

CARDIAC CONTINUOUS INFUSIONS

Amiodarone: IV - 5-15 mcg/kg/min (max 1 mg/min)
Dopamine: IV - 5-20 mcg/kg/min
Dobutamine: IV - 2-20 mcg/kg/min
Epinephrine: IV - 0.1-1 mcg/kg/min
Lidocaine: IV - 10-50 mcg/kg/min (max 4 mg/min)
Norepinephrine: IV - 0.05-0.3 mcg/kg/min
Prostaglandin E1: IV - 0.05-0.1 mcg/kg/min (risk of apnea)
Vasopressin (hypovolemic shock): IV - 0.0003-0.004 units/kg/min (max 0.04 units/min)

ADRENAL CRISIS/STRESS DOSE LOAD

Hydrocortisone: IV - 2 mg/kg (max 100 mg)

ANALGESICS/SEDATIVES

Fentanyl: IV -1 mcg/kg (max 100 mcg). Intranasal - 2 mcg/kg (max 100 mcg) prime atomizer
Ketoralac: IV/IM - 0.5 mg/kg (max 30 mg)
Ketamine: IV - 1 mg/kg. IM - 2-4 mg/kg
Midazolam: IV/IM - 0.1mg/kg (max 5 mg). Intranasal - 0.3 mg/kg (max 10 mg) use 5mg/mL concentration
Morphine: IV/IM - 0.1 mg/kg (max 4 mg)

ANAPHYLAXIS

Epinephrine: IM (1mg/mL concentration) - 0.01 mg/kg (max 0.5 mg)
Diphenhydramine: IV/PO/IM - 1 mg/kg (max 50 mg)
Histamine - 2 Blocker:

- Famotidine:** IV - 0.5 mg/kg (max 20 mg) PO
- Ranitidine:** PO - 2 mg/kg (max 150 mg)

Methylprednisolone: IV/IM - 2 mg/kg (max 125 mg)
Prednisone: PO - 2mg/kg (max 60mg)

ANTIARRHYTHMIC AGENTS

Adenosine: IV/IO - 1st dose: 0.1 mg/kg rapid push (max 6 mg).
2nd dose: 0.2 mg/kg rapid push (max 12 mg).
Amiodarone (VF/VT with pulse): IV - 5mg/kg over 60 minutes (max 150mg)
Lidocaine: IV - 1mg/kg
Propranolol: IV - 0.01-0.1 mg/kg (max 1 mg)
Procainamide: IV - 15 mg/kg loading dose. Infusion - 20-80 mcg/kg/min

ANTIHYPERTENSIVES

Esmolol: IV - 0.5 mg/kg over 2 min. Infusion - 50-200 mcg/kg/min
Furosemide: IV - 1mg/kg (max 20mg). PO - 2 mg/kg (max 40 mg)
Hydralazine: IV - 0.1-0.2 mg/kg (max 20mg, may repeat)
Labetolol: IV - 0.25 mg/kg (over 2 min- max 20 mg). Infusion - 0.1-1 mg/kg/hour
Nitroprusside: IV - 0.3-2 mcg/kg/min
Nifedipine: SL or bite and chew 0.25 mg/kg (max 10 mg)
not recommend for children >12 yrs old

ASTHMA

Albuterol

- Nebulized:** < 20 kg: 2.5 mg and > 20 kg: 5 mg
- MDI:** < 20 kg: 2-4 puffs and > 20kg 4-8 puffs
- Continuous Neb:** < 20 kg: 7.5 mg/hr and > 20 kg: 10 mg/hr

Ipratropium + Albuterol: 500 mcg + weight appropriate albuterol dose as listed above

Steroid load

- Dexamethasone:** PO/IV - 0.6 mg/kg (max 16 mg)
- Prednisone:** PO - 2 mg/kg (max 80 mg)
- Methylprednisolone:** IV - 2 mg/kg (max 80 mg)

Alternative bronchodilators

- Epinephrine: IM - (1mg/mL concentration) 0.01 mg/kg (max 0.5 mg)
- Terbutaline: SubQ - 10 mcg/kg (max 300 mcg)
- Terbutaline: IV - 10 mcg/kg (over 10 minutes); infusion: 0.4-6 mcg/kg/min
- Magnesium Sulfate: IV - 40 mg/kg (max 2 grams) over 30 minutes
- Aminophylline: IV - 6 mg/kg over 30 minutes; infusion: <1 yr= 0.8mg/kg/hr; 1-9yr= 1mg/kg/hr; >9yr=0.7 mg/kg/hr

BLOOD REPLACEMENT

- Packed RBCs - 10mL/kg
- Platelets - 1 bag apheresed platelets typically contain 6 random donor unit equivalents (RDE). Recommended dose is 3mL/kg, 1 RDE is approximately 30 mL, 1 RDE/10 kg up to 60kg, maximum dose is 6 RDE
- Fresh frozen plasma - 10 mL/kg
- Cryoprecipitate- 1 unit/10 kg
- Factor VIII - 1 unit/kg
- Factor IX - 1 unit/kg

FLUID RESUSCITATION

Fluid resuscitation for hypotension, defined by SBP < 70 + (2x age in years):
NS/LR: IV/IO - 20 mL/kg (max 1000 mL) may repeat x 3

BURN INITIAL MANAGEMENT

NS/LR:

- Bolus: 20 mL/kg (max 1000 mL) or
- Continuous infusion: < 5 yrs 125 mL/hour, 6-13 yrs 250 mL/hour, > 14 yrs 500 mL/hour

HYPERKALEMIA

Sodium bicarbonate: IV - 1 mEq/kg (max 50 mEq)
Calcium: Chloride IV - 20 mg/kg (max 1 gram). Gluconate IV - 100 mg/kg (max 2 grams)
10% Dextrose and Insulin: IV - 5 mL/kg of D10 + 0.1 units/kg (regular insulin) - mix and infuse over 60 min
Furosemide: IV - 1 mg/kg (max 20 mg, may repeat)
Sodium Polystyrene Sulfonate: PO/PR - 1 gm/kg (oral max= 60 g/rectal max= 50g)
Albuterol: nebulized - 2.5 - 5 mg x 1

HYPERGLYCEMIA

Regular Insulin infusion: IV - 0.05-0.1 units/kg/hour

HYPOGLYCEMIA

Dextrose: IV
Rule of 50s: Volume (mL/kg) x Dextrose percentage = 50

- D50: Central access only - 1 mL/kg
- D25: 2mL/kg - Discard 25 mL from D50 amp and add 25 mL NS (=50 mLs of D25)
- D10: 5mL/kg - Discard 40 mL from D50 amp and add 40 mL NS (=50 mLs D10)

Glucagon: IM/IV/SC - <12 yrs: 0.5 mg, ≥12 yrs: 1 mg

HYPONATREMIA

Only for treatment of the patient with acute neurologic signs:
3% NaCl: IV - 6 mL/kg over 1 hour (max 500mL)

INCREASED ICP

3% NaCl: IV - Load: 5-10 mL/kg- over 20 minutes (max 234mL).
Infusion: 0.1-1 mL/kg/hour
Mannitol: IV - 1 gram/kg (infuse through 0.22 micron filter)

INTUBATION

Premedication:

- Atropine:** IV - 0.02 mg/kg (max 0.5 mg)
- Lidocaine:** IV - 1 mg/kg (max 50 mg)

Sedation:

- Ketamine:** IV - 2 mg/kg (max 100mg)
- Midazolam:** IV - 0.1 mg/kg (max 5 mg/dose, may repeat)
- Fentanyl:** IV - 1-2 mcg/kg (max 100mcg/dose)
- Etomidate:** IV - 0.5 mg/kg (max 20 mg/dose) short acting

Paralytics:

- Rocuronium:** IV - 1 mg/kg IV intermediate acting
- Succinylcholine:** IV - 1 mg/kg short acting/depolarizing
- Vecuronium:** IV - 0.1 mg/kg IV intermediate acting

REVERSAL AGENTS

Naloxone:

- IV/IM/IO - full reversal 0.1mg/kg/dose - max 2mg/dose. (may be repeated every 2-3 min)
- Intranasal - 4 mg

Flumazenil: IV - 0.01 mg/kg, (max 0.2 mg) (give over 15 seconds) (may repeat every minute to max cumulative dose of 1 mg)
Sugammadex: for reversal of of rocuronium or vecuronium IV – (for routine reversal of moderate block): 2 mg/kg (give over 10 seconds) (for routine reversal of deep block): 4mg/kg (for immediate reversal of block): 16mg/kg