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