Gadobenate Dimeglumine (Multihance™)-
Gadolinium-Based MR Contrast Agent
Administration
Protocol applies to patients (8 years old and older) who are to receive Gadolinium Based Contrast Agents will be screened for contrast administration and known risk factors associated with the development of Nephrogenic Systemic Fibrosis (NSF). All patients will be categorized into one of two groups. Each risk group will have different guidelines regarding the administration of GBCAs.

Prior to proceeding with this protocol, RN will:
• Obtain patient’s current medication/allergy/sensitivity and compare patient’s current medication/allergy/sensitivity to that in the Mayo medical record.

INCLUSION CRITERIA:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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| ☐  | ☐  | Patient is scheduled for GBCA-enhanced MR examination.
| ☐  | ☐  | Provider has issued an electronic scoop/order for Gadobenate Dimeglumine (Multihance™) in PCIL.
| ☐  | ☐  | Patient Screening - Magnetic Resonance Imaging (MRI) (MC2609) has been reviewed by RN.
| ☐  | ☐  | Estimated Glomerular Filtration Rate (eGFR) point of care for MRI scan form (MC1156-846) reviewed by RN.

If yes to all inclusion criteria, proceed to Additional Screening Section.
Otherwise, protocol does not apply. Radiologist input required.

Additional Screening:
Has patient had a Gadolinium based contrast agent within the last 24 hours?
Yes – If eGFR is greater than 60 mL/minute/1.73 m², give 80% dose of Multihance as in table below.
If eGFR is less than or equal to 60 mL/minute/1.73 m², consult radiologist for orders.
No – Proceed with protocol.

Group Placement:
Based on RN evaluation of Patient Screening-Magnetic Resonance Imaging (MRI) screening (MC2609) and estimated Glomerular Filtration Rate (eGFR) Point of Care for MRI scan (MC 1156-846), place patient into appropriate group to determine specific GBAC-administration order to follow.

Group 2 – Increased Risk
☐ Dialysis patients.
☐ eGFR value less than or equal to 30 mL/minute/1.73 m².
• If any box checked, protocol does not apply, consult radiologist for orders.
• If no boxes checked, proceed to Group 1.

Group 1 – No Known Risk
☐ eGFR is 31 mL/minute/1.73 m² or greater.
• If box checked, proceed to Medication Section and administer Gadobenate Dimeglumine (Multihance™).

INTRAVENOUS ACCESS:
• Establish intravenous access, if not already present or patent.

MEDICATION SECTION:
Prior to proceeding with contrast administration, Radiology RN to verify scan type. Single dose to be administered unless specified in eScoop as Multihance double dose.
• 0.5 mmol/mL concentration.

Single Dose:
For single dose give weight appropriate dose using the table below of Gadobenate Dimeglumine (Multihance™) 0.1 mmol/kg body weight, IV at 3 mL/second (if vascular resistance prevents injecting at 3 mL/second then inject at 2 mL/second) followed by 20 mL of 0.9% NaCl IV at 3 mL/second (if vascular resistance prevents injecting at 3 mL/second then inject at 2 mL/second). If unable to inject at 2 mL/second, radiologist input required.

Double Dose:
For double dose give weight appropriate dose using the table below of Gadobenate Dimeglumine (Multihance™) 0.2 mmol/kg body weight, IV at 3 mL/second (if vascular resistance prevents injecting at 3 mL/second then inject at 2 mL/second) followed by 20 mL of 0.9% NaCl IV at 3 mL/second (if vascular resistance prevents injecting at 3 mL/second then inject at 2 mL/second). If unable to inject at 2 mL/second, radiologist input required.
This protocol has been developed to reflect the practice patterns of the clinicians who wrote it. It sets forth recommendations as to practice, not rigid rules.

<table>
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<th>Body Weight (kg)</th>
<th>Single Dose (mL)</th>
<th>80% Single Dose (mL)</th>
<th>Double Dose (mL)</th>
<th>80% Double Dose (mL)</th>
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</table>

**EDUCATION:**

- Give Nephrogenic Systemic Fibrosis (NSF/NFD) pamphlet (MC6115) to patients in Group 2.

**Enter Name:**
At the end of this protocol the user will be required to enter his/her name.
Entry of the user name at this point constitutes the creation of an electronic signature.

**To view the information entered in this protocol:**
The information is formatted and recorded in CDM. This information is viewable using the electronic medical record.