

NJ STANDING ORDERS FOR PEDIATRIC PATIENTS

Scope

With the exception of standing orders for neonatal resuscitation, the following treatment protocols shall be considered standing orders for treating pediatric patients. The standing orders set forth for neonatal resuscitation are for the exclusive utilization in resuscitating neonatal patients. Neonatal means the period of time from the moment of birth up to and including the 28th day following birth and pediatric means the period of time beginning with the 29th day following birth up to, but not including, a person's 13th birthday.

Applicability and Restrictions

(a) The standing orders established in this subchapter shall be adopted in their entirety by the provider's medical director, after notification to OEMS. Except where specifically noted, these standing orders shall not be altered, abbreviated or enhanced in any manner.

(b) The standing orders contained in this subchapter are initial treatment protocols for unstable patients that may be utilized by ALS crewmembers. These protocols apply only to pediatric patients and may be implemented prior to contact with medical command. In the event the implementation of these standing orders is delayed for any reason, medical command shall be contacted immediately following the delay.

(c) Any situations other than those specifically identified in this subchapter require ALS crewmembers to contact medical command before providing any ALS treatment.

(d) These standing orders shall not be interpreted as a requirement to administer ALS treatment prior to contact with medical command. The ALS crewmembers may elect to contact medical command at any earlier time during the provision of therapy. Unless otherwise provided in these rules, standing orders cease to be operative once contact is made with medical command.

(e) The standing orders contained in this subchapter shall not be considered to represent total patient management. Contact with medical command shall be established at the point indicated in the standing order, unless established sooner in accordance with (d) above. At no time shall communications with medical command be delayed due to difficulty in intubating the patient and/or initiating IV access.

(f) The presence of an allergy to any medication or therapeutic agent set forth in these standing orders shall be deemed to be a contraindication to the administration of that medication or therapeutic agent. In such instances, the medication or therapeutic agent shall not be administered.

(g) Each case utilizing these standing orders shall be fully documented on the patient care report. The provider's quality assurance plan shall include provisions for review of calls where standing orders are utilized, in accordance with the standards set. Cases that do not follow the standing orders as set forth in this chapter or where contact is never made with medical command shall be forwarded to the medical director for a mandatory review.

Standard Terms

(a) As utilized in this subchapter, the term "stable" means vital signs, cardiovascular parameters and level of response within the ranges defined in Appendix D, incorporated herein by reference.

(b) As utilized in this subchapter, the term "unstable" means vital signs, cardiovascular parameters and level of response not within the ranges defined in Appendix D.

Appendix D -Normal Pediatric Vital Signs

The revision shall read:

Normal Pediatric Vital Signs

| Age Group | Respiratory Rate | Heart Rate | Systolic B/P |
|-----------------------|------------------|------------|--------------|
| Newborn | 30-50 | 120-160 | >60 |
| Infant (1-12 months) | 20-40 | 80-140 | >70 |
| Toddler (1-3 yrs) | 20-30 | 80-130 | >70 |
| Preschooler (3-5 yrs) | 20-30 | 80-120 | >75 |
| School Age (6-10 yrs) | 15-30 | 70-110 | >80 |
| Adolescent (11+ yrs) | 12-20 | 60-105 | >90 |

Neonatal Resuscitation

(a) The following shall constitute standing orders for the resuscitation of neonatal patients:

1. As to the airway:

i. If meconium is present:

(1) If stable, suction the mouth, pharynx and nose with a bulb syringe or a large-bore catheter (12 or 14F) as soon as the head is delivered;

(2) If unstable, intubate the patient and extubate while applying suction at a vacuum pressure no greater than 100 mmHg until little meconium is recovered or heart rate and/or respirations become severely depressed;

ii. If no meconium:

(1) Position the infant and suction the mouth then the nose with a bulb syringe;

2. Dry the infant;

3. Maintain normal body temperature;

4. Provide tactile stimulation;

5. If infant is unstable (cyanotic, apnea, gasping respirations, a heart rate less than 100 beats per minute) administer 100 percent oxygen at a flow rate of at least five L/minute;

6. If no improvement, begin bag-valve-mask ventilation at a rate of 40 to 60 breaths per minute with sufficient volume to cause visible chest expansion. Reassess after 30 seconds;

7. Assess heart rate;

i. If the heart rate is greater than 100 beats/minute, contact medical command;

ii. If the heart rate is 60 to 100 beats/minute, assist ventilations and contact medical command;

iii. If the heart rate is less than 60 beats per minute, place an advanced airway, begin a 3:1 ratio of chest compressions to ventilations at a rate of 120 compressions per minute. Reassess every 30 seconds;

(1) If no change following intervention in (a)7iii above, establish vascular

access with normal saline solution at a KVO rate;

(A) If no change following intervention described in (a)7iii(1) above, administer epinephrine: IV/IO/ET dose 0.01 mg/kg (0.1 mL/kg) of a 1:10,000 solution;

8. If no change, administer a fluid bolus of 10 mL/kg of normal saline over five (5) to ten (10) minutes;

9. Determine blood glucose;

i. If equal to or greater than 40, contact medical command; and

ii. If less than 40, administer 0.5 g/kg (5 mL/kg) of a 10 percent dextrose solution, contact medical command.

Standing Orders for Pediatric Advanced Airway

(a) The following standing orders for placement of an advanced airway are authorized in the event that an pediatric patient presents:

1. In respiratory arrest;
2. In respiratory failure with associated inadequate spontaneous ventilatory volume; and/or
3. Unconscious with absent protective gag reflex.

(b) Advanced interventions shall only be attempted after all BLS interventions have been instituted.

(c) It is imperative that the ALS crewmembers initiate contact with medical command as soon as possible after the above treatment has been rendered. These procedures shall not delay the transportation of a patient in the event of a difficult intubation, nor shall contact with medical command be delayed by a difficult airway.

(d) This standing order may be utilized in conjunction with any other standing order where the patient's airway needs to be secured.

Pediatric Vascular Access

(a) The following standing orders for the initiation of pediatric vascular access are authorized in those cases where an emergent or potentially emergent condition exists and current ALS treatment protocols require the initiation of IV therapy. In such cases, ALS crewmembers may establish vascular access at keep vein open (KVO) rate, establish vascular access with a saline port, or establish intraosseous infusion prior to contacting medical command.

1. ALS crewmembers shall contact medical command as soon as possible after the establishment of vascular access. Contact with medical command shall not be delayed by, or as a result of, unsuccessful vascular access in the field.
2. The time of the initiation of vascular access and the time of contact with medical command shall be recorded on the patient care report.
3. The provider's medical director shall notify the Department as to the solution to be utilized for vascular access when established under this section.

(b) This standing order may be utilized in conjunction with any other standing order where vascular access is indicated.

Pediatric Cardiac Arrest

(a) The following standing orders are authorized in the event that a pediatric patient presents with ventricular fibrillation and/or pulseless ventricular tachycardia:

1. Determine pulselessness and begin CPR;
2. Ventilate with 100 percent oxygen, secure airway, and establish vascular access with normal saline solution at KVO rate;
3. Maintain normal body temperature;
4. Defibrillate at 2 J/kg or equivalent biphasic and continue with CPR;
5. If no change in rhythm, defibrillate at 4 J/kg or equivalent biphasic and continue with CPR;
6. Administer epinephrine every three to five minutes:
 - i. 0.01 mg/kg (0.1 mL/kg) of a 1:10,000 solution via IV/IO; or
 - ii. 0.1 mg/kg (0.1 mL/kg) of a 1:1,000 solution via ET (diluted with normal saline to 5 ml);
7. If no change in rhythm, defibrillate at 4 J/kg or equivalent biphasic and continue with CPR;
8. During CPR, administer 5mg/kg of amiodarone; and
9. Contact medical command.

(b) The following standing orders are authorized in the event that a patient presents with asystole and/or pulseless electrical activity (PEA):

1. Determine pulselessness and begin CPR;
2. Ventilate with 100 percent oxygen, secure airway, and establish vascular access with normal saline solution at KVO rate;
3. Maintain normal body temperature;
4. If asystole, confirm cardiac rhythm in more than one lead, and identify causes; (ALS crewmember may continue standing order while identifying causes)
 - i. If the blood glucose test indicates a level less than 60 mg/dl;

- a. For patient < 1 month of age administer 0.5 g/kg of a 10% dextrose solution via vascular access
- b. For patients > 1 month of age administer 0.5 g/kg of a 25% dextrose solution via vascular access
- c. If unable to establish vascular access, administer Glucagon 0.1 mg/kg (0.1 mL/kg) to a maximum of 1 mg IM (1 mg = 1 mL = 1 unit);

ii. If suspected opiate overdose administer Naloxone 0.2 mg and if no response, then administer Naloxone 0.1 mg/kg, with a maximum dose of 2 mg via vascular access, endotracheal tube or intranasal route

5. Administer epinephrine every three to five minutes:

- i. 0.01 mg/kg (0.1 mL/kg) of a 1:10,000 solution via IV/IO; or
- ii. 0.1 mg/kg (0.1 mL/kg) of a 1:1,000 solution via ET (diluted with normal saline to 5 ml);

6. Administer a rapid fluid bolus of 20 ml/kg of normal saline; and

7. Contact medical command.

(c) Should ventricular fibrillation recur after contact is made with medical command, an ALS crewmember may follow steps 2 through 7 until contact is made with medical command. CPR is to be immediate after defibrillation.

(d) Consider termination of efforts only with the input of the medical command physician if asystole/agonal rhythms continue after successful advanced airway placement, medication administration and no reversible causes are identified. The time interval since arrest shall be considered.

(e) Any treatments related to this protocol administered prior to ALS arrival should be considered as part of this standing order.

Pediatric Trauma

(a) The following standing orders are authorized in the event a pediatric patient presents with traumatic injuries:

1. Immobilize the spine if indicated;
2. Assess and secure the airway;
3. Administer oxygen therapy as patient condition indicates;
4. Control hemorrhage and bleeding;
5. Maintain normal body temperature;
6. Begin transport to the appropriate facility according to the National Trauma Triage Protocols;
7. Establish vascular access with Ringer's Lactate solution at a KVO rate. If trauma is accompanied by burns, substitute normal saline for Ringers Lactate solution;
8. Administer a rapid fluid bolus of Lactated Ringers 20 ml/kg or normal saline 20 ml/kg (if trauma is accompanied by burns); and
9. If patient's systolic blood pressure is at least 90 mmHg, administer Morphine Sulfate 0.1mg/kg up to 10 mg or Fentanyl 1mcg/kg up to 100 mcg, titrated slowly; and
10. Contact medical command.

Pediatric Seizures

(a) The following standing orders are authorized in the event a pediatric patient presents with active seizures:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. Obtain a rapid glucose test;
 - i. If blood glucose is greater than or equal to 60, contact medical command;
 - ii. If blood glucose is less than 60:
 - (1) Establish vascular access with normal saline at a KVO rate.
 - (A) For patients less than one month of age, administer 0.5 g/kg of a 10 percent dextrose solution via IV/IO.
 - (B) For patients greater than or equal to one month of age, administer 0.5 g/kg of a 25 percent dextrose solution via IV/IO.
 - (C) If unable to establish vascular access, administer Glucagon 0.1 mg/kg (0.1 ml/kg) to a maximum of 1 mg IM (1mg=1ml=1 unit);
5. If ALS witnesses the patient actively having a generalized seizure for 2 minutes or greater or having repetitive seizures, then administer either Lorazepam 0.05 mg/kg up to 2mg IV or Diazepam 0.1 mg/kg up to 5mg IV;
6. If no vascular access administer Midazolam 0.15 mg/kg up to 5 mg or Lorazepam 0.05 mg/kg up to 2mg through an approved route of administration; and
7. Contact medical command.

Pediatric Allergic Reaction and/or Anaphylaxis

(a) The following standing orders are authorized in the event a pediatric patient presents with an allergic reaction and/or anaphylaxis:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. Administer Epinephrine 0.01 mg/kg (0.01 ml/kg) of a 1:1,000 solution to a maximum of 0.3 mg IM;
5. If the patient is wheezing, administer Albuterol 2.5 mg via nebulizer;
6. Establish vascular access with normal saline solution at a KVO rate;
7. If patient remains hemodynamically unstable, administer a rapid fluid bolus of normal saline solution at a dose of 20 ml/kg via vascular access;
8. If no improvement, administer Diphenhydramine hydrochloride at a dose of 1 mg/kg (to a maximum dose of 50 mg) slowly via vascular access; and
9. Contact medical command.

Pediatric Altered Mental Status

(a) The following standing orders are authorized in the event that a pediatric patient presents with altered mental status:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates; Maintain normal body temperature;
3. If evidence of trauma, refer to the “Standing Orders for Pediatric Trauma” found at N.J.A.C. 8:41-8.8;
4. Establish vascular access with normal saline solution at a KVO rate;
5. Obtain a rapid glucose test. If blood glucose is < 60 mg/dl;
 - i. For patient < 1 month of age administer 0.5 g/kg of a 10% dextrose solution via vascular access
 - ii. For patients > 1 month of age administer 0.5 g/kg of a 25% dextrose solution via vascular access
 - iii. If unable to establish vascular access, administer Glucagon 0.1 mg/kg (0.1 mL/kg) to a maximum of 1 mg IM (1 mg = 1 mL = 1 unit);
6. If there is no change in the patient’s mental status and there are signs of possible opioid toxicity (eg., decreased respirations), administer Naloxone 0.2 mg and if no response, then administer Naloxone 0.1 mg/kg, with a maximum dose of 2 mg via vascular access, endotracheal tube or intranasal route;
7. If there is a history of dehydration and vascular access has been established, administer a fluid bolus of normal saline at 20 mL/kg via vascular access
8. Contact medical command.

Pediatric Asthma

(a) The following standing orders are authorized in the event that a pediatric patient presents with asthma:

1. Assess and secure airway; administer oxygen as needed, or via nebulizer;
2. Maintain normal body temperature;
3. Mix 2.5 mg Albuterol and Ipratropium Bromide 0.5 mg into normal saline and administer via nebulizer;
4. Reassess patient and if patient condition requires administer a maximum of two additional treatments of 2.5 mg Albuterol/3 mL normal saline solution via nebulizer;
5. If patient condition becomes more unstable:
 - i. Administer epinephrine 0.01 mg/kg (0.01 ml/kg) of a 1:1,000 solution to a maximum of 0.5 mg via SC route;
 - ii. Establish vascular access of normal saline solution at a KVO rate; and
6. Contact medical command.

Pediatric Bradycardia

(a) The following standing orders are authorized in the event that a pediatric patient presents with bradycardia in which the patient displays hypotension, shock or other significant symptoms consistent with cardiopulmonary compromise:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. If appropriate oxygenation and ventilation are delivered and patient has HR < 60 beats/minute with persistent signs of cardiopulmonary compromise, establish vascular access and administer 20 mL/kg normal saline bolus and initiate CPR;
5. Reassess patient – if patient still has HR < 60 beats/minute and still with persistent signs of cardiopulmonary compromise, then administer epinephrine 0.01 mg/kg (0.1 mL/kg of 1:10,000 solution) via vascular access.
 - i. If no vascular access, administer epinephrine 0.1 mg/kg (0.1 mL/kg of 1:1000 concentration) through the endotracheal tube;
6. Contact medical command.

Pediatric Burn Management

(a) The following standing orders are authorized in the event that a pediatric patient presents with burns:

1. Stop the burning process;
2. If hazardous materials are suspected, take proper precautions and contact medical command for guidance on treatment protocols;
3. Immobilize the spine if indicated;
4. Assess and secure the airway;
5. Consider endotracheal intubation if indicated for airway burns and/or respiratory compromise;
6. Administer 100 percent oxygen;
7. Cover the burns with a dry dressing;
8. Maintain normal body temperature;
9. Begin transportation of patient to the appropriate facility;
10. If evidence of trauma, refer to [N.J.A.C. 8:41-8.8](#), Standing orders for pediatric trauma;
11. Establish IV access with normal saline at a KVO rate or, if patient is severely unstable, establish IO access; and
12. If patient's systolic blood pressure is at least 90 mmHg, administer Morphine Sulfate 0.1mg/kg up to 10 mg or Fentanyl 1mcg/kg up to 100 mcg, titrated slowly; and
13. Contact medical command.

Pediatric Croup

(a) The following standing orders are authorized in the event that a pediatric patient presents with croup:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature and position of comfort;
4. Mild to moderate distress (barking cough, inspiratory stridor):
 - i. Administer 3 cc normal saline via nebulizer with simple mask; and
 - ii. Contact medical command;
5. Moderate to severe distress (stridor at rest, retractions, tripodding, and accessory muscle use):
 - i. Administer epinephrine 3 mg (3 cc) 1:1,000 solution via nebulizer;
 - ii. If no change, establish IV/IO access with normal saline at a KVO rate; and
6. Contact medical command.

Pediatric Non-Traumatic Shock

(a) The following standing orders are authorized in the event that a pediatric patient presents with non-traumatic shock:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. Establish vascular access with normal saline solution at a KVO rate;
5. Administer a rapid fluid bolus of normal saline at a dose of 20 mL/kg;
6. Obtain a rapid glucose test. If blood glucose is less than 60:
 - i. For patients less than one month of age, administer 0.5 g/kg of a 10 percent dextrose solution via IV/IO;
 - ii. For patients greater than one month of age, administer 0.5 g/kg of a 25 percent dextrose solution via IV/IO.
7. If unable to establish vascular access, administer Glucagon 0.1 mg/kg (0.1 ml/kg) to a maximum of 1 mg IM (1mg=1ml=1 unit);
8. If no change, administer a rapid fluid bolus of normal saline solution at a dose of 20 mL/kg;
9. Contact medical command.

Pediatric Tachycardia

(a) The following standing orders are authorized in the event that a patient presents with an unstable narrow complex tachycardia that is likely supraventricular in etiology where the patient is unconscious or potentially hemodynamically unstable:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. Establish vascular access and administer 20 mL/kg normal saline bolus. If rhythm is regular and the patient is hemodynamically stable, then attempt vagal maneuvers;
5. If the patient is conscious, vascular access has been established, and the rhythm is regular and not probable sinus tachycardia;
 - i. Administer Adenosine 0.1 mg/kg rapid push via vascular access followed by a 10 mL normal saline solution bolus via vascular access;
 - ii. If there is no conversion with Adenosine 0.1 mg/kg rapid push via vascular access and if not identified to be atrial fibrillation, atrial flutter and does not have history of Wolff-Parkinson-White, then administer Adenosine 0.2 mg/kg rapid push via vascular access followed by a 10 mL normal saline solution bolus via vascular access;
6. Contact medical command.

(b) The following standing orders are authorized in the event that a patient presents with wide complex tachycardia:

1. Assess and secure the airway;
2. Administer oxygen therapy as patient condition indicates;
3. Maintain normal body temperature;
4. Establish vascular access and administer 20 mL/kg normal saline bolus;
5. Contact medical command.

Sudden Infant Death Syndrome

(a) The following standing orders are authorized in the event that sudden infant death syndrome is suspected:

1. Form a general impression of the patient's condition;
2. Establish responsiveness;
3. Assess airway and breathing and confirm apnea;
4. Assess pulselessness and initiate cardiac monitoring;
5. If patient does not exhibit lividity and/or rigor, go to cardiac arrest guidelines found at [N.J.A.C. 8:41-8.7](#);
6. If patient exhibits lividity and/or rigor, contact medical command physician for pronouncement;
7. Provide supportive measures and New Jersey SIDS Center (800) 545-7437 telephone number for caregivers;
8. Obtain patient history; and
9. Reassess the environment, documenting:
 - i. Where was the patient located on arrival;
 - ii. Description of objects located near the child upon arrival; and
 - iii. Unusual environmental conditions (that is; high room temperature, abnormal odors, etc.).