

Continuous Medicated Infusions for Specified Non-ICU Units March 30, 2020 0842

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Select units will begin providing additional patient interventions including medicated infusions and BiPAP therapy. The units initially identified include but are not limited to: 1E at Blodgett, 7 South and 9 Center at Butterworth.

For medication infusions, the selected units will be considered as SHGR specified Non-ICU units in: **Continuous Intravenous (IV) Preparation and Administration Appendix A (Adult): Intravenous Infusions on Specific Units - Grand Rapids** Reference # 24652. Listed below are a few of the medications covered within this appendix. Use **Adult Progressive Care** drug library in Baxter pump. Ensure patients receiving these infusions are on a cardiac monitor.

Diltiazem (Cardizem)

Calcium channel blocker – slows the conduction through the AV node, decreases BP and SVR (reduces afterload). SVR is the resistance in the circulatory system that is used to create BP

- **Indications**
 - SVT or A-fib
- **Half-Life** - single dose 3 hrs., continuous infusions 4-5 hrs.
- **Adverse Effects**
 - Dizziness, Headache, peripheral edema
- **Nursing Considerations**
 - Begin drip at 5mL/hr. and titrate up by 5mL/hr. as patient tolerates to max you unit. Titrate to HR <110 and MAP >60
 - May worsen AV blocks
 - Monitor patient's BP, HR and ECG rhythm
 - **Medication approved for all SHGR specified Non-ICU units up to max rate 15mg/hr.**

Amiodarone (Cordarone)

Class III Antiarrhythmic - Inhibits adrenergic stimulation (alpha- and beta-blocking properties), affects sodium, potassium, and calcium channels, prolongs the action potential and refractory period in myocardial tissue; decreases AV conduction and sinus node function

- **Indications**
 - Ventricular Arrhythmias, A-Fib and SVT
- **Half-life** - 40-55 days
- **Phases Dose Administration**
 - Phase One: Rapid Loading Dose 150mg over 10 minutes
 - Phase Two: Slow Loading Dose 1mg/min for 6 hours
 - Phase Three: Maintenance Infusion 0.5mg/min
- **Adverse Effects**
 - Hypotension, electrolyte disturbances (Mag & K), elevated liver enzymes
- **Nursing Considerations**
 - Nurse must stay in room with patient during 10-minute rapid bolus infusion
 - Central line preferred
 - **There are many drug interactions with Amiodarone, check with pharmacy or Lexicomp**

- Low Magnesium and Potassium levels can put patient at risk for Torsade de Pointes – monitor
- **Use 0.22 micron in-line filter when infusing**

Milrinone (Primacor)

Phosphodiesterase-3 Enzyme Inhibitor

- **Indications**
 - Perfect medication to treat acute decompensated Heart Failure; increase contractility and decreased preload and afterload
 - Increases intracellular calcium = + inotrope therefore increased contractility
 - Venous vasodilator – decrease preload
 - Arterial vasodilator – decreased afterload
- **Half-life** - 2.5 hours
- **Adverse effects**
 - Ventricular ectopy & arrhythmias, hypotension
- **Nursing Considerations**
 - Not titrated medication, **dose is set** - Dosing changes are made by provider
 - Use with caution in HF patient that are intravascularly dry – could result in symptomatic hypotension

Dobutamine (Dobutrex)

Positive Inotropic agent - Causes cardiac stimulation (pump support), increase cardiac contractility and increased heart rate

- **Indications**
 - Heart failure, cardiogenic shock
- **Half-life** - around 2 minutes
- **Dose range**
 - 2 -20 mcg/kg/hour
 - Titrate med by 2.5 mcg/kg/min every 10-15 minutes to desired hemodynamic effect -*Verify with Pharmacist and orders*
- **Adverse Effects**
 - Tachycardia and increased myocardial oxygen demand
- **Nursing considerations**
 - **Max dose is 10 mcg/kg/min for all SHGR specified Non-ICU units**

Nitroglycerin

Vasodilator, antianginal agent - produces vasodilator effect peripheral veins and arteries. Reduces cardiac oxygen demand by decreasing preload, moderately reducing afterload and dilating coronary arteries to improve blood flow to ischemic areas.

- **Indications**
 - Acute MI
 - Chronic stable angina
 - Non-ST segment elevated acute coronary syndrome
 - Hypertension
 - Heart failure
- **Half-life** - 1-4 minutes
- **Routes**
 - Sublingual, IV, Topical
- **Adverse Effects**
 - Hypotension, bradycardia, headache

- **Dosing**
 - Sublingual – 0.4 mg every 5 minutes up to 3 doses
 - IV – Titrate by 5 mcg/min every 3-5 minutes to desired effect
- **Nursing considerations**
 - Mixed in D5W, must be in glass bottle – medication interacts with plastic after prolonged contact.