



Cardiovascular Resuscitation

Drug	Dose	Comment
Adenosine	100 mcg/kg rapid IV push Repeat doses: Increase by 100 mcg/kg up to 250 mcg/kg	Adult doses: 6 mg, 9 mg, 12 mg
Amiodarone	5 mg/kg IV/IO	Rapid bolus for Pulseless VT/Vfib Over 20-60 min for more stable rhythms
Atropine	0.02 mg/kg IV/IO/IM/ET	Min. dose: 0.1 mg Max. dose: 0.5 mg for child Adult dose: 1 mg
Calcium Chloride	20 mg/kg IV/IO (0.2 mL/kg of 10% solution)	Give slowly over 5-30 min Adult dose 1 gm (1000 mg)
Epinephrine	1:10,000 concentration 0.1 mL/kg IV/IO	ET dosing (except newborns) 1:1000 concentration 0.1 mL/kg
Furosemide	0.5-1 mg/kg IV/IO	
Glucose	0.5 gm/kg IV/IO	Neonates: 2-5 mL/kg D10 Children: 2 mL/kg D25 Adults: 1 amp D50
Lidocaine	1 mg/kg IV/IO/ET bolus	Follow by infusion 20-50 mcg/kg/min
Magnesium sulfate	25-50 mg/kg IV/IO over 10-20 min	Maximum 2 grams
Procainamide	15 mg/kg IV/IO over 30-60 min	Continuous infusion rate: 20-80 mcg/kg/min
Sodium Bicarbonate	1 mEq/kg IV/IO 8.4% 1 mEq/mL conc. (Dilute 1:1 for neonates)	Infuse slowly Assure adequate ventilation Follow blood gasses

Equipment

Age	Weight	Resp	Pulse	BP (syst)	ET tube size Uncuffed (U) Cuffed (C)	ET depth cm tip to lip	Laryngo- scope Blade	LMA	NG Tube (Fr)	Foley	Chest Tube (Fr)
Premie	1-3 kg	<60	145	50-60	2.5-3.0 U	6 + wt.(kg)	0-1	1	5	5	10-12
Term NB	3-4 kg	<60	120	60	3.5 U	6 + wt.(kg)	1	1	5-8	5-8	12-18
1-6 mo.	4-6 kg	24-30	120	60	3.5-4.0 U	12 cm	1	1-1½	8	8	12-18
6 mo-1 yr	6-10 kg		130	80	4.0 U	12-13 cm	1	1½	8-10	8-10	14-20
1-2 yr	10-14 kg	20-24	120	90	4.0-4.5 U	13-14 cm	2	2	8-10	10	16-20
2-4 yr	12-18 kg		120	100	4.5-5.0 U	15 cm	2	2	10	10	20-24
4-6 yr	16-22 kg		100	100	5.0-5.5 U	16 cm	2	2-2½	10-12	10-12	20-32
6-8 yr	20-26 kg	12-20	100	105	5.5-6.0 U/C	17-18 cm	2	2½	12-14	12-14	24-32
10-12 yr	30-45 kg		75	115	6.5-7.0 C	20-21 cm	3	3	12-14	12-14	28-38
>14 yr	>50 kg	10-14	70	120	7.5-8.0 C	22-24 cm	3	3-4	12-14	12-14	28-38

Rapid Sequence Induction & Intubation

Preparation	Suction, airway equipment, monitor, check drug doses, oxygen available	
Pre-oxygenate	Administer 100% oxygen by Non-rebreather mask for 5 minutes	
Pretreatment drugs	Atropine	0.02 mg/kg IV Min. dose 0.1 mg; Max. dose 0.5-1 mg
	Lidocaine	1-1.5mg/kg IV. For concern of increased ICP
Induction (sedation) drugs	Etomidate	0.3 mg/kg IV, short acting
	Thiopental	2-4 mg/kg IV short acting, causes hypotension
	Midazolam	0.2 mg/kg IV
	Ketamine	2 mg/kg IV preferred for Asthma
Paralysis drugs	Succinylcholine	1-2 mg/kg IV/IM – 1 min to full effect, duration 10 min. <i>Caution:</i> If increased ICP, neuromuscular disease, hyperkalemia, risk for malignant hyperthermia, renal failure, burns over 48-72 hours old
	Rocuronium	1 mg/kg IV 45 seconds to full effect, 50 min. duration
Protection & positioning	Cricoid pressure	
Placement & Proof	Confirm with CO2 detection, breath sounds, x-ray	
Post-intubation sedation	Multiple options: Benzodiazepine +/- narcotic	

Cardiac Electricity

(Cardioversion and Defibrillation)

Defibrillation (VF and pulseless VT)			
Pediatric	Monophasic and Biphasic defibrillators		
	Initial Energy:	Second Dose:	Third Dose:
	2 J/kg	4 J/kg	4 J/kg
Adult	(Monophasic):		
	Initial energy:	Second dose:	Third dose:
	200J	200-300J	360J
Adult	(Biphasic): Recommendations vary based on manufacturer		
Synchronized Cardioversion: (Unstable SVT, VT with pulse, Afib, Aflutter)			
Pediatric	Monophasic and Biphasic defibrillators		
	Initial Energy:	Second Dose:	Third Dose:
	0.5 J/kg	1 J/kg	1J/kg
Adult	(Monophasic): 50J, 100J, 200J, 300J, 360J Dose will depend on rhythm		
	Adult (Biphasic): Recommendations vary based on manufacturer		

Newborn Resuscitation

Medication	Concentration	Dose/Route	Precautions
Epinephrine	1:10,000	0.01-0.03 mg/kg (0.1-0.3 mL/kg) ET/IV/IO	Give rapidly. If given ET, flush with 1mL saline
Volume Expanders	Normal Saline Ringer's Lactate O neg Blood	10 mL/kg	Give over 5-10 minutes
Sodium Bicarbonate	4.2% soln (0.5 mEq/mL)	2 mEq/kg (4mL/kg) IV/IO only	Give slowly over at least 2 min Give only if newborn is effectively ventilated
Glucose for hypoglycemia	D 10W	2 mL/kg IV	Follow by continuous IV glucose infusion
Phenobarbital for seizures		10-20 mg/kg slow IV (1 mg/kg/min)	May depress respiratory effort
Dopamine for hypotension		2-20 mcg/kg/min IV continuous infusion	

Every effort has been made to ensure that this information is accurate and in accordance with good medical practice. It is the responsibility of the attending physician to evaluate the appropriateness of a particular option in the context of the clinical situation with due consideration to your knowledge, skill, new developments and FDA regulations.

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Antibiotics

Antibiotics for Severe Infections:
Sepsis/Meningitis in Children

Ampicillin	100 mg/kg IV (initial dose) Adult dose: 2 gm
Ceftriaxone	100 mg/kg IV (initial dose) Adult dose: 2 gm
Vancomycin	15 mg/kg IV (initial dose) Adult dose: 0.5-1 gm
Neonatal Sepsis Antibiotics	
Ampicillin	50 mg/kg IV (initial dose)
Cefotaxime	50 mg/kg IV (initial dose)
Acyclovir	20 mg/kg IV (initial dose)

Seizures

Lorazepam	0.05-0.1 mg/kg slow IV push Onset in 3-5 min., duration 4 hr.
Midazolam	0.1 mg/kg IV/IM Onset 2-3 min. (IV), duration 1-2 hr.
Diazepam	0.1 mg/kg IV Onset 2 min. (IV), duration 20 min. 0.3 mg/kg PR (Diastat®)
Phenobarbital	10-20 mg/kg load IV Onset 20-30 min.
Phenytoin	15-20 mg/kg IV slowly load (0.1-0.3 mg/kg/min max infusion to max of 50 mg/min) Onset 15-20 min.
Fosphenytoin	15-20 PE/kg IV or IM load Load slowly 1-3 PE/kg/min or 50-150 PE/min max rate - Onset 15-20 min.
Valproic Acid	10-20 mg/kg IV
3% Saline (Hypertonic)	Only for seizures due to severe hyponatremia. 6 mL/kg IV over 30-60 min will raise serum sodium by 5 mEq/L

Respiratory Medications

Inhaled Medications (Nebulized)			
	5-10 kg	10-20 kg	>20 kg
Albuterol 0.5% solution dilute in 3 mL NS repeat dose to effect	0.5 mL	0.5 mL	0.75-1 mL
Ipratropium (Atrovent) repeat up to 3 doses	0.25 mg	0.25 mg	0.25 mg
Racemic Epi (2.25% soln) dilute in 3 mL NS	0.25 mL	0.5-0.75 mL	1.0 mL
Epinephrine soln. 1:1000	2.5 mL	5 mL	5 mL
Intravenous/Subcutaneous Medications			
Magnesium Sulfate IV	50 mg/kg IV (Max dose 2 gm). Deliver in 100-200 mL NS over 15 min		
Epinephrine 1:1000 SQ	0.01 mL/kg SQ (Max dose 0.5 mL)		
Steroids			
Methylprednisolone IV	2 mg/kg IV, Max dose 125 mg		
Prednisone PO	2 mg/kg PO, Max dose 60 mg		
Dexamethasone PO/IV/IM	0.25-0.5 mg/kg, Max dose 10 mg		