

SEDATIVES / NEUROMUSCULAR BLOCKERS

DRUG NAME	PREPARATION	COMPATIBILITY	USUAL DOSE
Lorazepam (Ativan®)	- use non-PVC bag and non-PVC tubing - 2 mg/mL: Add 50mg/25mL to an empty Viaflex bag	- compatible with amiodarone, cisatracurium, dopamine, dobutamine, epinephrine, fentanyl, furosemide, heparin, hydromorphone, labetalol, norepinephrine, KCl, propofol - incompatible with ketamine	- Load with 2-4 mg (IV push or in D5W or NS) - Maintenance infusion: 1- 10 mg/h - titrate by 1mg/h - twice as potent as midazolam (i.e. 4mg midazolam = 2mg lorazepam) - cost/day (2mg/h): \$25
Midazolam (Versed®)	- Add 50mg (10mL of 5mg/mL strength) of midazolam to a 50mL minibag of D5W or NS	- compatible with amiodarone, cisatracurium, dobutamine, dopamine, esmolol, fentanyl, heparin, hydromorphone, insulin, ketamine, labetalol, milrinone, norepinephrine, propofol, vasopressin - incompatible with Ringer's lactate, furosemide, pantoprazole, sodium bicarbonate	- Load with 2-6 mg (IV push or in D5W or NS) - Maintenance infusion: 1-10 mg/h - titrate by 1-2 mg/h - cost/day (4mg/h): \$20
Propofol (Diprivan®)	- use glass bottles - available as 10mg/mL - run straight, regular tubing - discard bottle and tubing after 24 hours	- compatible with calcium gluconate, dopamine, dobutamine, epinephrine, esmolol, fentanyl, furosemide, heparin, hydromorphone, insulin, ketamine, labetalol, lorazepam, midazolam, milrinone, nitroglycerin, norepinephrine, phenylephrine, sodium bicarbonate - incompatible with CaCl, cisatracurium	- Load with 10-20mg - Maintenance dose: 5- 100ug/kg/min - titrate by 5 - 10 ug/kg/min - cost/day (50ug/kg/min): \$180
Rocuronium (Zemuron®)	- 1 mg/mL: Remove 25 mL from a 250 mL bag of D5W or NS. Add 250 mg/25 mL (5 ampoules) of rocuronium - 2 mg/mL: Remove 50 mL from a 250 mL bag of D5W or NS. Add 500 mg/50 mL (10 ampoules) of rocuronium	- compatible with D5W, NS or RL, milrinone	- Load with 0.5 mg/kg - Maintenance infusion 0.25-1 mg/kg/h (usually titrated to 1-2 twitches on TOF) - cost/day: \$65
Ketamine (Ketalar®)	- add 500mg (10mL) from the 50mg/mL vial of ketamine to 250mL NS or - run straight (10 mg/mL ONLY) by placing desired volume in empty Viaflex bag	- compatible with fentanyl, hydromorphone, midazolam, propofol - incompatible with lorazepam	- Sedation: 0.1 – 2 mg/kg/h - Painful procedures: 0.5 mg/kg load followed by 1.5 –2 mg/kg/h - cost/day: \$150

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INOTROPES / VASOPRESSORS

DRUG NAME	PREPARATION	COMPATIBILITY	USUAL DOSE
Dobutamine (Dobutrex®)	- Add 250mg (20mL) of dobutamine to 250mL of D5W, NS or Ringer's lactate	- compatible with amiodarone, CaCl, calcium gluconate, dopamine, epinephrine, fentanyl, hydromorphone, magnesium, midazolam, milrinone, morphine, nitroglycerin, nitroprusside, norepinephrine, phenylephrine, KCl, propofol, vasopressin - incompatible with furosemide, heparin, insulin, pantoprazole, sodium bicarbonate	- 2.5 - 20 ug/kg/min - titrate by 2.5-5 ug/kg/min - cost/day (10ug/kg/min): \$25.00
Dopamine (Intropin®, Revimine®)	- premixed bags of 200mg/250 mL (800 mcg/mL), 400mg/250mL (1600 mcg/mL) and 800mg/250mL (3200 mcg/mL)	- compatible with amiodarone, CaCl, dobutamine, epinephrine, esmolol, fentanyl, heparin, hydromorphone, labetalol, midazolam, morphine, milrinone, nitroglycerin, nitroprusside, norepinephrine, pantoprazole, KCl, propofol, vasopressin - incompatible with furosemide, insulin, sodium bicarbonate	- "Renal" dose: 1-3 ug/kg/min - inotropic dose: 4-10 ug/kg/min - vasopressor dose: > 10ug/kg/min - titrate by 2.5-5 ug/kg/min - cost/day (7.5ug/kg/min): \$12.00
Epinephrine (Adrenalin®)	- Add 4mg (4mL) of epinephrine to 250mL of D5W, NS or Ringer's lactate	- compatible with amiodarone, CaCl, calcium gluconate, dobutamine, dopamine, furosemide, heparin, hydromorphone, norepinephrine, morphine, midazolam, pantoprazole, propofol, KCl, vasopressin - incompatible with sodium bicarbonate, insulin	- Begin with 2 ug/min and increase as needed - titrate by 1-5 ug/min - cost/day (5 ug/min): \$ 5.00
Milrinone (Primacor®)	- Remove 20mL from 100mL NS or D5W and add 20mg (20mL) of milrinone	- compatible with amiodarone, CaCl, calcium gluconate, dobutamine, dopamine, epinephrine, fentanyl, heparin, hydromorphone, insulin, ketamine, magnesium, midazolam, morphine, nitroglycerin, nitroprusside, norepinephrine, KCl, propofol, vasopressin - incompatible with furosemide	- Load: 50 ug/kg over 10min in minibag or buretrol - Maintenance infusion: 0.375-0.75 ug/kg/min - titrate by 0.125 to 0.25 ug/kg/min - cost/day (0.25 ug/kg/min): \$165.00
Norepinephrine (Levophed®)	- Add 4mg (4mL) of norepinephrine to 250mL D5W	- compatible with amiodarone, CaCl, calcium gluconate, dobutamine, dopamine, epinephrine, heparin, hydromorphone, magnesium, midazolam, milrinone, morphine, KCl, propofol, vasopressin - incompatible with APC, insulin, furosemide, pantoprazole, sodium bicarbonate	- Begin with 2 ug/min and increase as needed - titrate by 1-5 ug/min - cost/day (10ug/min): \$12.00
Phenylephrine (Neosynephrine®)	- Add 20mg (2mL) of phenylephrine to 250mL D5W or NS	- compatible with amiodarone, cistracurium, dobutamine, dopamine, epinephrine, furosemide, heparin, morphine, midazolam, norepinephrine, KCl, propofol, sodium bicarbonate, vasopressin - incompatible with insulin	- Load: 200 ug by direct bolus; repeat every 10-15 min - Maintenance infusion: 40-180 ug/min - titrate by 20 ug/min - cost/day (100ug/min): \$25.00
Vasopressin (Pitressin®)	- Add 100 units (5mL) of vasopressin to 250mL of D5W or NS	- compatible with amiodarone, dobutamine, dopamine, epinephrine, furosemide, heparin, midazolam, morphine, milrinone, norepinephrine, pantoprazole, sodium bicarbonate - incompatible with insulin	- Usual dose: 0.4 – 3.2 units/hour -higher doses appear to have less vasopressor effect - titrate by 0.4 units/hour - cost/day: (3.2 units/h): \$45.00

ANTIHYPERTENSIVES

DRUG NAME	PREPARATION	COMPATIBILITY	USUAL DOSE
Furosemide (Lasix®)	- Add 100mg (10mL) of furosemide to a 100mL bag of NS only	- compatible with epinephrine, heparin, hydromorphone, insulin, nitroglycerin, pantoprazole, KCl, propofol, sodium bicarbonate, vasopressin - incompatible with D5W, amiodarone, cisatracurium, dobutamine, dopamine, esmolol, fentanyl, labetalol, morphine, midazolam, milrinone, pantoprazole	- Load: 20-40mg IV push - Maintenance infusion: 2-10mg/h - titrate by 2-4mg/h - cost/day (4mg/h): \$6.00 (using 40mg amps), \$16.00 (using 250mg amp)
Esmolol (Brevibloc®)	- premixed bags containing 2500mg/250mL (10mg/mL)	- compatible with amiodarone, dopamine, insulin, labetalol midazolam, morphine, nitroglycerin, nitroprusside, pancuronium, KCl, propofol, vasopressin - incompatible with furosemide, pantoprazole, sodium bicarbonate	- Load with 500ug/kg/min (0.5mg/kg/min) for 1 minute - Maintenance infusion: 50 ug/kg/min. If no response in 5-10 minutes, repeat loading dose and increase infusion to 100 ug/kg/min. Continue to increase with 50 ug/kg/min increments until desired effects accomplished. - Repeat loading dose prior to each increase in infusion rate. - cost/day (150ug/kg/min): \$700.00
Labetalol (Trandate®)	- Remove 90mL from a 250mL D5W or NS bag. Add 200mg (40mL) of labetalol or - Add undiluted drug (5mg/mL) to an empty Viaflex bag	- compatible with amiodarone, esmolol, midazolam, morphine, nitroglycerin, nitroprusside, KCl, propofol, sodium bicarbonate, vasopressin - incompatible with furosemide, heparin and insulin	- Bolus: Start with 5-20mg IV over 2 minutes, followed by repeat doses of 5-40mg at 10-30min intervals to a maximum of 300mg - Infusion: Begin at 0.5mg/min, and increase to a maximum of 2mg/min - titrate by 0.5mg/min - cost/day (2mg/min): \$180.00
Nitroglycerin (Tridil®, Nitrobid®, Nitroject®, Nitrostat®)	- dilute ONLY in a polyolefin bag (e.g. Excel) - Half-strength : add 25mg (5mL) of nitroglycerin to 250mL of D5W or NS - Single strength : add 50mg (10mL) to 250mL of D5W or NS - Double strength : add 100mg (20mL) to 250mL of D5W or NS - PVC tubing acceptable - do not infuse through an in-line filter	- compatible with amiodarone, dobutamine, dopamine, esmolol, furosemide, heparin, hydromorphone, insulin, labetalol, midazolam, milrinone, morphine, nitroprusside, pancuronium, pantoprazole, KCl, propofol, sodium bicarbonate, vasopressin	- Begin at 5-40 ug/min (0.25-0.5ug/kg/min) and increase as necessary - titrate by 10-20 ug/min - cost/day (50 ug/min): \$1.50
Nitroprusside (Nipride®)	- Reconstitute 50mg vial with 3mL D5W only - Add 50mg of nitroprusside to 250mL bag of D5W only - protect from light (cover with foil)	- compatible with NS, dobutamine, dopamine, epinephrine, esmolol, furosemide, heparin, insulin, labetalol, midazolam, milrinone, morphine, nitroglycerin, pancuronium, propofol, KCl	- Begin at 0.5 ug/kg/min and increase up to a maximum of 8 ug/kg/min - titrate by 0.5 ug/kg/min - cost/day (2 ug/kg/min): \$85.00

ANTIARRHYTHMICS

DRUG NAME	PREPARATION	COMPATIBILITY	USUAL DOSE
<p>Amiodarone (Cordarone®)</p>	<ul style="list-style-type: none"> - Add 600mg (12mL) amiodarone to 250 mL D5W only - use glass bottle - use central line (preferred) and 0.22 um filter 	<ul style="list-style-type: none"> - compatible with calcium chloride, calcium gluconate, dobutamine, dopamine, epinephrine, esmolol, fentanyl, insulin, labetalol, midazolam, milrinone, morphine, nitroglycerin, norepinephrine, phenylephrine, KCl, vasopressin - incompatible with digoxin, furosemide, heparin, magnesium, sodium bicarbonate 	<ul style="list-style-type: none"> - Load: 150 mg over 10 minutes in D5W minibag or buretrol - Maintenance infusion: 1st 6 hours: 1mg/min; thereafter 0.5mg/min -cost/day (0.5mg/min): \$275.00

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