Subject: Intravenous Contrast Administration

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PURPOSE: To ensure the safe administration of intravenous contrast media.

POLICY: Prior to the administration of intravenous contrast:
• A radiologist/designee will order the contrast media.
• The pharmacist will review/approve the medication order.
• Complete patient assessment/risk assessment will be done by the radiologist/designee and nursing personnel.
• Patient consent will be obtained by a radiologist/designee.

POLICY STATEMENTS:
• Intravenous contrast media may also be administered by a registered nurse or certified technologist who has completed a course of training in venipuncture and is deemed competent to so inject.
• A radiologist or designee must be available when intravenous contrast is administered by a nurse or technologist.
• The radiologist will establish imaging protocols, review patient orders and determine the appropriate contrast and concentration when intravenous contrast is required.

RELATED POLICY/PROCEDURE(s): None

PROCEDURE:

RESPONSIBLE STAFF ACTION TO BE PERFORMED

Nursing /PA
• Confirm BUN and Creatinine levels are current, within 30 days.
• Confirm BUN and Creatinine levels are within normal/acceptable range.
• Perform nursing assessment to include medication and allergy review to identify patients at risk for allergic reaction and patients with compromised renal function. Special efforts must be made to identify patients with a history of asthma, renal insufficiency, allergies including allergy to iodine, prior contrast media reactions, and/or the recent use of medications containing Metformin (see attached listing).
• Ensure the Availability of a Code Cart and medication to respond to any adverse reaction.

Radiologist/Resident/PA
• Review patient history.
• Review/reconcile medications in electronic chart.
• Complete “Risk assessment” form.
• Special efforts must be made to identify patients with a history of asthma, renal insufficiency, allergies including allergy to iodine, prior contrast media reactions, and/or the recent use of medications containing Metformin (see attached listing).
• Confirm patient status and determine readiness for contrast administration. If a patient is determined to be “at-risk” for an allergic response have patient return to the referring physician with a recommendation for pre-medication.

Indication for Pre-Treatment:
Prior mild or moderate contrast reaction e.g. urticaria.
Active asthma at the time of the study.
Severe general allergic history e.g. bronchospasm requiring intubation, or anaphylaxis.

Pre-medication Regimen:
For Urgent CT Scan:
Prednisone 50mg. PO, three doses administered at thirteen (13), seven (7) and one (1) hour prior to procedure.
For Non-Urgent CT Scan:
Prednisone 50mg. PO, three doses administered at Twenty four (24) thirteen (13) and one (1) hour prior to procedure.

PA/Nurse/ Technologist
- Obtain informed consent. Radiologist co-signature required if obtained by a Resident or PA.
- Confirm imaging protocol.
- Order contrast medication.

PA/Nurse/ Resident/ Radiologist
- Receive warmed contrast from Pharmacy.
- Fill injector syringe with contrast and label as follows: Patient Name, MR#, Date, Medication (contrast) and Dose.

Radiologist/Resident/PA/ RN/Technologist
- Confirm IV line patency and contrast flow rate.
- Administer contrast.
- Monitor patient to ensure no adverse outcome.
- Provide/request emergency response in the event of adverse reaction to contrast injection.

Radiologist/Resident/ Nurse/PA
- Assess patient post procedure and discharge with the appropriate instructions.
- Record discharge instructions in electronic medical record.

Director of Service/Administrator/ A.D.N./Chief Technical Supervisor
- Ensure that all staff members are apprised of the policy and comply with the procedure as documented.
- Review/revise policy annually or as indicated.

The following medications containing Metformin are contraindicated when intravenous CT contrast media is being administered:

Actomet® (pioglitazone/metformin)
Avandamet® (rosiglitazone/metformin)
Fortamet® (Metformin)
Glucophage® XR (Metformin-XR)
GluMetza® (Metformin)
Glucophage® (Metformin)
Glucovance® (Glyburide/Metformin)
Janumet® (Sitagliptin/Metformin)
Metaglip® (Glipizide/Metformin)
Prandimet® (Repaglinide/Metformin)
**Rio**met® (Metformin)

**REFERENCE:** ACR Practice Guidelines for the use of Intravascular Contrast Media

**ATTACHMENTS:** Contrast Media Risk Assessment Form  
Post Procedure Discharge Instruction

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