## ICD IMPLANTATION IN THE DGH IS SAFE- SO WHAT'S THE FUSS ABOUT?

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#### Disclosures

#### Speaking honoraria

- Medtronic Inc
- Sanofi-Aventis

#### Sponsored research studies

- Medtronic Inc
- Boston Scientific
- Sanofi-Aventis

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- Medtronic
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- St Jude Medical

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#### **Total ICD Implants 2007**





## Where's the block?



greater than the average in eastern Europe. Only Greece, Spain, and Portugal in western Europe provide a poorer service to the community in terms of pacing, and historically Britain now lags some 14 years behind the United States in rates of implantation.



#### A F RICKARDS

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This audit suggests that if UK national criteria were fully implemented, ICD implantation would increase by a factor of seven locally, and by a factor of 10 nationally. Clearly this would have very significant implications for provision of ICD therapy in the UK and elsewhere.

The incidence of implantable cardioverter defibrillator indications in patients admitted to all coronary care units in a single district\* Christopher J. Plummer\*, R. John Irving and Janet M. McComb

Our audit suggests that implementation of the NICE criteria would result in an even higher implantation rate of 125/10<sup>6</sup>/year, four times our current rate of 29.7/10<sup>6</sup>/year.

An audit of the implications of implementing NICE guidance on the use of implantable cardioverter-defibrillators

C J Plummer, J M McComb

By analogy with the devolution of pacemaker implantation to district hospitals, local implantation of ICDs in the district hospitals rather than in the centre may facilitate higher implantation rates.

The implantable cardioverter-defibrillator: postcode prescribing in the UK 1998– 2002 A D Cunningham1, C J Plummer2, J M McComb2, S W Lord, M W Cunningham1, J-M Toussaint3, A F Rickards1 Use of ICDs varies between English health regions, and use is not commensurate with need. Although incomplete data could be contributing, an inverse care law seems to be operating. This, along with the slow diffusion of the technology and setting of services predominantly in larger tertiary centres, is similar to the pattern previously seen for coronary revascularisation

Planned expansion of implanting centres and resources are needed to tackle low levels of referral, geographical and social inequity, and the expected increase in demand for ICDs.

Inequity of use of implantable cardioverter defibrillators in England: retrospective analysis Julie Parkes, Deborah L Chase, Andrew Grace, David Cunningham, Paul J Roderick *BMJ* 2005;330:454–5

# A second and a second a second

### Capacity

#### Unmet demand

incident and prevalent population
Demographically increasing demand
Increasing systematic identification
Competing demands
Primary PCI

• AF ablation

CRT

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#### What are the prerequisites?

Specialist experience and enthusiasm

Implantation numbers / Catchment area

Medical cross cover

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Cardiac physiology staff cover

Patient support infrastructure

Local debate

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### Maintenance of competence ACC / HRS

Table 2 Summary of requirements for alternate training pathway for ICD and CRT implantations

- Documentation of current experience: 35 pacemaker implantations per year and 100 implantations over the prior 3 years
- Proctored ICD implantation experience 10 Implantations
  - 5 Revisions
- Proctored CRT implantation experience: 5 implantations
- Completion of didactic course and/or NASPEXAM
- Monitoring of patient outcomes and complication rates
- Established patient follow-up
- Maintenance of competence

10 ICD and CRT procedures per year 20 patients per year in follow-up



Heart Rhythm Society

Clinical competency statement: Training pathways for implantation of cardioverter defibrillators and cardiac resynchronization devices

This document has been endorsed by the American College of Cardiology Foundation

Anne B. Curtis, MD,<sup>a</sup> Kenneth A. Ellenbogen, MD,<sup>b</sup> Stephen C. Hammill, MD,<sup>c</sup> David L. Hayes, MD,<sup>c</sup> Dwight W. Reynolds, MD,<sup>d</sup> David J. Wilber, MD,<sup>e</sup> Michael E. Cain, MD<sup>f</sup>

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#### Competance

Performance

Data

Audit

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## What are the concerns?

## Facilities

Support

Expertise

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Knowing clinical limitations and boundaries

Diagnostic facilities

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cognition of Limitations Where is further risk stratification needed Where is a wider expert risk assessment required Where is a diagnostic EP study desirable Specialist implantation GUCH Lead extraction

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Access

#### Advantages

- Inverse care / Inverse square
- Local recognition by local expertise
- Local service / geography
- Expertise at the site of emergency presentation
- Immediate access to data
- Responsiveness
- Continuity of care

and - Second of

service

- Familiarity patient support
- Implantation is not an isolated technical

#### Conclusion

#### Imperative

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- Few Impediments
  Caveats
  Limitations
- Need for ongoing interaction

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