

MRI IN SPECIFIC PATIENT POPULATIONS

PURPOSE

- To ensure that specific patient populations undergo safe MRI when possible.

RENAL FAILURE PATIENTS

- For patients whose GFR is <30 mL/min or who are experiencing acute kidney injury (AKI), IV contrast should only be administered with approval by the supervising radiologist and when necessary to answer the clinical question.
- Patients do not need to sign an informed consent form prior to receiving IV contrast.
- Nephrology approval is not required prior to receiving IV contrast.
- If the patient is on hemodialysis, it is preferred that the patient undergo dialysis soon after receiving IV contrast (if possible). The dialysis schedule should not be adjusted otherwise.
- Per current research the risk for nephrogenic systemic fibrosis (NSF) when using group II agents (Clariscan, Gadavist, Dotarem, Multihance, Prohance and Eovist) is sufficiently low to nonexistent. However, IV contrast should only when necessary and when CT or US cannot answer the clinical question.

SEDATED, INTUBATED, ALTERED & UNCONSCIOUS PATIENTS

- Patients with MR safe or “OK to scan” implants can undergo MRI (without radiologist approval or form MI-0651 completed/signed) provided the implant conditions can be met on the scanner to be used.
- Patients with the following implants can undergo MRI (radiologist approval and form MI-0651 required) provided the implant conditions can be met:
 - MR conditional passive implants
 - MR conditional active implants
 - MR nonconditional cardiac devices
 - Metallic foreign bodies of unknown composition

CLAUSTROPHOBIC PATIENTS

- For an outpatient requiring sedation or medication in addition to what he/she brought to the appointment, the patient will be rescheduled, and the ordering clinician will be notified.
- Outpatients receiving sedation must have a driver take them home after the appointment.
- For inpatients and ER patients:
 - If a patient cannot tolerate an MRI because of claustrophobia, his/her nurse will be notified.
 - The nursing unit is responsible for obtaining physician orders for sedative medication.
 - Inpatients and ER patients that require sedation will be handled in accordance with the hospital’s Moderate Sedation policy.

- If a patient is unable to complete the MRI, the referring physician will be notified, the patient will be released from the MRI department and the event will be documented on the technologist worksheet.

PATIENTS WHO CANNOT PROVIDE HISTORY

- Patients who cannot provide adequate history and who have no family/others to provide history must have radiographs (or CT) of the head, chest and abdomen to screen for metallic implants or foreign bodies.

PREGNANT PATIENTS

- Pregnant patients can undergo MRI on appropriate indications during any trimester.
- IV gadolinium contrast is only administered to a pregnant patient when deemed essential by the supervising radiologist and with the approval of the patient's OB/GYN. The supervising radiologist should review the pre contrast images to ensure the use of IV contrast is still indicated.
- Written informed consent (form MI-0623) is required for patients receiving IV gadolinium contrast. Informed consent can be obtained by the supervising radiologist, the patient's OB/GYN or the clinician ordering the examination. The order for the contrast should be signed back to whomever obtained the informed consent.

BREASTFEEDING PATIENTS

- It is no longer recommended that breastfeeding patients discard (pump and dump) breast milk for 24 hours after receiving IV gadolinium contrast. However, a patient can still pump and dump for 24 hours if she wishes.
- Much less than 1% of the dose of IV gadolinium contrast administered to the mother is excreted into the breast milk and absorbed by the infant's GI tract. Put another way, the IV contrast dose that would be administered to an infant undergoing MRI would be larger than the dose that would be absorbed through breast milk.
- An infant absorbs less than 0.004% of the dose of IV gadolinium contrast administered to the mother (i.e. the mother would have to receive 250 liters (66 gallons) of contrast for the infant to absorb 1 mL of contrast).