Cardiac Medications: Antiarrhythmics

Adenosine
Indications: Supraventricular tachycardia (SVT)
Dose: 100mcg/kg IV rapid push/fush in most proximal vein
Repeat dose: increase by 100mcg/kg up to 250mcg/kg
Adult dose: 60mg, 9mg and 1mg
Amiodarone
Indications: Junctional or atrial tachycardia, with/without pulse and IVR
Dose: 15mg/kg bolus for pulseless VT/Vfbr over 20-60 minutes for more stable rhythms
Adult: ACLS for VT/VF
300mg in 20-30ml D5W as rapid IV push, supplemental doses of 150mg, 2.2gm/24hrs max
Lidocaine
Indication:
Dose: 5mg/kg IV slowly, repeat q10min
Drip: 20-50mcg/kg/min
Indications: second line for sustained VF or VTach
Adult dose: 1mg/kg, drip 1-4mg/min initially
Magnesium Sulfate
Indications: Torsades de Pointes
Dose: 25-50mg/kg IV over 10-20 minutes, max dose 2gms

Cardiac Medications: Vasoactive and Inotropic

Epinephrine
Indication:
Dose: 100mcg/kg IV, rapid push/fush for documented hypotension
Adult dose: 1amp D50 = 25gms Dextrose
D25 2ml/kg IV push for children
Glucose
Indication:
Dose: 20-25ml/kg Normal Saline (NS) or Lactated Ringers (LR)
Calcium Chloride
Indication:
Dose: 1mEq/kg Adult dose 1 amp (50mEq)

Cardiac Medications: Other

Prostaglandin E (Alprostadil)
Indication:
Dose: 100mcg/kg IV rapid push/flush in most proximal vein
Nitroglycerin
Indication:
Dose: 25-50mcg/kg/min
Norepinephrine
Indication:
Dose: 0.1-1mcg/kg/min
Phenytoin
Indication:
Dose: 5mg/kg IV slowly, repeat q5-10min

ETT tube sizing table and Vital Signs: 50thile

Age | Wt (kg) | ID (mm) | Blade (straight or curved) | Length (cm) tip to tip | NG tube | LMA | RR (avg/min) | HR | BP (sys mmHg)
---|---|---|---|---|---|---|---|---|---
Neonate < 1kg | 2.5 | 0 | 7 | 5 | 1 | < 60 | 145 | 52
Neonate 1-2kg | 3.0 | 0 | 8 | 5 | 1 | < 60 | 145 | 52
Neonate 2-3kg | 5.0 | 0-1 | 9 | 5 | 1 | < 60 | 125 | 60
Neonate 3kg | 3.5-4.0 | 0-1 | 10 | 8 | 1 | < 60 | 125 | 60
1-6mo | 4-6kg | 3.5-4.0 | 1 | 12 | 8 | 1-1.5 | 24-30 | 120 | 80
1-2yr | 6-10kg | 4.0 | 1 | 13 | 8 | 1.5 | — | 130 | 89
2-4yr | 6-10kg | 5.0 | 1-2 | 15 | 10 | 2 | — | 120 | 99
4-6yr | 16-18kg | 5.5 (+/- cuffed) | 2 | 16 | 12 | 2 | — | 100 | 99
6-8yr | 20-26kg | 6.0 cuffed | 2x2 | 17 | 12 | 2.5 | 12-20 | 100 | 105
10-12yr | 30-45 | 7.0 cuffed | 2-3s (3x) | 18 | 14 | 3 | — | 75 | 112
>14yr | >50kg | 7.5-8.0 | 20-22 | 18 | 4 | 10-14 | 70 | 120

EVT surf area (cm²)

Age | WT (kg) | Surface Area (sq cm)
---|---|---
Neonate < 1kg | 30-45
Neonate 1-2kg | 40-50
Neonate 2-3kg | 50-60
Neonate 3kg | 60-70
1-6mo | 70-80
1-2yr | 80-90
2-4yr | 90-100
4-6yr | 100-110
6-8yr | 110-120
10-12yr | 120-130
>14yr | 130-140

Cardiovascular: 50thile

OHSU Department of Pediatrics
3181 S.W. Sam Jackson Park Road
Portland, OR 97239-3098

www.ohsu.edu/children
OHSU is an equal opportunity affirmative action institution.

Every effort has been made to ensure that this information is accurate and complete. It is the responsibility of the attending physician to assess its appropriateness. This information is based on your knowledge, skills, new developments and FDA regulations.

Pediatric Emergency Management Guide

For transfers, consultation, or to admit a patient, call 888 346-0644

Arrest Medications

• ABC’s – Airway Breathing Circulation
• Oxygen 100%
• Place IO after 3 IV attempts or 90 seconds

Medications:

Atropine – 0.02mg/kg IV/IM/ET/IO (minimum dose 0.1mg)
adult 1mg
Indication: bradycardia
Epinephrine – 1-000 0.1-1.0mcg/kg IV/IO all doses, may repeat q3-5 minutes
Intratracheal – 1-000 0.0-0.1mcg/kg
Indication: hypovolemic, anaphylaxis
Nalbuphine – 1mg/kg — Adult dose 1 amp (50mEq)
Indications: suspected or documented severe acidosis
Calcium Chloride – 10mg/kg — Adult dose 1gm (1000mg)
Indication: hypocalcemia, asystole
Colloid – 10% albumin/5% hydroxyethyl starch
Crystasol – 20% albumin 0.9% normal saline
Lactated Ringers (LR)

Glucose – D502 4-5ml/kg for neonates
D25 2ml/kg IV push for children
Adult dose: 1 amp DS5 = 25gms Dextrose
Indications: documented hypoglycemia

Doernbecher Transport

For transfers, consultation, or to admit a patient, call 888 346-0644

Doernbecher pediatric emergency department open 24/7

PANDA
Pediatric and Neonatal Doernbecher Transport
Cardiac Diabeticosis
Contact Pediatric Endocrinology
Do not bolus insulin or bicarb
• Wash with fresh solution, avoid excessive fluid – use isotonic fluid (NS)
• Watch electrolytes – Na, K, Phos, Mg
• Insulin gt 40u/kg/hr
• Ad lib – if Na>200 or glucose>100
• Add D10 when glucose < 200
• Watch for signs of cerebral edema

Fluids
Bolus 20mL/kg of dextrose free, isotonic fluid (NS+K) In patients with non-cardiogenic shock, goal 60mL/kg within first hour if not more

Maintenance Fluid Requirement calculations per 24 hours For first 10kg – 100mL/kg For 10-20kg – 100mL/kg + 60mL/kg for weight over 10kg For >20kg – 50mL/kg + 20mL/kg for weight over 20kg

Hyperkalemia – peaked Twaves on 12-lead
If has intact renal function and urine output: Furosemide (0.25-0.5mg/kg) for urine output failure Furosemide (0.25-0.5mg/kg) for urine output failure

Effect: pumps K intracellularly
Effect: drives K intracellular in exchange for H+ ion
Effect: drives K intracellular free, isotonic fluid (NS+K)

Effect: exchange resin, binds K in GI tract, causes increase in Na
Effect: drives K intracellularly with glucose
Effect: exchange resin, binds K in GI tract, causes increase in Na

Methods to decrease ICP: Hyperventilate: saves cerebral blood flow, very effective at lowering ICP BUT at risk of causing jury to healthy brain, use only temporarily

Mannitol: 0.25-1g/kg IV (preferred for asthma)
Naloxone: 0.2-0.5mg/kg IV

Seizures
ABC’s protect patient from harm
Can allow up to 5 minutes to secure a seizure to stop on own
Lorazepam: 0.05-0.15mg/kg IV (inset 5-8 minutes, duration 4 hours) cfr. cardiac
Midazolam: 0.1mg/kg IV/IM (onset 2-3 minutes, duration 1-2 hours)
Diazepam: 0.1mg/kg IV (inset 2 minutes, duration 20 minutes, 0.1mg/kg PR Dextro)
Phenobarbital: 10-20mg/kg load (inset 20-30 minutes)
Phenytoin: 1-2mg/kg IV/IM (10-30 seconds to full effect, 10mL duration) Calcium: 1-2mL/kg IV for muscular disease such as Muscular Dystrophy, or hypokalemia, risk for malignant hyperthermia

Other Medications
Stress dose hydrocortisone 100mg/m2/dose given as a continuous infusion or intermittent bolus can load with 1-2mg/kg
Succinylcholine – 1-2mg/kg/IM (onset 15-20 minutes) for intubation

Severe Sepsis
Upon recognition of a Severely Septic neonate or child obtain vascular access easily and secure the airway.
• Consult regional transport team.
• Administer up to 60g/kg Naloxone (IV, IM) Fluid within 15 minutes
• If fluid responsive, may administer more fluid.
• If not, obtain central access, consider Dopamine infusion at 10mg/kg/min.
• Call for further consultation: 888 346-0644