

The changing face of cardiology in the district general hospital: 'plumbing to electrics'

Authors: Clare Bannister, Lou Hobin and Michael Hickman

Aims

To review the changes in cardiology practice at our district general hospital over a 15-year period.

Methods

A retrospective analysis of registry data collected at our institution between 2000 and 2014. Total numbers of specific cardiac investigations or procedures were counted per year. These included: coronary angiography, pacemaker implants, cardiac ablations, loop recorder implants, cardiac rhythm monitors, exercise stress tests and 24-hour blood pressure monitors. Pacing was subdivided into: single or dual chamber pacemakers, or complex pacing, which included cardiac resynchronisation therapy (CRT) and implantable cardioverter defibrillators (ICD). Ablations were subdivided according to the underlying causative arrhythmia.

Results

Coronary angiography was the most commonly performed procedure in the catheter laboratory, with 561 performed in 2013. Total numbers, however, had been largely stable from 2006 to 2013.

By comparison, pacing procedures and related investigations increased significantly over this period. Pacemaker implant numbers rose from 138 in 2006 to 311 in 2013. The use of cardiac monitors doubled (over 2,000 in 2013) and loop recorders were implanted at increasing rates. Complex pacing was increasingly performed, specifically from 2009 onwards, with 57 implants in 2013. Dual chamber pacemaker numbers mirrored this trend, whereas single chamber implant numbers were consistent throughout. The number of pacing clinic appointments increased from 900 in 2006 to 2,761 in 2013.

Cardiac ablation procedures were introduced in 2010. Small numbers were initially performed but rose significantly in 2014. Atrial flutter ablation was the most common procedure (53%), with AV nodal reentry tachycardia ablation thereafter (15%).

No clear trend was seen with rates of blood pressure monitoring performed between 2000 and 2011, although an increase was identified from 2012. A steady decline in exercise

stress testing was observed, with 1,626 tests performed in 2000 versus 938 in 2013.

Conclusions

A change within our cardiology practice was identified, with an increase in electrophysiology (EP) procedures and related investigations. By contrast, coronary angiography numbers were stable despite the ageing population, likely due to improvements in non-invasive coronary imaging. Increasingly complex EP procedures were performed including CRT, ICD devices and ablations. This complexity is likely to continue, as is an expansion in this field. Moving forward, this shift in practice from 'plumbing to electrics' will have a significant impact on cardiac services, affecting the recruitment of consultants, role of cardiac physiologists, staffing of cardiac services and long-term follow-up of these patients. ■

Authors: Royal Surrey County Hospital, Guildford, UK