

Center for Advanced Magnetic Resonance Development (CAMRD) Guideline

Intravenous access and use of injectables for research MRI exams performed in CAMRD



Background:

A number of MRI exams performed in CAMRD will require the use of injectable agents, most commonly gadolinium based contrast agents. Placement of a peripheral IV is an important workflow consideration and must be performed prior to subject arrival in CAMRD. Safety measures required by the Duke Institutional Review Board (IRB) must be observed, and any laboratory investigations (including serum creatinine/eGFR and beta-HCG) must be obtained prior to subject arrival in CAMRD and must be documented in Maestro Care.

Research guidelines for administration of gadolinium based agents and for pregnancy testing differ from those used in clinical practice. More detailed information regarding Duke IRB policy on gadolinium administration in research can be found at the following link:

<https://medschool.duke.edu/research/clinical-and-translational-research/duke-office-clinical-research/policies-training-and-5>

For injectables other than gadolinium-based contrast agents, all appropriate safety precautions as determined by the Duke IRB must be observed.

Guideline - For such studies, the following must be observed:

1. Study teams will be responsible for arranging for placement of peripheral IV catheters that are necessary for the administration of the contrast agents used in MRI.
2. All adult subjects who will undergo a research MRI that includes the use of a Gadolinium-based contrast agent must have a serum eGFR measurement obtained within 7 days of the MRI examination.
3. All female subjects of child-bearing potential must have a negative (<5 mIU/mL) beta-hcg within 48 hours of the administration of gadolinium.
4. Study teams must place an order in Maestro for the MRI examination with gadolinium so that the administration of gadolinium can be recorded. This is necessary for all contrast-enhanced examinations, regardless of whether a clinical interpretation is performed.
5. The CAMRD MRI technologist is responsible for verifying lab values and possible allergies as well as proper dosage and administration of the gadolinium contrast agents.

6. The CAMRD MRI technologist will document the contrast administration in the Maestro Care Medication Administration Record, including the dosage and time of administration.

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