

Surgery: _____ Surgeon: _____ Status: Inpatient Admit to: CCU

Allergies: NKDA _____

NURSING INTERVENTIONS: (Line through to cancel orders)

Review all blood transfusion orders with surgeon prior to administration

Cardiac Surgery Clinical Pathway

Radial Artery Grafting Protocol if indicated

Notify ICD/ pacer representative to interrogate and turn on if patient has defibrillator or pacemaker

Vital signs every 15 minutes until stable, then every 1 - 2 hours

Do not wedge PA catheter

Place chest tubes to -20 cm H₂O continuous suction. May ambulate off suction if continuous air leak not present

Record chest tube output hourly

O₂ 0 – 6 L via nasal cannula. Titrate to keep O₂ sats 90% or greater

Remove femoral sheath ASAP. FemoStop OK if no PVD

SCDs if on ventilator greater than 12 hours or poor mobility

Keep pacemaker wires to atrial and/ or ventricular generator if pacing on arrival. If bradycardia (HR less than 50) associated with hypotension, initiate A or V-demand pacer at 70 per minute, 20 MA (atrial preferred)

Remove Foley on day shift POD # 2 if placed in OR. Must OK with heart team member

Wound Care:

Clean uncovered wounds and wire sites with sterile saline and gauze only. May remove sternal dressing POD # 2

Remove ACE wraps in AM POD # 1. Dress wounds PRN drainage and change BID

Activity:

Dangle 4 hours after extubation and advance activity per pathway if hemodynamically stable

PT consult if bedrest greater than 24 hours or PRN RN assessment

Notify Physician If:

Chest tube output greater than 150 mL per hour

SBP greater than 140 or MAP greater than 85

MAP less than 65, SBP less than 90 X 2 hours despite PRN albumin infusion

CI less than 2.0, CVP less than 9 or PAD less than 13 despite PRN albumin infusion

CVP greater than 20 or PAD greater than 22

Urine output less than 30 mL per hour X 2 hours

Hematocrit less than 21 or if decreases by more than 4 while needing to increase vasoactive medications

New onset symptomatic or sustained ventricular ectopy

Patient not extubated within 4 hours of arrival to CCU

Unable to maintain O₂ sats greater than 90% on 6 L

DIETARY: (Line through to cancel pre-checked orders)

Ice chips post extubation. Clear liquids (sugar-free) when bowel tones present.

Advance diet to:

Cardiac Surgery

Regular Ensure Glucerna Hi-Pro shake

Other: _____

IV THERAPY: (Line through to cancel pre-checked orders)

0.45% NS to infuse at 50 mL/ hour. Saline lock when adequate PO fluid intake

albumin 5% 250 – 500 mL IV every 15 minutes PRN PAD less than 13, CVP less than 9 with SBP less than 90, MAP less than 65.
Not to exceed 1000 mL

CONSULTS: (Line through to cancel order)

Obtain swallow evaluation PRN

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Date

Time



LABORATORY/ DIAGNOSTICS: (Check box to activate. Line through to cancel pre-checked orders)

- If temp greater than 38.5° C, Urinalysis, blood cultures X 2, culture sputum, and obtain CBC next AM. Do not repeat cultures within 24 hrs
- ABG plus panel with ionized calcium (Resp Care) on arrival to CCU (ABG Plus Ionized Ca Resp Care) PT/ INR daily starting POD # 1
- Chest X-Ray AP in AM on POD # 1 Chest X-Ray AP on arrival to CCU
- Hematocrit, CRRT, Calcium ionized (Resp Care) in 4 hours
- CBC, Comprehensive Metabolic Panel, Magnesium, and Phosphorus POD # 1 and # 2 if still in CCU
- If potassium level greater than 5.0, Cardiac Renal Panel every 4 hours until potassium level less than 5.0
- ECG at 0600 on POD # 1
- Verify MRSA screen. If not done this admit, MRSA by PCR nasal swab (use PCR-specific swab) on admit to CCU

MEDICATIONS: (Check box/ fill in to activate. Line through to cancel pre-checked orders) Pharmacist may adjust doses for age or renal function

<input checked="" type="checkbox"/> ceFAZolin (ANCEF) 1 g IV every 8 hours X 2 postop doses (does not include intraop doses). If 80 kg or greater, increase to 2 g. If allergic , clindamycin 900 mg IV every 8 hours X 2 postop doses (does not include intraop doses). <i>Give 1st post-op dose at next standard administration time, regardless of when preop dose was given</i>	Prophylaxis Antibiotic
<input checked="" type="checkbox"/> <i>Potassium Replacement: Critical Care Orders</i>	
<input checked="" type="checkbox"/> magnesium sulfate 8 mEq (1 g) IV over 30 minutes PRN serum magnesium 2.0 – 2.2 magnesium sulfate 16 mEq (2 g) IV over 30 minutes PRN serum magnesium less than 2.0	Electrolyte Replacement
<input checked="" type="checkbox"/> If serum calcium less than 7, RN draw Ionized Calcium via ABG syringe & place in ice slurry. Notify RT via beeper 876047: calcium gluconate 4.6 mEq (1 g) IV over 30 minutes PRN ionized calcium 1.0 – 1.11 calcium gluconate 9.3 mEq (2 g) IV over 30 minutes PRN ionized calcium less than 1.0	
<input checked="" type="checkbox"/> sodium phosphate 15 mMol (20 mEq) IV over 2 hours PRN serum phosphate 2.3 – 3.1 sodium phosphate 30 mMol (40 mEq) IV over 4 hours PRN serum phosphate less than 2.3	
<input type="checkbox"/> <i>Critical Care Sedation Orders</i> if patient intubated	Sedation
<input checked="" type="checkbox"/> <i>Critical Care Insulin Infusion Orders - Algorithm 2.</i> Discontinue infusion if BG less than 100 X 2 hours & notify LIP. If off insulin infusion and BG greater than 150, start <i>SubQ Sliding Scale Insulin Orders</i> and recheck BG in 2 hours. If greater than 150 X 1 while on SubQ insulin, restart insulin infusion - Algorithm 2	Blood Glucose
<input type="checkbox"/> <i>Critical Care Alcohol Withdrawal Orders</i> post extubation	Alcohol Withdrawal
<input type="checkbox"/> milrinone infusion to start at 0.375 mcg/ kg/ minute. Titrate for _____	Cardiac Index
<input checked="" type="checkbox"/> norepinephrine (LEVOPHED) infusion per <i>Critical Care Titration Orders</i> PRN SVR less than 800 and MAP less than 65. Notify physician before increasing above 10 mcg/ minute	Hemodynamic Support
<input type="checkbox"/> nitroglycerin infusion to keep SBP less than 140. Discontinue for SBP less than 90	Blood Pressure
<input type="checkbox"/> nitroglycerin infusion for radial graft. Continue nitroglycerin 5 mcg/ minute or greater until 1 hour after diltiazem or IMDUR started, then discontinue	Arterial spasms
<input type="checkbox"/> diltiazem extended release (CARDIZEM CD) 120 mg PO daily. Hold for SBP less than 100 mmHg <input type="checkbox"/> isosorbide mononitrate extended release (IMDUR) 30 mg PO daily. Discontinue IV nitroglycerin in 1 hour	
<input checked="" type="checkbox"/> docusate (COLACE) 250 mg PO BID. Hold for loose stools. bisacodyl (DULCOLAX) 10 mg PO daily PRN. If no BM in AM starting POD # 2, bisacodyl 10 mg PO X 1 bisacodyl (DULCOLAX) 10 mg suppository PR daily PRN. If no BM in AM POD # 3, bisacodyl 10 mg PR X 1	Constipation
<input checked="" type="checkbox"/> omeprazole (priLOSEC) 20 mg PO daily. If NPO, pantoprazole (PROTONIX) 40 mg IV daily	Acid Reducer
<input checked="" type="checkbox"/> metoclopramide (REGLAN) 10 mg PO/ IV every 12 hours X 6 total doses. Do not give if 65 or older or confused	GI Motility
<input checked="" type="checkbox"/> heparin 5000 units subcutaneously every 12 hours. Start POD # 1 if no bleeding. Discontinue when fully ambulatory. Discontinue if INR greater than 1.8 on warfarin (COUMADIN). Hold if platelet count less than 100,000	VTE prophylaxis
<input type="checkbox"/> enteric coated aspirin 325 mg PO daily with food. Hold for platelet count less than 100,000 <input type="checkbox"/> enteric coated aspirin 81 mg PO daily with food. Hold for platelet count less than 100,000	Platelet Inhibition

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MEDICATIONS: (Check box/ fill in to activate. Line through to cancel pre-checked orders)

Pharmacist may adjust doses for age or renal function

*Not to exceed 4000 mg of acetaminophen/ 24 hours. **If 65 or older**, do not exceed **3000 mg** of acetaminophen/ 24 hours

amiodarone (CORDARONE) _____ Hold for HR less than 60 or paced epicardially	Arrhythmia
<input type="checkbox"/> simvastatin (ZOCOR) 20 mg PO every HS Other: _____ Pharmacist to adjust simvastatin dose if on amiodarone	Lipid Reduction
<input type="checkbox"/> digoxin 0.25 mg IV X 1 STAT. Hold for HR less than 75 or paced epicardially	Arrhythmia
<input type="checkbox"/> ferrous gluconate 325 mg PO BID with food	Supplement
<input type="checkbox"/> folic acid 1 mg PO daily	Supplement
<input type="checkbox"/> HYDROmorphone (DILAUDID) <i>PCA Orders</i> <input type="checkbox"/> fentaNYL <i>PCA Orders</i>	Mild to Severe Pain PCA
<input checked="" type="checkbox"/> HYDROmorphone (DILAUDID) 0.5 – 1 mg IV every 2 hours PRN. Notify physician if pain unrelieved in 4 hours <input type="checkbox"/> Post-extubation, fentaNYL 25 – 50 mcg IV every 2 hours PRN. Discontinue POD # 3. Second choice, if HYDROmorphone ineffective	Severe Pain (7-10) IV
<input checked="" type="checkbox"/> oxyCODONE 5 – 10 mg PO every 3 hours PRN. Start with 5 mg if 65 or older	Severe Pain (7-10) PO
<input checked="" type="checkbox"/> *HYDROcodone 5 mg/ acetaminophen 325 mg (NORCO) 1 - 2 tabs PO every 3 hours PRN. Start with 1 tab if 65 or older	Moderate Pain (4-6) PO
<input type="checkbox"/> ketorolac (TORADOL) <input type="checkbox"/> 15 mg <input type="checkbox"/> 30 mg IV every 6 hours. Maximum of 5 days. Hold for chest tube drainage greater than 50 mL/ hour. Hold if creatinine increases by 0.3 or greater. Do not give if 65 or older	Moderate Pain (4-6) IV
<input checked="" type="checkbox"/> *acetaminophen (TYLENOL) 325 - 650 mg PO/ PR every 4 hours PRN	Temp >38°C/ Mild Pain (1-3)
<input checked="" type="checkbox"/> ondansetron (ZOFRAN) 4 mg IV every 6 hours PRN <input checked="" type="checkbox"/> prochlorperazine (COMPazine) 2.5 - 5 mg IV every 4 hours PRN (2nd choice if ondansetron ineffective). Give between 1800 and 0400 only	Nausea/ Vomiting
<input checked="" type="checkbox"/> zolpidem (AMBIEN) 5 mg PO HS PRN (2.5 mg if 65 or older) May repeat X 1. Do not administer after 0100	Insomnia
<input type="checkbox"/> metoprolol (LOPRESSOR) 5 - 10 mg IV every 4 hours PRN heart rate greater than 110 or SBP greater than 140 mmHg. Hold if heart rate less than 60 or paced epicardially	HR/ Blood Pressure
<input checked="" type="checkbox"/> belladonna & opium suppository 30 mg PR every 6 hours PRN	Bladder Spasm
<input checked="" type="checkbox"/> camphor/ menthol (CEPACOL) lozenges PRN	Sore Throat
<input checked="" type="checkbox"/> magnesium hydroxide/ aluminum hydroxide/ simethicone (MAALOX) 15 mL PO QID PRN	Indigestion
<input checked="" type="checkbox"/> lidocaine 1 - 1.5 mg/ kg IV PRN new onset symptomatic or sustained ventricular ectopy. Maximum total dose 3 mg/ kg	Arrhythmia
<input checked="" type="checkbox"/> atropine 0.5 - 1 mg IV every 3 - 5 minutes PRN symptomatic bradycardia if no pacing wires or if wires are not working. Maximum total dose 3 mg	Bradycardia
<input type="checkbox"/> LORazepam (ATIVAN) 0.5 - 1 mg PO/ IV every 2 hours PRN	Anxiety
<input type="checkbox"/> albuterol/ ipratropium (DUONEB) nebulizer <input type="checkbox"/> 1 treatment QID <input type="checkbox"/> 1 treatment PRN <input type="checkbox"/> albuterol nebulizer <input type="checkbox"/> 1 treatment QID <input type="checkbox"/> 1 treatment PRN	Wheezing/ SOB

Other: _____

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