

Policy and Procedure

Subject: MRI Labs and iSTAT

Responsible Party: PDC and MRI Safety Department

Revision Date: 11/2020

POLICY:

The following MRI iSTAT policy and procedure has been developed to ensure a consistent protocol is followed for MRI patients needing their eGFR checked prior to receiving IV contrast. Staff will comply with the following protocol when using IV contrast during MRI examinations on all patients.

GUIDELINES FOR GROUP II AGENTS- GADAVIST AND MULTIHANCE:

Per ACR Committee on Drugs and Contrast Media the risk of NSF among patients exposed to standard or lower than standard doses of group II GBCAs is sufficiently low or possibly nonexistent; such that assessment of renal function with a questionnaire or laboratory testing is optional prior to intravenous administration. As in all instances, group II GBCAs should only be administered if they are deemed necessary by the supervising Radiologist, and the lowest dose needed for diagnosis should be used as deemed necessary.

List of screening questions to be asked when using Gadavist or Multihance contrast, Group II:

- Do you have renal Failure?
- Are you on dialysis?

GUIDELINES FOR GROUP III AGENT-EOVIST:

Per ACR Committee on Drugs and Contrast Media it concludes that patients receiving group III GBCAs may be at risk of developing NSF if any of the following conditions apply to the patient—on dialysis or severe/end stage CKD without dialysis. There is insufficient real-life data to determine the risk of NSF from administration of group III agents, despite an alternative excretion pathway for hepatobiliary agents. Thus, it is important to identify outpatients at risk of developing NSF prior to injection of group III GBCAs.

List of screening questions to be asked when using Eovist contrast, Group III:

- History of renal failure
- Dialysis
- History of hypertension requiring medical therapy
- History of diabetes mellitus
- History of kidney cancer
- History of kidney surgery
- History of kidney transplant

INSTRUCTIONS FOR THE TECHNOLOGIST:

If a Technologist is scanning using **Group II agents** and a patient answers Yes to:

- Do you have renal failure?
- Are you on dialysis?

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If the patient answers “Yes” to the above 2 questions, the exam will need to be discussed with a Radiologist for a case by case analysis, to weigh risk vs. benefit to determine necessity of contrast administration.

If a technologist is scanning using **Group III agents** and a patient answers Yes to:

- History of renal failure?
- Dialysis?
- History of hypertension requiring medical therapy?
- History of diabetes mellitus?
- History of kidney cancer?
- History of kidney surgery?
- History of kidney transplant?

If the patient answers “Yes” to the above questions. The Technologist will request outside laboratory work done in the last 45 days with a creatinine level/eGFR or draw labs using iSTAT the day of their MRI appointment.

- If the ordering physician’s office does not have labs drawn within 45 days on file, obtain an order from the ordering physician to perform our iSTAT test to obtain a creatinine level. Radiologist may order iSTAT if we are not able to obtain orders from the provider.
- On the day of the patient’s MRI exam, if no prior labs with a creatinine/eGFR have been found, a MRI Technologist will draw blood and run the iSTAT according to manufacturer’s instructions. Then record the findings on the Contrast Consent Form for MRI and in the designated place in RIS.
- Once the blood sample is run through the iSTAT and a creatinine is obtained, enter the value into the eGFR calculator online ([Online National Kidney Foundations Calculator](#)).
- If a patient has an eGFR of 30 or above proceed with giving contrast. If an eGFR is less than 30 then always consult a Radiologist to weigh risks vs benefits.

INSTRUCTIONS FOR SCHEDULERS:

Patients will be asked if they have a history of renal failure or if they are on dialysis. If the patient answers Yes:

The patient will be scheduled per the referral with a note in the scheduling questionnaire what the answer was for the Technologist to look up. At the time of tech review/tech protocol the Technologist will discuss with a Radiologist whether they will proceed with the MRI, without contrast or whether the benefits of administering contrast outweigh the risks.

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REFERENCE:

Below is the link to the updated ACR 2020 Contrast Guidelines. Starting at page 83-89 for MRI information.

https://www.acr.org/-/media/ACR/Files/Clinical-Resources/Contrast_Media.pdf