

**WESTERN MARYLAND HEALTH SYSTEM**  
**Physician Orders**

**REMINDER: ALL MEDICATION ORDERS REQUIRE DOSE, ROUTE, FREQUENCY AND INDICATION  
 DO NOT USE ABBREVIATIONS**

<b>DOCTORS ORDERS</b>	<b>CHECK OFF/ INITIALS</b>
<b>OPEN HEART SURGERY – POSTOPERATIVE ORDERS – Dr. Nelson/Dr. Deb</b>	
<b>Admit to CVICU</b>	
Operation:	
Surgeon:	
Follow Open Heart Surgery Clinical Pathway	
<b>Consults:</b>	
Dietary for nutrition teaching	
Physical Therapy post-op day one – twice daily for mobility	
Social Services	
Occupational Therapy Post-op day one – twice daily for ADL	
<b>Diagnostics:</b>	
Stat on admission: ISTAT – ABG, H & H, Ionized Calcium, Lytes	
Lab –Potassium, BUN, Creatinine, Glucose, CBC, Magnesium Sulfate, <input type="checkbox"/> PT <input type="checkbox"/> APTT <input type="checkbox"/> Fibrinogen	
Chest x-ray post-op evaluation-RE: Post CABG; Comment: bring copy of film to CVU	
EKG for post-op evaluation ( <i>do not obtain if patient is 100% paced</i> )	
6 hours after admission: Hgb & Hct / Platelets, potassium level, magnesium sulfate	
<b>POD #1:</b> CBC, BMP, Magnesium Sulfate, Chest x-ray portable, Type & Screen. (Change priority to STAT on labs)	
<b>POD #2:</b> CBC, BMP, Magnesium Sulfate, Chest X-ray portable	
<b>POD #3:</b> CBC, BMP, Magnesium Sulfate, Chest X-ray portable	
<b>POD #4:</b> CBC, BMP, Magnesium Sulfate, Chest X-ray portable	
<b>Treatments:</b>	
Vent settings: FiO2 _____ SIMV _____ TV _____ Peep _____ PSV _____	
Wean and extubate as per protocol	
Post Extubation: incentive spirometer every 2 hours while awake – cough and deep breathe	
Post-op day #1: wean and discontinue O <sub>2</sub> as per protocol	
Continuous pulse oximetry while on O <sub>2</sub> – spot check every 8 hours and as needed after Oxygen is discontinued	

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If oxygen saturation < 90% on room air reapply O2 via nasal cannula and notify physician/physician assistant	
Salem Sump NG or OG to Low Continuous Suction, irrigate with 30 mL sodium chloride 0.9% (Normal Saline) as needed, discontinue post-extubation	
<input type="checkbox"/> Temporary pacemaker via epicardial wires:	
Mode _____ Rate _____ AMA _____ VMA _____ AVI _____	
Insulate and secure pacer wires when temporary pacer not in use	
Urinary catheter to gravity drainage	
Notify surgeon/physician assistant if urinary output is < 30mL/ hour x 2 consecutive hours while urinary catheter is in place	
Chest tube to -20 cm suction	
Notify surgeon/physician assistant if Chest Tube drainage is > 200mL per hour	
Keep chest tubes patent – milk and strip as needed	
May discontinue chest tube suction for ambulation	
Continuous ECG monitoring	
Daily weights early morning	
Intake & Output every shift until discharge	
Initial operative dressings to remain intact x 24 hours.	
Keep EVH (endoscopic vein harvest) leg dressing on for 48 hours.	
Remove all other bandages in 24 hours postop.	
Post-op day #2 remove all steri strips if wound margins are well approximated and paint with Providone Iodine (Betadine®).	
Paint all incisions with Providone Iodine (Betadine®) daily through discharge	
<b>Activity:</b>	
Initiate Phase 1 Inpatient Cardiac Rehab per Open Heart Pathway	
<b>Assessment:</b>	
Vital signs per protocol	
Hemodynamics per protocol	
PAD/CVP range minimum <u>  10  </u> maximum <u>  18  </u>	
Notify physician if Hgb < <u>  7.5  </u>	
If Hgb > <u>  7.5  </u> use <input type="checkbox"/> Hetastarch (Hespan®) 6% (maximum 1000mL)	
<input type="checkbox"/> Albumin 5% for replacement (maximum 1000 mL)	
Other:	

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<b>Physician/Date/Time:</b> _____	
<b>Diet:</b>	
Nothing by mouth until extubated - ice chips/clear liquids after extubation	
Then high protein full liquid diet	
Progress to regular diet as tolerated	
<input type="checkbox"/> ADA diet with calories as at home if diabetic: <u>1800</u> calories	
<b>Intravenous Fluid:</b>	
Total Intravenous Fluid <u>30</u> mL per hour	
0.9% Sodium Chloride (Normal Saline) via continuous intraflow to invasive pressure lines	
Continue Intravenous Fluids from OR then <input type="checkbox"/> Dextrose 5% in 0.45% Sodium Chloride (D5 ½ Normal Saline) or <input type="checkbox"/> 0.45% Sodium Chloride (½ NS) maintenance Intravenous	
Once taking adequate by mouth and fluid status stable, Saline Lock Intravenous Fluids	
Fluid restriction–by mouth/Intravenous max <u>2,000</u> mL/24 hour until pre-op weight is reached	
<b>Medications: Intravenous Drips - Maintain Cardiac Index &gt; _____</b>	
<input type="checkbox"/> Propofol (Diprivan®) 1 gm/100mL	
<input type="checkbox"/> Phenylephrine (Neosynephrine®) 20 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Nitroglycerine 50 mg/ 250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Fenoldopam (Corlopam®) 10 mg/250mL Sodium Chloride 0.9% (Normal Saline)	
<input type="checkbox"/> Nitroprusside (Nipride®) 50 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Esmolol (Brevibloc®) 2500 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Dopamine 400 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Epinephrine 2 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Dobutamine (Dobutrex®) 500 mg/250mL Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Milrinone (Primacor®) 20mg/100ml Dextrose 5% in Water (D5W)	
<input type="checkbox"/> Nicardipine (Cardene®) 25 mg/250mL Sodium Chloride 0.9% (Normal Saline)	
<input type="checkbox"/> Vasopressin (Pitressin®) 100 units/250 mL Sodium Chloride 0.9% (Normal Saline)	
<input type="checkbox"/> Norepinephrine (Levophed®) 4 mg/500mL Dextrose 5% in water (D5W)	
<input type="checkbox"/> Diltiazem Hydrochloride (Cardizem®) 125 mg/100mL Sodium Chloride 0.9% (Normal Saline) 5-20mg/hour).	
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<b>Pain Meds:</b> (minimize sedation prior to extubation)	
Morphine <u>  1-2  </u> mg Intravenous every hour as needed for pain while intubated	
Midazolam (Versed®) <u>  1-2  </u> mg Intravenous every hour as needed for restlessness while intubated	
Diazepam (Valium®) <u>  1-2  </u> mg Intravenous every hour as needed for restlessness while intubated	
Meperidine (Demerol®) <u>  25  </u> mg Intravenous every hour as needed for restlessness while intubated	
Meperidine (Demerol®) <u>  25  </u> mg Intravenous every 3 hours as needed for pain	
Meperidine (Demerol®) 25 mg Intravenous times 1 for shivering; may repeat times 1 in 5 minutes if shivering continues while intubated	
<b>Other Meds:</b>	
Potassium Chloride sliding scale supplement - 10mEq, 20 mEq, 30 mEq or 40 mEq/100 mL Dextrose 5% in Water (D5W)	
Until taking by mouth well. The following is to be used only when serum creatinine is $\leq 1.8$ :	
For serum potassium: 4.1 – 4.2 give 10 mEq Intravenous over 1 hour	
3.8 - 4 give 20 mEq Intravenous over 1 hour	
3.5 – 3.7 give 30 mEq Intravenous over 2 hours	
3.2 – 3.4 give 40 mEq Intravenous over 2 hours	
< 3.2 call physician/physician assistant	
Maintain serum Potassium 4.5 – 5	
Hold if urinary output < 30 mL/hr or creatinine $\geq 1.8$ and call physician/physician assistant	
Discontinue post-op day #1 when patient receiving oral Potassium Chloride)	
If able to take oral and serum Potassium is:	
> 4            No coverage	
3.8 – 4        Administer 1 tablet Potassium Chloride 20 mEq (K-Dur® 20) by mouth	
3.5 – 3.7     Administer 2 tablets Potassium Chloride 20 mEq (K-Dur® 20) by mouth	
3.3 – 3.4     Administer 3 tablets Potassium Chloride 20 mEq (K-Dur® 20) by mouth	
3 – 3.2       Administer 4 tablets Potassium Chloride 20 mEq (K-Dur® 20) by mouth	
< 3            Administer 4 tablets Potassium Chloride 20 mEq (K-Dur® 20) by mouth and notify physician/physician assistant	
<b>Physician/Date/Time:</b> _____	

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For Magnesium $\leq$ 2.2 mg/dL Give Magnesium Sulfate 2 grams/50 mL Water Intravenous over 2 hours	
For Ionized Calcium $\leq$ 1.18: Give Calcium Chloride 1 gram/100 mL Dextrose 5% in Water (D5W) Intravenous over 1 hour	
<input type="checkbox"/> Cefazolin (Ancef®) <u>1</u> gram Intravenous every <u>8</u> hour(s) times <u>6</u> doses; if allergic to Pencillin or Cephalosporins, <b>use:</b>	
<input type="checkbox"/> Vancomycin (Vancocin®) <u>1</u> gram Intravenous every <u>12</u> hour(s) times <u>3</u> doses	
Metoclopramide (Reglan®) 10 mg Intravenous now and every 6 hour Intravenous for 48 hours.	
<input type="checkbox"/> Famotidine (Pepcid®) 20 mg Intravenous now and every 12 hours Intravenous for 48 hours ( <i>may switch to oral when extubated</i> )	
<input type="checkbox"/> Pantoprazole (Protonix®) 40 mg Intravenous every day.	
<input type="checkbox"/> Buffered Aspirin (Ascriptin®) 325 mg by mouth daily after extubated; if intubated, give Aspirin Suppository 300 mg per rectum at 0800 hours the next day	
<input type="checkbox"/> Furosemide (Lasix®) <u>40 mg</u> by mouth twice daily post-op day # <u>1-4</u>	
<input type="checkbox"/> Potassium Chloride (K-Dur®) <u>20 meq</u> by mouth twice daily post-op day # <u>1-4</u>	
Docusate Sodium (Colace®) 100 mg by mouth twice daily - start post-op day #1	
After extubated and tolerating by mouth: <input type="checkbox"/> Cordarone (Amiodarone®) 400 mg by mouth 3 times a day. <input type="checkbox"/> Statin – Simvastatin (Zocor®) 40 mg by mouth at hour of sleep if not on Statin as outpatient. <input type="checkbox"/> Beta Blocker – Metoprolol (Lopressor®) 25 mg by mouth twice daily.	
<b>As needed medications:</b>	
Oxycodone 5 mg/Acetaminophen 325 mg (Percocet®) 1 or 2 tablets by mouth every 3 hours as needed for pain	
Acetaminophen 300 mg/Codeine 30 mg (Tylenol #3®) 1 or 2 tablets by mouth every 3 hours as needed for pain	
Acetaminophen (Tylenol®) 650 mg by mouth every 3 – 4 hours as needed for pain/temp $>$ 38.6° tympanic or 38° celcius oral	
<b>*** Limit total Acetaminophen to 4 Grams/24 hr***</b>	
Milk of Magnesia 30 mL by mouth twice daily as needed; if creatinine $>$ 1.5 then Sorbitol 30mL by mouth twice daily	
Bisacodyl (Dulcolax®) 10 mg Suppository per rectum as needed, if no bowel movement	
Prochlorperazine (Compazine®) 10 mg Intravenous every 4-6 hours as needed for nausea	
Prochlorperazine (Compazine®) 25 mg suppository per rectum every 6 hours as needed for nausea	
Ondansetron (Zofran®) 4 mg Intravenous every 4 –6 hours as needed for nausea	
Sleep Medication –Temazepam (Restoril®) 15 mg by mouth at bedtime as needed	
Triamcinolone (Kenalog®) Cream 0.1% as needed for skin irritation	
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**Glycemic Control:**

Diabetic Patient:

- Stat Accu-chek on arrival to CVU.
- Start insulin drip immediately post-op to maintain blood sugar 80-150 mg/dL.
- Follow CVU Insulin Drip Protocol.
- Once hemodynamic monitoring and titration of drips has been discontinued and patient status has been downgraded from critical initiate every 4 hour glucose monitoring and sliding scale insulin coverage as directed.
- Once patient stable and eating change monitoring frequency to 4 times a day before meals and as needed.

Non-Diabetic Patient:

- Monitor accu-checks every 4 hours while critical and use sliding scale insulin coverage as directed.
- If glucose is greater than 150 mg/dL then initiate insulin drip and follow CVU Insulin Drip Protocol.
- Once patient stable and eating change monitoring frequency to 4 times a day before meals and as needed.
- Accu-checks and insulin coverage may be discontinued if blood sugar remains <150 mg/dL for 24 hours post-op.

**Sliding Scale Coverage:**

Regular Human Insulin (Novolin-R®) sliding scale per glucometer.

Blood sugar ≤ 150 \_\_\_\_\_ units      Blood sugar 301 – 350 \_\_\_\_\_ units

Blood sugar 151 – 200 \_\_\_\_\_ units      Blood sugar 351 – 400 \_\_\_\_\_ units

Blood sugar 201-250 \_\_\_\_\_ units      Blood sugar > 400 call physician

Blood sugar 251-300 \_\_\_\_\_ units      Other \_\_\_\_\_

**Miscellaneous:**

Notify physician for:

- SBP < \_\_\_\_\_ mmHg or SBP > \_\_\_\_\_ mmHg
- MAP < \_\_\_\_\_ mmHg or MAP > \_\_\_\_\_ mmHg
- Heart Rate < \_\_\_\_\_ or > \_\_\_\_\_
- Temperature > 102° or > 101° when patient is > 48 hours post-op
- Atrial Fibrillation – check Potassium and Magnesium Sulfate and notify physician/physician assistant

**Additional Medication Orders:**

Medication	Dose	Route	Frequency	Indication

<b>Physician/Date/Time:</b> _____	<b>Nurse/Date/Time:</b> _____	<b>Secretary/Date/Time:</b> _____
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**Full page of orders requires only one physician, one nurse and one clerical signature**

