



NYC REMAC

PUBLIC NOTICE

PROPOSED REVISIONS PREHOSPITAL TREATMENT PROTOCOLS

The Regional Emergency Medical Advisory Committee (REMAC) of New York City Prehospital Treatment Protocols define the minimum standard of care provided to patients by Certified First Responders (CFRs), Emergency Medical Technicians (EMTs), and Advanced Emergency Medical Technicians-Paramedic (AEMT-Ps) in New York City. These protocols reflect both the curriculum and certification requirements of the New York State Department of Health Bureau of Emergency Medical Services and the Regional Emergency Medical Advisory Committee (REMAC) of New York City.

The REMAC of New York City has proposed revisions to the current regional Prehospital Treatment Protocols.

Deleted language is BOLD RED AND STRUCK-OUT --- **DELETED**

New language is BOLD BLUE AND UNDERLINED --- **NEW**

In order to meet regional needs, the REMAC of New York City is conducting a public notice and is requesting comments from the Emergency Medical community. Comments must be submitted in writing on the attached 'Comment Form' or via email to maried@nycremsco.org. If available, appropriate supporting documentation should also be submitted. **Comments must be received no later than November 23, 2023.**

Draft revised protocols can be reviewed on-line at www.nycremsco.org (under "News and Resources"). All NYC REMAC Protocols can be accessed in their entirety at www.nycremsco.org.

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DIRECT ALL INQUIRES AND COMMENTS TO:

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PLEASE BE ADVISED THAT pursuant to Section 3004-A of Article 30 of the Public Health Law of the State of New York, the Regional Emergency Medical Advisory Committee (REMAC) of New York City is responsible to develop prehospital triage, treatment, and transportation protocols that are consistent with the standards of the State Emergency Medical Advisory Committee and that address specific local conditions with regards to the provision of prehospital medical care rendered by NYS Department of Health certified First Responders, Emergency Medical Technicians and Advanced Emergency Medical Technicians within the City of New York.

Anaphylaxis / Severe Allergic Reaction (Adult and Pediatric)

CFR and All Provider Levels

1. ABCs and vital signs
2. Airway management
- ~~3. Administer oxygen~~
- ~~3.~~
 - ~~4. Assess cardiac and respiratory status and if either is abnormal (i.e. severe respiratory distress or shock) the patient for anaphylaxis and if the patient is suspected to have anaphylaxis.~~
- ~~4. a~~ Assist the patient with administration of their prescribed Epinephrine auto-injector IM
 - If Epinephrine has not been prescribed, administer Epinephrine auto-injector IM according to age and/or weight, if available and trained to do so:
 - Age < 9 years and weight < 30 kg: Pediatric Epinephrine (0.15 mg) auto-injector IM
 - Age ≥ 9 years or weight ≥ 30 kg: Adult Epinephrine (0.3 mg) auto-injector IM
5. Assess for respiratory distress/respiratory failure, shock, cardiac arrest and treat as needed

CFR STOP

EMT

- ~~6. Request ALS assistance~~
- ~~7.6. Transport~~
- ~~8.7. Assess cardiac and respiratory status and if either is abnormal (i.e. severe respiratory distress or shock), administer Epinephrine as follows if the patient has anaphylaxis. If the patient has evidence of anaphylaxis, administer Epinephrine as follows:~~
 - Age < 9 years and weight < 30 kg:
 - OPTION A: Epinephrine 0.15 mg IM via syringe, if available
 - OPTION B: Pediatric Epinephrine auto-injector IM
 - Age ≥ 9 years or weight ≥ 30 kg:
 - OPTION A: Epinephrine 0.3 mg IM via syringe, if available
 - OPTION B: Adult Epinephrine auto-injector IM
- ~~8. Transport~~
9. For continued symptom evidence of anaphylaxis after 3-5 minutes, administer an additional age and/or weight appropriate repeat dose of Epinephrine IM (maximum 2 doses, including Epinephrine dose that was administered by CFR)
10. For wheezing, administer 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) mixed with 0.02% Ipratropium Bromide nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses) as follows:
 - ADULT and PEDIATRIC: 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with

~~0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~

● **PEDIATRIC:**

- ~~Age < 6 years: 0.02% Ipratropium Bromide 1.25 ml (0.5 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~
- ~~Age ≥ 6 years: 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~

EMT STOP

Paramedic

11. Perform advanced airway management as needed
12. If the patient has evidence of anaphylaxis, administer Epinephrine 0.01 mg/kg IM (maximum 0.3 mg) of a 1:1,000 concentration
 - 11. ● ~~Repeat F for continued evidence of anaphylaxis, administer a repeat dose of Epinephrine IM every 3-5 minutes, up to a (maximum of 3 doses, including Epinephrine doses administered by BLS and/or CFR).~~
- ~~12.~~ For patients with signs of shock:
 13. ~~12.1~~ If not already administered, or for persistent symptoms despite prior administration, administer Epinephrine 0.01 mg/kg IM (maximum 0.3 mg) of a 1:1,000 concentration [maximum 3 doses, including Epinephrine doses administered by BLS and/or CFR]
 12. ~~12~~ Obtain intravascular access
 12. ~~23~~ Administer crystalloid fluids 20 ml/kg IV (maximum 2 L)
 - ~~13-14.~~ Administer one of the following:
 - OPTION A: Dexamethasone 0.6 mg/kg IV/IM/PO (maximum 12 mg)
 - OPTION B: Methylprednisolone 1 mg/kg IV/IM (maximum 60 mg)
 - ~~14-15.~~ Administer Diphenhydramine 1 mg/kg IV/IM (maximum 50 mg)
 - ~~15-16.~~ Administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses)
- ~~16.~~ Monitor vital signs every 5 minutes
17. Begin cardiac monitoring

Paramedic STOP

Medical Control Options

EMT:

18. Administer weight-appropriate dose of Epinephrine IM, if available as follows:

- Age < 9 years and weight < 30 kg:
 - OPTION A: Epinephrine 0.15 mg IM via syringe, if available
 - OPTION B: Pediatric Epinephrine auto-injector IM
- Age ≥ 9 years or weight ≥ 30 kg:
 - OPTION A: Epinephrine 0.3 mg IM, if available
 - OPTION B: Adult Epinephrine auto-injector IM

19. Administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. ~~Repeat as needed (maximum 3 doses)~~

19. Paramedic:

20. Administer Epinephrine 0.01 mg/kg IM (maximum 0.3 mg) of a 1:1,000 concentration

21. Administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. ~~Repeat as needed (maximum 3 doses)~~

22. Administer crystalloid fluids 20 ml/kg IV ~~(maximum 2 L)~~

Key Points / Considerations

- Do not delay transport for any reason, including waiting for a potential second dose of Epinephrine

- Anaphylaxis is considered as an allergic reaction with either:

a. Respiratory compromise (dyspnea, wheezing, stridor, hypoxemia) OR

b. Signs of shock OR

c. Two or more signs/symptoms from of the following- systems/groups of signs/symptoms:

- Skin: ~~Symptoms (urticaria, itchy skin)~~
- Mucosal: ~~Symptoms (swollen tongue or lips)~~
- Gastrointestinal ~~Symptoms (vomiting, abdominal pain)~~

OR

~~d. History of anaphylaxis AND exposure to a known allergen AND one of the following groups of skin, mucosal or gastrointestinal signs/symptoms listed above: skin, mucosal, or gastrointestinal.~~

- Anaphylaxis can be a potentially life-threatening situation most often associated with a history of exposure to:

- Inciting agent/allergen (bee sting or other insect venom)
- Medications/drugs
- Food (i.e. peanuts, seafood)

- ~~After administering Epinephrine, closely monitor the patient every 3-5 minutes for any change in symptoms and administer additional Epinephrine according to protocol~~

- ~~Consider treating the patient if they have a history of anaphylaxis AND have an exposure to an allergen resulting in respiratory distress, hypoperfusion, or rash~~
- IV formulation of Dexamethasone may be administered orally (PO)
- Administration of steroids via IV shall be performed slowly over 2 minutes
 - ~~Do not delay transport to the hospital~~
 - ~~Anaphylaxis can be a potentially life-threatening situation most often associated with a history of exposure to:~~
 - ~~Inciting agent/allergen (bee sting or other insect venom)~~
 - ~~Medications/drugs~~
- ~~Food (i.e. peanuts, seafood)~~
- ~~Patients with an allergic reaction and signs of bronchospasm may require treatment for anaphylaxis~~
- Under standing orders:
 - CFR may administer 1 dose of Epinephrine
 - BLS may administer up to a total of 2 doses of Epinephrine, including any dose that was administered what was given by CFR, an additional dose, or may administer a total of 2 doses of Epinephrine if not previously administered by CFR
 - ALS may administer an additional dose, or may administer up to a total of 3 doses of Epinephrine, if it was not previously administered by CFR and/or BLS including any doses that were administered by what was given by CFR and BLS
 - If first onscene, ALS shall administer as the appropriate weight-based dose of Epinephrine as their their first dose of Epinephrine the weight-based dose of 0.01mg/kg IM (max of 0.3mg).

Asthma / COPD / Wheezing (Adult and Pediatric)

CFR and All Provider Levels

1. ABCs and vital signs
2. Airway management
3. Administer oxygen
4. Place the patient in a position of comfort
5. Assist the patient with administering their prescribed Albuterol (metered dose inhaler or nebulizer), if available and trained to do so
6. Evaluate for any respiratory distress/respiratory failure, shock, cardiac arrest and treat as needed

CFR STOP

EMT

7. For **ADULT** and **PEDIATRIC** patients (age \geq 2 years or age \geq 18 months with a history of Albuterol use), administer 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses) as follows:
 - ~~ADULT: 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~
 - ~~PEDIATRIC:~~
 - ~~Age < 6 years: 0.02% Ipratropium Bromide 1.25 ml (0.5 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~
 - ~~Age \geq 6 years: 0.02% Ipratropium Bromide 2.5 ml (1 unit dose) mixed with 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized. Repeat as needed (maximum 3 doses)~~
8. Transport
 - Initiate transport after starting nebulizer treatment
 - Do not delay transport to complete medication administration
9. For **ADULT** patients with persistent respiratory distress, begin continuous positive airway pressure (CPAP) therapy (Appendix N: Continuous Positive Airway Pressure Therapy), if available

10. For patients who are in severe respiratory distress/respiratory failure and/or shock, administer Epinephrine as follows:
- Age < 9 years and weight < 30 kg:
 - OPTION A: Epinephrine 0.15 mg IM via syringe, if available
 - OPTION B: Pediatric Epinephrine auto-injector IM
 - Age ≥ 9 years or weight ≥ 30 kg:
 - OPTION A: Epinephrine 0.3 mg IM via syringe, if available
 - OPTION B: Adult Epinephrine auto-injector IM

EMT STOP

Paramedic

11. For **ADULT** and **PEDIATRIC** patients (age ≥ 2 years or age ≥ 18 months with a history of Albuterol use), administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses)
12. For patients with persistent symptoms:
- 12.1 Obtain intravascular access
 - 12.2 For **ADULT** patients, administer Magnesium Sulfate 2 g IV (diluted in 50-100 ml Normal Saline) over 10 minutes
 - 12.3 For **ADULT and PEDIATRIC** patients ≥ 2 years old, administer one of the following:
 - OPTION A: Dexamethasone 0.6 mg/kg IV/IM/PO (maximum 12 mg)
 - OPTION B: Methylprednisolone 1 mg/kg IV/IM (maximum 60 mg)
13. For patients who are in severe respiratory distress/respiratory failure and/or shock:
- 13.1 Perform advanced airway management as needed
 - 13.2 If not already administered, or for persistent symptoms despite prior administration, administer Epinephrine 0.01 mg/kg IM (maximum 0.3 mg) of a 1:1,000 concentration [maximum 2 doses, including Epinephrine administered by BLS. Multiple Epinephrine doses shall be given at least 20 minutes apart]
14. Monitor vital signs every 5 minutes
15. Begin cardiac monitoring

Paramedic STOP

Medical Control Options

EMT:

16. Administer additional weight-appropriate dose of Epinephrine IM, if needed and as available:
- Age < 9 years and weight < 30 kg:
 - OPTION A: Epinephrine 0.15 mg IM, if available
 - OPTION B: Pediatric Epinephrine auto-injector IM
 - Age ≥ 9 years or weight ≥ 30 kg:
 - OPTION A: Epinephrine 0.3 mg IM, if available
 - OPTION B: Adult Epinephrine auto-injector IM
17. Administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses)

Paramedic:

18. Administer Epinephrine 0.01 mg/kg IM (maximum 0.3 mg) of a 1:1,000 concentration
19. Administer 0.083% Albuterol Sulfate 3 ml (1 unit dose) nebulized over 5-15 minutes. Repeat as needed (maximum 3 doses)
20. For **PEDIATRIC** patients, administer Magnesium Sulfate 50 mg/kg IV (maximum 2 g) diluted in 50-100 ml Normal Saline over 10 minutes
21. For **PEDIATRIC** patients age < 2 years, administer one of the following:
- OPTION A: Dexamethasone 0.6 mg/kg IV/IM/PO (maximum 12 mg)
 - OPTION B: Methylprednisolone 1 mg/kg IV/IM (maximum 60 mg)

Key Points / Considerations

- Children < 2 years with their first episode of wheezing likely have viral bronchiolitis. There is no role for racemic Epinephrine, Albuterol, Ipratropium Bromide or steroids in bronchiolitis
- The management of bronchiolitis includes supplemental oxygen for hypoxic or dyspneic patients, intravenous fluids for signs of severe dehydration, or ventilatory support as needed
- For children ≥ 18 months for whom there is a history of Albuterol use, or a strong family history of asthma, atopy or eczema; Albuterol may be administered followed by evaluation for clinical response
- Epinephrine should be used with caution in patients with COPD
- A silent chest is an ominous sign that indicates respiratory failure and arrest are imminent
- Under standing orders, ALS may administer a total of 2 doses of Epinephrine, if it was not previously administered by BLS
- IV formulation of Dexamethasone may be administered orally (PO)
- Administration of steroids via IV shall be performed slowly over 2 minutes
- When administering steroids to pediatric patients, Dexamethasone is preferred over Methylprednisolone

Emergency Childbirth

CFR and All Provider Levels

1. ABCs and vital signs
2. Airway management and appropriate oxygen therapy
3. If the patient is in active labor, visually inspect the vagina for bulging or crowning
4. If delivery is imminent, proceed as follows:
 - 4.1 Apply gentle pressure against the delivering newborn's head to prevent tearing of the perineum
 - DO NOT apply pressure to the soft spots (fontanelles)
 - Support the bony parts of the head as it presents
 - 4.2 As the head presents, gently clear the airway of secretions using the bulb syringe as follows:
 - Depress the bulb syringe prior to insertion
 - Suction the mouth first by inserting the syringe no more than 1.5 inches into the newborn's mouth
 - Suction the nose by inserting the syringe no more than 0.5 inches into the newborn's nose
 - 4.3 Nuchal Cord
 - If the umbilical cord is loose enough, gently slip it over the newborn's head immediately
 - If the umbilical cord is wrapped tightly around the neck such that it prevents manipulation, place two clamps on the cord and cut between the clamps
- 4.34.4 Support the head and chest as the newborn delivers
- 4.44.5 Repeat suctioning as necessary prior to spontaneous or stimulated respirations
- 4.54.6 Gently guide the head downward until the shoulder appears. Deliver the other shoulder with gentle upward traction
- 4.64.7 Thoroughly but rapidly dry the newborn with a clean, dry towel
5. Delay clamping of the umbilical cord for up to one (1) minute after uncomplicated delivery, if safe to do so. Cut the umbilical cord by performing the following:
 - 5.1 Place the first clamp 8-10 inches from the newborn
 - 5.2 Place the second clamp 3 inches from the first clamp toward the mother
 - 5.3 Cut between the clamps and check both ends for bleeding. If continuous bleeding is seen from either end of the cord, add a second clamp to the bleeding end
 - 5.4 If umbilical clamps are not available, tie the umbilical cord with gauze at the same landmarks, but DO NOT cut the cord

6. Wrap the newborn in a dry, warm blanket/towel with a layer of foil or plastic wrap over the blanket/towel, or use a commercial infant swaddler, if available. Do not use foil alone
7. Cover the newborn's scalp with a warm covering
8. Assess the mother for shock and treat as needed
9. Assess for postpartum hemorrhage and treat as needed
10. Place newborn on mother's chest, if safe to do so

11. Assess and treat newborn appropriately as indicated

CFR STOP

EMT

12. Request ALS assistance if delivery is imminent. Do not delay transport if delivery is not imminent or to wait for the placenta to deliver

13. Transport

14. If miscarriage or stillbirth occurs, bring all fetal material to the hospital with the mother. If the viability of the fetus is uncertain, begin neonatal resuscitation

15. Special Considerations:

15.1 Breech Presentation

- Place the mother in a face-up position with hips elevated
- Support the newborn's thorax during delivery
- Be prepared as a full delivery may occur
- If the head does not deliver immediately:
 - Place sterile, gloved fingers between the newborn's face and the wall of the birth canal to establish an air passageway. This position must be maintained until the head delivers
 - Fetal body should be supported at or below the angle of the birth canal. Presenting parts should not be raised upward
 - Do not apply traction while the newborn is in the birth canal

15.2 Prolapsed Cord

- Place the mother in a knee to chest position
- Encourage the mother not to push
- If the cord is not pulsating, place sterile, gloved fingers into the birth canal and push the head back 1-2 inches towards the cervix until the cord begins to pulsate
- Wrap saline-moistened, sterile dressings around the cord
- Do not attempt to insert the cord back into the birth canal
- The cord should be continuously monitored for the presence of a pulse
- This position will most likely need to be maintained during transport to allow for umbilical blood circulation

~~15.31.1 Nuchal Cord~~

- ~~• If the umbilical cord is loose enough, gently slip it over the newborn's head immediately~~
- ~~• If the umbilical cord is wrapped tightly around the neck such that it prevents manipulation, place two clamps on the cord and cut between the clamps~~

15.415.3 Intact (not ruptured) Amniotic Sac

- Immediately remove the sac from around the face using sterile, gloved fingers only

15.515.4 Shoulder Dystocia (wedged shoulders)

- Encourage the mother not to push
- Place the mother in a knee to chest position. This may require having providers assist the mother to maintain a hyperflexed position of the legs (McRoberts maneuver)
- Place the mother in Trendelenburg position or place the head of the bed lower than the legs
- Apply firm, steady suprapubic pressure. Avoid fundal pressure as this will worsen the condition
- If these maneuvers fail to deliver the newborn, reposition the mother on her hands and knees
- Guide the head downward to aid in the delivery of the upper shoulder

15.615.5 Multiple Births

- Deliver each birth accordingly, making sure to tie each umbilical cord between births
- Clamp and cut the cord of the first newborn prior to the next birth
- If the second birth does not occur within 10 minutes, begin transport

EMT STOP

Paramedic

Paramedic STOP

Medical Control Options

Key Points / Considerations

- Consider supine hypotension syndrome as a cause of shock
- Newborns are subject to rapid heat loss and must be kept warm and dry
- Miscarriage usually occurs at less than 20 weeks of gestation. Begin resuscitative efforts of the newborn if the gestational period is unknown
- The turtle sign is when the newborn's head retracts back into the vagina, and is an indication of shoulder dystocia
- It is no longer suggested to perform aggressive suctioning of the newborn when meconium is present
- Do not aggressively suction premature newborns

Vaccine Administration (Adult and Pediatric)

INTRODUCTION

- This protocol applies to the administration of regionally approved vaccines and is to be used at the discretion of an agency Medical Director ~~under the auspices of an Executive Order~~

CFR and All Provider Levels

CFR STOP

EMT

- Assess patient for need of vaccination
- Screen for contraindications and precautions (Appendix Q: Vaccinations)
- Provide all patients (parent/legal representative) with a copy of the most current Federal Vaccine Information Statement (VIS). Document the publication date of the VIS and the date it was given to the patient (parent/legal representative). If available and preferred, a copy of the VIS should be given in the patient’s (parent/legal representative) native language (www.immunize.org/vis)
- Administer vaccine
 - Refer to Appendix Q: Vaccinations for the appropriate vaccine preparation instructions
 - Intranasal vaccines shall be administered according to directions in Appendix Q: Vaccinations
 - Intramuscular vaccines shall be administered using the needle gauge, needle length, and injection site according to the following:

ADULT FEMALE			
Patient Weight	Needle Gauge	Needle Length (inches)	Injection Site
< 130 lbs. (59 kg)	22 - 25	5/8 - 1	Deltoid muscle
130 – 152 lbs. (59-69 kg)		1	
153 – 200 lbs. (69-91 kg)		1 - 1.5	
> 200 lbs. (91 kg)		1.5	

ADULT MALE			
Patient Weight	Needle Gauge	Needle Length (inches)	Injection Site
< 130 lbs. (59 kg)	22 - 25	5/8 - 1	Deltoid muscle
130 – 152 lbs. (59-69 kg)		1	
153 – 260 lbs. (69-118 kg)		1- 1.5	
> 260 lbs. (118 kg)		1.5	

PEDIATRIC			
Patient Age (years)	Needle Gauge	Needle Length (inches)	Injection Site
< 5	22 - 25	5/8 - 1	Anterior thigh
≥ 5			Deltoid muscle

- When using a 5/8 inch needle for injections into the deltoid muscle, ensure that the needle is perpendicular (90° angle) to the skin and that the skin is stretched taught

5. Documentation shall include the date of immunization, immunizations administered, dose, injection site, lot number, manufacturer, VIS date, and the identification of the provider administering the vaccine. If the vaccine was not administered, record the reason for the non-receipt
6. Patients shall be monitored for any adverse reactions for fifteen (15) minutes after vaccine administration. If the patient has a history of allergies that is not severe enough to be a contraindication for the vaccine, observe the patient for thirty (30) minutes

EMT STOP

Paramedic

Paramedic STOP

Medical Control Options

Key Points / Considerations

- Patient records shall be reported to the New York State Immunization Information System (NYSIIS) database within 24 hours
- Adverse events occurring after administration of any vaccine should be reported to the Vaccine Adverse Event Reporting System (VAERS) online at <https://vaers.hhs.gov>. Additional information about VAERS is available by telephone at 800-822-7967