

JDH Dose Guidelines for IV Titratable Medications

These are dosing guidelines only. MD/LIP is required to order each medication with the following parameters: 1. Loading dose if applicable 2. Initial rate 3. Titration rate (incr./decr.) with time interval 4. Max. Dose and 5. Reason/goal. Parameters can be modified by the ordering MD/LIP.

Refer to the on-line Medication References or unit specific medication protocols for additional details

Ref. date 4/30/09

Medication	Admixture Concentration (s) Conc.-fluid restricted patient	Initial Rate of Infusion (unless MD orders rate)	Titration Rate (Increase/Decrease)	Order Reason / Desired Patient Response	Maximum Dose For specified time	Call Physician Parameters
Cisatracurium (Nimbex®)	100 mg / 100 ml D5W =1mg / ml	Load: 0.1 -0.2 mg/kg then CI: 2 mcg/kg/min	Titrate by: 1 mcg/kg/min q 10 mins	Neuromuscular Blockade / To achieve specified Train of four TOF 2 to 3 out of 4	10 mcg/kg/min	Specified Train of four not achieved @ Maximum Dose
Diltiazem	125 mg/125 ml D5W	5 mg/hr	Do Not Titrate	Rate Control	15 mg/hr	
Dobutamine (Dobutrex®)	250 mg /250ml D5W = 1 mg/ml 500 mg /250ml D5W = 2 mg/ml 1000 mg /250ml D5W = 4 mg/ml	2.5 mcg/kg/min	Titrate by: 2.5 mcg/kg/min q 5 mins	Decreased CI / To achieve specified increase in CI CI > 2.0	CSDU-10 mcg/kg/min ICU/ED : - 20 mcg/kg/min	Specified increase of CI not achieved @ Maximum Dose, HR > 140 or V. tachyarrhythmias
Dopamine	400mg/ 500 ml D5W = 0.8 mg/ml 800 mg/500ml D5W = 1.6 mg/ml 800 mg/250ml D5W = 3.2 mg/ml	Renal : 1 mcg/kg/min Inotrope 2 mcg/kg/min, Pressor 5 mcg/kg/min.	Titrate by: 1 mcg/kg/min q 5-10 min Titrate by: 2.5 mcg/kg/min q 5 min	Hypotension / Renal perfusion To achieve specified U/ O or U/O > 30 mls/hr , or specified increase in SBP SBP 100-120 or MAP > 60	CSDU- 5 mcg/kg/min ICU - 30 mcg/kg/min	Specified increase of SBP or U/O or not achieved @ Maximum Dose
Epinephrine	4mg/250ml D5W = 16 mcg/ml 8 mg/250ml D5W = 32 mcg/ml 16 mg/250ml D5W= 64 mcg/ml	0.02 mcg/kg/min	Titrate by: 0.02 mcg/kg/min q 5 mins	Hypotension /Low CI / To achieve specified increase of SBP, HR SBP 100-120 or MAP> 60 or CI > 2.0	0.2 mcg/kg/min	Specified increase of SBP, CI or HR not achieved @ Maximum Dose
Esmolol (Brevibloc®)	2500mg/250ml NS = 10 mg/ml	Load: 500 mcg/kg over 1 min, & repeat prn q 5 mins for a total of 3 boluses CI: 50 mcg/kg/min	Titrate by: 50 mcg/kg/min q 5 mins with reload of 500 mcg/kg over 1 min	Tachycardia/HTN / To achieve specified reduction of SBP,HR or decreases of 15-20% HR 60-80, SBP 100-120 or MAP> 60	200 mcg/kg/min	Specified decrease of HR or SBP not achieved @ Maximum Dose
Fentanyl	2500 mcg/ 250 mls NS= 10 mcg/ml	CI: 25 mcg/hr	Titrate by : 25 mcg/hr q 30 mins	Pain / Sedation To achieve specified sedation level Pain Level as ordered	200 mcg / hr	Specified sedation not achieved @ Maximum Dose
Labetalol (Normodyne® Trandate®)	500 mg/ 500 mls D5W = 1 mg/ml 1000 mg/ 500 mls D5W = 2 mg/ml	Load: 5-20 mg over 2 min, may repeat q 10 mins as 40, 80, 160 mg. max. of 300 mg for goal BP. CI: 0.5 mg/min	Titrate by: 0.5 mg/min q 15 mins	Hypertension / To achieve specified reduction of SBP SBP 100-120 or MAP > 60 or HR 60-80	2 mg/min = 120 mg/hr	Specified decrease of SBP or HR not achieved @ Maximum Dose
Lorazepam (Ativan®)	100mg/100ml D5W= 1mg/ml	Sedation –Vented Patient/ ETOH W/D 1 mg/hr	Titrate by: 1 mg/hr q 30 minutes	Sedation / To achieve specified Sedation Level RASS -1 to -2	15 mg/hr	Specified Sedation not achieved @ Maximum Dose
Midazolam (Versed®)	100mg/100ml D5W=1 mg/ml	0.5 mg/hr	Titrate by : 0.5 mg/hr q 10 mins	Sedation / To achieve specified Sedation Level RASS -1 to -2	20 mg/hr	Specified Sedation not achieved @ Maximum Dose
Milrinone	40mg/200ml D5W= 200mcg/ml	Bolus of 50 mcg/kg then CI: 0.375 mcg/kg/min	Do Not Titrate	Decreased CI / To achieve specified increased of CI, dec. PCWP & SVR CI > 2.0	0.75 mcg/kg/min	Specified Increase of CI not achieved @ Maximum Dose
Nitroglycerin	50mg/250ml D5W=200 mcg/ml 100mg/250ml D5W=400 “	10 mcg/min	Titrate by: 10 mcg/min q 5 min	CP/ Dyspnea/ HTN / To achieve specified decrease of Chest Pain, SOB Chest Pain Free, SBP >100 or MAP > 60	200 mcg/min	Specified decrease of chest pain or SPB not achieved @ Maximum Dose
Nitroprusside (Nipride®)	50mg/250ml D5W=200mcg/ml 100mg/250ml D5W=400mcg/ml	0.3 mcg/kg/min	Titrate by: 0.3 mcg/kg/min q 5 min	Hypertension / To achieve specified decrease of SBP SBP 100-120 or MAP > 60	10 mcg/kg/min	Specified decrease of SBP not achieved @ Maximum Dose
Norepinephrine (Levophed®)	4mg/250ml D5W =16 mcg/ml 8mg/250ml D5W =32 mcg/ml 16mg/250ml D5W=64 mcg/ml	0.03 mcg/kg/min	Titrate by: 0.03 mcg/kg/min q 2 min	Hypotension /To achieve specified increase of SBP. SBP 100-120 or MAP > 60	0.3 mcg/kg/min	Specified increase of SBP not achieved @ Maximum Dose
Phenylephrine- Neosynephrine®	10mg/250ml D5W= 40 mcg/ml 20mg/250ml D5W= 80 mcg/ml 40mg/250ml D5W=160mcg/ml	10 mcg/min	Titrate by: 20 mcg/min q 2 minutes to 180 mcg/min, as SBP stabilizes decrease to 40-60 mcg/min	Hypotension / To achieve specified increase of SBP SBP 100-120 or MAP > 60	180 mcg/min	Specified increase of SBP not achieved @ Maximum Dose
Propofol (Diprivan®)	500 mg/50 ml DW= 10 mg/ml 1,000 mg/100 ml DW= 10 mg/ml	10 mcg/kg/min (0.3mg/kg/hr)	Titrate by: 10 mcg/kg/min q 5 minutes & MD to select Wean or Hold For Daily Sedation Holiday	Sedation / To achieve specified sedation level RASS -1 to -2	50 mcg/kg/min	Specified sedation not achieved @ Maximum Dose
Vasopressin	100 units/ 100 ml NS=1 unit/ml	0.04 units/min	Do Not Titrate	Hypotension / To achieve specified increase of SBP SBP 100-120 or MAP > 60	0.04 units/min	Specified increase of SBP not achieved @ Maximum Dose

