1. **ALLERGIES/REACTIONS:**
   (IF PATIENT IS ALLERGIC TO IODINE OR X-RAY CONTRAST, NOTIFY PHYSICIAN)

2. □ Inpatient  □ Outpatient Surgery Procedure

3. **LEVEL OF CARE:** □ Med/Surg  □ Med/Surg Tele  □ PCU  □ ICU

4. **PREFERRED LOCATION (UNIT/SERVICE):**

5. **DIAGNOSIS:**

6. **DATE/TIME OF PROCEDURE:**

7. **PROCEDURE:**

8. **PHYSICIAN:**

9. **CONSENT:**
   □ Hospital consent form completed and signed in physician's office. Please place on chart.
   □ Verify consent by completing approved hospital consent form for:
     □ Angiography, Angioplasty with and without stent
     □ Fistulogram Angioplasty with possible endovascular intervention
     □ Other: __________________________

10. Provide peripheral education packet to patient and family (if not provided by physician’s office)

11. **NUTRITION:**
   □ NPO after __________

12. **LABS:** □ BMP  □ Hemogram (without differential)  □ Lipid (Fasting) Profile  □ Magnesium
    □ PT/INR  □ PTT (if not on heparin)  □ Heparin Assay UFH  □ Heparin Assay LMWH
    □ PLT PLAV (platelet function in the presence of Plavix) – **DO NOT SEND SAMPLE VIA PNEUMATIC TUBE**
    □ PLT ASA (platelet function in the presence of Aspirin) – **DO NOT SEND SAMPLE VIA PNEUMATIC TUBE**
    □ Type & Screen ___________ pRBCs
    □ Other Lab: __________________________

13. **DIAGNOSTICS:**
    **PROVIDERS:** If GFR decreased and patient requires IV contrast study, consider hydrating patient using Hydration Order for Reducing Risk of Radiocast Induced Nephrotoxicity Physician Order #683
    □ ECG (within 30 days of procedure, available on chart)

14. **MEDICATIONS:**
    ☐ Complete Medication Reconciliation
    ☐ Do not repeat medications if patient has taken at home on the morning of procedure
    □ Aspirin (non-enteric coated) 325 mg PO AM prior to procedure
    □ Aspirin (non-enteric coated) 81 mg PO AM prior to procedure
    □ Clopidogrel (Plavix) ____________ mg PO ____________ hours prior to procedure
    □ Famotidine (Pepcid) 20 mg PO AM prior to procedure
    □ Hold warfarin (Coumadin) ____________ days before procedure
    □ Hold dabigatran (Pradaxa) ____________ days before procedure

Physician initial: __________________________
14. **MEDICATIONS:** (Continued)

**Pre-Procedure Medication:** (Minimal Sedation – Anxiolysis)  
(After patient assessment, consent signed, and patient placed on monitor)
- ☐ Midazolam (Versed) 1 mg IV PRN times 1 dose for anxiety  
  **(Use for patients less than 65 years or weighing greater than 50 kg)**  
- ☐ Midazolam (Versed) 0.5 mg IV PRN times 1 dose for anxiety  
  **(Use for patients age 65 years and older or weighing less than/equal to 50 kg)**  
- ☐ Fentanyl (Sublimaze) 25 mcg IV PRN times 1 dose for pain  
- ☐ Ondansetron (Zofran) 4 mg IV PRN times 1 dose for nausea  

**If Contrast Allergic:**  
Administer medication: ☐ prior to transport to Cath Lab/IR ☐ in Cath Lab/IR  
- ☐ Famotidine (Pepcid) 20 mg IV times 1 dose. Do not repeat if given PO in AM prior to procedure.  
- ☐ Diphenhydramine (Benadryl) 25 mg IV times 1 dose  
- ☐ Diphenhydramine (Benadryl) 25 mg PO times 1 dose  
- ☐ Diphenhydramine (Benadryl) 50 mg IV times 1 dose  
- ☐ Diphenhydramine (Benadryl) 50 mg PO times 1 dose  
- ☐ Prednisone 50 mg PO 13 hours, 6 hours, and 1 hour prior to the procedure  
- ☐ Methylprednisolone (Solu-Medrol) 125 mg IV times 1 dose  

Other Pre-Procedure Medications: ____________________________________________

**Intra Procedure Medications:** (Moderate Procedural Sedation)

**ADMINISTER SELECTED MEDICATIONS CONSECUTIVELY UNLESS OTHERWISE DIRECTED BY PROVIDER**
- ☐ Midazolam (Versed) 1 mg IV as often as every 2 minutes to achieve sedation (maximum dose 10 mg)  
  **Use 0.5 mg IV for patients 65 years of age and over (unless weight greater than 100 kg), or those weighing less than 50 kg**  
- ☐ Fentanyl (Sublimaze) 50 mcg IV as often as every 2 minutes to achieve sedation (maximum dose 300 mcg)  
  **Use 25 mcg IV for patients 65 years of age and over (unless weight greater than 100 kg), or those weighing less than 50 kg**  
- ☐ Diazepam (Valium) 2.5 mg IV as often as every 2 minutes to achieve sedation (maximum dose 10 mg)  
- ☐ Morphine sulfate 2 mg IV as often as every 2 minutes to achieve sedation (maximum dose 10 mg)  
  **Avoid use in renal dysfunction (serum creatinine greater than 2 mg/dL or patient on dialysis)**

Other Non-Procedural Sedation medications: ____________________________________________

15. **INTRAVENOUS FLUIDS:**
- ☒ Insert Saline Lock before procedure  
- ☒ May use local anesthetic for IV access  
- ☐ Initiate Hydration Orders For Reducing Risk Of Radiocontrast Induced Nephrotoxicity Physician Order #683 – see attached.  

Other IVs: ____________________________________________

Physician initial: _____________________________
16. **TREATMENT:**

- [ ] Insert retention catheter. Obtain UA R (Urinalysis with culture if indicated). Initiate Medical Staff Approved Urinary Catheter Protocol # 967.00.
- [x] Straight cath every 4-6 hours PRN inability to void or feelings of discomfort/distention
- [x] Mark pedal pulses with indelible marker. If absent, mark “none”.
- [x] Clip hair at groin site in induction before procedure: [ ] Left [ ] Right
- [x] Have patient void before procedure
- [x] Bring eyeglasses and dentures to lab if applicable
- [x] Vital signs-per unit protocol including height and weight
- [x] Up ad lib, unless otherwise ordered.
- [x] Oxygen: titrate O\textsubscript{2} to keep SaO\textsubscript{2} greater than 92% or __________. Call physician if FiO\textsubscript{2} greater than 40% or patient requires increasing FiO\textsubscript{2}.

17. **SPECIAL EQUIPMENT:**


**NOTE:** These orders should be reviewed by the attending physician, appropriately modified for the individual patient, dated, timed and signed below.

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>PHYSICIAN’S SIGNATURE</th>
</tr>
</thead>
</table>

Another brand of drug, identical in form and content, may be dispensed unless checked.
PHYSICIAN ORDERS
HYDRATION ORDERS FOR REDUCING RISK OF RADIOCONTRAST INDUCED NEPHROTOXICITY

DO NOT INSTITUTE THIS ORDER SHEET. PATIENT'S CONDITION REQUIRES AN EMERGENT EXAM.

NO IV CONTRAST

DIALYSIS PATIENT: THESE ORDERS DO NOT APPLY

PATIENT INFORMATION

ALLERGIES/REACTIONS:

WEIGHT

kg

SERUM CREATININE

mg/dL

GFR

ml/minute

PATIENT RISK FACTORS

Patients Having One Or More Of The Following Risk Factors May Be At Increased Risk

- Diabetes Mellitus
- History of kidney disease, kidney transplant, solitary functioning kidney
- Calculated creatinine clearance or calculated GFR less than 60 ml/minute
- Past or current history of Heart Failure
- History of Multiple Myeloma
- Exposure to IV radiocontrast media within the past 72 hours
- Long-term non-steroidal anti-inflammatory agents (e.g. ibuprofen, naproxen) or COX-II inhibitors (Celebrex), aminoglycosides, cyclosporine, lithium, amphotericin B, cisplatin, carbolipin

1. HIGH RISK PATIENT: (GFR 30-44 ml/minute)

Inpatient High Risk Patient

- Hydrate with 0.9% sodium chloride (Normal Saline) IV. Infuse at 3 ml/kg for 1 hour, starting 1 hour pre procedure (or contrast media administration), follow by 1ml/kg/hour during the procedure and for 6 hours post procedure.
- Procedure ended at ________________ (RN/tech to fill in time).
- Limit IV hydration rate based on a maximum 110 kg dosing weight, irrespective of the patient’s actual body weight

Outpatient and Emergency Department High Risk Patient

- Hydrate with 0.9% sodium chloride (Normal Saline) IV. Infuse at 3 ml/kg for 1 hour, starting 1 hour pre procedure (or contrast media administration), follow by 1ml/kg/hour during the procedure and for ___ hours (1-3 hours for CT patients) post procedure.
- Procedure ended at ________________ (RN/tech to fill in time).
- Limit IV hydration rate based on a maximum 110 kg dosing weight, irrespective of the patient’s actual body weight

2. INTERMEDIATE RISK: (GFR 45-60 ml/minute)

Inpatient Intermediate Risk Patient

- Hydrate with 0.9% sodium chloride (Normal Saline) IV. Infuse at 100 ml/hour 1 hour pre procedure and 12 hours post procedure
- Other IV Fluids:

Outpatient Intermediate Risk Patient

- Instruct patient to drink 32 ounces of water or electrolyte solution over 4 hours pre procedure and 32 ounces over 4 hours post procedure
- Emergency Department Intermediate Risk Patient

- Hydrate with 0.9% sodium chloride (Normal Saline) IV. Infuse at 3ml/kg for 1 hour, starting 1 hour pre procedure (or contrast media administration), follow by 1ml/kg/hour during the procedure and for ___ hours (1-3 hours for CT patients) post procedure.
- Procedure ended at ________________ (RN/tech to fill in time).

3. MEDICATIONS:

Note: Acetylcysteine (Mucomyst) may be used as an adjunct to IV hydration

- Acetylcysteine (Mucomyst) 600 mg IV bolus, then 600 mg IV every 12 hours times 4 doses total. Start ASAP.
- Acetylcysteine (Mucomyst) 1200 mg IV bolus, then 1200 mg IV every 12 hours times 4 doses total. Start ASAP.
- Acetylcysteine (Mucomyst) 600 mg PO mixed in 30 ml of cola every 12 hours times 4 doses total starting the day prior to the procedure (24 HOURS PRIOR, 12 HOURS PRIOR, 1 HOUR POST, 12 HOURS POST PROCEDURE)

- Other acetylcysteine (Mucomyst) Dosing:
  - Hold diuretics 12 hours pre procedure and 12 hours post procedure
  - Hold metformin (Glucophage) 48 hours after procedure
  - Hold non-steroidal anti-inflammatory agents or COX-II inhibitors for maximum of 7 days prior to the exam, if clinically acceptable
  - HOLD __________________________ for ____________ days

NOTE: These orders should be reviewed by the attending physician, appropriately modified for the individual patient, dated and signed below.

DATE       TIME       PHYSICIAN'S SIGNATURE

Another brand of drug, identical in form and content, may be dispensed unless checked.

PHYSICIAN ORDERS

HYDRATION ORDERS FOR REDUCING RISK OF RADIOCONTRAST INDUCED NEPHROTOXICITY