



Iredell Memorial Hospital Critical Care/Emergency Department Adult Infusion Guidelines

The following orders are intended to provide a specific, safe, and effective means of initiating and titrating medications for critically ill patients. Physicians may modify doses and/or parameters as necessary pending patients' status. For all medications listed below, the responsible LIP is to be notified if unable to titrate or the maximum dose is reached and goals of therapy are not met.

Classification Drug Name	Onset	Preparation	Compatible Fluids	Starting Dose for ICU Sedation	Titration Guidelines (for increasing & decreasing doses) with Maximum dose
Analgia/Anesthesia/Sedation:					
dexmedetomidine (Precedex)	1 min	400 mcg/100 ml NS 200 mcg/50 ml NS	NS ONLY	Begin infusion at 0.2 mcg/kg/hr.	titrate by 0.1 mcg/kg/hr every 30min to -2 RASS sedation score. Monitor for hypertension. Max dose = 1.4 mcg/kg/hr.
dexmedetomidine (Precedex) ED ONLY	1 min	400 mcg/100ml NS 200 mcg/50 ml NS	NS ONLY	Begin infusion at 0.4 mcg/kg/hr.	titrate by 0.1 mcg/kg/hr every 30 min to -2 RASS sedation score. Monitor for hypertension. Max dose = 1.4 mcg/kg/hr.
fentaNYL (Sublimaze)	seconds	1000 mcg/100 ml	NS or D5W	Begin infusion at 25 mcg/hr.	titrate by 25 mcg/hr every 15 min to -2 RASS sedation score. Max dose = 300 mcg/hr.
fentaNYL (Sublimaze) ED ONLY	seconds	1000 mcg/100 ml	NS or D5W	Begin infusion at 50 mcg/hr.	titrate by 25 mcg/hr every 15 min to -2 RASS sedation score. Max dose = 300 mcg/hr.
LORazepam (Ativan)	1-3 min	20 mg/90 ml fluid for total volume of 100 ml Concentration = 0.2 mg/ml	NS or D5W	For agitation: Begin infusion at 0.01 mg/kg/hr.	titrate by 0.5 mg/hr every 15 minutes to -2 RASS sedation score. Max dose = 5 mg/hr. If oversedated, hold infusion x 30 min and restart at 75% prior rate. If patient still exceeds RASS of -2, discontinue drip and notify physician.
midazolam (Versed)	1-5 min	50 mg/50 ml 100 mg/100 ml	NS or D5W	Begin infusion at 0.02 mg/kg/hr.	titrate by 1 mg/hr every 15 min to -2 RASS sedation score. Max = 10 mg/hr. If oversedated, hold infusion x 30 min and restart at 75% prior rate. If patient still exceeds RASS of -2, discontinue drip and notify physician.
propofol (Diprivan)	seconds	1000 mg/100 ml *premixed 500 mg/50 ml *premixed		Begin infusion at 5 mcg/kg/min.	titrate by 5 mcg/kg/min every 5 min to -2 RASS sedation score. Max dose = 50 mcg/kg/min.
Neuromuscular Blockers:					
CISatracurium (Nimbex)	2-3 min	100 mg/250 ml	NS or D5W	For ICU paralysis: Begin infusion at 1 mcg/kg/min.	For ICU paralysis: titrate by 1 mcg/kg/min every 10 min to TOF 2-3 twitches. Max = 10 mcg/kg/min. Must be on MECHANICAL VENTILATION and MUST be INDEPENDENTLY VERIFIED by TWO RN's.
vecuronium (Norcuron)	2-3 min	20 mg/100 ml	NS or D5W	For ICU paralysis: Begin infusion at 0.8 mcg/kg/min.	For ICU paralysis: increase by 0.3 mcg/kg/min every 15 min or decrease by 50% to TOF 2-3 twitches. Max = 1.2 mcg/kg/min. Must be on MECHANICAL VENTILATION and MUST be INDEPENDENTLY VERIFIED by TWO RN's.

Classification Drug Name	Onset	Preparation	Compatible Fluids	Starting Dose for ICU Sedation	Titration Guidelines (for increasing & decreasing doses) with Maximum dose
Vasoactive Medications:					
diltiazem (<i>Cardizem</i>)	minutes	125 mg/100 ml fluid for total volume of 125 ml Concentration = 1 mg/ml	NS or D5W	LD: 0.25 mg/kg over 2 min. Max=20 mg. Begin infusion at 5 mg/hr.	titrate by 5 mg/hr every 15 min to goal heart rate of ≤ 110 beats per min or conversion to normal sinus rhythm, whichever comes first. Max = 15 mg/hr.
DOBUTamine (<i>Dobutrex</i>)	1-10 min	250 mg/250 ml	NS or D5W	Begin infusion at 2 mcg/kg/min.	titrate by 2.5 mcg/kg/min every 10 min to keep MAP ≥ 65 and SBP ≥90. Max 20 mcg/kg/min.
DOPamine (<i>Intropin</i>)	5 min	400 mg/250 ml 800 mg/500 ml	NS or D5W	Begin infusion at 2 mcg/kg/min.	titrate by 5 mcg/kg/min every 10 min to keep MAP ≥ 65 and SBP ≥90. Max = 20 mcg/kg/min.
EPINEPHrine (<i>Adrenalin</i>)	minutes	4 mg/250 ml	NS or D5W	For symptomatic bradycardia: Begin infusion at 2 mcg/min.	titrate by 1 mcg/min every 5 min to keep SBP ≥ 90. Max = 10 mcg/min.
esmolol (<i>Brevibloc</i>)	2-10 min	2500 mg/250 ml *premixed		Begin infusion at 50 mcg/kg/min.	For SVT: titrate by 50 mcg/kg/min every 4 min to keep HR ≤ 100 beats per min. Max = 200 mcg/kg/min.
fenoldopam (<i>Corlopam</i>)	10 min	10 mg/250 ml	NS or D5W	Begin infusion at 0.01 mcg/kg/min.	titrate by 0.05 mcg/kg/min every 15 min until target SBP of ≤ 160 is reached. For short term use only (≤ 48 hr)
labetalol (<i>Trandate</i>)	2-5 min	200 mg/160 ml fluid for total volume of 200 ml	NS or D5W	Begin infusion at 1 mg/min.	titrate by 0.5 mg/min every 10 min to max rate of 3 mg/min to keep SBP ≤ 160. Max <u>cumulative</u> dose (including bolus doses) = 300 mg at which time it is recommendation to switch therapy or add additional agent.
niCARDipine (<i>Cardene</i>) NON-STROKE	10 min	25 mg/250 ml	NS or D5W	Begin infusion at 5 mg/hr.	titrate by 2.5 mg/hr every 10 min to keep SBP ≤ 160. Max = 15 mg/hr.
niCARDipine (<i>Cardene</i>) STROKE	10 min	25 mg/250 ml	NS or D5W	Begin infusion at 5 mg/hr.	titrate by 2.5 mg/hr every 15 min to keep BP < 185/105. Max = 15 mg/hr.
nitroglycerin (<i>Tridil</i>)	seconds	50 mg/250 ml *premixed	NS or D5W	Begin infusion at 5 mcg/min.	titrate by 5 mcg/min every 5 min to keep SBP ≤ 160. Notify provider for SBP < 100. Max = 200 mcg/min.
nitroprusside (<i>Nipride</i>) NON-STROKE	< 2 min	50 mg/250 ml D5W	D5W ONLY	FOR HYPERTENSION: Begin infusion at 0.3 mcg/kg/min.	For HYPERTENSION: titrate by 0.5 mcg/kg/min every 5 min to keep SBP ≤ 160. Max = 10 mcg/kg/min.
nitroprusside (<i>Nipride</i>) STROKE	< 2 min	50 mg/250 ml D5W	D5W ONLY	Begin infusion at 0.5 mcg/kg/min.	titrate by 0.5 mcg/kg/min every 5 min to keep SBP 130-170 and DBP 70-90. Avoid hypotension. Max = 10 mcg/kg/min.
norEPINEPHrine (<i>Levophed</i>)	seconds	4 mg/250 ml	NS or D5W	Begin infusion at 2 mcg/min.	titrate by 2 mcg/min every 5 min to keep MAP > 65. Max = 40 mcg/min.
phenylephrine (<i>Neo-Synephrine</i>)	seconds	10 mg/100 ml	NS or D5W	Begin infusion at 50 mcg/min.	titrate by 5 mcg/min every 5 min to keep MAP ≥ 65. Max = 450 mcg/min.
vasopressin (<i>Pitressin</i>)	minutes	20 units/100 ml	NS or D5W	For septic shock , infuse at 0.03 units/min (= 9 ml/hr). No titration.	

References: Lexicomp 2015-2017, Trissels Handbook of Inj Drugs, (2016), Medication PI ; P&T approval 6/15. Reviewed 12/2017, 4/2021 minor ; Revised: 4/2019, 12/2021