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Hand Held Metal Detectors - Models AD10-2 & AD16:

The two Adams Electronics Hand Held Metal Detectors AD10-2 and AD16 were tested on a series of 29 patients attending the Pacemaker and Defibrillator Clinics of this hospital. The devices were held directly over the generators, switched on and off and waved to and fro. During this study an electrocardiographic rhythm strip was run. All patients had normally functioning devices at the time of testing and all patients gave their verbal consent.

Pacemakers studied:

Devices from a very wide spectrum of the pacemaker market were tested including: 12 from Medtronic, 5 from Pacesetter (St Jude), 2 from ELA, 4 from Biotronik, 1 from CPI, 2 from Vitatron, 1 from Sorin, and 1 from Telektronics. These also represented a wide model range including 7 ventricular inhibited, 4 ventricular inhibited rate modulated, 14 dual chamber, and 3 dual chamber rate modulated. There was also a complete coverage of lead systems, there being 8 Uni-Polar and 20 Bi-Polar. Finally, 1 implanted cardioverter defibrillator (ICD from CPI) was tested. No effects were found by either device on any of the implanted systems neither in terms of electrocardiographic disturbance nor in the programmed parameters of the implanted units.

Conclusion:

These Hand Held Metal Detectors all detect the implanted pacemaker but do not in any way affect function of any of a very wide variety of pacemakers tested. It is therefore believed that they are safe to use with pacemaker patients in any circumstance.

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26.9.96