IV Contrast Policy
Diagnostic Imaging JSUMC - CT Policies and Procedures

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General Description

Purpose:
- To ensure the safety of the patient and to outline the proper administration of intravenous contrast material within the Diagnostic Imaging Department.
- To prevent contrast induced nephropathy in patients age 60 or greater or patients with pre-existing renal insufficiency.
- To prevent contrast induced nephropathy in patients with the following medical conditions:
  - Diabetes Mellitus
  - Renal insufficiency without dialysis
  - Lupus
  - Dehydration
  - Patients taking nephrotoxic drugs such as non-steroidal anti-inflammatory medications, aminoglycoside antibiotics, and Metformin

Scope: All patients receiving intravascular non-ionic contrast for diagnostic imaging procedures.

Policy:

Pre-requisite: Staff administering IV contrast must meet the following criteria:
- Must be a physician, radiologic technologist, or registered nurse
- Must have current intravenous contrast certification
- Must have current CPR certification

1. A completed contrast screening assessment form is required
prior to injection.

2. The administration of IV contrast and the dosage delivered will be at the Radiologist's discretion.
   - Patients under 100 lbs will receive cc's per pound i.e. 90 lb female will receive 90 cc of contrast.
   - Children under the age of 12 will receive one (1) cc per pound of body weight.
   - Documentation of the IV contrast amount, type, site, size of the IV, and any untoward effects must be included on the screening form.

3. Patients age 60 or above or patients that have the following medical conditions must a have a baseline GFR within 60 days prior to a diagnostic intravascular iodinated contrast procedure. (This may be modified at the radiologist's discretion if deemed necessary).
   - Diabetes Melitis
   - Renal Insufficiency without dialysis
   - Lupus
   - Dehydration
   - Patients taking Nephrotoxic Drugs such as: non steroidal anti-inflammatory, aminoglycoside antibiotics, metformin

4. Recommendations based on estimated GFR

   **eGFR > 60**
   - Use low osmolar non-ionic contrast.

   **eGFR 30-59**
   - Use low osmolar non-ionic contrast
   - Inform ordering physician
   - Hydration/mucomyst therapy recommended

   **eGFR < 30**
   - Iodinated contrast not recommended
   - Nephrological clearance highly recommended
   - If medically necessary, use isosmolar non-ionic contrast
   - If medically necessary, recommend hydration/mucomyst therapy
5. No contrast will be given to the following patients unless the radiologist believes the diagnosis under consideration is life threatening and the radiologist or a physician remain in attendance.

- Multiple Myeloma
- Pheochromocytoma
- Polycythemia Vera
- Untreated Hyperthyroidism
- New regime of chemotherapy within 48 hrs.
- Severe bronchospasm or anaphylactic allergic reaction to previous non-ionic contrast

6. Patients taking Metformin must adhere to the following recommendations:

- Metformin should be stopped the day of the exam and not started until 48 hours after the administration of contrast
- Prior to restarting Metformin the patient should have a repeat GFR
- The patient should notify the physician who prescribes their Metformin of our recommendations

Precautions:

A radiologist or nurse should evaluate the following conditions:

- Patients with an extensive cardiac history, CHF, pulmonary edema, unstable angina, or an MI within the last 8 weeks
- Sickle Cell Anemia
- Shortness of breathe, wheezing, or difficulty lying flat
- Patients with a previous history of iodinated contrast reactions should be treated according to Meridian policy "Pre-Medication Recommendations for IV Contrast Allergy" Policy number **MH-PHARM-MED-0068**
- Extensive history of allergies to medication or food.

**Requirements**

**Relevant Knowledge:**
ACR Manual on Contrast Media
Bush, W.; Kreche, K. King, B. Radiology Life-Support