



<h1>NYC REMAC</h1>			
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Title:	Revision/Update of REMAC Prehospital Treatment & Transport Protocols		
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Supersedes:	n/a	Page:	1 of 16

The Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop, approve and implement prehospital treatment and transport protocols for use within the five boroughs of the City of New York. The Regional Emergency Medical Advisory Committee (REMAC) of New York City operates under the auspices of Article Thirty of the New York State Public Health Law.

The Regional Emergency Medical Advisory Committee (REMAC) of New York City has revised and updated the regional prehospital treatment and transport protocols. All protocols have been approved by the New York State Emergency Medical Advisory Committee for use in the NYC region.

A list of all revised protocols summarizing changes is attached, along with actual protocols identifying specific changes. New Language is underlined and bold. Deleted Language is ~~struck-out~~.

PROTOCOLS ARE TO BE IMPLEMENTED ON AUGUST 1ST, 2015. All EMS PERSONNEL MUST BE UPDATED IN TIME FOR AUGUST 1ST, 2015 IMPLEMENTATION DATE. Agencies that require additional time for implementation must submit requests for extension in writing to the NYC REMAC. Requests can be emailed to mdiglio@nycremsco.org

Current and Updated Protocols can be accessed at the Regional EMS Council website: www.nycremsco.org.

Owners/operators of Ambulance and ALS First Response Services providing prehospital medical treatment within the five boroughs of the City of New York are responsible to provide copies of the NYC REMAC Prehospital Treatment Protocols to their personnel, and to ensure that Service Medical Directors and EMS personnel are informed of all changes/updates to the NYC REMAC Prehospital Treatment Protocols.

In order to provide evidence that all EMS personnel have been updated in current protocols, the EMS Agency must provide a list of updated personnel accompanied by a letter of affirmation signed by the service medical director and Chief Executive Officer no later than FOUR (4) weeks after completion of training/in-service.

Lewis W. Marshall, Jr., MD, JD
Chair,
Regional Emergency Medical Advisory Committee
of New York City

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THE REGIONAL EMERGENCY MEDICAL SERVICES COUNCIL OF NEW YORK CITY, INC.

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – August 1st, 2015

Protocol Revisions approved by NYC REMAC and NYS SEMAC (May 2015)

Summarized Changes:

GENERAL OPERATING PROCEDURES:

- Pediatric Patients – change pediatric age parameters to identify any patient 15 years old as an adult.
- Prehospital Sedation – FOR synchronized Cardioversion only, increases Etomidate maximum total dose from 10 mg to 20 mg.
- Intraosseous (IO) Access and Drug Administration – clarifies that only two attempts should be attempted for both IV and IO.
- Use of Pre-existing Central Venous Catheter – NEW SECTION

BASIC LIFE SUPPORT (EMT-B) PROTOCOLS:

- 407 Wheezing – second dose of Epinephrine made “if available”.
- 410 Anaphylactic Reaction – second dose of Epinephrine made “if available”.
- 430: Emotionally Disturbed Patient – review protocol for significant changes.

ADVANCED LIFE SUPPORT (Paramedic EMT-P) PROTOCOLS

- 500 A Smoke Inhalation – obtaining blood samples made “if available”. Two bottle table deleted to reflect change in how kits are now produced.
- 500 B Cyanide Exposure – obtaining blood samples made “if available”. Two bottle table deleted to reflect change in how kits are now produced.
- 530: Emotionally Disturbed Patient – review protocol for significant changes

APPENDICES

- Appendix P: Use of Continuous Positive Airway Pressure (CPAP) Device – Pregnancy removed as a contraindication, and ALS use expanded to medical director discretion.

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GENERAL OPERATING PROCEDURES

PEDIATRIC PATIENTS

Any patient ~~14~~ 15 years of age shall be considered an adult patient, and the appropriate protocols shall be used. To further define pediatric patients, the following age separations shall be used:

- Premature – birth prior to the eighth month of gestation;
- Neonate – Immediately following birth;
- Infant – from birth to 1 year;
- Child – from 1 year to less than ~~14~~ 15 years of age.

PREHOSPITAL SEDATION

Definition of Prehospital Sedation:

Prehospital sedation is a fully monitored pharmacologic intervention applied in instances where conscious patients may need short-term analgesic and/or anxiolytic therapy for procedures that may be painful or anxiety-producing, such as Endotracheal Intubation, Synchronized Cardioversion, and Transcutaneous Pacing. Prior permission from Medical Control is required.

Indications for Prehospital Sedation:

Conscious patients requiring Endotracheal Intubation

- a) Administer Diazepam 5 – 10 mg, IV/Saline Lock bolus. Repeat doses of Diazepam 5 – 10 mg, IV/Saline Lock bolus, may be given as necessary. (Maximum total dosage is 20 mg.)
OR
- b) Administer Midazolam 1 – 2 mg, IV/IN/Saline Lock bolus. Repeat doses of Midazolam 1 mg, IV/IN/Saline Lock bolus, may be given as necessary. (Maximum total dosage is 5 mg.)
OR
- c) Administer Etomidate 0.3 mg/kg, IV/Saline Lock bolus, ~~over 30-60 seconds~~. (Maximum total dose is 40 mg.) After successful intubation, administer Diazepam 5 mg IV/Saline Lock bolus or Lorazepam 2 mg, IV/Saline Lock or IM, for continued sedation.
- d) Administer oxygen by nasal cannula at maximum flow rate during laryngoscopy and intubation.

Conscious patients requiring Synchronized Cardioversion OR Transcutaneous Pacing

- a) Administer Diazepam 5 – 10 mg, IV/Saline Lock bolus. Repeat doses of Diazepam 5 – 10 mg, IV/Saline Lock bolus, may be given as necessary. (Maximum total dosage is 20 mg.)
OR
- b) Administer Midazolam 1 – 2 mg, IV/IN/Saline Lock bolus. Repeat doses of Midazolam 1 mg, IV/ IN/Saline Lock bolus, may be given as necessary. (Maximum total dosage is 5 mg.)
OR
- c) For synchronized Cardioversion only, administer Etomidate, 0.15mg/kg, IV/Saline Lock bolus. (Maximum total dose is ~~10~~ 20 mg.)

NOTE: Patients receiving prehospital sedation must be continuously administered high concentration oxygen and must be continuously monitored using cardiac monitoring and pulse oximetry.

INTRAOSSIOUS (IO) ACCESS AND DRUG ADMINISTRATION

In cases of adult cardiopulmonary arrest or patients in decompensated shock, in which IV access is unable to be obtained after no more than two attempts, IO access should be attempted [a maximum of two \(2\) times](#) via an approved extremity approach.

1. If intraosseous access is established on a conscious patient, administer 0.5 mg/kg of 2% preservative-free Lidocaine via IO port, slowly over 2-3 minutes, up to a maximum of 50 mg prior to any other administration.
2. For continued discomfort or pain due to infusion repeat 0.25 mg/kg Lidocaine via IO port, slowly over 30 seconds, up to a maximum of 25 mg.

NOTE: When administering 2% preservative-free Lidocaine, it must be infused slowly to prevent it from being sent directly into the central circulation. Medications intended to remain in the medullary space, such as a local anesthetic, must be administered very slowly until the desired anesthetic effect is achieved.

NOTE: Drug administration via IO route will utilize doses identical to those used for IV administration. IO access via the sternum is considered to be unacceptable in the NYC region.

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USE OF PRE-EXISTING CENTRAL VENOUS CATHETER – NEW SECTION

In cardiac arrest and in unstable patients who need IV access and in whom peripheral IV access cannot be established rapidly, Paramedics (EMT-P) may, under Standing Order, consider using PICC (Peripherally Inserted Central Catheter) line in the upper extremities.

All other types of central lines, including those with ports extending from the neck or chest, shall not be used under Standing Order. If another type of central line is encountered, which the Paramedic feels could be used for patient care, the Paramedic must contact OLMC. The OLMC Physician may consider allowing the use of the central line on a case by case basis.

Any catheter port requiring breaking of skin by a needle shall not be used prehospitally. These ports, buried under the skin, are often called “Hickman Ports” or “Port-A-Caths”. Special needles and techniques beyond the EMS Scope of Practice are required to safely access these devices. Furthermore, Paramedics may not use the patient’s own needles or equipment to access such devices. Dialysis catheters or shunts shall not be accessed in the out-of-hospital environment.

It is beyond the EMS Scope of Practice to troubleshoot, maintain, remove, re-insert, or otherwise manipulate central lines. Patients with central line issues should be transported to the Emergency Department for further management. Under no circumstances shall EMS personnel attempt to clear an obstructed or clogged line. Any line that cannot be easily flushed with 10cc of sterile normal saline, should be considered NOT functional.

BASIC LIFE SUPPORT (EMT-B) PROTOCOLS

407

WHEEZING

For patients over one (1) year of age who are experiencing exacerbation of asthma or wheezing

1. Assess the airway
2. Administer oxygen
3. Monitor breathing

NOTE: If patient exhibits signs of imminent respiratory failure, refer to protocol #401 – Adult Respiratory Distress/Failure or #450 – Pediatric Respiratory Distress/Failure.

4. Do not permit physical activity
5. Place the patient in a Fowler's or Semi-Fowler's position
6. Assess the following prior to administration of the first nebulized treatment:
 - Vital signs
 - Patient's ability to speak in complete sentences
 - Accessory muscle use

7. Administer Albuterol Sulfate 0.083%, one (1) unit dose or 3 cc via nebulizer at a flow rate that will deliver the solution over 5 minutes to 15 minutes. Do not delay transport to complete medication administration.

8. Begin transport.

NOTE: For patients in severe respiratory distress, call for advanced life support assistance. Do not delay transport **FOR ANY REASON, INCLUDING WAITING FOR A POTENTIAL SECOND DOSE OF EPINEPHRINE.**

9. If symptoms persist, Albuterol Sulfate 0.083% may be repeated twice for a total of three (3) doses, with the third occurring during transport.

10. If the patient is having severe respiratory distress or shock and is under 33 years of age, administer Epinephrine (**one dose only**) via an auto-injector.

NOTE: Patients 9 years of age and older or weighing more than 30 kg (66 lbs) use adult Epinephrine auto-injector (0.3 mg); patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epinephrine auto-injector (0.15 mg). Administration of epinephrine via auto-injector must be reported to your agency's medical director as soon as possible

11. Contact On-Line Medical Control for authorization to administer a second dose of Epinephrine, via an auto-injector, if needed **AND IF AVAILABLE**, or for **initial** administration of Epinephrine via auto-injector to a patient who is 33 years of age or older.

12. Upon completion of patient treatment or transfer of patient care to an ALS Provider or a 911 Receiving Hospital, reassess the patient. See Step # 6.

NOTE: Medical control must be contacted for any patient refusing medical assistance or transport.

410 – ANAPHYLACTIC REACTION

NOTE: Anaphylaxis can be a potentially life threatening situation most often associated with a history of exposure to an inciting agent/allergen (bee sting or other insect venom, medications/drugs, or foods such as peanuts, seafood, etc.). The presence of respiratory distress (upper airway obstruction [stridor], severe bronchospasm [wheezing]) and/or cardiovascular collapse/hypotensive shock characterize the clinical findings that authorize and require treatment according to this protocol.

Patients 9 years of age and older or weighing more than 30 kg (66 lbs) use adult Epi-auto injector (0.3 mg); patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epi-auto injector (0.15 mg).

1. Determine that the patient's history includes a history of anaphylaxis, severe allergic reaction and/or recent exposure to an allergen or inciting agent.
2. Request Advanced Life Support assistance, **if available**. Do NOT delay transport **FOR ANY REASON, INCLUDING WAITING FOR A POTENTIAL SECOND DOSE OF EPINEPHRINE.**
3. Administer high concentration oxygen.
4. Assess the cardiac and respiratory status of the patient.
 - a. If **both** the cardiac and respiratory status of the patient are normal, initiate transport.
 - b. If **either** the cardiac or respiratory status of the patient is **abnormal**, proceed as follows:
 - i. If the patient is having severe respiratory distress **or** shock **and** has been prescribed an Epinephrine auto-injector, assist the patient in administering the Epinephrine. If the patient's auto-injector is not available or expired administer Epinephrine via an auto-injector.
 - ii. If the patient has not been prescribed an Epinephrine auto-injector and is under 33 years of age, administer Epinephrine (ONE DOSE ONLY) via an auto-injector.

NOTE: Administration of epinephrine via auto-injector must be reported to your agency's medical director as soon as possible

- iii. Contact On-Line Medical Control for authorization to administer a second dose of Epinephrine via an auto-injector, if needed **AND IF AVAILABLE**, or for **INITIAL** administration of Epinephrine via auto-injector to a patient who is 33 years of age or older.
 - iv. Refer immediately to the REMAC Prehospital Treatment Protocol for Respiratory Distress/Failure (#401), Obstructed Airway (#402), or Shock (#415) as appropriate.
5. If cardiac arrest occurs, refer immediately to the REMAC Prehospital Treatment Protocol for Non-Traumatic Cardiac Arrest (#403).

EXCITED DELIRIUM ~~EMOTIONALLY DISTURBED PATIENT~~

NOTE: Agitated ~~Emotionally disturbed~~ patients must be presumed to have an underlying medical or traumatic condition ~~causing an altered mental status~~.

~~Assess such patients for an underlying medical or traumatic condition causing an altered mental status and treat as necessary.~~

1. Assess the situation for potential ~~or actual~~ danger and establish a safe zone, if necessary.

NOTE: All suicidal or violent threats ~~or gestures~~ must be taken seriously. ~~These patients should be in police custody if they pose a danger to themselves and/or others.~~ Law enforcement presence is strongly recommended.

2. If the patient is agitated and presents a risk of physical harm to providers, public or self: ~~If an underlying medical or traumatic condition causing an altered mental status is not apparent; the patient is fully conscious, alert, and able to communicate; and an emotional disturbance is suspected, proceed as follows:~~

~~a. Request police assistance, if appropriate.~~

~~NOTE: If the patient is at risk for respiratory or cardiac arrest by continuing to struggle while being physically restrained by police, request advanced life support assistance.~~

~~b. Open communications with the patient.~~

~~c. Attempt to determine the cause of the immediate crisis.~~

~~d. Attempt to obtain a past medical history.~~

~~e. Document the exact nature of the problem, including the patient's own words.~~

~~f. If, in the judgment of the EMT/AEMT, the patient requires and is refusing treatment and the patient's judgment may be impaired, contact Medical Control.~~

~~g. The EMT/AEMT may participate in restraining a patient if a police officer requests assistance or when it becomes necessary for self-protection.~~

a. Request law enforcement assistance.

b. If the patient continues to struggle while being physically restrained, request Advanced Life Support assistance.

c. Attempt to verbally de-escalate the patient's situation.

d. The EMT/Paramedic may participate in restraining a patient if a police officer requests assistance or when it becomes necessary for self-protection.

NOTE: Only the amount of force required to effectively restrain the patient may be used.

- ~~2. If the patient continues to struggle while being physically restrained, request ALS for possible chemical restraint.~~

3. Transport.

ADVANCED LIFE SUPPORT (Paramedic EMT-P) PROTOCOLS

500-A

SMOKE INHALATION

This protocol should be utilized ONLY for the management of symptomatic patients after exposure to smoke in an enclosed space and cyanide exposure is suspected.

1. Begin Basic Life Support Procedures
2. If necessary, perform Advanced Airway Management *.
3. Begin Cardiac & Pulse Oximetry monitoring.
4. Begin SpCO monitoring, if available
5. Begin two IV infusions of Normal Saline (0.9% NS). Refer also to Protocol #528 for all patients with burns.
6. Patients with the following symptoms, after exposure to smoke in an enclosed space, should be administered the medications listed in Table 1 ~~or Table 2~~, if available.
 - Hypotension not attributable to other obvious causes
 - Altered mental status
 - Coma
 - Seizures
 - Respiratory arrest
 - Cardiac arrest

NOTE: Prior to administration of Hydroxocobalamin, obtain three blood samples using the tubes provided in the cyanide toxicity kit, [if available](#).

Whenever Hydroxocobalamin is administered, follow with a 20 ml flush of normal saline (0.9% NS) prior to administration of any other medication.

7. In the event of continued hypotension (SBP <90mmHg), administer Dopamine 5 ug/kg/min, IV/Saline Lock drip. If there is insufficient improvement in hemodynamic status, the infusion rate may be increased until the desired therapeutic effects are achieved or adverse effects appear. (Maximum dosage is 20 ug/kg/min, IV/Saline Lock drip.)

* *If the patient is alert prior to performing Advanced Airway Management, refer to Prehospital Sedation in General Operating Procedures. Prior permission from Medical Control is required.*

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TABLE 1 Two Bottle Kit (2.5gm/100mL/bottle)		
Age Group	Hydroxocobalamin ^A	Sodium Thiosulfate ^B
Infant/Toddler (0-2 years)	¼ bottle	250mg/kg (3cc/kg prepared solution) administered over 10 minutes, IV
Preschool (3-5 years)	½ bottle	
Grade School (6-13 years)	1 bottle	
Adult (≥14 years)	2 bottles (entire kit)	12.5g 150mL of a prepared solution) administered over 10 minutes IV

TABLE 1 2 One Bottle Kit (5.0gm/200mL/bottle)		
Age Group	Hydroxocobalamin ^A	Sodium Thiosulfate ^B
Infant/Toddler (0-2 years)	¼ bottle	250mg/kg (3cc/kg prepared solution) administered over 10 minutes, IV
Preschool (3-5 years)	1/4 bottle	
Grade School (6-13 years)	1/2 bottle	
Adult (≥ 14 <u>15</u> years)	1 bottle	12.5g 150mL of a prepared solution) administered over 10 minutes IV

^A Hydroxocobalamin may be mixed with D5W, Normal Saline, or Lactated Ringers. The vented macro drip tubing that accompanies the Cyanokit, should be used, wide open to ensure correct administration time of approximately 15 minutes for the kit.

^B Sodium Thiosulfate solution should be prepared by adding 12.5g (50mL) to a 100cc bag of D5W.

NOTE: In the event that only one intravascular access line is established, administer Hydroxocobalamin first before Sodium Thiosulfate.

MEDICAL CONTROL OPTIONS:

OPTION A: Transportation Decision.

NOTE: For patients exhibiting signs and symptoms consistent with carbon monoxide poisoning, refer to General Operating Procedures – Transportation Decisions and Procedures.

CYANIDE TOXICITY KIT (if available)

2 2.5 g bottles or 1 <u>One (1)</u> 5.0 g bottle of crystalline powder Hydroxocobalamin	<u>One (1)</u> 1 2 ml fluoride oxalate whole blood tube
<u>One (1)</u> 1 12.5 g bottles of Sodium Thiosulfate (50 mL of 25% solution)	<u>One (1)</u> 1 2 ml K2 EDTA tube
<u>Two (2)</u> 2 100 mL bag 0.9% NS, D ₅ W, LR	<u>One (1)</u> 1 2 ml lithium heparin tube
<u>One (1)</u> 1 100 mL bag D ₅ W	

500-B

CYANIDE EXPOSURE

This protocol should be utilized ONLY for the management of critically ill patients with suspected exposure to cyanide.

If operating at a scene with suspected cyanide exposure where the total patient count is greater than 5, a class order¹ is required by an FDNY-OMA Medical Director to utilize this protocol due to the likelihood of a Weapons of Mass Destruction attack. Refer to REMSCO WMD protocol management decisions. The class order may be issued by a FDNY-OMA Medical Director who is on-scene or as relayed through an FDNY-OMA Medical Director through On-Line Medical Control (Telemetry) or through FDNY Emergency Medical Dispatch.

NOTE: The issuance of any class order shall be conveyed to all regional medical control facilities for relay to units in the field.

If operating at a scene with suspected cyanide exposure where the total patient count is 5 or less at one time, the following protocol remains as a Standing Order.

NOTE: Treatment within the “hot” and “warm” zones may be performed only by appropriately trained personnel wearing appropriate chemical protective clothing (CPC) as determined by the FDNY Incident Commander.

NOTE: If providers encounter a patient who has not been appropriately decontaminated from liquid cyanide, the providers should leave the area immediately until such time as appropriate decontamination has been performed.

1. Begin Basic Life Support Procedures.
2. If necessary, perform Advanced Airway Management *.
3. Begin Cardiac & Pulse Oximetry monitoring.
4. Begin two IV infusions of Normal Saline (0.9% NS).
- * *If the patient is alert prior to performing Advanced Airway Management, refer to Prehospital Sedation in General Operating Procedures. Prior Permission from Medical Control Is Required.*
5. Patients with the following symptoms, after exposure to cyanide, should be administered the medications listed in Table 1 ~~or Table 2~~, if available.
 - Hypotension not attributable to other obvious causes
 - Altered Mental Status
 - Coma
 - Seizures
 - Respiratory arrest
 - Cardiac arrest

¹ Class Order - A general order given by a FDNY-OMA Medical Director to perform a specific intervention or interventions at a specific location/s during a specified time period. This order is generally reserved for disaster situations.

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NOTE: Prior to administration of Hydroxocobalamin, obtain three blood samples using the tubes provided in the cyanide toxicity kit, if available.

TABLE 1 Two Bottle Kit (2.5gm/100mL/bottle)		
Age Group	Hydroxocobalamin ^A	Sodium Thiosulfate ^B
Infant/Toddler (0-2 years)	¼ bottle	250mg/kg (3cc/kg prepared solution) administered over 10 minutes, IV
Preschool (3-5 years)	½ bottle	
Grade School (6-13 years)	1 bottle	
Adult (≥14 years)	2 bottles (entire kit)	12.5g 150mL of a prepared solution) administered over 10 minutes IV

TABLE 1 2 One Bottle Kit (5.0gm/200mL/bottle)		
Age Group	Hydroxocobalamin ^A	Sodium Thiosulfate ^B
Infant/Toddler (0-2 years)	¼ bottle	250mg/kg (3cc/kg prepared solution) administered over 10 minutes, IV
Preschool (3-5 years)	1/4 bottle	
Grade School (6-13 years)	1/2 bottle	
Adult (≥14 15 years)	1 bottle	12.5g 150mL of a prepared solution) administered over 10 minutes IV

^A Hydroxocobalamin may be mixed with D5W, Normal Saline, or Lactated Ringers. The vented macro drip tubing that accompanies the Cyanokit, should be used, wide open to ensure correct administration time of approximately 15 minutes for the kit.

^B Sodium Thiosulfate solution should be prepared by adding 12.5g (50mL) to a 100cc bag of D5W.

6. In the event of continued hypotension (SBP <90mmHg), Administer Dopamine 5 ug/kg/min, IV/Saline Lock drip. If there is insufficient improvement in hemodynamic status, the infusion rate may be increased until the desired therapeutic effects are achieved or adverse effects appear. (Maximum dosage is 20 ug/kg/min, IV/Saline Lock drip.)

NOTE: Whenever Hydroxocobalamin is administered, follow with a 20 ml flush of normal saline (0.9% ns) prior to administration of any other medication.

MEDICAL CONTROL OPTIONS:

OPTION A: Transportation Decision.

CYANIDE TOXICITY KIT (if available)

2 2.5 g bottles or 1 One (1) 5.0 g bottle of crystalline powder Hydroxocobalamin	One (1) 1 2 ml fluoride oxalate whole blood tube
One (1) 1 12.5 g bottles of Sodium Thiosulfate (50 mL of 25% solution)	One (1) 1 2 ml K2 EDTA tube
Two (2) 2 100 mL bag 0.9% NS, D ₅ W, LR	One (1) 1 2 ml lithium heparin tube
One (1) 1 100 mL bag D ₅ W	

EXCITED DELIRIUM ~~EMOTIONALLY DISTURBED PATIENT~~

1. Begin Basic Life Support procedures.
2. Prehospital Chemical Restraint Procedure: If patient continues to struggle while being physically restrained:
 - a. Administer Midazolam, 10 mg, IM or IN.

~~NOTE: Assess such patients for an underlying medical or traumatic condition causing an altered mental status and treat as necessary.~~

NOTE: If patient is agitated, the PREFERRED route of choice is IM. Once the patient is sedated, IV access should be established in the event additional sedation is necessary.

3. After adequate sedation, begin IV/Saline Lock infusion of Normal Saline (0.9% NS) or Ringers' Lactate (RL) via a large bore (14-18) gauge catheter, up to 1 liter, via a macro-drip.
4. Begin Cardiac Monitoring, record and evaluate EKG rhythm.
5. Begin pulse oximetry monitoring.
6. If the patient continues to struggle while being physically restrained after Standing Orders have been administered, contact medical control for implementation of one of the following MEDICAL CONTROL OPTIONS.
- ~~7. Contact medical control if patient agitation inhibits treatment.~~
- ~~8. POST IM or IN SEDATION: Begin an IV/Saline Lock infusion of Normal Saline (0.9% NS) to keep vein open, or a Saline Lock.~~
- ~~9. Begin Cardiac Monitoring, record and evaluate EKG rhythm.~~
- ~~10. Begin Pulse Oximetry monitoring.~~
- ~~NOTE: In order to protect patient's airway, consider placing patient in a lateral recumbent position.~~
- ~~11. If patient is at risk for respiratory or cardiac arrest by continuing to struggle while being physically restrained by the police, contact medical control for implementation of one of the following MEDICAL CONTROL OPTIONS:~~

MEDICAL CONTROL OPTIONS:

~~Prehospital Chemical Restraint Procedure~~

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~~NOTE: If patient is agitated, the initial route of choice is IM or IN. Once the patient is sedated, IV access should be established in the event additional sedation is necessary.~~

~~OPTION A: Administer Diazepam, 5–10 mg, IV/Saline Lock bolus.~~

~~OR~~

~~Administer Midazolam, 1–2 mg, IV/Saline Lock bolus or if IV access is unavailable, administer Midazolam, 10 mg IM or IN.~~

~~OR~~

~~Administer Lorazepam, 2–4 mg, IV/Saline Lock bolus or if IV access is unavailable, administer Lorazepam, 4 mg IM or IN.~~

MEDICAL CONTROL OPTIONS:

<u>Option</u>	<u>Class</u>	<u>Medication</u>	<u>Route</u>	<u>Dose</u>
<u>A</u>	<u>Dissociative Agents</u>	<u>Ketamine</u>	<u>IntraMUSCULAR</u>	<u>2-4 mg/kg</u>
		<u>Ketamine</u>	<u>IntraNASAL</u>	<u>1-2 mg/kg</u>
<u>B</u>	<u>IM Benzodiazepines</u>	<u>Midazolam</u>	<u>IntraMUSCULAR</u>	<u>10 mg</u>
		<u>Lorazepam</u>	<u>IntraMUSCULAR</u>	<u>4 mg</u>
<u>C</u>	<u>IN or IV Benzodiazepines</u>	<u>Diazepam</u>	<u>IV/Saline Lock bolus</u>	<u>5-10 mg</u>
		<u>Midazolam</u>	<u>IntraNASAL</u>	<u>5 mg</u>
		<u>Lorazepam</u>	<u>IntraNASAL</u>	<u>2 mg</u>

OPTION ~~B~~ D: Transportation Decision.

Mandatory Quality Assurance Component

For every administration of Midazolam 10 mg IM or IN under Standing Orders, the ACR/PCR documentation must be reviewed by the service medical director who is responsible for forwarding ~~a copy of the~~ ACR/PCR **data electronically** to the NY REMAC for system-wide QA purposes. Patient specific identifiers can be omitted. This QA component is effective immediately. For the purposes of patient confidentiality, **email mdiglio@nycremsco.org for directions on how to submit data electronically.** ~~copies of the ACR/PCR can be mailed to: The Regional EMS Council of NYC, 475 Riverside Drive, Suite 1729, New York, NY 10115. Please label the envelope “Confidential QA”.~~

APPENDIX P

USE OF THE CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) DEVICE

Scope: ~~In the event of acute congestive heart failure,~~ Paramedics trained and authorized by the service medical director, may utilize Continuous Positive Airway Pressure (CPAP), if available and appropriate.

INCLUSION CRITERIA

1. Be at least 18 years of age
2. Be Alert
3. Be able to maintain an open and patent airway on their own
4. Have a blood pressure of at least 100 mm Hg systolic
5. Have significant respiratory distress, indicated by cyanosis, accessory muscle use or other signs and symptoms.

CONTRAINDICATIONS

1. Less than 18 years of age
2. Need for immediate Endotracheal Intubation or other methods of airway control
3. Altered Mental Status or unresponsive patients
4. Hemodynamically unstable patients
5. Patients who are unable to control their own airway
6. Trauma, facial burns, impending respiratory or cardiac arrest
7. **Known** Active unstable angina or acute myocardial infarction
8. Uncooperative patient
- ~~9. **Pregnancy**~~
10. **Known** Pneumonia, pneumothorax, anaphylaxis, pulmonary embolism, or aspiration.
11. Gastric Distention

CPAP IS TO BE IMMEDIATELY DISCONTINUED IF:

1. An immediate need for advanced airway control arises
2. The patient becomes hemodynamically unstable
3. The patient cannot tolerate the mask due to pain or discomfort