Pediatric General Medical

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Pediatric Brief Resolved Unexplained Event (BRUE)

Pediatric General Medical

An apparent life threatening event (**ALTE**) is an episode occurring in a patient < 1 year of age that is frightening to the caretaker and includes one or more of the following features:

1. Apnea or change in breathing
2. Color change (blue, gray or red)
3. Change in muscle tone
4. Change in breathing and altered level of consciousness

In some instances, the caretakers may have administered rescue breaths or chest compressions.

Major risk factors associated with ALTE include:

1. Apnea
2. Pallor
3. Cyanosis
4. Feeding difficulties
5. Recent upper respiratory infections

The etiology of ALTE is varied. Causes range from mild illnesses to severe, life threatening diseases.

Focus history gathering on the following:

1. Complete medical history
2. Severity, nature and duration of the episode
3. Interventions provided by caretakers

Treat identifiable causes as appropriate

If ALTE is suspected, transport all patients to closest appropriate facility

1. If caretakers refuse transport, contact EMS Supervisor.
2. Please refer to **Refusal of Treatment**

General

EMT

AEMT

Paramedic

Pediatric Fever

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Fever in children is most often caused by viral infections (URI, bronchiolitis, some cases of pneumonia or meningitis), some are caused by bacterial infections (strep, otitis media, life-threatening pneumonia or meningitis, UTI)

Obtain history:
Feeding, Previous illnesses, Degree of temperature, Medications or therapies administered, Immunizations.

Routine Transport Orders-Pediatric

Strongly encourage transport for all patients under 6 months of age.

Appropriate Protocol by Complaint

Temperature greater than 100.4 F

Children 6 months of age or older

Ibuprofen 10 mg/kg PO

Maximum 600 mg

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Pediatric Hypovolemic Shock

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Delay in recognizing and quickly treating a state of shock results in a progression from compensated reversible shock to widespread multiple system organ failure to death.

Obtain history. If vomiting, diarrhea, or fever present, assess for hypovolemic shock secondary to dehydration. **Remember, early signs of hypovolemia in children include the following:**
Tachycardia
Tachypnea
Agitation, restlessness
Poor peripheral perfusion (capillary refill > 2 seconds, mottled cool skin)
Hypotension is a LATE and ominous sign

Routine Transport Orders-Pediatric

Cardiac Monitor

Pediatric IV/IO

Evidence or history of trauma? — **Yes** → **Pediatric Multiple Trauma** Protocol

No

Blood Glucose

< 60 mg/dl → **Dextrose 10% (D10)** 5 ml/kg IVP, IO boluses until patient awake &/or follow up blood sugar > 60 mg/dl **Maximum 100 ml**

> 60 mg/dl

Normal Saline Bolus 20 ml/kg
(May repeat x 3 maximum)

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Pediatric IV/IO

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Always be honest. Tell the child that the IV stick will hurt, but only for a short time. Do Not promise their will only be 1 stick, or say that it won't hurt.

Routine Transport Orders-Pediatric

All IV solutions will be **0.9% Normal Saline** unless otherwise stated in protocol.

Common IV sites are: Hand, foot, scalp, forearm & antecubital sites. Hand: try not to use child's dominant hand or hand child uses for sucking thumb. Consider immobilizing arm prior to initiating IV.

Assess need for IV
Initiate infusion at TKO unless specified
Emergent or potentially emergent medical or trauma condition

20 ml/kg as a bolus – may repeat twice. Consider administer via stopcock or IVP.

Peripheral IV
No more than three (3) attempts unless patient is critical

Unsuccessful and in arrest or life threatening

Intraosseous
Intraosseous Infusion-Pediatric
for life-threatening event

Monitor infusion

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Pediatric Pain Management

Younger children experience higher levels of pain during procedures than older children. Children's tolerance for pain increases with age. (Bromme, Rehwalt and Fogg, 1998; Broome and others 1990). Children are unique in their ways of coping. Children's behavior is not a specific indication of their pain level (Beyer, McGrath and Berde, 1990).

Pain assessment should be frequently evaluated. FACES pain rating scale, Word graphic Scale, Color Scale & Numeric Rating Scale are all acceptable methods for evaluating a child's pain scale.

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Routine Transport Orders-Pediatric

Patient care according to Protocol based on Specific Complaint

See: Faces **Pain Scale**

Pain severity or Indication for IV Medication

No

Yes

Pediatric IV/IO

Effective pain management begins with a detailed assessment .All pain is subjective and research shows that the only reliable rating of pain severity is the patient's own description of how bad it hurts. It is important for the paramedic to have a complete understanding of the drugs used in this protocol for pain management and the possible side effects associated with each of them.

Contraindication to sedation? Abdominal Pain?

Yes

Pulse Oximetry

No

If BP > 100 systolic

Morphine 0.1 - 0.2 mg/kg IVP, IO

Maximum 10 mg

For severe/excruciating/ painful discomfort caused from a fracture / dislocation / subluxation consider if Morphine is not sufficient or ineffective:

Midazolam (Versed)

0.05 mg/kg IVP, IO

Maximum 2 mg

Monitor and reassess

Pediatric Unconscious/Hypoglycemic

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View surroundings for reason patient is unconscious. Look for medication bottles, cleaning supplies, alcohol, etc. consider also possibilities due to fever, seizure, trauma, headache, etc. Obtain any previous medical history also.

Routine Transport Orders-Pediatric

Spinal Injury Assessment

Cardiac Monitor

Consider
CO Poisoning

Pediatric IV/IO

Blood Glucose

No

Glucose < 60 mg/dl

Dextrose 10% (D10) IVP, IO
5 ml/kg
Maximum 100 ml
Until patient awake &/or glucose 60 mg/dl

Glucagon
25 mcg/kg IM, IN
Maximum 1 mg

Glucose 60 - 250 mg/dl

Naloxone (Narcan)
0.1 mg/kg IVP, IO, ET
0.2 mg/kg IN
Maximum 2 mg

EMT may administer via IN only
Naloxone (Narcan)
0.2 mg/kg IN **Max. 2 mg**

Consider other causes:
Head injury, Overdose
Hypoxia

Glucose > 250 mg/dl signs of dehydration

Normal Saline bolus
20 ml/kg

Administer Narcan in lowest dose as needed to maintain adequate respirations

Return to baseline?

Yes

Reassess and monitor

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