Magnasafe Registry: Are MRIs and PPM/ICDs Compatible?

- Mark S. Link
- Professor Of Medicine
- Tufts Medical Center
- Boston, MA
Congratulations!!
Study Design

- 1000 patients with PPM
- 500 patients with ICD
- Standard 1.5 Tesla MRI
- Clinically indicated non-thoracic MRIs
Main Results

• No Deaths
• One acute ICD failure (Therapies mistakenly left on)
• No Ventricular arrhythmias
• Afib was observed (all but one had prior history of afib)
• Electrical reset to 6 PPMs
• Sensing and threshold changes occasionally observed which generally resolved with time
  – P and R wave decreases
  – Threshold increases
Are MRIs and PPM/ICD Compatible?

- I would give a conditional YES
- Yet there are risks
- We are early in this imaging technology
- More problems may be seen with increased patients
- Programming of the device prior to the scan is critical
- There will occasionally be complications
- But it is time for us as a community to look at the risks and benefits of MRIs in our PPM/ICD patients and not categorically exclude these patients from MRIs