Guidelines

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Outline
• Guidelines: 2007 to 2018
• Translating single institutions to standard clinical practice
• Non-MRI conditional CIEDs
• Latest developments: NHS and worldwide

Safety Guidelines for Magnetic Resonance Imaging Equipment in Clinical Use
March 2016

Guidelines for cardiac pacing and cardiac resynchronization therapy
2013 ESC Guidelines on cardiac pacing and cardiac resynchronization therapy

6.3 Magnetic resonance imaging in patients with implanted cardiac devices

- Magnetically sensitive materials (MSM) are present in implanted compact disk type CMR compatible pacemakers and implantable cardioverter-defibrillators (ICDs).
- The presence of MSM may cause complications such as skin irritation, edema, and increased wound healing times.
- Patients with MSM should be referred for magnetic resonance imaging (MRI) studies in a multidisciplinary setting.
- The use of MRI in patients with MSM should be performed with caution.

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Safe use of MRI in people with cardiac implantable electronic devices

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2017 ICM expert consensus statement on magnetic resonance imaging and radiation exposure in patients with cardiovascular implantable electronic devices

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Careful planning is key.

What happened in January?
So what are we doing in the UK?

- Growing communication
- Royal College of Radiology
- British Heart Rhythm Society
- British Society of CMR
- British Cardiovascular Society
- Association of British Neurologists

What next?

What next?
Growing evidence in higher risk groups

What next?

Safety of magnetic resonance scanning without monitoring of patients with pacemakers

Lisbon Bertalan, Heike Hagen Petersen, Bente Thyregod Philbers, Joerg Hostrup Freund, Carsten Thomsen, and Niels Vanhees

Safety of magnetic resonance imaging in patients with legacy pacemakers and defibrillators and abandoned leads

Deepak Pahwa, MD, Gabrielail Kestin, MD, MS; Abhishek Deshmukh, MD; Sree Hota, MD, MS; Vijay Pullar, MD, MS; Allan Jaffe, MD; Joseph Feinberg, MD; Mary Jandl, RN; Cintia M. Decuzzi, RN; Samuel E. Kleinman, MD, PHD; Yung Mei Chiu, MD, PHD; Robert E. Watson, Jr, MD; Paul A. Friedman, MD, PHD
Conclusion

• CIEDs are no longer a major contraindication to MRI
• Scanning non-MRI conditional devices is safe when following strict protocols
• UK, European and International guidelines exist to help set up services
• This is a rapidly changing policy space