

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



NYC REMAC

Advisory No.	2014-01		
Title:	Revision/Update of REMAC Prehospital Treatment & Transport Protocols		
Issue Date:	January 27, 2014		
Effective Date:	May 1, 2014		
Supersedes:	n/a	Page:	1 of 30

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 MAY 1ST, 2014. ALL EMS PERSONNEL MUST BE UPDATED IN TIME FOR MAY 1ST, 2014 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

Marie C. Diglio, EMT-P
Executive Director Operations
Regional Emergency Medical Services Council
of New York City

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

Protocol Revisions approved by NYC REMAC and NYS SEMAC

Summarized Changes

Section / Protocol	Change	Rationale
GOP		
Medical Control at the Scene	Delete AED note	All CFRs, EMTs and AEMTs are now trained in the use of AEDs, so the note is not needed.
	Non-Solicited Medical Intervention clarified	The prior section describes the intervention of a physician who is Agency and REMAC certified, and this section should not apply to them, but rather this should apply to all non-REMAC / Agency certified physicians who wish to intervene.
Prehospital Sedation	New Language added directing administration of oxygen by nasal cannula at maximum flow rate during laryngoscopy and intubation.	
	Etomidate maximum total dose increased from 20mg to 40mg.	
Transportation Procedures and Decisions – Acute Stroke	Delete the 4th bullet under Acute Stroke	There is existing data on the safety of longer transports for condition-specific treatment, 2) we lack an equivalent or temporizing treatment such as might be argued for STEMI, and, 3) the nearly universal stroke center designation status in the City.
Transportation Procedures and Decisions – STEMI	Delete LBBB	While the LBBB patients represent a significant portion of the “STEMI” patients transported to PCI-capable facilities, thereby bypassing closer EDs, these patients are not undergoing emergent cardiac catheterization even when the LBBB is not proven to be pre-existing. We therefore have no reason to prolong their scene time for OLMC contact and/or to bypass closer EDs (or the patient’s choice of hospital) for the purpose of allowing for PCI. While this remains in the AHA Guidelines, it is a recommendation only and not supported by the current literature.
Transportation Procedures and Decisions – Specialty Care	Add LVAD care to list of specialty care centers	These patients require transport to their implantation center or a center capable of caring for the device.
Cardiopulmonary Resuscitation	New Note added regarding CA secondary to drowning, hanging, electrocution, etc.	
	Note clarify to CPR in children	
Intraosseous (IO) Access and Drug Administration	IO is no longer limited to patients in CA. New language on IO drug administration	Given the reliability of IO access and the frequent difficulties in obtaining IV access, we should move to IO more rapidly and not delay therapy for the purpose of merely obtaining IV access.
Intranasal (IN) Drug Administration	Added: Glucagon, Fentanyl	This has been shown to be an efficacious route and will help to reduce the number of unnecessary needle-stick injuries among providers.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

Drug Advisory Guidelines	Caution regarding administration of Ondansetron	Any language stronger than this seems unwarranted based on the present literature, but such a caution seems appropriate.
Pediatric Drug Dosage and Fluid Administration	Use of Broselow Tape approved	
CFR Protocols		
300: WEAPONS OF MASS DESTRUCTION / NERVE AGENT EXPOSURE	Treatment tables updated	ORANGE tag patients should be treated as YELLOW tag patients. Since there are no other available treatment options the term kit refers to either a Mark I kit (both auto-injectors) or a Duodote auto-injector. REMAC is not recommending one brand over another, but it is difficult to avoid the use of trade names. This term refers to either of the two available options now that both are available in the City.
311: ALTERED MENTAL STATUS	SO # 3 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.
313: SEIZURES	SO # 4 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.
314: POISONING OR DRUG OVERDOSE	No longer directed to obtain sample of ingested substance.	Transporting the container and/or taking a “sample” of the substance puts our providers unnecessarily at risk.
315: SHOCK	SO # 1 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.
326: SOFT TISSUE INJURIES	Add use of tourniquet.	
EMT		
400: WEAPONS OF MASS DESTRUCTION / NERVE AGENT EXPOSURE	Treatment tables updated	ORANGE tag patients should be treated as YELLOW tag patients. Since there are no other available treatment options the term kit refers to either a Mark I kit (both auto-injectors) or a Duodote auto-injector. REMAC is not recommending one brand over another, but it is difficult to avoid the use of trade names. This term refers to either of the two available options now that both are available in the City.
411: ALTERED MENTAL STATUS	SO # 4 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

413: SEIZURES	SO # 5 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.
414: POISONING OR DRUG OVERDOSE	No longer directed to obtain sample of ingested substance. Envenomation Venomous Bite updated	Transporting the container and/or taking a “sample” of the substance puts our providers unnecessarily at risk.
415: SHOCK	SO # 2 deleted (Observe spinal injury precautions; if appropriate).	If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.
326: SOFT TISSUE INJURIES	Add use of tourniquet.	
ALS		
Global Change	Make vasopressin “if available” in all applicable protocols.	
507 - Asthma	Clarify MCO “A”	
510 – Anaphylactic Reaction	Title changed to “Allergic Reaction / Anaphylactic Reaction”. Protocol clarified.	
515-B: Severe Sepsis/Septic Shock	NEW PROTOCOL	
554 – Pediatric Asthma / Wheezing	Clarify MCO “B”	
Appendix U: Criteria for SEVERE SEPSIS/SEPTIC SHOCK	NEW Appendix	EMS transports septic patients very commonly. The optimal treatment for severe sepsis/septic shock is unclear and left to individual medic interpretation in our protocols. A new protocol will alleviate these issues and improve patient care, as has been demonstrated in similar systems throughout the country. Appendix U will increase provider knowledge and augment their training.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

GENERAL OPERATING PROCEDURES

MEDICAL CONTROL AT THE SCENE

DELETE THE FOLLOWING NOTE:

~~**NOTE: Providers trained in defibrillation may not abdicate responsibility for defibrillation to providers not trained in defibrillation.**~~

Rationale: All CFRs, EMTs and AEMTs are now trained, so the note is not needed.

ADD NEW LANGUAGE:

In the event that a physician who **is not credentialed by REMAC but** appropriately identifies himself/herself appears at the scene and only wishes to intervene in Basic Life Support care, the EMTs/AEMT-Ps will present the physician with a document outlining the agency's policy regarding "Non-Solicited Medical Intervention". The on-scene physician's requests concerning emergency care and movement of the patient should be followed provided they do not conflict with Basic Life Support Standing Orders, policies and procedures. The on-scene physician's name and address shall be noted in the comment section of the PCR/ACR. If any conflicts arise with the on-scene physician, the EMTs/AEMT-Ps shall contact Medical Control and proceed as directed.

Rationale: The prior section describes the intervention of a physician who is Agency and REMAC certified, and this section should not apply to them, but rather this should apply to all non-REMAC / Agency certified physicians who wish to intervene.

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: Page A16

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 ~~20~~ **40mg**.) 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*

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

- 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 10mg.)

NOTE: Patients receiving prehospital sedation must be continuously administered high concentration oxygen and must be continuously monitored using cardiac monitoring and Pulse-Oximetry.

TRANSPORTATION PROCEDURES AND DECISIONS

Acute Stroke

DELETE THE 4TH BULLET:

If the historical/physical findings indicate an acute stroke, transport the patient to the nearest NYS DOH designated Stroke Center (See Appendix R, Stroke Patient Criteria), unless **one** of the following conditions is met:

- The patient is in cardiac arrest;
- The patient has other medical conditions that warrant transport to the nearest appropriate hospital emergency department as per protocol;
- The total time from when the patient's symptoms and/or signs first began to when the patient is first assessed by EMS is greater than **three and one half (3 ½) hours**;
- ~~The closest NYS DOH designated Stroke Center is more than 20 minutes away;~~
- An on-line medical control physician so directs.

Rationale: 1) There is existing data on the safety of longer transports for condition-specific treatment, 2) we lack an equivalent or temporizing treatment such as might be argued for STEMI, and, 3) the nearly universal stroke center designation status in the City.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

STEMI (ST Elevation) / Myocardial Infarction

DELETE:

For all adults, if the historical / physical findings indicate an acute myocardial infarction, and the 12 lead EKG reveals 1 mm ST elevation in 2 or more contiguous leads, ~~or new left bundle branch block;~~ transport the patient to the closest 24 hour NYS certified interventional cardiac catheterization facility, as per medical control, unless one of the following conditions is met:

- The patient has other medical conditions (Trauma, Burn, CVA) that warrant transport to the closest appropriate hospital emergency department as per protocol.

Rationale: While the LBBB patients represent a significant portion of the “STEMI” patients transported to PCI-capable facilities, thereby bypassing closer EDs, these patients are not undergoing emergent cardiac catheterization even when the LBBB is not proven to be pre-existing. We therefore have no reason to prolong their scene time for OLMC contact and/or to bypass closer EDs (or the patient’s choice of hospital) for the purpose of allowing for PCI. While this remains in the AHA Guidelines, it is a recommendation only and not supported by the current literature.

Specialty Care

ADD NEW SPECIALTY CARE CENTER:

If the mechanism of illness/injury and/or historical/physical findings indicates a need for another type of specialty care, transport the patient to the nearest New York City 911 Ambulance Receiving Facility with the specialty care capability. These capabilities may include:

- child abuse and neglect or
- hyperbaric care,
- interventional cardiology for specific cases,
- left ventricular assist device (LVAD) care (FDNY will add to CAD codes)
- replantation capability,
- venomous bite care,
- sexual assault care,
- other such specialty care that may be required.

See Appendix H for lists of facilities and the specialty care available.

Rationale: These patients require transport to their implantation center or a center capable of caring for the device.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

CARDIOPULMONARY RESUSCITATION

Basic Cardiac Life Support in adults, children, infants, and newborns, when not specifically described in these protocols, should conform to the current guidelines set by the American Heart Association and the American Red Cross. The following guidelines apply to the initiation and termination of CPR:

CPR should be initiated on all patients who are not breathing (apneic) and pulseless unless one of the following conditions exists:

- Extreme dependent lividity;
- Rigor mortis;
- Tissue decomposition;
- Obvious mortal injury; **or**
- A valid Do Not Resuscitate (DNR) order and/or MOLST is present. (See Appendix C)

NOTE: Terminal illness is not a contraindication to CPR.

NOTE: Cardiac arrests secondary to drowning, hanging, electrocution, and smoke inhalation / cyanide toxicity should be treated as MEDICAL in nature. While addressing traumatic injuries (e.g., c-spine immobilization, hemorrhage control), emphasis should be given to high quality CPR and interventions as specified in the Non-Traumatic Cardiac Arrest protocols, and, when appropriate, in the Smoke Inhalation and Cyanide Exposure protocols.

CPR should also be initiated in newborns, infants, and children under 9 years of age with heart rates less than 60 (severe bradycardia) and signs of inadequate central (proximal) perfusion (decompensated shock).

NOTE: CPR is necessary in unconscious newborns, infants, and children under 9 years of age with extremely slow heart rates and poor vital organ perfusion to ensure adequate circulation to the heart, lungs, and brain.

CPR should be continued until one of the following occurs:

- Spontaneous circulation has been restored;
- Resuscitative efforts have been transferred to providers of equal or higher level of training;
- A qualified, licensed physician assumes responsibility for the outcome of the patient;
- The crew is exhausted to the point of not being able to continue resuscitative efforts.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

INTRASOSEOUS (IO) ACCESS AND DRUG ADMINISTRATION

ADD NEW LANGUAGE:

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 via an approved extremity approach. ~~Drug administration via this 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.~~

1. If Intraosseous access is established on a conscious patient, infuse 0.5 mg/kg of 2% preservative-free Lidocaine via IO port prior to infusion up to a maximum of 50 mg.
2. For continued discomfort or pain due to infusion repeat Lidocaine infusion of 0.25 mg/kg via IO port up to a maximum of 25 mg.

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.

Rationale: Given the reliability of IO access and the frequent difficulties in obtaining IV access, we should move to IO more rapidly and not delay therapy for the purpose of merely obtaining IV access.

INTRANASAL (IN) DRUG ADMINISTRATION

ADD: Fentanyl and Glucagon to the list of approved intranasal medications.

In the absence of intravenous access, the following medications are approved for intranasal administration when an appropriate atomizer device is available: Glucagon, Fentanyl, Lorazepam, Midazolam, and Naloxone. The route of administration is contraindicated in patients with epistaxis.

Rationale: This has been shown to be an efficacious route and will help to reduce the number of unnecessary needle-stick injuries among providers.

DRUG ADVISORY GUIDELINES

ADD NEW LANGUAGE:

Ondansetron has been associated with prolongation of the QT interval, possibly resulting in Torsade's de Pointes. Therefore, this drug should be used with caution in patients with a history of cardiac disease and those taking other medications known to prolong the QT interval. This drug should not be administered to patients with a history of familial QT prolongation.

Rationale: Any language stronger than this seems unwarranted based on the present literature, but such a caution seems appropriate.

Pediatric Protocols

Pediatric Drug Dosage and Fluid Administration

NEW LANGUAGE:

For drug dosage and fluid administration, refer to a regionally approved Length Based Dosing Device. When there is a discrepancy between the protocols and the Length Based Dosing Device with regard to a particular dose, administer the dose listed on the Length Based Dosing Device and note the reason for the drug dosing in the ACR / PCR.

REMAC has approved the use of the Broselow Tape

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

CERTIFIED FIRST RESPONDER PROTOCOLS

300: WEAPONS OF MASS DESTRUCTION / NERVE AGENT EXPOSURE

Authorization for the use of the Antidote kits comes ONLY from the FDNY Office of Medical Affairs (OMA) through a class order* issued by a FDNY-OMA Medical Director who is on-scene or as relayed by 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. 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.

- **RED TAG** - may be treated simultaneously with decontamination.
- **YELLOW /ORANGE TAG** - will be treated as soon as possible following decontamination.
- **GREEN TAG** (asymptomatic) - will be decontaminated and receive close observation.

NOTE: For this protocol, when the term “Auto-injector Kit” is used, it refers to either a dual-injector set (one atropine auto-injector and one pralidoxime auto-injector) or a single injector containing both medications (atropine and pralidoxime).

Initial Treatment (Table 1)

Tag Color	Signs & Symptoms	Auto-injector Administration	Atropine Dose and Monitor Interval
RED	Severe Respiratory Distress, Agitation SLUDGEM	3 Auto-injector Kits	6 mg Monitor every 5 minutes.
YELLOW /ORANGE	Respiratory Distress, SLUDGEM	2 Auto-injector Kits	4 mg Monitor every 10 minutes
GREEN	Asymptomatic None	None	None Monitor every 15 minutes.

NOTE: Do not give more than three auto-injector kits to any patient.

All treatment subsequent to the initial doses shall follow Table 2. This will include extended on-scene operations, transport to ambulance destinations, and treatment at casualty collection points. The goal of treatment is drying of secretions and resolution of other symptoms.

* **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.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014
 Extended Re-Evaluation & Treatment (Table 2)

Tag Color	Signs & Symptoms	Monitor Interval	Auto-injector Administration	Atropine Repeat Dosing Frequency
RED	Severe Respiratory Distress, Agitation, SLUDGEM	Monitor every 5 minutes	Up to a total maximum of 3 auto-injectors	2mg every 3-5 minutes as needed
YELLOW /ORANGE	Respiratory Distress SLUDGEM	Monitor every 5 to 15 minutes	Up to a total maximum of 4 TWO (2) auto-injector	2mg every 5-10 minutes as needed
GREEN	Asymptomatic	Monitor every 15 minutes	None	None

NOTE: Do not give more than three auto-injector kits to any patient.

- Record on the Triage Tag the number of Atropine and Auto-injector Kits used
- **ASYMPTOMATIC PATIENTS DO NOT REQUIRE TREATMENT**

– monitor every 15 minutes

- In the setting of a nerve agent exposure, all symptomatic children age 0-8 shall be assigned a RED tag.

PEDIATRIC PATIENTS

Tag Color	Exposure, and/or Signs of Respiratory Distress, Agitation, SLUDGEM	Atropine and Antidote Kit Doses Monitor Interval		Atropine Repeat Dosing Frequency
RED (Peds)	Yes	Age <1 years	1 Peds Atropine Auto-injector (0.5 mg) No Antidote Kit Monitor every 3 minutes	Atropine every 3 minutes as needed
		Age 1-8 years	1 Antidote Kit Monitor every 3 minutes	
GREEN (Peds)	No	None Monitor every 10 minutes for evidence of exposure		

NOTE: Pediatric patients older than 8 years old should be treated via the adult protocol.

Rationales:
ORANGE tag patients should be treated as YELLOW tag patients.
Since there are no other available treatment options the term kit refers to either a Mark I kit (both auto-injectors) or a Duodote auto-injector. REMAC is not recommending one brand over another, but it is difficult to avoid the use of trade names. This term refers to either of the two available options now that both are available in the City.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

311: ALTERED MENTAL STATUS

NOTE: 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, treat as necessary.

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

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, emergency personnel and/or others.

2. 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 (see Protocol #330).

~~3. Observe spinal injury precautions; if appropriate (see Protocol #321).~~

4. Monitor the airway.

5. Administer oxygen.

6. Update dispatch of a high priority patient.

7. If the patient is conscious, is able to swallow, and is able to drink **without** assistance, provide a glucose solution, fruit juice, or non-diet soda by mouth.

- DO NOT give oral solutions to unconscious patients.
- DO NOT give oral solutions to patients with head injuries.

8. Continue to monitor initial assessment.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

313: SEIZURES

1. Protect the patient from injury.
2. Monitor the airway.
 - DO NOT place anything into the patient's mouth.
3. Attempt to position the patient to maintain airway patency.
4. **Observe spinal injury precautions, if appropriate (see Protocol #321)**
5. Avoid unnecessary or excessive restraint.
6. Monitor breathing for adequacy.
7. Administer oxygen.
8. Update dispatch of a high priority patient if patient is actively seizing upon arrival.
9. Treat all injuries as appropriate.
10. Continue to monitor initial assessment.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

314: POISONING OR DRUG OVERDOSE

1. Monitor the airway.
2. Administer oxygen.
3. Update dispatch of a high priority patient for patients with respiratory distress/failure or altered mental status, or if so directed by Medical Control.
4. Assess for shock and treat, if appropriate (see Protocol #315)
5. For Special Considerations, see below.
6. **Document the name of the substance(s) involved.** ~~Identify and if possible obtain a sample of the substance or the container(s).~~
7. Continue to monitor initial assessment.
8. Contact Medical Control, if available

Rationale: Transporting the container and/or taking a "sample" of the substance puts our providers unnecessarily at risk.

Special Considerations

Ingested Substance:

- DO NOT induce vomiting.
- DO NOT attempt to neutralize the substance.

Inhaled Substance:

NOTE: Ensure that the scene is safe to enter.

- Remove the patient from the contaminated environment.
- Administer oxygen, especially if carbon monoxide poisoning is suspected.

Envenomation:

Insect Stings	Snakebite
<ul style="list-style-type: none">• Remove stinger by scraping	<ul style="list-style-type: none">• Keep injection site lower than heart
<ul style="list-style-type: none">• Cover with sterile dressing	<ul style="list-style-type: none">• Cover with sterile dressing
<ul style="list-style-type: none">• Apply cold compress, if available	<ul style="list-style-type: none">• Immobilize the area and restrict patient activity

Absorption:

NOTE: Take precautions to avoid contamination of yourself and others.

- Remove all contaminated clothing.
- Brush away any dry agents or blot away any excess liquids from the skin.
- Flush the area with sterile saline, sterile water, or plain water for at least 10 minutes.
- Bandage any contact burns with a saline-moistened, sterile dressing.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

315: SHOCK

~~1. Observe spinal injury precautions; if appropriate (see Protocol #321).~~

2. Monitor the airway.
3. Administer oxygen.
4. Control external bleeding.
5. Elevate the legs.
6. Maintain body temperature.
7. Update dispatch of a high priority patient.
8. Monitor vital signs.
9. Treat all injuries as appropriate.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 321. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

326: SOFT TISSUE INJURIES

NOTE: INFECTION CONTROL PRECAUTIONS MUST BE FOLLOWED WHEN MAKING CONTACT WITH ALL PATIENTS. ESPECIALLY THEIR BLOOD OR BODY SECRETIONS.

1. Monitor the airway.
2. Administer oxygen, if appropriate.

3. Control external bleeding.

a. If a severe extremity hemorrhage cannot be controlled by direct pressure, apply a tourniquet (see Appendix T).

- ~~4.3.~~ Assess for shock and treat, if appropriate (see Protocol #315)
- ~~5. 4.~~ For Special Considerations, see below.
- ~~6. 5.~~ Continue to monitor initial assessment.

Special Considerations

Impaled Object:

1. Do NOT remove the object.
2. Support and secure the object with bulky dressings.

NOTE: If the object is impaled in the cheek and is compromising the airway, remove it and bandage both sides of the wound.

Amputated or Completely Avulsed Tissue:

1. Wrap the part in saline-moistened, sterile dressings.
 - DO NOT soak.
2. Place the part into a plastic bag and seal the bag.
3. Label the bag with the patient's name and time of injury.
4. Place the bag in ice water, or a cooled area.
5. Protect the stump with a saline-moistened, sterile dressing.

NOTE: Avoid freezing the tissue. DO NOT use dry ice.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

BASIC LIFE SUPPORT (EMT-B) PROTOCOLS

400: WEAPONS OF MASS DESTRUCTION NERVE AGENT EXPOSURE PROTOCOL

Authorization for the use of the Nerve Agent Antidote kits comes **ONLY** from the FDNY Office of Medical Affairs (OMA) through a class order* issued by a FDNY-OMA Medical Director who is on-scene or as relayed by 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.

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.

- **RED Tag** may be treated simultaneously with decontamination.
- **YELLOW / ORANGE Tag** will be treated as soon as possible following decontamination.
- **GREEN Tag** (asymptomatic) will be decontaminated and receive close observation.

NOTE: Nerve agent kit contains one (1) each: 2 mg Atropine auto-injector, and 600 mg 2-PAM (Pralidoxime Chloride) auto-injector.

For this protocol, when the term “Auto-injector Kit” is used, it refers to either a dual-injector set (one atropine auto-injector and one pralidoxime auto-injector) or a single injector containing both medications (atropine and pralidoxime).

Initial Treatment (Table 1)

Tag Color	Signs & Symptoms	Auto-injector Administration	Atropine Dose and Monitor Interval
RED	Severe Respiratory Distress, Agitation SLUDGEM	3 Auto-injector Kits	6 mg Monitor every 5 minutes.
YELLOW / ORANGE	Respiratory Distress, SLUDGEM	2 Auto-injector Kits	4 mg Monitor every 10 minutes
GREEN	Asymptomatic None	None	None Monitor every 15 minutes.

NOTE: Do not give more than three auto-injector kits to any patient.

* 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.

All treatment subsequent to the initial doses shall follow Table 2. This will include extended on-scene operations, transport to ambulance destinations, and treatment at casualty collection points. The end point of treatment is drying of secretions and resolution of other symptoms.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014
 Extended Re-Evaluation & Treatment (Table 2)

Tag Color	Signs & Symptoms	Monitor Interval	Auto-injector Administration	Atropine Repeat Dosing Frequency
RED	Severe Respiratory Distress, Agitation, SLUDGEM	Monitor every 5 minutes	Up to a total maximum of 3 auto-injectors	2mg every 3-5 minutes as needed
YELLOW / ORANGE	Respiratory Distress SLUDGEM	Monitor every 5 to 15 minutes	Up to a total maximum of 4 <u>2</u> auto-injector	2mg every 5-10 minutes as needed
GREEN	Asymptomatic	Monitor every 15 minutes	None	None

NOTE: Do not give more than three auto-injector kits to any patient.

- Record on the Triage Tag the number of Atropine and Auto-injector Kits used
- **ASYMPTOMATIC PATIENTS DO NOT REQUIRE TREATMENT**

– monitor every 15 minutes

- In the setting of a nerve agent exposure, all symptomatic children age 0-8 shall be assigned a RED tag.

PEDIATRIC PATIENTS

Tag Color	Exposure, and/or Signs of Respiratory Distress, Agitation, SLUDGEM	Atropine and Antidote Kit Doses Monitor Interval		Atropine Repeat Dosing Frequency
RED (Peds)	Yes	Age <1 years	1 Peds Atropine Auto-injector (0.5 mg) No Antidote Kit Monitor every 3 minutes	Atropine every 3 minutes as needed
		Age 1-8 years	1 Antidote Kit Monitor every 3 minutes	
GREEN (Peds)	No	None Monitor every 10 minutes for evidence of exposure		

NOTE: Pediatric patients older than 8 years old should be treated via the adult protocol.

Rationale:

Our position is that ORANGE tag patients should be treated as YELLOW tag patients.

Since there are no other available treatment options the term kit refers to either a Mark I kit (both auto-injectors) or a Duodote auto-injector. REMAC is not recommending one brand over another, but it is difficult to avoid the use of trade names. This term refers to either of the two available options now that both are available in the City.

411: ALTERED MENTAL STATUS

NOTE: 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.

2. 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, see Protocol #430.
3. Monitor the airway.
- ~~4. Observe spinal injury precautions, if appropriate. (See Protocol #421.)~~
5. Administer oxygen.
6. Request Advanced Life Support assistance, if appropriate.
7. If the patient is conscious, is able to swallow, and is able to drink without assistance, provide a glucose solution, fruit juice, or non-diet soda by mouth.
 - a. Do **not** give oral solutions to unconscious patients.
 - b. Do **not** give oral solutions to patients with head injuries.
8. Transport.
9. Assess and monitor the Glasgow Coma score. (See Appendix E.)
 - a. Do **not** delay transport.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

413: SEIZURES

1. Protect the patient from injury.
2. Monitor the airway.
3. Do **not** force anything into the patient's mouth.
4. Attempt to position the patient to maintain airway patency.
- ~~5. Observe spinal injury precautions, if appropriate. (See Protocol #421.)~~
6. Avoid unnecessary or excessive restraint.
7. Administer oxygen.
8. Monitor breathing for adequacy.
9. Request Advanced Life Support assistance for ongoing seizures at time of patient contact.
10. Treat all injuries as appropriate.
11. Transport.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

414: POISONING OR DRUG OVERDOSE

1. Monitor the airway.
2. Administer oxygen.
3. Request Advanced Life Support assistance for patients with respiratory distress/failure or altered mental status, or if so directed by Medical Control
4. For Special Considerations, see below.
5. **Bring a sample of the substance or the container(s) to the hospital. Document the name of the substance(s) involved.**
6. Transport.

SPECIAL CONSIDERATIONS

INGESTED SUBSTANCES

1. Do **not** induce vomiting.
2. Do **not** attempt to neutralize the substance.

Rationale:

Transporting the container or the substance puts our providers unnecessarily at risk.

INHALED SUBSTANCES

NOTE: Ensure that the scene is safe to enter.

1. Remove the patient from the contaminated environment.
2. Administer oxygen, especially if carbon monoxide poisoning is suspected.

ENVENOMATIONS VENOMOUS BITE (Adult & Pediatric Patients)

1. Request Advanced Life Support assistance. DO NOT delay transport. Refer immediately to BLS Protocols #410 (Anaphylaxis), #401 (Respiratory Distress/failure), or #415 (Shock), as appropriate.
2. Move the patient to the ambulance with minimal patient movement, i.e., on a stretcher or wheeled stair chair.
3. Do not attempt to capture the envenomating animal (snake, scorpion, spider, etc.) nor remove the venom with suction devices.
4. Insect stings:
 - a. Remove stinger by scraping.
 - b. Cover with a sterile dressing.
 - c. Apply cold compresses to the site.
5. Marine:
 - a. Remove stinging bristles by patting the area with adhesive tape, then wipe with alcohol.
 - b. Remove stinging spine.
 - c. Cover with a sterile dressing.

NOTE: Transport should not be delayed for this treatment.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

6. Snakebite:

- a. ~~Keep injection site lower than the level of the heart.~~
- b. ~~Cover with a sterile dressing.~~
- c. ~~Immobilize the area and restrict patient activity.~~
- d. If the venomous bite occurred on an extremity, immobilize the extremity and place a Constriction Band proximal to the bite.
 1. When a tourniquet device is being used for a venomous bite to an extremity, place the tourniquet on the proximal area of the affected limb. Tighten the tourniquet in the usual fashion but NOT until pulses are lost. The tourniquet should be tightened to the point where 1-2 gloved fingers can be placed between the tourniquet and the skin. Ensure pulses remain present for the duration of transport.
 2. If extremity swelling is extensive and compartment syndrome (limb edema causing constriction at the tourniquet, worsening pain, paresthesias, skin pallor/coolness, or loss of pulses) is suspected, remove the tourniquet.
- e. Transport to Venomous Bite Center. (See Appendix H.)

ABSORPTIONS

NOTE: Take precautions to avoid contamination of yourself and others.

1. Remove all contaminated clothing.
2. Brush away any dry agents or blot away any excess liquids from the skin.
3. Flush the area with sterile saline, sterile water, or plain water for at least 10 minutes.
4. Bandage any contact burns with a **saline-moistened**, sterile dressing.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

415: SHOCK

1. Monitor the airway.
- ~~2. Observe spinal injury precautions, if appropriate. (See Protocol #421.)~~
3. Administer oxygen.
4. Control external bleeding.
5. Request Advanced Life Support assistance.
6. Transport.
7. Monitor vital signs.
8. Elevate the legs.
9. Treat all injuries as appropriate.
10. Maintain body temperature.

Rationale: If the patient has evidence of head / spinal injury, they should treat under protocol 421. This is otherwise a teaching issue that does not necessitate its use in every medical protocol.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

ADVANCED LIFE SUPPORT (Paramedic EMT-P) PROTOCOLS

GLOBAL ALS Protocol Change: Make vasopressin “if available”.

507

ASTHMA

In patients with acute asthma and/or active wheezing

1. Begin Basic Life Support Respiratory Distress procedures.
2. Administer Albuterol Sulfate 0.083% (one unit dose of 3 ml), by nebulizer, at a flow rate that will deliver the solution over 5 to 15 minutes. May be repeated until patient shows improvement.
3. Administer Ipratropium Bromide 0.02% (1 unit dose of 2.5 ml), by nebulizer, in conjunction with the first three (3) doses of Albuterol Sulfate.

NOTE: Albuterol Sulfate and Ipratropium Bromide shall be mixed and administered simultaneously, for a maximum of three doses.

Do not delay transport to administer additional nebulizer treatments.

4. In patients with signs of impending respiratory failure, administer Epinephrine 0.3 mg (0.3 ml of a 1:1,000 solution), IM.
5. Begin Cardiac Monitoring, record and evaluate EKG rhythm, in patients in severe respiratory distress with history of dysrhythmia or cardiac disease.
6. In patients in severe respiratory distress, begin an IV/Saline Lock infusion of Normal Saline (0.9% NS) to keep vein open, or a Saline Lock.
7. In patients with persistent severe respiratory distress, administer Magnesium Sulfate, 2 gm, IV/Saline lock, diluted in 50-100 ml Normal Saline (0.9% NS) over 10-20 minutes.
8. In patients with persistent severe respiratory distress, administer Methylprednisolone 125 mg, IV/Saline lock bolus, or IM,

OR

Administer Dexamethasone, 12 mg, IV/Saline Lock bolus, or IM.

9. If the patient develops or remains in severe respiratory distress, contact Medical Control for implementation of one or more of the following MEDICAL CONTROL OPTIONS:

MEDICAL CONTROL OPTIONS:

OPTION A: **Administer or repeat** Epinephrine 0.3 mg (0.3 ml of a 1:1,000 solution), IM.

OPTION B: Transportation Decision.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

510: ALLERGIC REACTION / ANAPHYLACTIC REACTION

1. Begin Basic Life Support Anaphylactic Reaction procedures.
2. If the patient is exhibiting obvious airway compromise, perform Advanced Airway Management* , simultaneous with # 3a.
3. If the patient has signs of shock OR has a past history of anaphylaxis:
 - a. **3.** Administer Epinephrine 0.3 mg (0.3 ml of a 1:1,000 solution), IM.
 - b. Begin an IV infusion of Normal Saline (0.9% NS) or Ringer's Lactate (RL) via a large bore (14-16 gauge) catheter up to 3 liters via macro-drip.
 - c. Administer Methylprednisolone 125 mg IV/Saline Lock bolus, slowly, over 2 minutes

OR
Administer Dexamethasone 12 mg, IV/Saline Lock bolus, slowly over 2 minutes.
 - d. Administer diphenhydramine 50 mg, IV/Saline Lock bolus, or IM, if IV/Saline Lock access has not been established.
4. If the patient does not have signs of shock and does not have a past history of anaphylaxis:
 - a. Begin an IV infusion of Normal Saline (0.9% NS) or Ringer's Lactate (RL) via a large bore (14-16 gauge) catheter to keep vein open, or a Saline Lock.
 - b. Administer Methylprednisolone 125 mg IV/Saline Lock bolus, slowly, over 2 minutes

OR
Administer Dexamethasone 12 mg, IV/Saline Lock bolus, slowly over 2 minutes.
 - c. Administer diphenhydramine 50 mg, IV/Saline Lock bolus, or IM, if IV/Saline Lock access has not been established.
5. **4.** If the patient has signs of bronchospasm, administer Albuterol Sulfate 0.083% (one unit dose bottle of 3 ml), by nebulizer, at a flow rate that will deliver the solution over 5 – 15 minutes.

NOTE: PATIENTS WITH AN ALLERGIC REACTION AND SIGNS OF BRONCHOSPASM MAY REQUIRE TREATMENT FOR ANAPHYLAXIS.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

6. Monitor vital signs every 5 minutes.
7. Begin Cardiac Monitoring, record and evaluate EKG rhythm.
- ~~8. Begin an IV infusion of Normal Saline (0.9% NS) or Ringer's Lactate (RL) via a large bore (14 – 16 gauge) catheter to keep vein open, or a Saline Lock.~~
- ~~9. If the patient has signs of decompensated shock:
 - a. Administer Methylprednisolone 125 mg, IV/Saline Lock bolus, slowly, over 2 minutes.~~

~~OR~~

~~- b. Administer Dexamethasone 12 mg, IV/Saline Lock bolus, slowly over 2 minutes.~~- ~~10. If the patient has no signs of shock, administer Diphenhydramine 50 mg, IV/Saline Lock bolus, or IM, if IV/Saline Lock access has not been established.~~

8. ~~10.~~ Contact Medical Control for implementation of one or more of the following MEDICAL CONTROL OPTIONS:

MEDICAL CONTROL OPTIONS:

- OPTION A: Repeat any of the above Standing Orders.
- OPTION B: 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 desired therapeutic effects are achieved or adverse effects appear. (Maximum dosage is 20 ug/kg/min, IV/Saline Lock drip.)
- OPTION C: Transportation Decision.

-
- * *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.*

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

NEW PROTOCOL

515-B: SEVERE SEPSIS/SEPTIC SHOCK

NOTE: THIS PROTOCOL IS TO BE USED FOR PATIENTS WITH ILLNESS OF A PRESUMED INFECTIOUS SOURCE. REFER TO APPENDIX U FOR CRITERIA.

1. Begin Basic Life Support Shock Measures.
2. If the patient is demonstrating signs of inadequate ventilation, perform Advanced Airway Management*.
3. Begin rapid IV/Saline Lock infusion of Normal Saline (0.9% NS) or Ringers' Lactate (RL) via one to two large bore (14-18) gauge catheters, up to 2 liters, via a macro-drip. Attempt IV access no more than twice. Consider using the Intraosseous route if peripheral attempts have failed.
 - a. Accurate documentation of pre-arrival fluid administration is required.
4. Begin Cardiac Monitoring, record and evaluate EKG rhythm.
5. Measure and record lactate level (if available).
6. Measure and record oral temperature (if available), also consider using last temperature obtained at patient's facility (if available).
7. Transport decision.
8. Contact Medical Control for implementation of one or more of the following MEDICAL CONTROL OPTIONS:

MEDICAL CONTROL OPTIONS:

OPTION A: Administer one (1) additional liter of Normal Saline (0.9% NS) or Ringers' Lactate (RL) via one to two large bore (14-18) gauge catheters.

* 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.

PEDIATRIC ASTHMA/WHEEZING

For pediatric patients with acute asthma and/or active wheezing:

1. Begin Basic Life Support Pediatric Respiratory Distress/Failure procedures.
2. Administer Albuterol Sulfate 0.083% (one unit dose of 3 ml), by nebulizer, at a flow rate that will deliver the solution over 5 – 15 minutes. (Refer to Length Based Dosing Device) May be repeated twice during transport (total of 3 doses).
3. Administer Ipratropium Bromide 0.02% (one unit dose of 2.5 ml in children 6 years of age or older, one half unit dose of 2.5 ml in children under 6 years of age), by nebulizer, in conjunction with each Albuterol Sulfate dose. (Refer to Length Based Dosing Device)
4. In patients one (1) year of age or older with severe respiratory distress, respiratory failure, and/or decreased breath sounds, administer Epinephrine 0.01 mg/kg (0.01 ml/kg of a 1:1,000 solution), IM. Maximum dose is 0.3 mg. (Refer to Length Based Dosing Device)

NOTE: Severe respiratory distress in a child is characterized by markedly increased respiratory effort, i.e., severe agitation, dyspnea, tripod position, and suprasternal and substernal retractions.

A silent chest is an ominous sign that indicates respiratory failure and arrest are imminent.

During transport, or if transport is delayed:

5. If the patient develops or remains in severe respiratory distress or respiratory failure, and/or continues to have decreased breath sounds, contact Medical Control for implementation of one or more of the following MEDICAL CONTROL OPTIONS:

MEDICAL CONTROL OPTIONS:

OPTION A: Repeat Albuterol Sulfate 0.083% (one unit dose of 3 ml), by nebulizer, at a flow rate that will deliver the solution over 5 to 15 minutes. (Refer to Length Based Dosing Device).

OPTION B: Administer, or repeat 20 minutes after the initial dose, Repeat Epinephrine 0.01 mg/kg (0.01 ml/kg of a 1:1,000 solution), IM, ~~20 minutes after the initial dose.~~ (Refer to Length Based Dosing Device)

OPTION C: Begin an IV infusion of Normal Saline (0.9% NS) to keep vein open, or a Saline Lock. Attempt IV no more than twice.

OPTION D: Transportation Decision.

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

Revision/Update of REMAC Prehospital Treatment & Transport Protocols – January 2014 / May 1st 2014

NEW Appendix U: Criteria for SEVERE SEPSIS/SEPTIC SHOCK

At least three (3) of the following must be present, along with no evidence of shock from cardiac or traumatic etiologies

NOTE: DOCUMENTATION OF FLUID ADMINISTRATION IS REQUIRED

- 1) SBP < 90 mmHg or MAP < 65 mmHg
- 2) HR > 110/min
- 3) RR > 30/min or EtCO₂ < 30 mmHg
- 4) Temperature
 - a) Skin: Tactile fever/hypothermia

OR

- b) temperature > 100.4 F if thermometer available
- 5) Unexplained altered mental status
- 6) Point of care lactate > 4 mmol/L

Rationale for protocol creation:

EMS transports septic patients very commonly. The optimal treatment for severe sepsis/septic shock is unclear and left to individual medic interpretation in our protocols. A new protocol will alleviate these issues and improve patient care, as has been demonstrated in similar systems throughout the country. Appendix U will increase provider knowledge and augment their training.