

RESUSCITATION DRUGS

| DRUG | DOSE | COMMENTS |
|---------------------------------|--|---|
| Adenosine | 1st dose: 0.1 mg/kg (max 6 mg/dose) 2nd dose: 0.2 mg/kg/dose (max 12 mg/dose) | Rapid IV bolus over 1-2 seconds using a stop cock and NS flush |
| Amiodarone | Refractory pulseless VT/VF: 5 mg/kg rapid IV/IO Perfusing tachycardias: 5 mg/kg over 20-60 min. max 300 mg/dose | Can repeat x 2 1st dose max 300mg 2nd dose max 150mg May cause hypotension For perfusing tachycardia, dilute to 2 mg/mL |
| Atropine | 0.02 mg/kg IV | Min. dose: 0.1 mg Max. single dose: 0.5mg child 1mg adolescent |
| Calcium Chloride | 20 mg/kg IV Rapid IV push in arrest | For documented hyperkalemia, hypocalcemia or calcium channel blocker overdose, Give slowly and dilute 1:1 CaCl with NS. |
| Epinephrine 1mg/10mL (1:10,000) | 0.01mg/kg followed by 3-5 mL NS flush | Bradycardia / Asystole / Pulseless arrest max 1 mg |
| Epinephrine 1:1,000 | (anaphylaxis dose) 1mg/1mL IM (max 0.3mg) | 10kg - 0.1mg / 20kg - 0.2mg 30kg and up - 0.3mg |
| Glucose (dextrose) | D50W: 1-2 mL/kg D25W 2-4 mL/kg D10W 2-4 mL/kg | >8 yrs 6 months-8 yrs Neonate-6 mo max rate 2 mL/kg/min |

If D25 or D10 are not available, utilize a syringe of D50. To make D25, expel 25mL of D50 and draw up 25mL of NS. To make D10, expel 40mL of D50 and draw up 40mL of NS. * Reminder: IO is appropriate after 2 failed IV attempts or 90 seconds.

| | | |
|-------------------------|--|---|
| Hydrocortisone | 1-2 mg/kg dose IV dilute to 50mg/mL | Slow IVP over 3-5 min |
| Lidocaine | 1 mg/kg max dose 3 mg/kg or 100 mg given over 5 min | Continuous infusion: 20-50 mcg/kg/min IV |
| Mannitol | 0.5-1g/kg IV push over 5-10 min. | Use in-line filter and insert foley catheter |
| 3% Saline | 3-5 mL/kg infused over 5-30 min. | For increased ICP and hyponatremic seizures |
| IV Volume Resuscitation | 20 mL/kg NS or LR may repeat up to 60 mL/kg | After 60 mL/kg, consider vasoactive drips DO NOT use glucose solutions CAUTION in Renal/ Cardiac patients, use 10 mL |

INITIAL VENTILATOR SETTINGS

| | |
|---------------|--|
| Oxygen: | 100% |
| Tidal volume: | 7-10 mL/kg |
| Rate: | Infants - 20-25 breaths/min Child - 12-25 breaths/min |
| PEEP: | 5 cm |

AVERAGE PEDIATRIC VITAL SIGNS BY AGE

| Age | New Born | 3 Mo | 6 Mo | 1 Yr | 2 Yr | 3 Yr | 4 Yr | 6 Yr | 8 Yr | 12 Yr |
|------------|----------|---------|---------|---------|---------|---------------|---------|---------|----------|----------|
| Wt. (kg.) | 3.5 | 6 | 8 | 10 | 12 | 15 | 17 | 20 | 25 | 40 |
| Heart Rate | 150 | 140 | 130 | 120 | 115 | 100 | 100 | 100 | 90 | 85 |
| SBP | 70 | 80 | 80 | 90 | 90 | 90 | 95 | 95 | 95 | 105 |
| Resp. Rate | 40 | 30 | 30 | 26 | 26 | 24 | 24 | 20 | 20 | 20 |
| ETT Blade | #0-1 | #1 | #1 | #1 | #2 | #2 | #2 | #2 | #2-3 | #3 |
| ETT Size | 3.0-3.5 | 3.5-4.0 | 3.5-4.0 | 4.0-4.5 | 4.0-4.5 | 4.5-5.0 | 4.5-5.0 | 5.0-5.5 | 5.5-6.5* | 6.5-7.0* |
| SX. CATH | 6F | 8F | 8-10F | 8-10F | 10F | 10F | 10F | 10F | 10F | 12F |
| NGT | 5-8F | 5-8F | 8-10F | 8-10F | 10F | 10F or 10-12F | 10-12F | 12-14F | 14F | 14-18F |

• ETT Size = (Age(Years)/4) + 4
 • For a cuffed ETT, use 1/2 size smaller.
 • For patients greater than one month of age, a cuffed ETT is recommended.
 • Neonate 3.0-3.5 uncuffed
 • Avg. tube depth from gum/teeth = 3 x Normal ETT size (i.e. 3.0 x 3 = 9 cm @ gum)

SEIZURES

| DRUG | DOSE |
|-----------------------|--|
| Lorazepam | 0.1mg/kg |
| Midazolam | 0.1mg/kg IV, max 5 mg 0.2mg/kg IM, max 6mg 0.3mg/kg IN, max 10mg |
| Levetiracetam | 40mg/kg IV over 10 min, max 2500mg |
| Fosphenytoin/Dilantin | 20PE/kg IV over 15 min, max 1500mg |

PAIN AND SEDATION

| PAIN MEDICATIONS | | MAX DOSE |
|---------------------|----------------|----------|
| Fentanyl IV / IM | 1 mcg/kg IV/IM | 100 mcg |
| Fentanyl Intranasal | 1.5 mcg/kg | 100 mcg |
| Morphine IV/IM | 0.05 mg/kg | 4 mg |
| Ketamine IV | 0.1 mg/kg | 100 mg |
| Ketamine IM | 0.5 mg/kg | 100 mg |

| SEDATION MEDICATIONS | | MAX DOSE |
|----------------------|-----------|----------|
| Versed IV/IM | 0.1 mg/kg | 4 mg |
| Versed Intranasal | 0.5 mg/kg | 10 mg |
| Ketamine IV | 1 mg/kg | 150 mg |
| Ketamine IM | 2 mg/kg | 150 mg |



GUIDELINES FOR PEDIATRIC ACUTE CARE

IMPORTANT PHONE NUMBERS

East Tennessee Children's Hospital
 Interfacility – (865) 541-8999
 EMS – (865) 541-8133

Children's Hospital at Erlanger
 (423) 778-8100

Le Bonheur Children's Hospital
 (901) 287-4408

Monroe Carell Jr. Children's Hospital at Vanderbilt
 (866) 936-7575

PEDIATRIC ASSESSMENT KEY POINTS

Airway

- Tongue is large and may occlude the airway.
- Be cautious of swelling from disease or trauma.
- If intubation is necessary, use an uncuffed tube.

Breathing

- Use methods such as bag-valve mask before going to advanced airways.
- Assess breath sounds in midaxillary area especially in smaller patients.

Circulation

- Heart rate and capillary refill must be checked on every patient and is a better initial indicator of shock.
- Persistent tachycardia may be the only sign of fluid depletion or shock.
- Bradycardia is an ominous sign and most likely is secondary to hypoxia.

Disability

- Investigate causes for altered level of consciousness (ie: the "H's & T's" taught in AHA courses).
- Check blood glucose with AMS/seizures.
- Check pupils.

Exposure

- Expose entire patient especially if they are critical.
- Prevent heat loss.

Things to remember

- Call 15-20 minutes prior to arriving and include patient weight.
- Call for medical direction (RMCC number listed) anytime during transport if needed.

ASTHMA

| DRUG | DOSE |
|------------------------------------|---|
| Albuterol neb | 2.5 mg/dose q 20 min Continuous 25 mg/hour diluted |
| Epinephrine 1:10,000 neb | 1mg/10mL in 3-5 mL NS |
| Ipratropium Bromide (Atrovent) neb | 0.5 mg Give in conjunction with Albuterol for at least the first aerosol. |
| Magnesium Sulfate | 75mg/kg, max 2gms over 15 minutes WITH NS bolus over 30-60 minutes |
| Decadron | 0.6mg/kg IV/PO, max 16mg |
| Solumedrol (Methylprednisolone) | 1-2 mg/kg IV, 120 mg max |
| Terbutaline SQ 1 mg/mL | 0.01 mg/kg/dose (max dose 0.5 mg/dose); can repeat q20 min x 3 doses |
| Terbutaline Infusion 1 mg/mL | 10 mcg/kg IV over 10 min followed immediately by 0.4 mcg/kg/min IV Increase by 0.2 mcg/kg/min (to 3-6 mcg/kg/min max dose) |
| Epinephrine 1:1,000 | 1mg/1mL to a max of 0.3 mg |

CROUP

| | |
|-------------------------|--------------------------------|
| Racemic Epinephrine neb | 2.25% 0.5 mg/mL add 3 mL of NS |
| Solu Medrol | 1-2 mg/kg IV 120 mg max |
| Epinephrine 1:1,000 neb | 2 mg/mL in 3-5 mL NS |
| Decadron | 0.6mg/kg IV/PO, max 16mg |

NEWBORN RESUSCITATION

- Dry, Warm, Position, Suction, Tactile, Stimulation
Oxygen: (blow-by)
- BVM Ventilation: If heart rate < 100 bpm or gasping respirations
- Chest Compressions: after 30 seconds of support and HR is < 60 bpm.
 - Epi 1:10,000: 0.01mg/mL if HR continues <60 bpm
 - Fluid boluses of NS should be 10mL/kg

DEFIBRILLATION DOSE

- Pulseless VT/VF-2J/kg then 4J/kg
(may consider up to 10J/kg)
- Unstable SVT – synchronized cardioversion 0.5-1J/kg then up to 2J/kg

GLASCOW COMA SCALE (GCS)

| Eye Opening | | |
|---------------------------------|--|----------------------------|
| INFANTS | | CHILD/ADULT |
| 4 Spontaneous | | 4 Spontaneous |
| 3 To Speech | | 3 To Speech |
| 2 To Pain | | 2 To Pain |
| 1 None | | 1 None |
| Best Verbal Response | | |
| INFANTS | | CHILD / ADULT |
| 5 Coos, babbles | | 5 Oriented |
| 4 Irritable, cries | | 4 Confused |
| 3 Cries to pain | | 3 Inappropriate words |
| 2 Moans to pain | | 2 Nonspecific sounds |
| 1 None | | 1 None |
| Best Motor Response | | |
| INFANTS | | CHILD / ADULT |
| 6 Normal, spontaneous movements | | 6 Follows commands |
| 5 Withdraws to touch | | 5 Localizes pain |
| 4 Withdraws to pain | | 4 Withdraws to pain |
| 3 Abnormal flexion | | 3 Flexion response to pain |
| 2 Abnormal extension | | 2 Extension |
| 1 None (flaccid) | | 1 None (flaccid) |

PEDIATRIC INTUBATION DRUGS

| DRUG | DOSE | COMMENTS |
|-----------------------|------------|--|
| ADJUNCT DRUGS | | |
| Atropine | 0.02 mg/kg | Max. single dose 0.5mg child 1mg adolescent |
| Lidocaine | 1.5 mg/kg | Give 3 minutes prior to intubation in head injured patients to prevent laryngospasm and ↑ ICP |
| SEDATIVES | | |
| Midazolam (Versed) | 0.1 mg/kg | (max 5 mg/dose) |
| Ketamine | 2 mg/kg | Drug of choice for status asthmaticus and sepsis Max dose 100mg |
| Etomidate | 0.3 mg/kg | For head injured hemodynamically unstable patients. Do not use in septic shock. Max dose 20mg |
| PARALYTICS | | |
| Succinylcholine | 1-2 mg/kg | Contraindicated in patients with neuromuscular disease, glaucoma, eye injuries, severe burns or crush injuries. May increase BP. Max dose 150mg |
| Rocuronium (Zemuron) | 1 mg/kg | Paralytic of choice for RSI |
| Vecuronium (Norcuron) | 0.1 mg/kg | Utilize for long-term paralysis Max dose 10mg |

PEDIATRIC BURN GUIDELINES

Total Body Surface Area Chart

Fluid resuscitation applicable only for 2nd/3rd degree burns:
>10% TBSA - Pediatrics

Child: Ages 14 & under

$$Wt(kg) \times TBSA\% \times 3 \text{ ml LR} / 16 = \text{ml/hr}$$

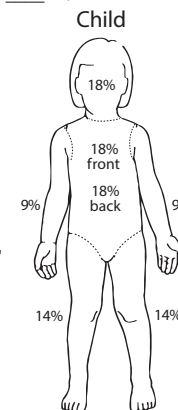
Bolus IVF for hypotension ONLY.
(not for low urine output)

Resuscitation Goal

Child urine output 1ml/kg/hr

Referral Criteria

- Any partial thickness burns >10% TBSA
- Burns that involve face, hands, feet, genitalia, perineum, or major joints
- Third degree burns in any size or age group
- Electrical burns including lightning injury
- Chemical burns
- Inhalation injury
- Burn injury in patients with preexisting medical conditions
- Any patient with burns occurring with trauma



CHILD ABUSE

TEN-4

Torso

Ears

Neck

4 years of age or under

Or

Any bruising on a child less than **4 months** of age is a major indicator of child abuse. Please contact the Department of Children's Services if there is concern for child abuse.

Any bruising in the GU area can be a major indicator of child abuse. Please contact your CRPC for consultation.

