TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

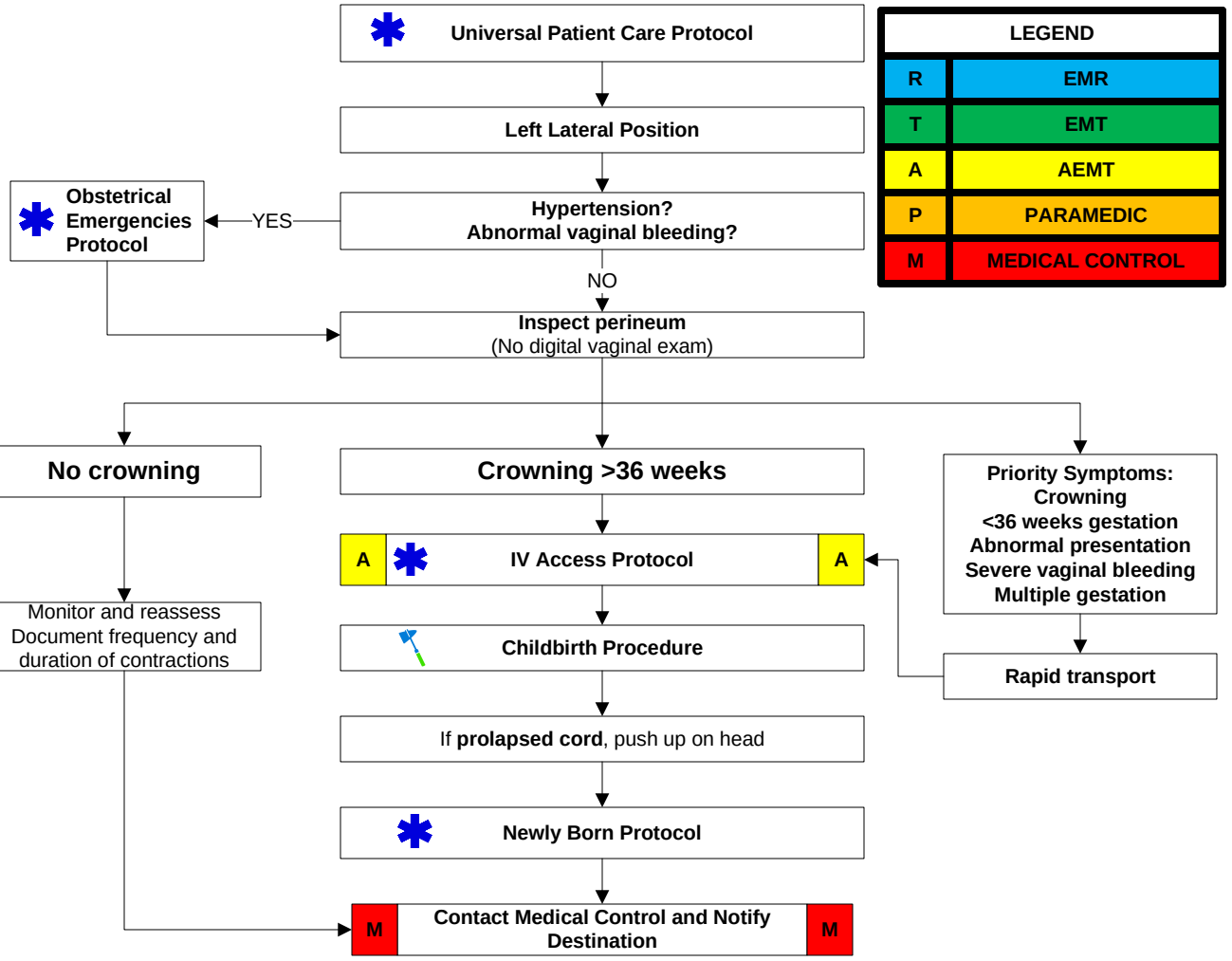
Approved by EMS Medical Director

CHILDBIRTH/LABOR
OB/PEDIATRIC PROTOCOL # 4 - 01

HISTORY
- ✓ Due date
- ✓ Time contractions started/how often
- ✓ Rupture of membranes
- ✓ Time/amount of any vaginal bleeding
- ✓ Sensation of fetal activity
- ✓ Past medical and delivery history
- ✓ Gravida/Para status
- ✓ High risk pregnancy
- ✓ Name of OB physician

SIGNS AND SYMPTOMS
- ✓ Crampy pain
- ✓ Vaginal discharge or bleeding
- ✓ Leakage of fluid
- ✓ Crowning or urge to push
- ✓ Meconium

DIFFERENTIAL
- ✓ Abnormal presentation
  - Buttock
  - Foot
  - Hand
- ✓ Prolapsed cord
- ✓ Placentia Previa
- ✓ Abruptio placenta



PEARLS
- ✓ Document all times (delivery, contraction frequency and length, delivery of placenta)
- ✓ If maternal seizures occur, refer to the Obstetrical Emergencies Protocol
- ✓ After delivery, massaging the uterus (lower abdomen) will promote uterine contraction and help to control post-partum bleeding
- ✓ Some perineal bleeding is normal with any childbirth. Large quantities of blood or free bleeding is abnormal
- ✓ Record APGAR at 1 minute and 5 minutes after birth

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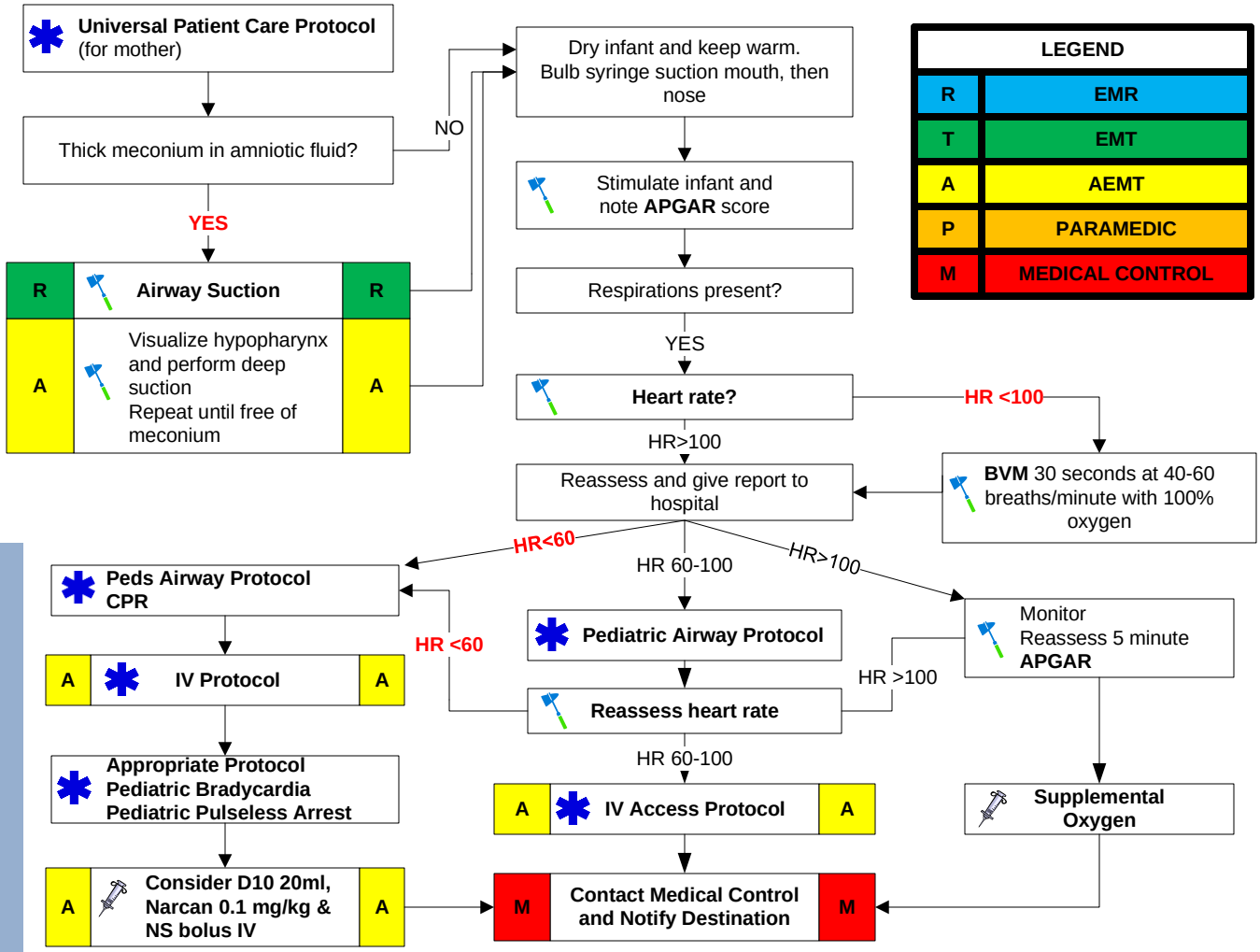
NEWLY BORN OB/PEDIATRIC PROTOCOL # 4 - 02

HISTORY
- ✓ Due date and gestational age
- ✓ Multiple gestation (twins, etc.)
- ✓ Difficult delivery
- ✓ Congenital disease
- ✓ Medications (maternal)
- ✓ Maternal risk factors
  - substance abuse
  - smoking

SIGNS AND SYMPTOMS
- ✓ Respiratory distress
- ✓ Peripheral cyanosis or mottling (normal)
- ✓ Central cyanosis (abnormal)
- ✓ Altered level of responsiveness
- ✓ Bradycardia

DIFFERENTIAL
- ✓ Airway failure
  - Secretions
  - Respiratory drive
- ✓ Infection
- ✓ Maternal medication effect
- ✓ Hypovolemia
- ✓ Hypoglycemia
- ✓ Congenital heart disease
- ✓ Hypothermia



PEARLS
- ✓ CPR in infants is 120 compressions/minute with a 30:2 compression to ventilation ratio
- ✓ It is extremely important to keep infant warm
- ✓ Maternal sedation or narcotics will sedate infant (NARCAN EFFECTIVE BUT MAY PRECIPITATE SEIZURES)
- ✓ Consider hypoglycemia in infant
- ✓ Document APGAR score at 1 minute and 5 minute
- ✓ D10 = D50 diluted (1 ml of D50 with 4 ml of Normal Saline)

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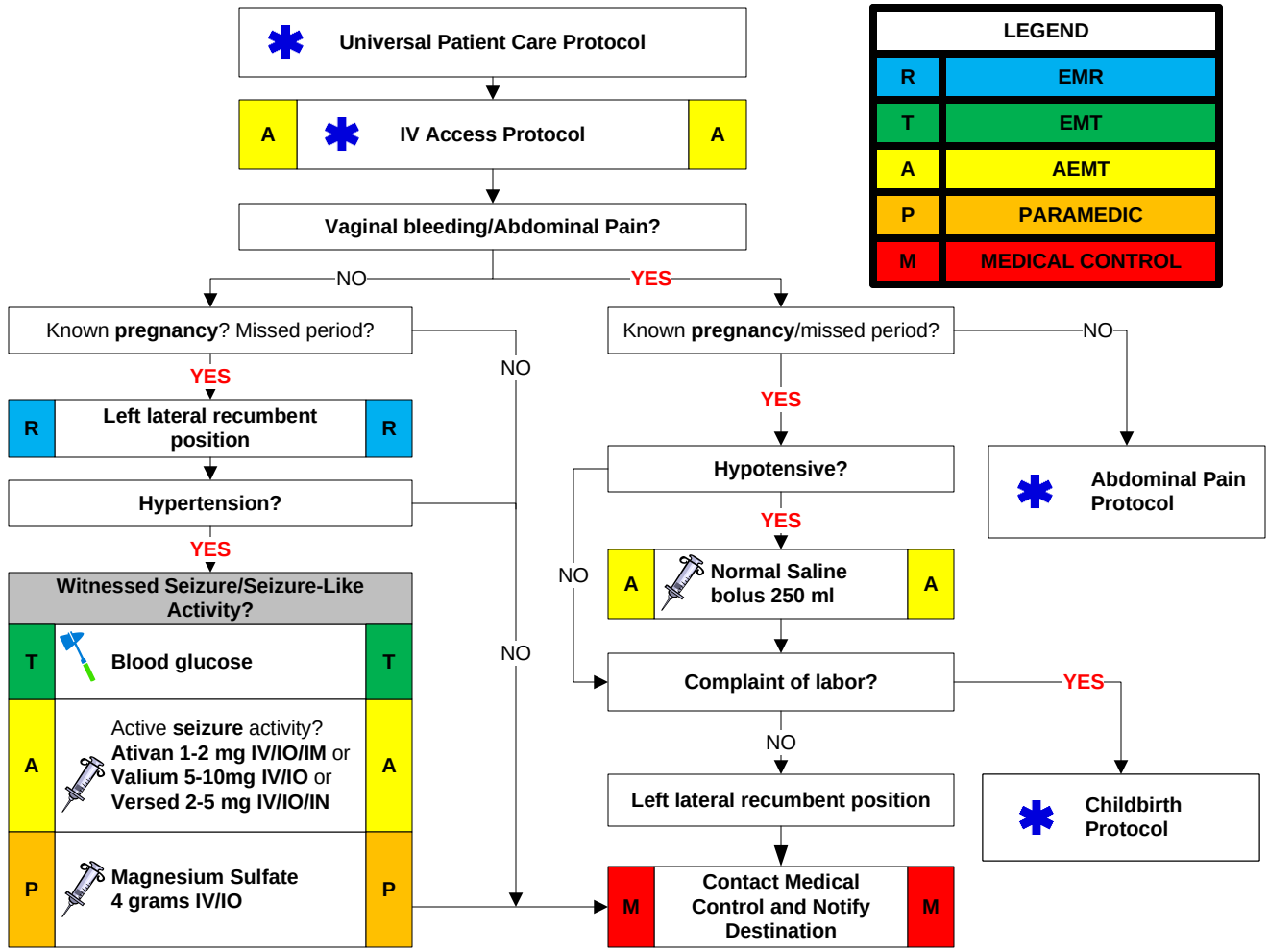
OBSTETRICAL EMERGENCY
OB/PEDIATRIC PROTOCOL # 4 - 03

HISTORY
- ✓ Past medical history
- ✓ Hypertension meds
- ✓ Prenatal care
- ✓ Prior pregnancies/births
- ✓ Gravida/Para

SIGNS AND SYMPTOMS
- ✓ Vaginal bleeding
- ✓ Abdominal pain
- ✓ Seizures
- ✓ Hypertension
- ✓ Severe headache
- ✓ Visual changes
- ✓ Edema of hands and face

DIFFERENTIAL
- ✓ Preeclampsia/Eclampsia
- ✓ Placentia previa
- ✓ Placentia abruptio
- ✓ Spontaneous abortion



PEARLS
- ✓ Severe headache, vision changes, or RUQ pain may indicate preeclampsia
- ✓ In the setting of pregnancy, hypertension is defined as BP >140 systolic or > 90 diastolic, or a relative increase of 30 systolic and 20 diastolic from the patient's normal (pre-pregnancy) blood pressure
- ✓ Maintain patient in left lateral recumbent position to minimize risk of supine hypotensive syndrome
- ✓ Ask patient to quantify bleeding – number of pads used per hour
- ✓ Any pregnant patient involved in an MVC should be seen immediately by a physician for evaluation and fetal monitoring
- ✓ Remember that pregnant patients who are immobilized should be tilted in order to minimize risk of supine hypotensive syndrome
- ✓ Magnesium may cause hypotension and decreased respiratory drive. Use with caution

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC BRADYCARDIA
OB/PEDIATRIC PROTOCOL # 4 - 04

HISTORY
- ✓ Past medical history
- ✓ Foreign body exposure
- ✓ Respiratory distress or arrest
- ✓ Possible toxin or poison exposure
- ✓ Congenital disease
- ✓ Medication (maternal or pediatric)

SIGNS AND SYMPTOMS
- ✓ Decreased heart rate
- ✓ Delayed capillary refill or cyanosis
- ✓ Mottled, cool skin
- ✓ Hypotension or arrest
- ✓ Altered level of consciousness

DIFFERENTIAL
- ✓ Respiratory failure
- ✓ Foreign body/Secretions
- ✓ Infection (croup, epiglottitis)
- ✓ Hypovolemia (dehydration)
- ✓ Congenital heart disease
- ✓ Tension pneumothorax
- ✓ Hypothermia
- ✓ Toxin or medication
- ✓ Hypoglycemia

OB/PEDIATRIC PROTOCOL # 4 - 04

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

Universal Patient Care Protocol

Pediatric Airway Protocol

Poor perfusion
Decreased blood pressure
Respiratory insufficiency

YES → A | **IV Access Protocol** **Normal Saline bolus** 10 ml/kg May repeat x1 | A

NO

R | Monitor and reassess | R

T | Consider **Glucagon 0.05 mg/kg IM** | T

A | Consider:
- ✓ **D25 4 ml/kg IV/IO** or
- ✓ **Normal Saline bolus 10 ml/kg** or
- ✓ **Narcan 0.1 mg/kg IV/IO**

| A

M | **Contact Medical Control and Notify Destination** | M

P | Consider:
- ✓ **External Cardiac Pacing**
- ✓ **Glucagon 0.05 mg/kg IV/IO** for suspected Beta-Blocker Toxicity
- ✓ **Calcium 20 mg/kg IV/IO** for Calcium Channel Blocker Toxicity

| P

R | **Heart rate** in infant <60 Initiate **CPR** | R

A | **Epinephrine (1:10,000) 0.01 mg/kg IV/IO** (only if on cardiac monitor) | I

P | **Atropine 0.02 mg/kg IV/IO*** | P

Reassess

PULSE → A

NO PULSE → **Pediatric Pulseless Arrest Protocol**

PEARLS
- ✓ Use Broselow-Luten Tape for drug dosages
- ✓ Infant = < 1 year of age
- ✓ The majority of pediatric arrests are due to airway problems. Effective BVM is more effective than intubation
- ✓ Most maternal medications pass through breast milk to the infant
- ✓ Hypoglycemia, severe dehydration and narcotic effects may produce bradycardia
- ✓ Pediatric patients requiring external transcutaneous pacing require the use of pads appropriate for pediatric patients per the manufacturer's guidelines
- ✓ Minimum Atropine dose is 0.1 mg IV*

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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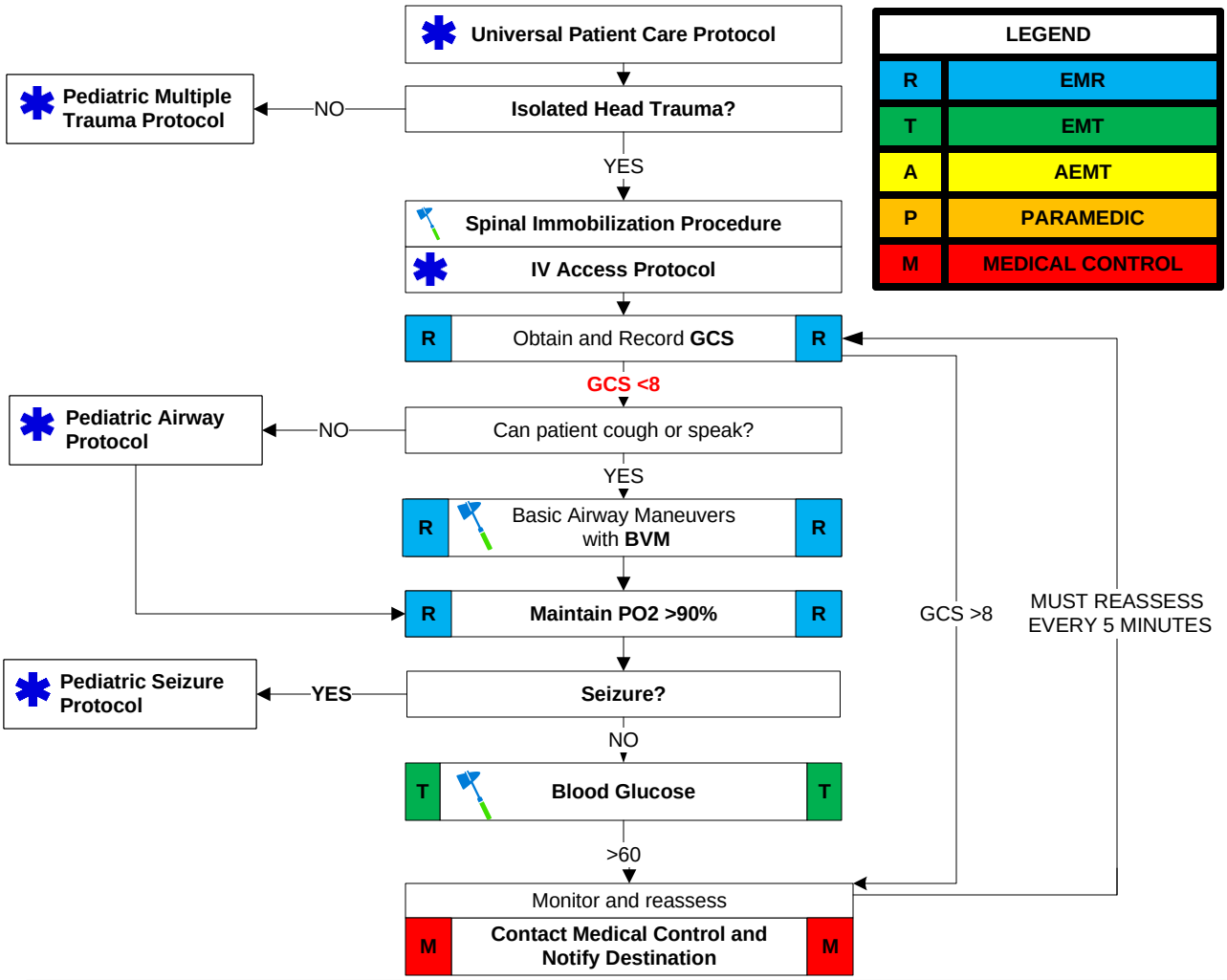
PEDIATRIC HEAD TRAUMA
OB/PEDIATRIC PROTOCOL # 4 - 05

HISTORY
- ✓ Time of injury
- ✓ Mechanism (blunt vs. penetrating)
- ✓ Loss of consciousness
- ✓ Bleeding
- ✓ Past medical history
- ✓ Medications
- ✓ Evidence for multi-trauma

SIGNS AND SYMPTOMS
- ✓ Pain, swelling, bleeding
- ✓ Altered mental status
- ✓ Unconscious
- ✓ Respiratory distress/failure
- ✓ Vomiting
- ✓ Major traumatic mechanism of injury
- ✓ Seizure

DIFFERENTIAL
- ✓ Skull fracture
- ✓ Brain injury (concussion, hemorrhage)
- ✓ Epidural/Subdural hematoma
- ✓ Subarachnoid hemorrhage
- ✓ Spinal injury
- ✓ Abuse



PEARLS
- ✓ If GCS <12, consider air/rapid transport. If GCS <9, airway control should be anticipated
- ✓ Hyperventilate only if evidence of herniation (blown pupil, decorticate/decerebrate posturing, bradycardia, decreasing GCS). If hyperventilation is needed (35/minute for infants <1year; 25/minute for children >1year)
- ✓ Increased intracranial pressure (ICP) may cause hypertension and bradycardia (Cushing's Response)
- ✓ Hypotension usually indicates injury or shock unrelated to the head injury
- ✓ The most important item to monitor and document is a change in the level of consciousness. Remember the GCS
- ✓ Concussions are periods of confusion or LOC associated with trauma which may have resolved by the time EMS arrives. Any prolonged confusion or mental status abnormality which does not return to normal within 15 minutes or any documented loss of consciousness should be evaluated by a physician ASAP

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC HYPOTENSION
OB/PEDIATRIC PROTOCOL # 4 - 06

HISTORY
- ✓ Blood loss
- ✓ Fluid loss
  - Vomiting
  - Diarrhea
  - Fever
- ✓ Infection

SIGNS AND SYMPTOMS
- ✓ Restlessness, confusion, weakness
- ✓ Dizziness
- ✓ Increased HR, rapid pulse
- ✓ Decreased BP
- ✓ Pale, cool, clammy skin
- ✓ Delayed capillary refill

DIFFERENTIAL
- ✓ Trauma
- ✓ Infection
- ✓ Dehydration
  - Vomiting
  - Diarrhea
  - Fever
- ✓ Congenital heart disease
- ✓ Medication or toxin
- ✓ Allergic reaction

Universal Patient Care Protocol
Use age appropriate BP levels

↓

A **IV Access Protocol** A

↓

Evidence or history of trauma?

YES → **Pediatric Multiple Trauma Protocol**

NO

↓

T **Blood glucose** T

↓

>60

↓

A **Normal Saline bolus 10 ml/kg**
May repeat but consider medical history A

↓

M **Contact Medical Control and Notify Destination** M

↓

A Consider repeating **Normal Saline bolus 10 ml/kg** A

↓

P Consider **Dopamine 5-20 mcg/kg/min IV/IO** P

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

PEARLS
- ✓ Consider all possible causes of shock and treat per appropriate protocol
- ✓ Decreasing heart rate and hypotension occur late in children and are signs of imminent cardiac arrest
- ✓ Most maternal medications pass through breast milk to the infant. Examples: Narcotics, Benzodiazepines
- ✓ Consider possible allergic reaction or early anaphylaxis

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC MULTIPLE TRAUMA
OB/PEDIATRIC PROTOCOL # 4 - 07

HISTORY
- ✓ Time and mechanism of injury
- ✓ Height of any fall
- ✓ Damage to structure or vehicle
- ✓ Location in structure or vehicle
- ✓ Others injured or dead
- ✓ Speed and details of MVC
- ✓ Restraints/Protective equipment
  - Car seat
  - Helmet
  - Pads
- ✓ Ejection
- ✓ Past medical history
- ✓ Medications

SIGNS AND SYMPTOMS
- ✓ Pain, swelling
- ✓ Deformity, lesions, bleeding
- ✓ Altered mental status
- ✓ Unconscious
- ✓ Hypotension or shock
- ✓ Arrest

DIFFERENTIAL (LIFE THREATENING)
- ✓ Chest
  - Tension pneumothorax
  - Flail chest
  - Pericardial tamponade
  - Open chest wound
  - Hemothorax
- ✓ Intra-abdominal bleeding
- ✓ Pelvis/femur fracture
- ✓ Spine fracture/cord injury
- ✓ Head injury (see Head Trauma)
- ✓ Extremity fracture/dislocation
- ✓ HEENT (airway obstruction)
- ✓ Hypothermia

Universal Patient Care Protocol

Pediatric Assessment Procedure focusing on initial ABC and level of responsiveness

Spinal Immobilization Procedure

Pediatric Airway Protocol If appropriate

R | Vital Signs including **GCS** | R

ABNORMAL

Rapid Transport to appropriate destination using **Trauma Field Criteria Destination Protocol**
Limit scene time to 10 minutes
Provide early notification

A | **IV Access Protocol** **Normal Saline Bolus 10 ml/kg** May repeat for hypotension | A

R | **Splint suspected fractures** **Control external hemorrhage** | R

P | Tension pneumothorax? **Chest decompression** | P

Consider **Pediatric Head Injury Protocol**

NORMAL

Complete **Pediatric Assessment Procedure**

R | **Splint suspected fractures** **Control external hemorrhage** | R

Transport to appropriate destination using **Trauma Field Criteria Destination Protocol**

R | **Continually reassess** | R

M | **Contact Medical Control and Notify Destination** | M

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

PEARLS
- ✓ Transport Destination is chosen based on EMS System Trauma Plan with EMS Pre-arrival notification
- ✓ Mechanism is the most reliable indicator of serious injury. Examine all restraints/protective equipment for damage
- ✓ In prolonged extrications or serious trauma, consider air transportation for transport times
- ✓ Do not overlook the possibility of child abuse
- ✓ Scene times should not be delayed for procedures. These should be performed en route when possible
- ✓ Bag-valve-mask is an acceptable method of managing the airway if pulse oximetry can be maintained >90%

OB/PEDIATRIC PROTOCOL # 4 - 07

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC PULSELESS ARREST
OB/PEDIATRIC PROTOCOL # 4 - 08

HISTORY
- ✓ Time of arrest
- ✓ Medical history
- ✓ Medications
- ✓ Possibility of foreign body
- ✓ Hypothermia

SIGNS AND SYMPTOMS
- ✓ Unresponsive
- ✓ Cardiac arrest

DIFFERENTIAL
- ✓ Respiratory failure
- ✓ Foreign body/Secretions
- ✓ Infection (croup, epiglottitis)
- ✓ Hypovolemia (dehydration)
- ✓ Congenital heart disease
- ✓ Tension pneumothorax, cardiac tamponade, pulmonary embolism
- ✓ Hypothermia/glycemia
- ✓ Toxin or medication
- ✓ Electrolyte abnormalities/Acidosis

OB/PEDIATRIC PROTOCOL # 4 - 08

AT ANY TIME
Return of Spontaneous Circulation

Go to Post Resuscitation Protocol

Universal Patient Care Protocol

Criteria for Death/No Resuscitation?

R — **CPR** — R

P — **Cardiac Monitor** — P

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

Ventricular Fibrillation/Tachycardia

Give 1 shock - Manual: 2J/kg
May use AED if > 1 year of age (use pediatric AED if available for ages 1 – 8 years)
Immediately start **CPR**, do not check for pulse

A — **Pediatric Airway Protocol**
IV Access Protocol — A

GIVE 5 CYCLES OF CPR

Check rhythm. Check pulse. Shockable rhythm?

YES

A — **Give 1 shock 4 J/kg or use AED as described above/**Resume **CPR** immediately after shock
Epinephrine 0.01(1:10,000) mg/kg IV/IO, repeat every 3-5 minutes
Continue with 5 cycles of **CPR** after shock — A

Check rhythm. Check pulse. Shockable rhythm?

YES

P — **Give 1 shock 4 J/kg or use AED as described above/**Resume **CPR** immediately after shock
Consider **Amiodarone 5 mg/kg IV/IO** or **Lidocaine 1 mg/kg IV/IO**
Continue with 5 cycles of **CPR** after shock — P

Check rhythm. Check pulse.

Asystole/PEA

A — **Pediatric Airway Protocol**
IV Access Protocol — A

Epinephrine 0.01 (1:10,000) mg/kg IV/IO every 3-5 minutes

Consider **D25 4 mg/kg IV/IO**
Continue **CPR** 5 cycles at a time
Check rhythm between cycles of **CPR**
Only check for pulse between cycles of **CPR** & there is a perfusing rhythm
If at any time rhythm becomes shockable, then go to left column of this protocol

Try to identify and treat the cause:
Hypoxemia
Acidosis
Volume depletion
Tension pneumothorax
Hypothermia
Hypoglycemia
Hypokalemia
Hyperkalemia

M — **Contact Medical Control and Notify Destination** — M

PEARLS
- ✓ Monophasic and Biphasic waveform defibrillators should use the same energy levels noted above
- ✓ In order to be successful in pediatric arrests, a cause must be identified and corrected
- ✓ Trinity policy: Must be ≥9 for intubation. Adequate BVM is key to maintaining oxygenation >90%

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC RESPIRATORY DISTRESS
OB/PEDIATRIC PROTOCOL # 4 - 09

HISTORY
- ✓ Time of onset
- ✓ Possibility of foreign body
- ✓ Medical history
- ✓ Medications
- ✓ Fever or respiratory infection
- ✓ Other sick siblings
- ✓ History of trauma

SIGNS AND SYPMPTOMS
- ✓ Wheezing or stridor
- ✓ Respiratory retractions
- ✓ Increased heart rate
- ✓ Altered level of consciousness
- ✓ Anxious appearance

DIFFERENTIAL
- ✓ Allergic Reaction
- ✓ Asthma
- ✓ Aspiration
- ✓ Foreign body
- ✓ Infection
  - Pneumonia
  - Croup
  - Epiglottitis
- ✓ Congenital heart disease
- ✓ Medication or toxin
- ✓ Trauma

OB/PEDIATRIC PROTOCOL # 4 - 09

Universal Patient Care Protocol

Respiratory/ventilatory Insufficiency?

YES → **Pediatric Airway Protocol**

NO

R — Position patient for comfort — R

R — **Pulse oximetry** — R

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

WHEEZING

T	**Albuterol 2.5 mg Nebulized,** May repeat x 2	T
T	**Duoneb** Nebulization 3 ml unit dose as Initial treatment	T
P	**Methylprednisolone 2mg/kg IV/IO**	P
T	Still Wheezing? **Albuterol 2.5** mg Nebulized, May repeat x 2	R

STRIDOR

R	**Supplemental Oxygen**	R
P	If no improvement, **Epinephrine Nebulizer 2 mg(2 ml of 1:1,000) mixed with 1 ml NS**	P
P	**Methylprednisolone 2mg/kg IV/IO**	P
M	**Contact Medical Control and Notify Destination**	M

If deterioration or no improvement,

R	Consider **Epinephrine** Auto-Injector **IM**	R
T	Consider **Epinephrine 0.01 mg/kg IM**	T
A	**IV Access Protocol** If PO <90% after first treatment	A

PEARLS
- ✓ Pulse oximetry should be monitored continuously if initial saturation is ≤96%,or there is a decline in patient status despite normal pulse oximetry readings
- ✓ Do not force a child into a position. They will protect their airway by their body position
- ✓ The most important component of respiratory distress is airway control
- ✓ Bronchiolitis is a viral infection typically affecting infants which results in wheezing which may not respond to beta-agonists
- ✓ Consider Epinephrine if patient is <18 months and is not responding to initial beta-agonist treatment
- ✓ Croup typically affects children <2 years of age. It is viral, possible fever, gradual onset, no drooling is noted
- ✓ Epiglottitis typically affects children > 2 years of age. It is bacterial with fever, rapid onset, possible stridor, patient wants to sit up to keep airway open. Drooling is common. Airway manipulation may worsen the condition

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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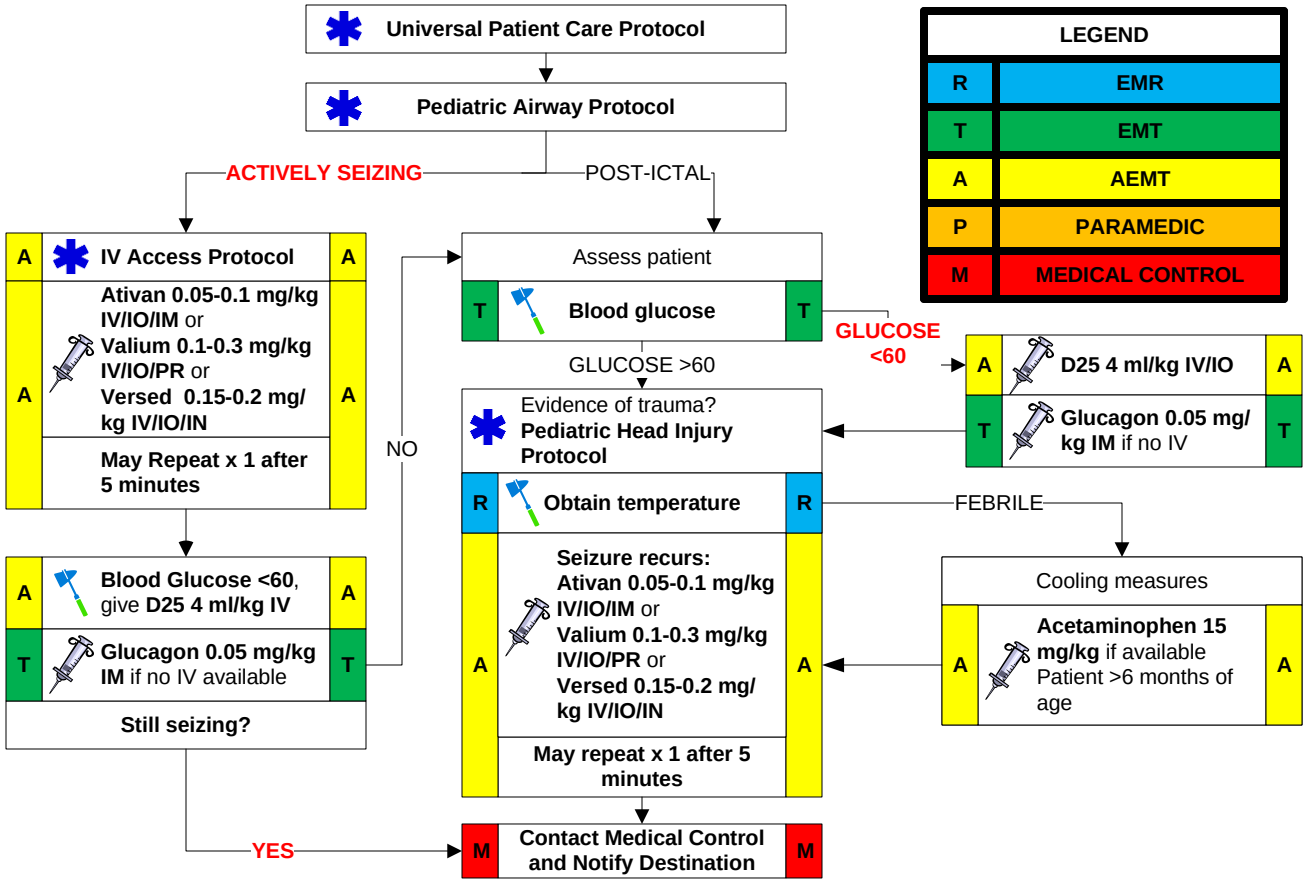
PEDIATRIC SEIZURE
OB/PEDIATRIC PROTOCOL # 4 - 10

HISTORY
- ✓ Fever
- ✓ Prior history of seizures
- ✓ Seizure medications
- ✓ Reported seizure activity
- ✓ History of recent head trauma
- ✓ Congenital abnormality

SIGNS AND SYMPTOMS
- ✓ Observed seizure activity
- ✓ Altered mental status
- ✓ Hot, dry skin or elevated body temperature

DIFFERENTIAL
- ✓ Fever
- ✓ Infection
- ✓ Head trauma
- ✓ Medication or toxin
- ✓ Hypoxia or Respiratory failure
- ✓ Hypoglycemia
- ✓ Metabolic abnormality/acidosis
- ✓ Tumor

OB/PEDIATRIC PROTOCOL # 4 - 10



PEARLS
- ✓ Addressing the ABCs and verifying blood glucose is more important than stopping the seizure
- ✓ Avoiding hypoxemia is extremely important
- ✓ Status Epilepticus is defined as two or more successive seizures without a period of consciousness or recovery. This is a true emergency requiring rapid airway control, treatment, and transport
- ✓ Grand mal seizures (generalized) are associated with loss of consciousness, incontinence, and tongue trauma
- ✓ Focal seizures (petit mal) affect only a part of the body and do not usually result in a loss of consciousness
- ✓ Jacksonian seizures are seizures which start as a focal seizure and become generalized
- ✓ Be prepared to assist ventilations, especially if a benzodiazepine is used
- ✓ If evidence or suspicion of trauma, spine should be immobilized
- ✓ In an infant, a seizure may be the only evidence of a closed head injury
- ✓ Rectal Valium: Draw dose up in 3 ml syringe. Remove needle from syringe and attached syringe to an IV extension tube. Cut the distal end of the extension tube leaving about 3 or 4 inches of length, Insert tube in rectum and inject drug. Flush extension tube with 3 ml of air and remove

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC SUPRAVENTRICULAR TACHYCARDIA
OB/PEDIATRIC PROTOCOL # 4 - 11

HISTORY
- ✓ Past medical history
- ✓ Medications or toxic ingestion
- ✓ Drugs (nicotine, cocaine)
- ✓ Congenital heart disease
- ✓ Respiratory distress
- ✓ Syncope or Near syncope

SIGNS AND SYMPTOMS
- ✓ Heart rate: Child >180 bpm
  Infant >220 bpm
- ✓ Pale or cyanosis
- ✓ Diaphoresis
- ✓ Tachypnea
- ✓ Vomiting
- ✓ Hypotension
- ✓ Altered level of consciousness
- ✓ Pulmonary congestion
- ✓ Syncope

DIFFERENTIAL
- ✓ Heart disease (congenital)
- ✓ Hypo/hyperthermia
- ✓ Hypovolemia or anemia
- ✓ Electrolyte imbalance
- ✓ Anxiety/pain/emotional stress
- ✓ Fever/infection/sepsis
- ✓ Hypoxia
- ✓ Hypoglycemia
- ✓ Medication/toxin/drugs (see history)
- ✓ Pulmonary embolus
- ✓ Trauma
- ✓ Tension pneumothorax

OB/PEDIATRIC PROTOCOL # 4 - 11

Unstable/Prearrest Signs and Symptoms:
- ✓ **Altered Mental Status**
- ✓ **Hypotension**
- ✓ **Chest Pain**
- ✓ **Syncope**
- ✓ **Pulmonary Edema**

Universal Patient Care Protocol

P — Continuous **Cardiac Monitor**
Attempt to identify cause
Narrow QRS duration < 0.09 seconds — P

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

STABLE

A — **IV Access Protocol** — A

May attempt **Valsalva maneuver**

P — **Adenosine 0.1 mg/kg IV** — P

May attempt carotid massage after **Valsalva maneuver**
May repeat **Valsalva** maneuver or carotid massage after each medication if indicated

P — May repeat **Adenosine 0.2 mg/kg IV** per Broselow-Luten dosage recommendations — P

UNSTABLE/ PRE-ARREST

A — Consider **IV Access Protocol** — A

A — For sedation, consider: **Versed 0.05 mg/kg** or **Valium 0.1 mg/kg** or **Ativan 0.05 mg/kg IV** — A

P — **Synchronized Cardioversion** (0.5 joules/kg) — P

If unsuccessful, repeat **cardioversion** (1.0 – 2.0 joules/kg)

If rhythm changes, Go to **appropriate protocol**

M — **Contact Medical Control and Notify Destination** — M

PEARLS
- ✓ Carefully evaluate the rhythm to distinguish Sinus Tachycardia, Supraventricular Tachycardia, and Ventricular Tachycardia
- ✓ Separating the child from the caregiver may worsen the child's condition
- ✓ Pediatric paddles/pads should be used in children <10 kg or Broselow-Luten color **Purple**
- ✓ Monitor for respiratory depression and hypotension if Diazepam or Lorazepam used
- ✓ Continuous pulse oximetry is required for all SVT patients if available
- ✓ Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention
- ✓ As a rule of thumb, the maximum sinus tachycardia rate is 220 – the patient's age in years

TRINITY EMS SYSTEM PREHOSPITAL GUIDELINES

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PEDIATRIC SUSPECTED SEPSIS/SEPSIS ALERT
OB/PEDIATRIC PROTOCOL # 4 - 12

HISTORY
- ✓ Past medical /surgical history
- ✓ Fever(onset, duration, elevation)
- ✓ Prior infections(UTI, pneumonia)
- ✓ Recent surgeries/procedures
- ✓ Immune status
- ✓ Implanted devices/prosthetics
- ✓ Immunizations
- ✓ Travel history
- ✓ Menstrual history (pregnancy)

SIGNS AND SYMPTOMS
- ✓ Hypo/Hyperthermia
- ✓ Restlessness, confusion, weakness
- ✓ Tachypnea for age
- ✓ Tachycardia for age
- ✓ Decreased BP for age
- ✓ Pale, cool, clammy skin
- ✓ Delayed capillary refill
- ✓ Decreased urine output
- ✓ Rash/Bruising/Bleeding

DIFFERENTIAL
- ✓ Trauma
- ✓ Infection
- ✓ Dehydration
- ✓ Congenital heart disease
- ✓ Medication or toxin
- ✓ Allergic reaction

Universal Patient Care Protocol
Use age appropriate vital signs

Fever/Infection Control Protocol

Does the patient have obvious/suspected infection AND meet two (2) SIRS criteria:
- **Hypotension for age**
- **Tachycardia or Bradycardia for age**
- **Tachypnea for age**
- **GCS < 15 or Altered Mental Status**
- **Temperature ≥ 100.4° or ≤ 96° F**

NO → **Go to Appropriate Protocol**

YES

A	**IV Access Protocol**	A
A	**Normal Saline Bolus 10 ml/kg** May repeat x 1 but consider medical history	A
M	**Notify Medical Control of PEDIATRIC SEPSIS ALERT**	M
M	**Contact Medical Control and Notify Destination**	M

LEGEND	
R	EMR
T	EMT
A	AEMT
P	PARAMEDIC
M	MEDICAL CONTROL

AGE	Heart Rate	Respiratory Rate	Blood Pressure
0 d – 1 wk	>180 < 100	>50	<59
1 wk – 1 m	>180 <100	>40	<75
1 m – 1 yr	>180	>34	<75
2 – 5 yr	>140	>22	<75
6 – 12 yr	>130	>18	<83
13 – 18 yr	>110	>14	<90

PEARLS
- ✓ Applies to all patients less than 18 years old, with a suspected/known infection who meet 2 SIRS criteria
- ✓ Appropriate fluid resuscitation is the most important prehospital treatment for sepsis
- ✓ All pediatric fluids and medications must be dosed appropriately by weight in kilograms
- ✓ Use of age-specific vital signs is recommended

OB/PEDIATRIC PROTOCOL # 4 - 12