



## CONWAY MEDICAL CENTER POLICY

**When in hard copy form, refer to Policy Manager to validate this as the most current revision**

POLICY TITLE:	Guidelines for Standard Intravenous Infusion Concentrations		
ISSUED BY:	General Nursing Services	REFERENCE #:	GNA-3.96-POL
APPROVED BY:	Vice President of Patient Care Services	EFFECTIVE DATE:	August 2003

**SCOPE:** CMC Physicians, Pharmacy, Nursing Department

### **POLICY STATEMENT:**

To provide guidelines for the safe storage, handling and administration of medications that have a high risk of causing significant patient harm.

### **Policy Guidelines:**

- I) The Pharmacy and Therapeutics Committee and the Critical Care Committee have undertaken the task of identifying and standardizing the number of medication drips available for intravenous administration and the required patient location.
- II) To obtain a patient specific dose the Physician should adjust the rate of the infusion as opposed to the concentration, thus keeping the concentration of the medication standardized.
- III) In cases when fluid restriction is required, solutions may be double concentrated. Pharmacy is to label all double concentrated solutions with precautionary label(s) and include the final concentration of the solution in the comment section of the label.
- IV) In chart below **DC** means "Double Concentrated."

Drug	Standard	Base Solution	Concentration
Acetylcysteine (Acetadote)		D5W	Weight based and given in 3 steps per protocol ( <b>Protocol #3303</b> ) ED/ICU ONLY
Amiodarone (Cordarone)	Load: 150mg/100ml Maintenance: 900mg/500ml 360mg/200ml	D5W (non-PVC)	1.5mg/ml ( <b>Protocol #359</b> ) 1.8mg/ml ED/ICU/PCU/CCL/Tele ONLY
Bumetanide (Bumex)	24mg/96ml	NS	0.25mg/ml



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Drug	Standard	Base Solution	Concentration
Diltiazem (Cardizem)	125mg/125ml 100mg/100ml	D5W NS	1mg/ml ( <b>Protocol #326</b> ) ED/ICU/PCU/CCL
Dobutamine (Dobutrex)	250mg/250ml 500mg/250ml <b>DC</b>	D5W (DC non-premix)	1000mcg/ml ( <b>Protocol #3415</b> ) 2000mcg/ml <b>DC</b> ED/ICU/PCU/CCL Titrated Dose Telemetry – Med-Surg - Renal Dose
Dopamine	400mg/250ml 800mg/250ml <b>DC</b>	D5W (DC non-premix)	1600mcg/ml ( <b>Protocol #3414</b> ) 3200mcg/ml <b>DC</b> ED/ICU/PCU/CCL - Titrated Dose Tele/Med/Surg - Renal Dose
Epinephrine (Adrenalin)	5mg/250ml	D5W	20mcg/ml ( <b>Protocol #365</b> ) ED/ICU/CCL ONLY
Tirofiban (Aggrastat)	12.5mg/250ml	(Premixed)	50 mcg/ml ( <b>Protocol #3344</b> ) ED/ICU/PCU/CCL/Telemetry ONLY
Esmolol (Brevibloc)	2.5g/250ml	D5W (Premixed)	10 mg/ml ( <b>Protocol #315</b> ) ED/ICU/CCL ONLY
Furosemide (Lasix)	200mg/100ml	NS	2mg/ml
Fenoldopam (Corlopan)	10mg/250ml	NS	40mcg/ml ( <b>Protocol #364</b> ) ED/ICU/PCU/CCL ONLY
Fentanyl	2500mcg/100ml	D5W NS	25 mcg/mL ( <b>Protocol #3416</b> ) ED/ICU/Palliative Care Patient
Heparin	25,000 units/500 ml	D5W (Premixed)	50 units/ml ( <b>Protocol #306</b> )
Insulin Regular	100 units/100ml	NS	1 units/ml ( <b>Protocol #397</b> ) ED/ICU/PCU/L&D
Isoproterenol (Isuprel)	2 mg/500 ml	D5W	4mcg/ml ED/ICU/CCL ONLY
Labetalol (Normodyne)	200mg/200ml	D5W NS	1mg/ml ( <b>Protocol #380</b> ) ED/ICU/PCU/CCL ONLY
Lidocaine	2g/500ml	D5W (Premixed)	4mg/ml ED/ICU/PCU/CCL ONLY
Magnesium	20 g/500ml	Water	40mg/ml ( <b>Protocol #3337</b> )



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Drug	Standard	Base Solution	Concentration
		(Premixed)	OB
Midazolam (Versed)	100mg/100ml	NS	1mg/ml ( <b>Protocol #3417</b> ) ED/ICU/Palliative Care patient
Naloxone (Narcan)	4mg/100ml	NS	0.04mg/ml ED/ICU
Nitroglycerin	25 mg/250ml	D5W (Premixed)	100 mcg/ml ( <b>Protocol #381</b> ) ED/ICU/PCU/CCL ONLY
Nitroprusside (Nipride)	50mg/500ml	D5W	100 mcg/ml ( <b>Protocol #379</b> ) ED/ICU/CCL ONLY
Norepinephrine (Levophed)	4 mg/250 ml 8 mg/500 ml 16 mg/500 ml <b>DC</b>	D5W	16 mcg/ml ( <b>Protocol #366</b> ) 32 mcg/ml <b>DC</b> ED/ICU/CCL ONLY
Octreotide Acetate (Sandostatin)	600mcg/240ml	NS D5W	2.5 mcg/ml ( <b>Protocol #369</b> )
Pantoprazole (Protonix)	40 mg/100 ml 96 mg/240 ml	NS	0.4 mg/ml
Phenylephrine (Neo Synephrine)	10 mg/250 ml 20 mg/500 ml 40 mg/1000 ml	NS D5W	40mcg/ml ( <b>Protocol #383</b> ) ED/ICU/CCL ONLY
Procainamide (Pronestyl)	2g/500ml	NS	4mg/ml ( <b>Protocol #3387</b> ) ED/ICU/PCU/CCL ONLY
Propofol (Diprivan)	1000mg/100ml	(Premixed Bottle)	10 mg/ml ( <b>Protocol #353</b> ) ER/ICU intubated patients only
Vasopressin (Pitressin)	40 units/100ml	D5W	0.4 units/ ml ED/ICU ONLY
Vecuronium (Norcuron)	50mg/100ml	D5W NS	500mcg/ml ED/ICU in sedated/intubated patient only
Ibutilide (Corvert)	1mg/60ml	D5W	ED/ICU/PCU/CCL ONLY ( <b>Protocol #3304</b> )
Nicardipine (Cardene)	20mg/200ml 25mg/250ml 40 mg/200 ml <b>DC</b>	NS D5W	0.1mg/ml ( <b>Protocol #3327</b> ) 0.2 mg/ml <b>DC</b> ED/ICU/PCU/CCL ONLY
Argatroban	250mg/250ml	D5W	1000mcg/ml ( <b>Protocol #3341</b> ) ICU/PCU/Telemetry ONLY



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Drug	Standard	Base Solution	Concentration
Rocuronium (Zemuron)	500mg/500ml	NS	1000mcg/ml ( <b>Protocol #3370</b> ) ED/ICU/CCL in sedated/intubated patient ONLY
Dexmedetomidine (Precedex)	200mcg/50ml 400mcg/100ml	NS D5W	4mcg/ml ( <b>Protocol #3375</b> ) ICU/PCU ONLY

**RECORDS:** Various Facility Protocols

**REFERENCE STANDARDS:**

- I) Medicare Conditions of Participation: Pharmacy Services §482.25(b) Standard Delivery of Services.
- II) NIAHO: Medication Management (MM): MM.1 Management Practices

**REVISION/REVIEW HISTORY:**

Date	Affected Section(s)	Summary of Changes ('Reviewed' or details of change)
		March 2004; April 2004; January 2005; October 26, 2006; November 19, 2007; June 19, 2008; October 6, 2010; February 2, 2011; April 11, 2011-KM, 12/10/12 jv/ap (L&D to Insulin)
10/03/2013 4/9/2014	Reviewed All	None (Dir Pharmacy/Dir. Clin Ed), P&T
7/1/2016	Reviewed all	Added "and the required patient location" to I); added statement about use of electronic reference for general administration information
9/19/2019	Reviewed all	Clarification added to Vecuronium about sedated/intubated; clarification added to Naloxone ED/ICU GTT. Reviewed by CCU Mngt and Clin Ed.; Pharmacist Review--additional mixture concentrations added to Dobutamine, Dopamine, Esmolol, Fentanyl, Versed, Levophed, Corvert, Cardene, and Precedex. Deleted Theophylline from chart. Removed the wording "intubated patients" from Precedex.
4/27/2020	Logo	Updated to new Logo
2/10/22	All	Reviewed, no changes
6/28/2022	All	Updated chart. No new drugs. Mostly added form/protocol # and format improvement
1/8/2023	Chart	Changed Narcan concentration, added Lasix and Bumex drips
2/21/23	Chart	Added PCU into bottom row of chart