

INTERMEDIATE

- Routine Medical Care
- Blood Glucose

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG if appropriate
- Naloxone 2mg slow IV or IM or IN for respiratory depressions or apnea

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Additional therapies per reported ingestion

Key Points/Considerations

- Consider scene safety first
- Field decontaminate as indicated
- Identify substance and quantity

ACUTE CORONARY SYNDROME

INTERMEDIATE

- Routine Medical Care
- Aspirin 325 mg PO

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
- Nitroglycerin 0.4 mg SL tablet or spray. May repeat every 5 min. maintaining systolic BP > 100 mmHg.
- Strongly recommend transport to facility capable of primary angioplasty if transport time is less than one hour
- Notify receiving hospital as soon as possible to discuss transport options if patient requests facility not capable of primary angioplasty
- Morphine 4 mg IV.
OR
- Fentanyl 50 mcg

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Additional pain management

Key Points/Considerations

- Nitroglycerin, in any form, is not to be administered to patients that have taken Cialis, Levitra, Revatio or Viagra within the last 24 hours.
- 4 Baby Aspirin (324 mg total) PO is an acceptable substitute for Aspirin 325mg PO

PULMONARY EDEMA

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- Consider Acute Respiratory Distress - Asthma or COPD Protocol
- 12 Lead ECG if appropriate
- Nitroglycerin 0.4mg SL tablet or 1 spray every 5 minutes (if systolic BP is above 100 mmHg)
OR
- Nitroglycerin Paste 1 inch (if systolic BP is above 100 mmHg)
- Consider CPAP if:
 - Patient is and remains alert; No active vomiting
 - Is able to follow commands
 - No history of pneumothorax

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Critical Care Technicians and Paramedics:

- Furosemide 40 – 80 mg IV/IM
- Morphine Sulfate IV/IM

Key Points/Considerations

- Remove Nitro Paste if systolic BP is below 100 mmHg

HYPOPERFUSION / CARDIOGENIC SHOCK

INTERMEDIATE

- Routine Medical Care
- Systolic BP less than 100mmHg (if no pulmonary edema)
 - Normal Saline bolus 250ml-500ml
 - Repeat bolus if lung sounds are clear
- CPAP

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
- Waveform Capnography
- Advanced airway if indicated

● CRITICAL CARE STOP

PARAMEDIC

- For systolic BP less than 100mmHg:
 - Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Furosemide IV 40-80mg IV/IM

CRITICAL CARE

- For systolic BP less than 100mmHg:
 - Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

Key Points/Considerations

- Search for and treat contributing factors:
 - Hypovolemia, Hypoxia, Hydrogen Ion(Acidosis), Hypo/Hyperkalemia, Hypoglycemia, Hypothermia
 - Toxins, Tamponade, Tension Pneumothorax, Thrombosis, Trauma
- Contact Medical Control early if patient remains hypotensive

SYMPTOMATIC BRADYCARDIA

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
- Atropine 0.5mg IV; May repeat every 3-5 min. up to 3 mg
- Transcutaneous Pacing (TCP)
 - Consider Sedation: Etomidate 10 mg IV/IO; May repeat x 1 as needed

● CRITICAL CARE STOP

PARAMEDIC

- Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Consider Sedation for Transcutaneous Pacing (TCP):
 - Morphine up to 4 mg IV

Key Points/Considerations

- Symptomatic Bradycardia is defined by a pulse rate <50 bpm with a systolic BP < 90 mmHg **AND** one or more of the following:
 - Chest Pain
 - Dyspnea
 - Altered Mental Status
 - Pulmonary Edema
 - Other Signs of Hypoperfusion

TACHYCARDIA - STABLE

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
- If Stable and Narrow:
 - Vagal Maneuvers or
 - Adenosine 6 mg IV rapid push. Adenosine 12 mg IV rapid push. May repeat once in 1-2 min.OR
 - Cardizem 0.25 mg/kg slow IV push over 10 min. Maximum single dose 25 mg
- If Stable and Wide:
 - Amiodarone 150 mg in 50 ml NS over 10 min.

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Lopressor 5 mg in 50 ml NS over 5–10 min.

Key Points/Considerations

- HR > 150 bpm

TACHYCARDIA - UNSTABLE

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- If Unstable and Wide:
 - Consider Sedation:
 - Etomidate 10 mg IV
 - Cardiovert : 100 joules, 200 joules, 300 joules, 360 joules
- If Unstable and Narrow:
Consider
 - Adenosine 6 mg IV/IO rapid push.
 - Adenosine 12 mg IV/IO rapid push.
May repeat once in 1-2 min.
 - Consider Sedation:
 - Etomidate 10 mg IV/IO
 - Cardiovert: 50 joules, 100 joules, 200 joules, 300 joules, 360 joules

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Consider Sedation for Cardioversion:
 - Versed 5 mg IV

Key Points/Considerations

- HR > 150 bpm

ASYSTOLE and PULSELESS ELECTRICAL ACTIVITY (PEA)

INTERMEDIATE

- CPR
- Routine Medical Care
- Establish IV/IO
- Consider Advanced Airway

● INTERMEDIATE STOP

CRITICAL CARE

- Epinephrine 1:10,000 1 mg IV/IO Repeat every 3-5 min. during arrest.
- Vasopressin 40 units IV/IO (as replacement for first or second dose of Epinephrine).

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Consider ET medication administration
- Search for and treat contributing factors:
 - Hypovolemia, Hypoxia, Hydrogen Ion(Acidosis), Hypo/Hyperkalemia, Hypoglycemia, Hypothermia
 - Toxins, Tamponade, Tension Pneumothorax, Thrombosis, Trauma

V-FIB / PULSELESS V-TACH

INTERMEDIATE

- CPR
- Defibrillation – AED - deliver 1 shock
- Resume CPR immediately for 2 minutes
- Routine Medical Care
- Consider Advanced Airway



INTERMEDIATE STOP

CRITICAL CARE

- Defibrillation – deliver 1 shock
 - Manual biphasic – device specific (typically 120 to 200 joules) or
 - Monophasic – 360 joules
 - Repeat 1 shock every 2 minutes
 - Shocks are not stacked; Second and subsequent doses should be equivalent, and higher doses may be considered.
- Resume CPR immediately for 2 minutes
- Epinephrine 1:10,000 1 mg IV/IO or 2 mg ET. Repeat every 3-5 min. during arrest. OR
- Vasopressin 40 units IV/IO (as replacement for first or second dose of Epinephrine)
- Amiodarone 300 mg IV/IO; Repeat 150 mg in 5 minutes OR Lidocaine 1-1.5 mg IV/IO. Repeat 0.5 – 0.75 mg /kg IV/IO every 5 minutes up to total of 3 mg/kg
- In Torsades de Pointes, administer Magnesium Sulfate 1- 2 grams in 50 ml NS over 5 minutes as the first line antiarrhythmic drug



CRITICAL CARE STOP

PARAMEDIC



PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Sodium Bicarbonate 1 mEq/kg IV/IO

Key Points/Considerations

- CPR for 2 minutes prior to defibrillation; If witnessed arrest, defibrillate immediately.
- Use same antiarrhythmic drug for duration of protocol.
- Consider ET medication administration.

POST CARDIAC ARREST

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
 - Infuse chilled NS. Maximum 30 ml/kg for a total of 2 liters
- Apply ice packs

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Consider potential causes:
 - Hypovolemia
 - Hypoxia
 - Hydrogen Ion (acidosis)
 - Hypo / Hyperkalemia
 - Hypoglycemia
 - Hypothermia
 - Toxins
 - Tamponade, cardiac
 - Tension Pneumothorax
 - Thrombosis
 - Trauma

OBSTETRICAL COMPLICATIONS and EMERGENCY CHILDBIRTH

INTERMEDIATE

- Routine Medical Care
- APGAR score at 1 and 5 minutes
- Support fetus
- Gentle delivery
- Provide airway to fetus

- Normal Delivery:
 - Follow NYS BLS Protocol

- Umbilical Cord Prolapse:
 - DO NOT GRAB CORD
 - Place mother face up with hips elevated
 - Gently displace fetus off cord

- Breach Presentation:
 - DO NOT TUG OR PULL ON FETUS

● INTERMEDIATE STOP

CRITICAL CARE

- Postpartum hemorrhage - Follow Hypoperfusion Protocol
- Eclampsia: Magnesium Sulfate 4gm in 50 ml NS IV over 15min.

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Pre-eclampsia
 - Magnesium Sulfate 4gm in 50 ml NS IV over 15 min OR
 - If unable to establish an IV, administer Magnesium Sulfate in 2 doses of 1 gram each in 2ml NS in the buttocks. Administer 1 dose IM in each buttock.

Key Points/Considerations

STROKE

INTERMEDIATE

- Routine Medical Care
- Time of onset - last seen "normal"
- Obtain Blood Glucose
- NYS DOH BLS Protocol
- Stroke Assessment (Cincinnati Stroke Scale)

● INTERMEDIATE STOP

CRITICAL CARE

- Refer to Hypoglycemic protocol

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Contact On-Line Medical Control

ANTIEMESIS

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- 12 Lead ECG
- Ondansetron 4 mg IV/IM/ODT
- Repeat once after 5 minutes as needed

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Contact Medical Control for additional doses
- Alternative Medications:
 - Promethazine 12.5 mg IM Only

Key Points/Considerations

- Prevention and treatment of severe nausea and vomiting

PATIENT RESTRAINT

INTERMEDIATE

- Routine Medical Care
- Blood Glucose
- Physical Restraint:
 - Appropriate physical restraints can be used but must be capable of IMMEDIATE RELEASE
 - Patient restraint must be in a manner to continuously monitor airway and vital signs
 - **Medical Control MUST be contacted and advised of patient condition**

● INTERMEDIATE STOP

CRITICAL CARE

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Chemical Restraint:
 - Haldol 5mg slow IV/IM
 - **Medical Control MUST be contacted to advise of patient condition**
 - Benadryl 50mg IV/IM if dystonic reactions occur
- Additional medications and /or orders

Key Points/Considerations

- Emergency personnel should involve law enforcement as early as possible.
- The above may be used for hemodynamically stable patients with a psychosocial condition exhibiting extreme anxiety and/or combative/ violent behavior, if the patient presents a substantial risk of bodily harm or injury to themselves.

BURNS

INTERMEDIATE

- Routine Trauma Care

● INTERMEDIATE STOP

CRITICAL CARE

- Consider Airway Management
- Consider Fluid Challenge for partial/full thickness burns > 15% BSA
- Consider Pain Management Protocol

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Contact Medical Control as soon as possible for possible referral to burn center
- If airway compromise, transport immediately to nearest facility
- Phosphorous burns should not be irrigated with water. Brush chemical off thoroughly.
- Hydrofluoric Acid burns be aware of cardiac implications.

PAIN MANAGEMENT

INTERMEDIATE

- Routine Medical Care
- INTERMEDIATE STOP

CRITICAL CARE

Standing Order

Medications:

- Morphine 4 - 5 mg IV; Dose may be repeated once in 5 minutes as needed
OR
- Nitrous Oxide if available
- OR
- Fentanyl 50 mcg IV/IM/IO

- CRITICAL CARE STOP

PARAMEDIC

- PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Presence of any Contraindication or the need for additional pain control requires a medical control order.
- Toradol 30 mg IV or 60 mg IM
- > 65 yrs. old Toradol 15 mg IV or 30 mg IM

Key Points/Considerations

PERCUTANEOUS AIRWAY

PARAMEDIC

- Routine Trauma Care
- Confirm indications for Percutaneous Airway
- Quick Trac type airway device or surgical airway if trained and equipped

PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Situations in which standard endotracheal intubations cannot be performed.
- This procedure is to be used as a last resort and may not provide adequate oxygenation for long periods of time. Rapid transport to the closest hospital is required for definitive airway management.
- Use slow ventilations with extended exhalation periods.

TENSION PNEUMOTHORAX

CRITICAL CARE

- Routine Medical or Trauma Care
- Confirm indications for emergency Needle Chest Decompression
- If patient is in cardiac arrest, proceed with Needle Chest Decompression
- Needle Chest Decompression - Use second intercostal space, midclavicular line for landmark. Once catheter is in place, it should be left open.

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Signs of tension pneumothorax include:
 - severe respiratory distress
 - absent lung sounds on the affected side
 - diminished lung sounds on the opposite side
 - hypotension
 - tachycardia
 - distended neck veins
 - tracheal deviation away from the affected side

ROUTINE MEDICAL CARE - Pediatric

INTERMEDIATE

- Assure scene safety
- Bring ALS equipment to the patient:
 - AED or monitor/defibrillator
 - Pulse oximetry
 - Glucometer (Agencies with Regional approval)
 - Oxygen
 - Suction
 - Capability for field to hospital communications
- Initial patient assessment and vital signs; blood pressure, pulse, and respirations every 5- 15 minutes and after every treatment (first BP manually)
- Reassurance and proper positioning
- Medical Control notification as soon as reasonable

● INTERMEDIATE STOP

CRITICAL CARE

- Advanced airway equipment
- Waveform capnography
- IV access/medications (refer to IV/IO Pediatric Protocol)
- 12 Lead ECG

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Multiple Patient Procedures:
 - If a potential MCI exists, contact 911 center and medical control ASAP. The medical control physician may authorize standing orders during the MCI. Document incident commander's name and affiliated agency.

ROUTINE TRAUMA CARE – Pediatric

INTERMEDIATE

- Intercept with ALS

● INTERMEDIATE STOP

CRITICAL CARE

- Establish large bore Normal Saline IV/IO
(refer to IV/IO Pediatric Protocol)
- ECG
- If indicated consider Fluid Challenge

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Patients meeting Major Trauma Criteria will be transported to a designated Trauma Center, unless one of the following conditions exists:
 - Patient in Cardiac Arrest
 - Unmanageable Airway
 - Directed by On-Line Medical Control

AIRWAY MANAGEMENT - Pediatric

INTERMEDIATE

- Manually open the airway
- Suction as needed
- Insert oropharyngeal or nasopharyngeal airway
- Ventilate patient with Bag-Valve Mask and 100% oxygen
- May perform endotracheal intubation up to 3 attempts on patients in respiratory or cardiac arrest > 16 years. Consider using GumBougie. (If unsuccessful, place appropriate secondary advanced airway device).

● INTERMEDIATE STOP

CRITICAL CARE

- May attempt endotracheal intubation if patient has an altered mental status, respiratory rate < 10, and tolerates an oropharyngeal airway.

● CRITICAL CARE STOP

PARAMEDIC

- If direct laryngoscopy is impossible, digital intubation may be attempted.
- If abdominal distention occurs, pass an Orogastric Tube.

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- In trauma, manual stabilization is required.
- Confirm and monitor airway device with continuous End-Tidal CO₂ waveform capnography. If capnography unsuccessful, confirm position with EDD or End-Tidal CO₂ Detector.

FACILITATED INTUBATION -Pediatric

CRITICAL CARE/PARAMEDIC

- Spray hypopharynx with topical anesthetic spray (optional)
- ≥ 10 years: Etomidate 0.3 mg/kg IV over 30 to 60 seconds ; (Maximum single dose 20 mg)
- After successful intubation, consider medical control option for continued sedation

CRITICAL CARE STOP

MEDICAL CONTROL ORDER

- For intubation in place of Etomidate:
 - Midazolam > 6 months 0.025 – 0.05 mg/kg IV (Maximum single dose 5mg)
- If Intubation unsuccessful:
 - May repeat Midazolam 0.025 – 0.05 mg/kg IV (Maximum single dose 5mg)
- Continued Sedation:
 - Midazolam 0.025 – 0.05 mg/kg IV (Maximum single dose 5mg)

Key Points/Considerations

- SPO₂ monitoring is required.
- Continuous End-Tidal CO₂ waveform capnography is required.
- Confirm and document proper ETT placement.
- Confirm and monitor airway device with continuous End-Tidal CO₂ waveform capnography. If capnography unsuccessful, confirm position with EDD or End-Tidal CO₂ Detector.
- Consult Pediatric Measuring Device for adjunct sizes and drug dosages; contact Medical Control for any discrepancies.

IV/IO THERAPY - Pediatric

INTERMEDIATE

- Patients 16 years and older: May establish Normal Saline IV/IO

● INTERMEDIATE STOP

CRITICAL CARE

- Patients 6 years and older : IV/IO access
- Patients < 6 years in cardiac arrest: IV/IO access

● CRITICAL CARE STOP

PARAMEDIC

- Patients any age: IV access
- Patients in cardiac arrest or profound hypovolemia with alteration in mental status: IV/IO access any age
- Critical patients 6 years and older when no other access is available : External Jugular access

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Critical Care Technician:
 - Patients under 6 years: IV/IO access

Key Points/Considerations

- Do not delay transport for IV/IO access

FLUID CHALLENGE - Pediatric

INTERMEDIATE

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical Care/Trauma Care
- Confirm indications for fluid challenge
- Administer 20 mL/kg NS IV/IO bolus
- Repeat bolus of 20mL/kg if indicated x 2 unless contraindicated.
- If potential cardiogenic shock or other significant cardiac disease, limit fluid administration to 5-10 mL/kg IV/IO unless directed otherwise by medical control.

● CRITICAL CARE STOP

PARAMEDIC

- Patients in cardiac arrest or profound hypovolemia with alteration in mental status: IO access any age

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Critical Care Technician:
 - Patients under 6 years: IV/IO access

Key Points/Considerations

- Use large syringe to administer NS bolus.

ACUTE RESPIRATORY DISTRESS - Pediatric

INTERMEDIATE

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical Care
- Wheezing or History of Asthma/ Bronchiolitis:
 - Albuterol (2.5 mg in 3 ml NS) and Ipratropium Bromide (500 mcg in 2.5 ml NS) via nebulizer
 - Repeat Albuterol (2.5 mg in 3 ml NS) via nebulizer
- Stridor or Drooling:
 - Administer 100% oxygen
 - Allow position of comfort, do not agitate patient
 - Transport without delay

● CRITICAL CARE STOP

PARAMEDIC

- Wheezing or History of Asthma/ Bronchiolitis:
 - Epinephrine 1:1000 0.01 mg/kg IM (Maximum single dose 0.3 mg); May repeat in 20 min. OR
 - Epinephrine 1:1000 5 mg combined with 3 ml NS via nebulizer
- Stridor or Drooling:
 - Epinephrine 1:1000 5 mg combined with 3 ml NS via nebulizer

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Critical Care Technician – Wheezing or History of Asthma/Bronchiolitis:
 - Epinephrine 1:1000 0.01 mg/kg IM (Maximum single dose 0.3 mg) May repeat in 20 min.
- Critical Care Technician and Paramedic:
 - Methylprednisolone 2mg/kg slow IV push (Maximum dose single 125mg)

Key Points/Considerations

- You may begin nebulizer therapy prior to establishing IV access.
- Consider respiratory protection for all non -patients in the immediate area of patient receiving a nebulized epinephrine treatment.

AIRWAY OBSTRUCTION - Pediatric

INTERMEDIATE

- Follow NYS BLS Protocols
- Routine Medical Care or Trauma Care

● INTERMEDIATE STOP

CRITICAL CARE

- If BLS maneuvers are unsuccessful
- Use direct laryngoscopy and Magill forceps
- If unsuccessful, insert an ET tube and attempt to push through the obstruction or push it into the lower airway
- If unsuccessful, continue BLS efforts and transport

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

ALLERGIC REACTION / ANAPHYLAXIS - Pediatric

INTERMEDIATE

- Routine Medical Care
- Assess BP and respiratory status
- If hemodynamically unstable, consider Epinephrine Autoinjector

INTERMEDIATE STOP

CRITICAL CARE

- Adequate Perfusion with hives and no respiratory distress:
 - Diphenhydramine - PO
 - 2 - 6 years old: 6.25 mg
 - 7 - 12 years old: 12.5 mg
 - >12 years old: 25 mg
 - OR
 - Diphenhydramine 1mg/kg up to 50 mg slow IV or IM
- Inadequate Perfusion with respiratory distress, stridor, wheezing, hypotension, altered mental status, throat tightness, or shock:
 - Epinephrine 1:1000 0.01 mg/kg IM up to dose 0.3 mg
 - Diphenhydramine 1mg/kg up to 50 mg slow IV or IM
 - Albuterol (2.5 mg in 3ml NS) via nebulizer
 - Fluid Challenge

CRITICAL CARE STOP

PARAMEDIC

- Repeat Epinephrine 1:1000 0.01 mg/kg IM up to 0.3 mg

PARAMEDIC STOP

MEDICAL CONTROL ORDER

- EMT-Critical Care:
 - Repeat Epinephrine 1:1000 0.01 mg/kg IM up to 0.3 mg
- EMT-Critical Care and Paramedic:
 - Methylprednisolone 2mg/kg slow IV or IM up to 125 mg
- Paramedic:
 - Dopamine Drip 2-10 mcg/kg/min; Titrate to BP > 100mmHg

Key Points/Considerations

- Consider immediate drug therapy prior to IV access in critical patients

ALTERED MENTAL STATUS - Pediatric

INTERMEDIATE

- Routine Medical Care or Trauma Care
- Consider Head Trauma

● INTERMEDIATE STOP

CRITICAL CARE

- Assess Blood Glucose:
 - Greater than 80 mg/dL - consider Naloxone 0.1 mg/kg IV/IM/IN (Maximum single dose 2 mg)
 - Less than or equal to 80 mg/dL- D25 2ml/kg IV (Maximum single dose 100 ml)
 - If unable to start IV, Glucagon 0.1 mg/kg IM (Maximum single dose 1 mg)
 - If no response, consider Naloxone 0.1 mg/kg IV/IM/IN (Maximum single dose 2 mg)

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Suspected Sympathomimetic OD - (Cocaine or Amphetamines)
 - Benzodiazepines
 - Suspected Tricyclic OD
 - Sodium Bicarbonate
 - Suspected Beta Blocker OD
 - Glucagon
- Doses to be determined by Medical Control

Key Points/Considerations

SEIZURES - Pediatric

INTERMEDIATE

- Routine Medical Care

● INTERMEDIATE STOP

CRITICAL CARE

- If blood glucose < 80 mg/dL, administer Dextrose according to following dosing schedule:
 - < 6 years old: Administer D25 2 ml/kg IV (Maximum single dose 100 ml)
 - ≥ 6 years old: Administer D50 2 ml/kg IV (Maximum single dose 50 ml)
- If unable to start IV:
 - Glucagon 0.1 mg/kg IM (Maximum single dose is 1 mg)
- If continued seizure activity, administer:
 - Midazolam 0.1 mg/kg IV/IM/IN

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- May order additional doses of Midazolam

Key Points/Considerations

- If status epilepticus, begin rapid transport
- Treat Underlying Causes
- Dextrose or Glucagon may be repeated in 10 minutes if blood glucose is < 80mg/dL

POISONING / OVERDOSE - Pediatric**INTERMEDIATE**

- Routine Medical Care as indicated

**INTERMEDIATE STOP****CRITICAL CARE**

- Evaluate potential substance involved and utilize specific treatments as listed below.

**CRITICAL CARE STOP****PARAMEDIC****PARAMEDIC STOP****MEDICAL CONTROL ORDER**

- Activated Charcoal 1 gram/kg PO
- Tricyclic Antidepressants (ingested):
 - Sodium Bicarbonate 1mEq/kg IV
- Beta Blockers (ingested):
 - Glucagon 0.1 mg/kg IV/IM, up to 2 mg maximum
- Organophosphate insecticides/cholinesterase inhibitors (ingested, absorbed, or inhaled):
 - Atropine 0.02 – 0.05 mg/kg IV/IN

Key Points/Considerations

- Give nothing by mouth unless directed by medical control
- Initiate transport with attention to protection of airway
- Determine substance, quantity and route of exposure
- Transport substance container to hospital

SYMPTOMATIC BRADYCARDIA - Pediatric

INTERMEDIATE

- NYS BLS Protocols
- Rendezvous with ALS unit or transport to hospital, whichever is closer

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical
- 12-Lead ECG
- CPR if heart rate < 60 bpm with poor perfusion
- Epinephrine 1:10,000 0.01 mg/kg IV/IO every 3-5 min.
- Atropine (for increased vagal tone or AV blocks)
0.02mg/kg IV/IO; May repeat once
 - (Minimum single dose 0.1 mg)
 - (Maximum single dose 0.5 mg)
 - (Maximum total dose 1 mg)

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Critical Care Technician:
 - Patients under 6 years: IV/IO access
- Consider Epinephrine 1:1,000 0.1 mg/kg ET if no IV/IO every 3-5 min.
- Consider Atropine 0.04 mg/kg ET if no IV/IO; May repeat once
 - (Minimum single dose 0.1 mg)
 - (Maximum single dose 1 mg)
- Consider Transcutaneous Pacing

Key Points/Considerations

- Treat Underlying Causes

STABLE TACHYCARDIA - Pediatric

INTERMEDIATE

- NYS BLS Protocols
- Rendezvous with ALS Intercept or transport to hospital, whichever is closer

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical Care
- 12 Lead ECG
- Treat Underlying Causes

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Tachycardia with a pulse and adequate perfusion

UNSTABLE TACHYCARDIA - Pediatric

INTERMEDIATE

- NYS BLS Protocols
- Rendezvous with ALS Intercept or transport to hospital, whichever is closer

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical Care
- 12 Lead ECG
- Treat Underlying Causes
- Consider Paramedic Intercept or transport to hospital, whichever is closer

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

EVALUATE QRS:

QRS Normal <0.09 (SVT)	QRS Wide >0.09 (VT)
<ul style="list-style-type: none"> • Vagal Maneuver 	<ul style="list-style-type: none"> • *Synchronized Cardioversion 0.5 – 1 joules/kg May repeat at 2 joules/kg
<ul style="list-style-type: none"> • Adenosine 0.1 mg/kg rapid IV (Maximum single dose 6mg) 	<ul style="list-style-type: none"> • Amiodarone 5mg/kg in 50 ml NS over 20-60 min. (Maximum single dose 300 mg)

Key Points/Considerations

- Tachycardia with a pulse and adequate perfusion
- Consider sedation prior to cardioversion

ASYSTOLE / PEA - Pediatric

INTERMEDIATE

- CPR – ALS Intercept

● INTERMEDIATE STOP

CRITICAL CARE

- Routine Medical Care
- Confirm Asystole in 2 leads
- Epinephrine 1:10,000 0.01 mg/kg IV/IO repeat every 3-5 min.
- Consider Advanced Airway

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Consider Epinephrine 1:1,000 0.1 mg/kg ET if no IV/IO every 3-5 min.

Key Points/Considerations

- Use adult paddles/electrodes for children weighing > 10 kg
- Consider Underlying Causes:
 - Hypovolemia
 - Hypoxia
 - Hydrogen Ion (acidosis)
 - Hypo / Hyperkalemia
 - Hypothermia
 - Toxins
 - Tamponade, cardiac
 - Tension Pneumothorax
 - Thrombosis
 - Trauma

V-FIB / PULSELESS V-TACH - Pediatric

INTERMEDIATE

- NYS BLS Protocols
- Rendezvous with ALS Intercept or transport to hospital, whichever is closer
- CPR
- Defibrillation – AED - deliver 1 shock
- Resume CPR immediately for 2 minutes

● INTERMEDIATE STOP

CRITICAL CARE

- Defibrillate at 2 joules/kg – deliver 1 shock
- Resume CPR immediately for 2 minutes
- Routine Medical Care
- Consider Advanced Airway
- Defibrillate at 4 joules/kg – deliver 1 shock
- Epinephrine 1:10,000 0.01 mg/kg IV/IO every 3-5 min.
- Resume CPR immediately for 2 minutes
- Defibrillate at 4 joules/kg
- Amiodarone 5mg/kg IV/IO (Maximum single dose 300 mg)
 - Repeat once in 3-5 min. (Maximum single dose 150 mg)
- Resume CPR immediately for 2 minutes

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Consider Epinephrine 1:1,000 0.1 mg/kg ET if no IV/IO every 3-5 min.

Key Points/Considerations

- CPR for 2 minutes prior to defibrillation; If witnessed arrest, defibrillate immediately.
- Use adult paddles/electrodes for children weighing > 10 kg

NEONATAL RESUSCITATION - Pediatric

CRITICAL CARE

- Suction the mouth and then the nose
- Dry and warm the baby
- Clamp and cut the cord
- Assess respiratory effort and pulse:
 - If decreased and is not improving, continue stimulation and administer 100% oxygen
 - If no improvement after 30 seconds, ventilate with BVM at 40/min
- If heart rate less than 60 bpm, begin chest compressions
- Assess APGAR score 1 and 5 minutes after birth

CRITICAL CARE STOP

PARAMEDIC

- Establish ET and IV/IO access
- Assess blood glucose. If less than 40 mg/dL, treat with D10 2-4 ml/kg
- Treat dysrhythmias;
- If heart rate less than 60pbm after adequate ventilation;
 - Epinephrine 1:10,000 0.01 mg/kg IV/IO Repeat every 3-5 min.
- Fluid Challenge @ 10 ml/kg
- Consider Naloxone 0.1 mg/kg IV/ IO max single dose is 2mg

PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- To Make D10: Add 12 ml D50 into 50 ml NS bag
- Naloxone can be administered in the case of respiratory depression and history of narcotic administered to mother within 4 hours before delivery, unless mother has a history of narcotic addiction (may precipitate withdrawal in infant with severe seizures).

PAIN MANAGEMENT - Pediatric

INTERMEDIATE

- Routine Medical Care or Trauma Care

● INTERMEDIATE STOP

CRITICAL CARE

● CRITICAL CARE STOP

PARAMEDIC

● PARAMEDIC STOP

MEDICAL CONTROL ORDER

- Morphine Sulfate 0.1 mg/kg IV (Maximum single dose 5mg)
 - May repeat every 5 minutes
- Fentanyl 1 mcg/kg IV

Key Points/Considerations

TENSION PNEUMOTHORAX – Pediatric

CRITICAL CARE / PARAMEDIC

- Routine Medical or Trauma Care
- Confirm indications for emergency chest decompression
- Needle Decompression - Use second intercostal space, midclavicular line for landmark. Once catheter is in place, it should be left open.



PARAMEDIC STOP

MEDICAL CONTROL ORDER

Key Points/Considerations

- Signs of tension pneumothorax include:
 - severe respiratory distress
 - absent lung sounds on the affected side
 - diminished lung sounds on the unaffected side
 - hypotension
 - tachycardia
 - distended neck veins
 - tracheal deviation away from the affected side

12 LEAD ECG

Criteria:

- Classic Angina Chest Pain
- Atypical Chest Pain
- Angina Equivalents: Dyspnea, Palpitations, Syncope, General Weakness/Dizziness, DKA/Hyperglycemia

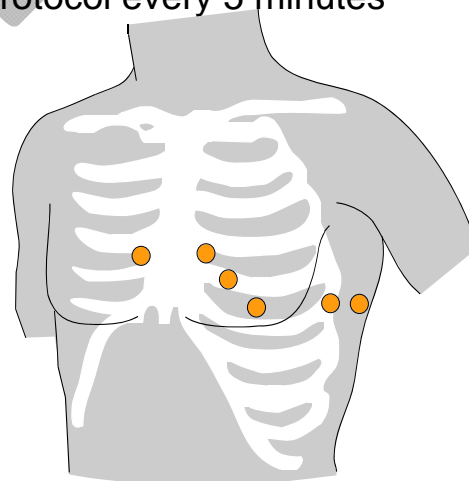
Frequency:

- Initially with vital signs, where patient is found
- In ambulance, before leaving scene-if not done initially where patient was found OR if abnormalities found on initial 12 Lead
- If abnormalities noted, consider with repeat vital signs (every 5-10 minutes) OR set automatic ST segment trending
- Upon arrival at Emergency Department parking lot

Considerations For Suspected Acute Myocardial Infarction:

- Consider Second IV access enroute- same arm
- Consider continued Nitroglycerine as per protocol every 5 minutes even without pain; If systolic BP > 100

V1	4 th intercostal space @ R sternum edge
V2	4 th intercostal space @ L sternum edge
V3	Between V2 & V4
V4	5 th intercostal space, midclavicular line
V5	Level with V4, L anterior axillary line
V6	Level with V5, L mid axillary line



I <i>Lateral</i>	aVR	V1 <i>Septal</i>	V4 <i>Anterior</i>
II <i>Inferior</i>	AVL <i>Lateral</i>	V2 <i>Septal</i>	V5 <i>Lateral</i>
III <i>Inferior</i>	AVF <i>Inferior</i>	V3 <i>Anterior</i>	V6 <i>Lateral</i>

Key Points/Considerations

- Radio report (and FAX, if capable) on ALL suspected AMIs
- Transport in Emergency mode on ALL suspected AMIs
- Document note on PCR if patient was NOT lying flat
- Copies of 12 Leads to hospital AND Agency

AIR MEDICAL PROTOCOL

Air Medical transport should be considered for the following:

- **Anytime a patient outcome could be improved by shortened transport time such as:**
 - **Ground transport greater than 30 minutes**
 - **Prolonged extrication**
 - **A remote or wilderness area, difficult terrain, or any other time when ground ambulance access is prevented or delayed.**
 - **Multiple critical / unstable patients / multiple casualty incident**
 - **To bring special medical personnel and equipment to the scene, such as a physician or surgeon,**
 - **Paramedic level care is otherwise unavailable**

Request for Air Medical Service should be made immediately when one of the above criteria is met.

Patient transport should not be delayed awaiting a helicopter. Begin transport to the hospital and rendezvous with the helicopter, if possible and at a predetermined safe landing site, enroute to the hospital.

Requests from the scene should be made by the highest trained EMS provider (through the incident commander, as appropriate) to the County Dispatch (Fire control or 911 centers). Requests will be made through the Central NY Air Medical Clearing House

The pilot will determine if the mission will be flown. Once at the scene the flight medical crew may elect to fly the patient, accompany the patient by ground, or have the patient transported by ground with the on-scene crew.

DO NOT RESUSCITATE / MOLST

If a valid DNR/MOLST exists, and a patient becomes pulse less and or apneic DO NOT ATTEMPT RESUSCITATION:

DNR/MOLST forms should be honored:

- **Transferring a patient from a health care facility with a valid DNT/MOLST order, or an order signed by a physician to accompany the patient in the ambulance.**
- **When the patient has a valid DNR/MOLST form**

DNR/MOLST should be disregarded:

- **The provider in good faith believes the order has been revoked**
- **A physical confrontation with a family member, who disagrees with the order, appears likely.**

Living Will and Health care Proxies:

- **Living Wills have no validity in the pre-hospital setting and should be disregarded if necessary contact Medical Control for assistance**
- **When a health care proxy is present (both the document and the designated individual) and there is a disagreement as to the validity, and weather resuscitation attempts should be initiated/continued, contact Medical Control**

In the event a patient expires during transport between medical facilities that patient should be returned to the sending facility. The expired patient may be returned to sending facility. Contact Medical Control for additional assistance.

TERMINATION OF RESUSCITATION

CRITICAL CARE

- Document Asystole in 2 leads
- Contact Medical Control for order to discontinue
- Contact local law enforcement and medical examiner/coroner
- Leave invasive therapies in place
- Provide support to family members
- Bring or fax Prehospital Care Report to hospital for signature immediately upon completion of call

Key Points/Considerations

- **THIS PROTOCOL CANNOT BE USED DURING RADIO FAILURE**
- Once begun, you may terminate resuscitation efforts if a DNR or MOLST form with a valid DNR order is found to exist or if you have completed the Adult Asystole Protocol with no success.
- Do not delay transport in traumatic cardiac arrest.

PHYSICIAN ON SCENE

- A patient's personal physician may assume medical control responsibility for his/her patient if he/she desires. In such circumstances, do the following:
 - Give the physician the card describing the function of the Regional Medical Control System.
 - If the physician still desires that the patient be transported without ALS, he should order "**NO ALS, TRANSPORT ONLY**" on the Patient Care Report and sign this order.
 - Notify the destination hospital of the case after you are enroute
 - If the patient's condition deteriorates enroute, contact the Emergency Department physician who will decide if ALS protocols should be started.
 - If the patient's physician accompanied the patient in the ambulance, he/she will be responsible for this decision.
 - Bystander physicians may not circumvent standard operating procedures or assume Medical Control without approval from the Resource Hospital physician.

Key Points/Considerations

- **Physicians Only:** Physician Assistants, Nurse Practitioners, etc. are excluded.

PHYSICIAN-ON-SCENE CARD

MIDSTATE EMS REGION Madison, Herkimer, Oneida Counties

Thank you for your offer of assistance. Please be advised that we are working under Medical Control from physicians at a hospital. We are not permitted to relinquish Medical Control to a physician on the scene without approval from the physician at the Resource Hospital.

Should you wish to assume Medical Control, you may request to speak with the Resource Hospital Physician. If you are authorized to provide Medical Control, you must sign the patient's Prehospital Care Report and accompany the patient to the hospital.

If you have any questions regarding this Physician-On-Scene Policy, please contact the Midstate Emergency Medical Services Program Agency at: (315) 738-8951.

John J. DeTraglia MD
Regional Medical Director, CNYEMS Program Agency

TRANSFER OF CARE PROTOCOL

- ALS assessment complete
- Mechanism of injury, chief complaint or assessment **warrants** ALS intervention and/or ALS transport
 - ALS shall care for and transport patient

OR

- Mechanism of injury, chief complaint or assessment **does not warrant** ALS intervention and/or ALS transport
 - ALS provider may transfer care or contact Medical Control to affirm decision to transfer patient to EMT-Basic or EMT-I. Document decision on Patient Care Report.

Key Points/Considerations

- ALS providers are authorized to transfer care of a patient to an EMT Basic or EMT-I after patient assessment indicates no need or anticipated need for ALS.
- EMT-P providers are authorized to transfer ALS care to EMT-CC providers if no Paramedic interventions have been initiated or are anticipated or after contacting Medical Control to affirm decision to transfer patient care. Document this decision on the PCR.
- Transfer of care may not be made by any level to a CFR.

RADIO FAILURE

- In the event that direct communications with any hospital cannot be established because the crew is not in UHF/VHF radio range due to either distance from the radio tower, or radio dead spots, or the UHF/VHF radio is malfunctioning, making voice communications impossible, and no telephones are available at the scene, and no other means of direct communications are available, the following policy will be in effect:

Given the above circumstances, to allow for the immediate treatment of any emergency deemed appropriate in the judgment of the EMT-CC or EMT-P in charge, all treatments in the Regional ALS Protocol Handbook, except for controlled substances (excluding seizures), which would ordinarily require a physician's order may be carried out by any individual appropriately certified to use the protocols within the Region. All time sequences, as specified in the protocols will be followed. All indications for the treatment, the time treatments were performed, and patient responses to the treatment **MUST** be thoroughly documented on the PCR or other appropriate run record.

Key Points/Considerations

- Use of this protocol assumes that attempts have been made via all available means to make contact with Medical Control.
- Thorough documentation is **MANDATORY** with regard to description of the communications problems encountered including location, number of attempts at communications which were made, and the description of the patient's condition which warranted immediate treatment. In addition, attempts to contact Medical Control will be repeated at 5-minute intervals.
- **All documentation regarding each case utilizing the Radio Failure protocol will be submitted to the Program Agency within one week from the date of occurrence for review by the CQI Committee.**

YOU MAY NOT USE THE RADIO FAILURE PROTOCOL TO TERMINATE RESUSCITATION EFFORTS IN THE FIELD

PATIENT REFUSALS AGAINST MEDICAL ADVICE

- Talk with patient, family and friends and attempt to convince of the need for treatment/transport. Offer to call Medical Control and have patient speak with a physician.
- If patient still refuses treatment/transport and \geq 18 years old

Assess Level of Consciousness:

Alert and oriented x 3 / GCS x 15		Altered Mental Status
<ul style="list-style-type: none"> • Assess for the following: <ul style="list-style-type: none"> • Attempted/threatened suicide, • minor (<18) refusing care, • parent refusing and the potential for a serious illness/child abuse exists 		<ul style="list-style-type: none"> • Patient cannot refuse. Contact Medical Control. Elicit assistance from law enforcement
Criteria Absent:	Criteria Present:	
Patient can refuse. Educate patient and family. Patient signs AMA on Regional Refusal Form.	Patient cannot refuse. Contact Medical Control. Elicit assistance from law enforcement.	

Key Points/Considerations

- **Contact On-Line Medical Control for ALS Refusals.**
- Under no circumstances should field personnel allow themselves to be placed in danger. If this potential exists, go to a safe area and call for assistance.

INTERFACILITY TRANSFERS

- Field providers may transport patients with the following IV equipment and IV drips without facility staff:

EMT	Saline lock Stable patient with no anticipation of further interventions enroute
EMT-I	Peripheral IV lines with no additives Stable, non-intubated patients with no further interventions needed enroute
EMT-CC	Peripheral IV lines Cardiac monitor/defibrillator Intubated patients ≥ 5 years old Antibiotic (may not be 1 st dose) drip Amiodarone drip Chest Tubes* Diltiazem drip Tridal drip Glycoprotein (GPIIb/IIIa) Inhibitor drip Insulin drip Lidocaine drip Bretylium drip Heparin drip Methylprednisolone drip IV drips: All electrolyte and lipid solutions Dobutamine Procainamide Aminophylline EMT-CC protocol drips EMT-CC protocol drugs (MS, NTG. Etc.)
EMT-P	In addition to above: Ativan/Lorazepam drip or bolus Levophed Drip Propofol Drip tissue plasminogen activator (tPA) Intubated patients any age Central venous lines/PICC Lines** Hickman catheters** Subclavian IV** Internal jugular IV** Port-a-Cath** Arterial lines-May not be used for IV access or any medications Paramedic protocol drug

Key Points/Considerations

- The transferring facility must supply the IV pump and training for the above drips.
- Approval contingent on approval of the Agency Medical Director. In addition, a provider must have received chest tube training as prescribed by the Agency Medical Director.
- Not to be accessed by EMT-P during transport. If the line is to be used for medication Infusion, facility personnel must access it prior to leaving the hospital.

TRAUMA TRIAGE CRITERIA

Adult and Pediatric:

Major trauma is present if the patient's physical findings or the mechanism of injury meets any one of the following criteria:

Physical Findings

- Glasgow Coma Scale is less than or equal to 13
- Respiratory rate is less than 10 or more than 29 breaths per minute
- Pulse rate is less than 50 or more than 120 beats per minute
- Systolic blood pressure is less than 90 mmHg
- Penetrating injuries to head, neck, torso or proximal extremities
- Two or more suspected proximal long bone fractures
- Suspected flail chest
- Suspected spinal cord injury or limb paralysis
- Amputation (except digits)
- Suspected pelvic fracture
- Open or depressed skull fracture

Mechanism of Injury

- Ejection or partial ejection from an automobile
- Death in the same passenger compartment
- Extrication time in excess of 20 minutes
- Vehicle collision resulting in 12 inches of intrusion in to the passenger compartment
- Motorcycle crash >20 MPH or with separation of rider from motorcycle
- Falls from greater than 20 feet
- Vehicle rollover (90 degree vehicle rotation or more) with unrestrained passenger)
- Vehicle vs pedestrian or bicycle collision above 5 MPH