Guidelines for Performing MRI on patients with ICDs and Pacemakers
Approved jointly by Cardiology at UF&Shands and VAMC - July 2012

1. Patient selection
Patients who meet any of the following criteria should be restricted from undergoing an MRI:

- Pacemaker dependent patients
- Patients who have undergone cardiothoracic surgery or who have had a myocardial infarction within 3 months of the anticipated MRI
- Patients in whom equally useful clinical information could be obtained with an alternative imaging modality
- Patients who do not meet the standard criteria for undergoing an MRI with the exception of having a ICD or pacemaker

2. Device Selection
Patients who have a pacemaker or ICD which meets any of the following criteria should be restricted from having an MRI:

- A device placed prior to 2000
- A device placed six week or less prior to the anticipated MRI
- A device with fractured, capped, or nonfunctional leads
- A device with epicardial leads
- A temporary device
- A device with generators placed within the abdomen
- Patients with devices/leads, currently under advisements

3. Prior to the MRI

- Monitoring capabilities should be turned off by Cardiologist
- Anti-tachycardia pacing and defibrillation therapies should be turned off
- Magnet mode should be turned off
- All pacemakers should be set to DOO or VOO mode
- Device parameters including lead impedance, threshold, battery voltage, etc. should be recorded in chart notes by Cardiologist

4. During the by MRI Radiology/Cardiology

- 1.5 Tesla will be used
- SAR will be limited to less than 2.0 Watts/kg
- Blood pressure, pulse, oxygen saturation, and continuous ECG should be monitored
- Direct visual monitoring of the patient should be preformed by medical personnel
- Resuscitation equipment including a defibrillator should be immediately available
- MRI Exam reviewed by Radiologist in order to limit protocol to answer clinical question

5. After the MRI by Cardiologist

- Device parameters including lead impedance, threshold, battery voltage, etc. shall be recorded
- Device therapies should be turned back on and prior device programming shall be resumed
- Patients shall be monitored as previously scheduled in the device clinic roughly every three months

6. Emergent /Urgent criteria

- Sudden onset blindness
- Rapidly progressive paraplegia