MRI - Patients with Cardiac Pacemakers or Implantable Cardioverter Defibrillators

PURPOSE: To define if MRI procedures can be performed on patients with Cardiac Pacemakers or Implantable Cardioverter Defibrillators (ICD).

POLICY:

1. The presence of a Cardiac Pacemaker or Implantable Cardioverter Defibrillator is considered a contraindication for MRI. Pacemaker and/or ICD leads may also present a hazard in the absence of any implant connected to them. MRI of patients with pacemakers and/or ICD are not routine. To date, no cardiac pacemakers and/or defibrillating devices are labeled safe or conditionally safe for MRI scanning.

2. Should a MRI be considered, it should be done on a case-by-case and site-by-site basis, and only if the appropriate radiology and cardiology knowledge and expertise is on hand.

3. Should any MRI procedure be contemplated for a patient with an implanted pacemaker or ICD, it is recommended that radiology and cardiology personnel and a fully stocked crash cart be readily available throughout the procedure in case a significant arrhythmia develops during the examination that does not terminate with the cessation of the MR study.

4. The cardiologist should be familiar with the patient’s arrhythmia history and the implanted device. A programmer must be available to adjust the device if needed.

5. At conclusion of procedure, cardiologist should examine device to confirm that the function is consistent with preexamination state. Follow-up should include a check of the device at a time remote (1-6) weeks after scan to confirm appropriate function.

6. Should an MRI (or entry into the magnet area) be performed inadvertently on a patient with a pacemaker or ICD, the patient’s cardiologist and the radiologist must be contacted to examine the device before the patient can be discharged from the MR area.
Note: Additional sequences may be requested at the discretion of the Radiologist monitoring the exam.

Dotarem for this exam, Use 0.2 mL/kg body weight for age 2 and older per Dr. Gonzalez Toledo; under age 2 consult Radiologist