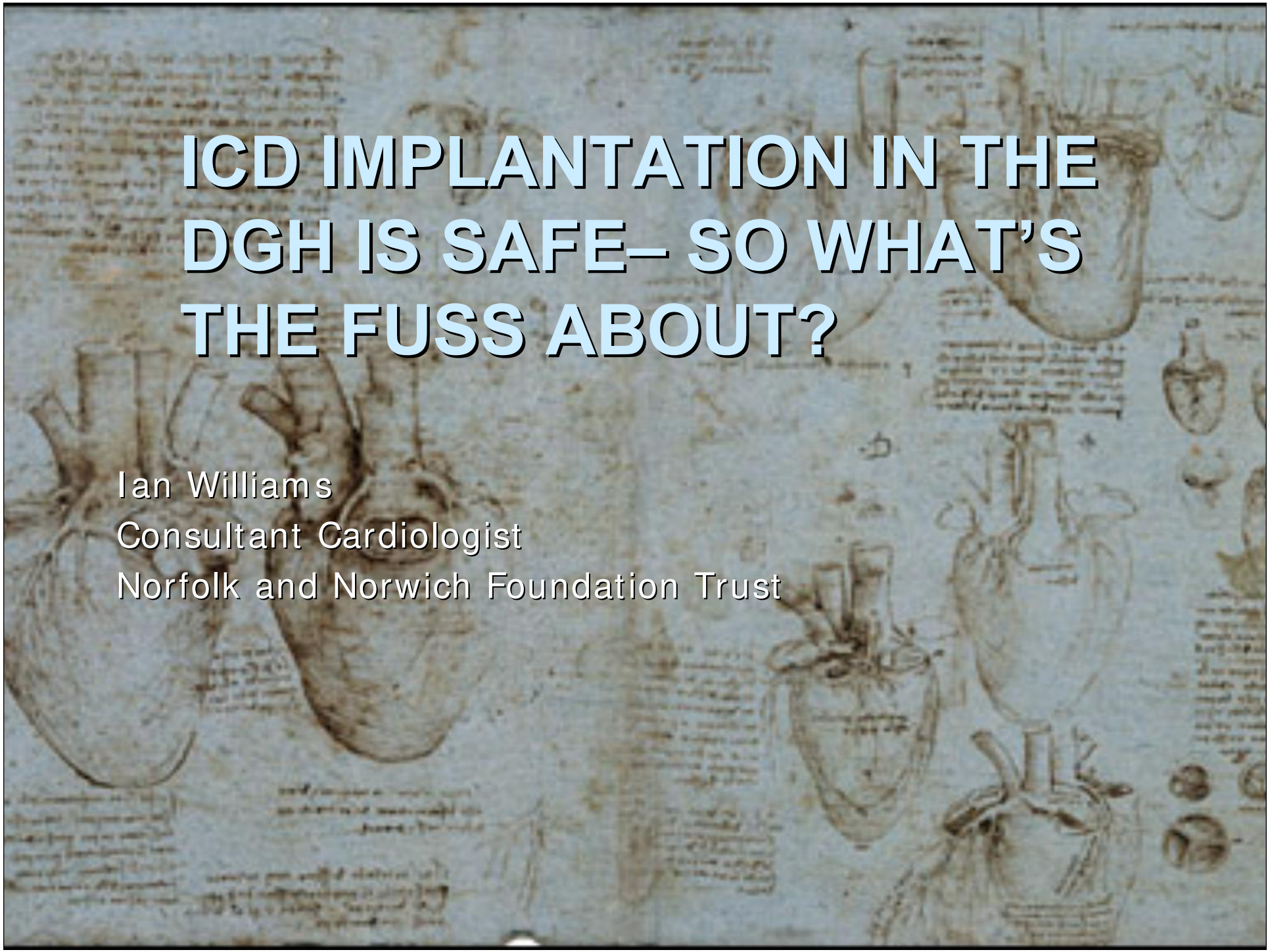


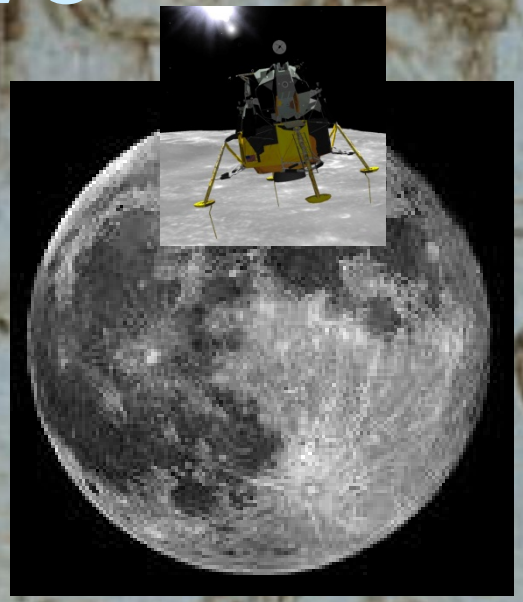
ICD IMPLANTATION IN THE DGH IS SAFE– SO WHAT'S THE FUSS ABOUT?

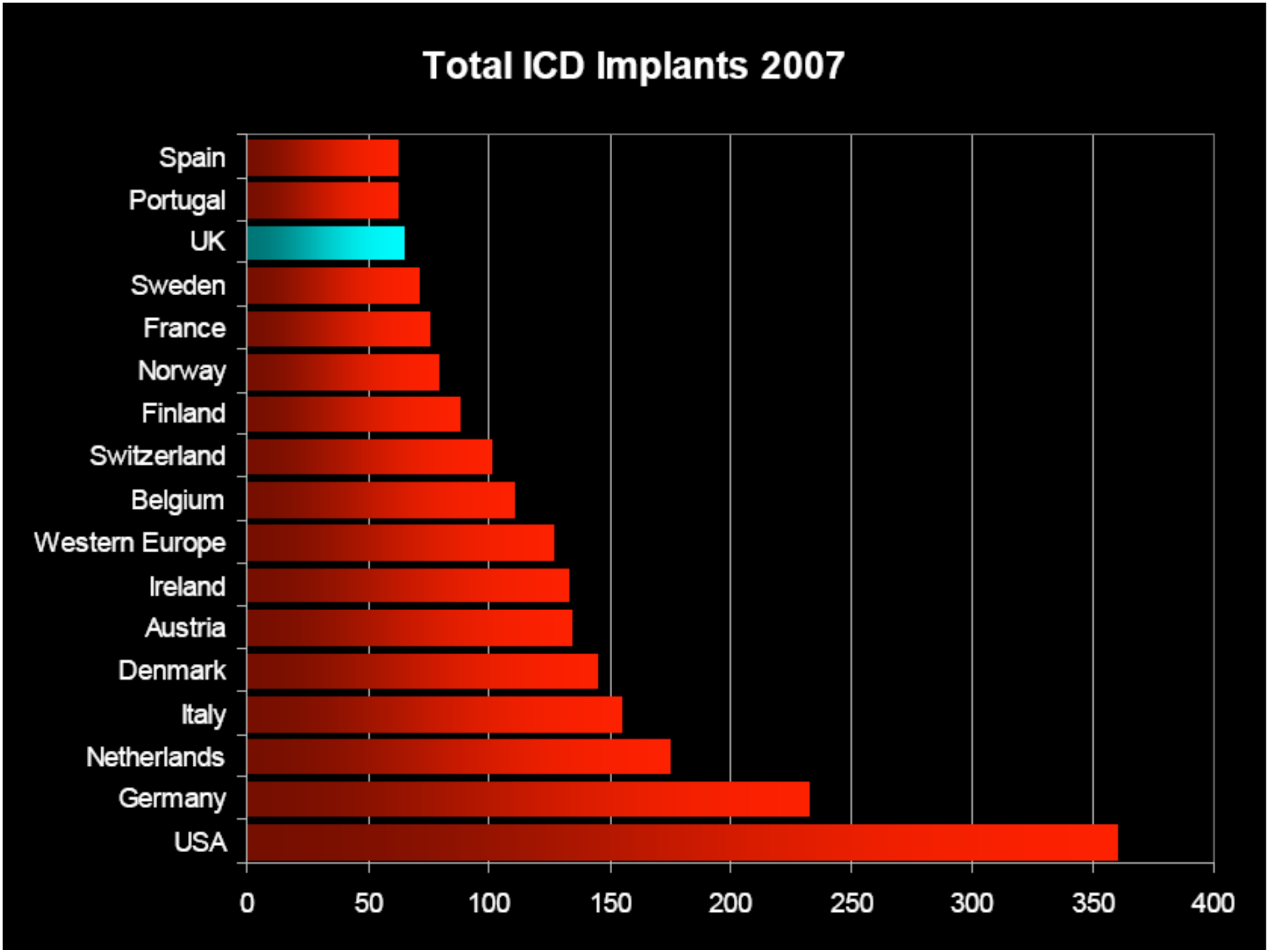
Ian Williams
Consultant Cardiologist
Norfolk and Norwich Foundation Trust

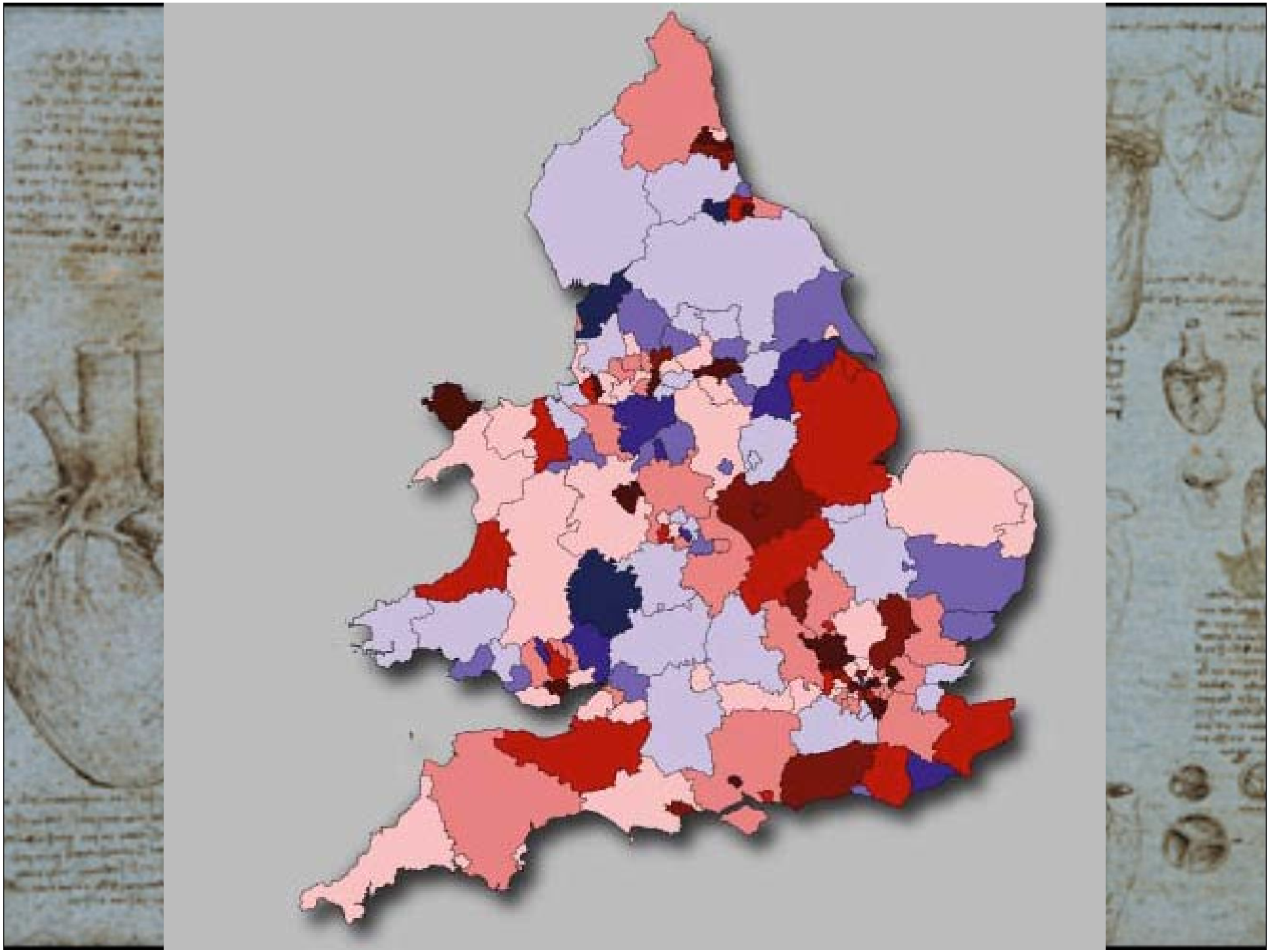
Disclosures

- Speaking honoraria
  - Medtronic Inc
  - Sanofi-Aventis
- Sponsored research studies
  - Medtronic Inc
  - Boston Scientific
  - Sanofi-Aventis
- Educational grants
  - Medtronic
  - Boston Scientific
  - St Jude Medical

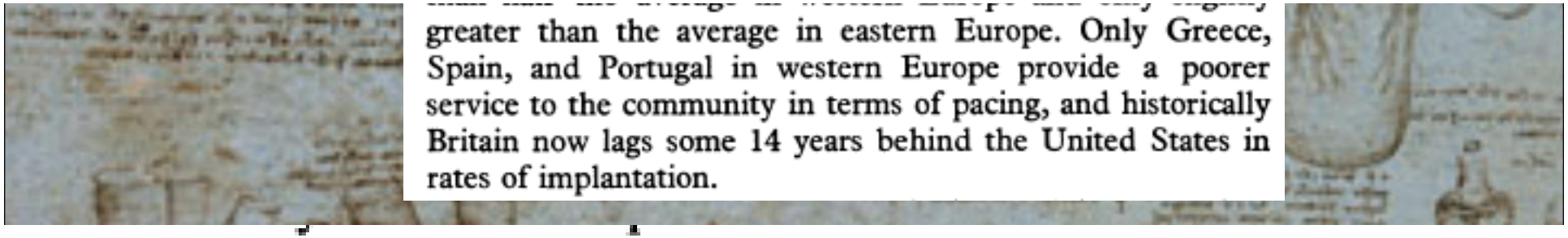
The imperative




Total ICD Implants 2007
Spain
Portugal
UK
Sweden
France
Norway
Finland
Switzerland
Belgium
Western Europe
Ireland
Austria
Denmark
Italy
Netherlands
Germany
USA
0
50
100
150
200
250
300
350
400



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

Consultant Cardiologist,
National Heart Hospital,
London W1M 8BA

the population served by a pacing centre and implant rate in the North American and European countries. Assessed in terms of

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 $125/10^6$/year, four times our current rate of $29.7/10^6$/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

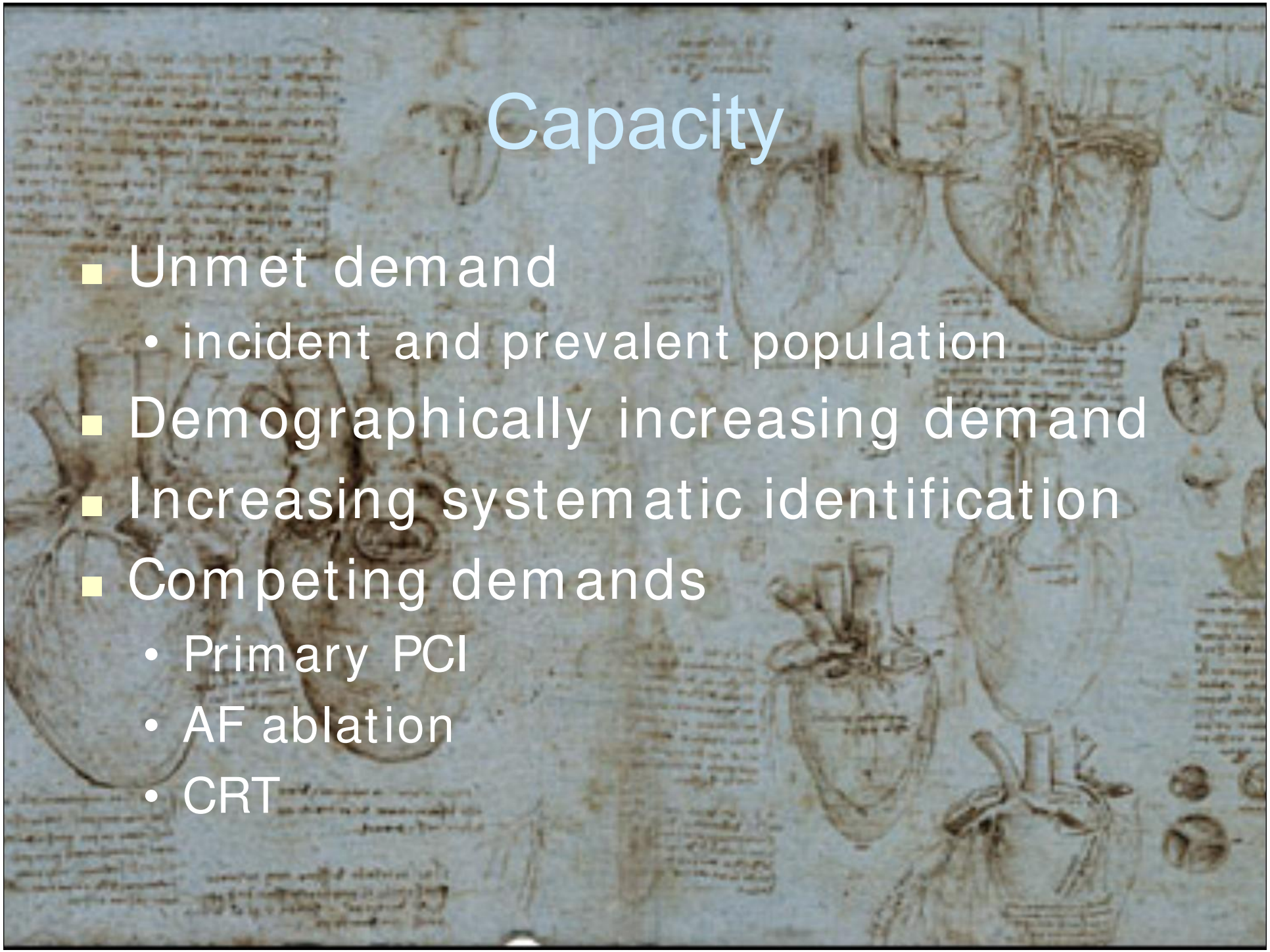
A D Cunningham1, C J Plummer2, J M McComb2, S W Lord, M W Cunningham1, J-M Toussaint3, A F Rickards1

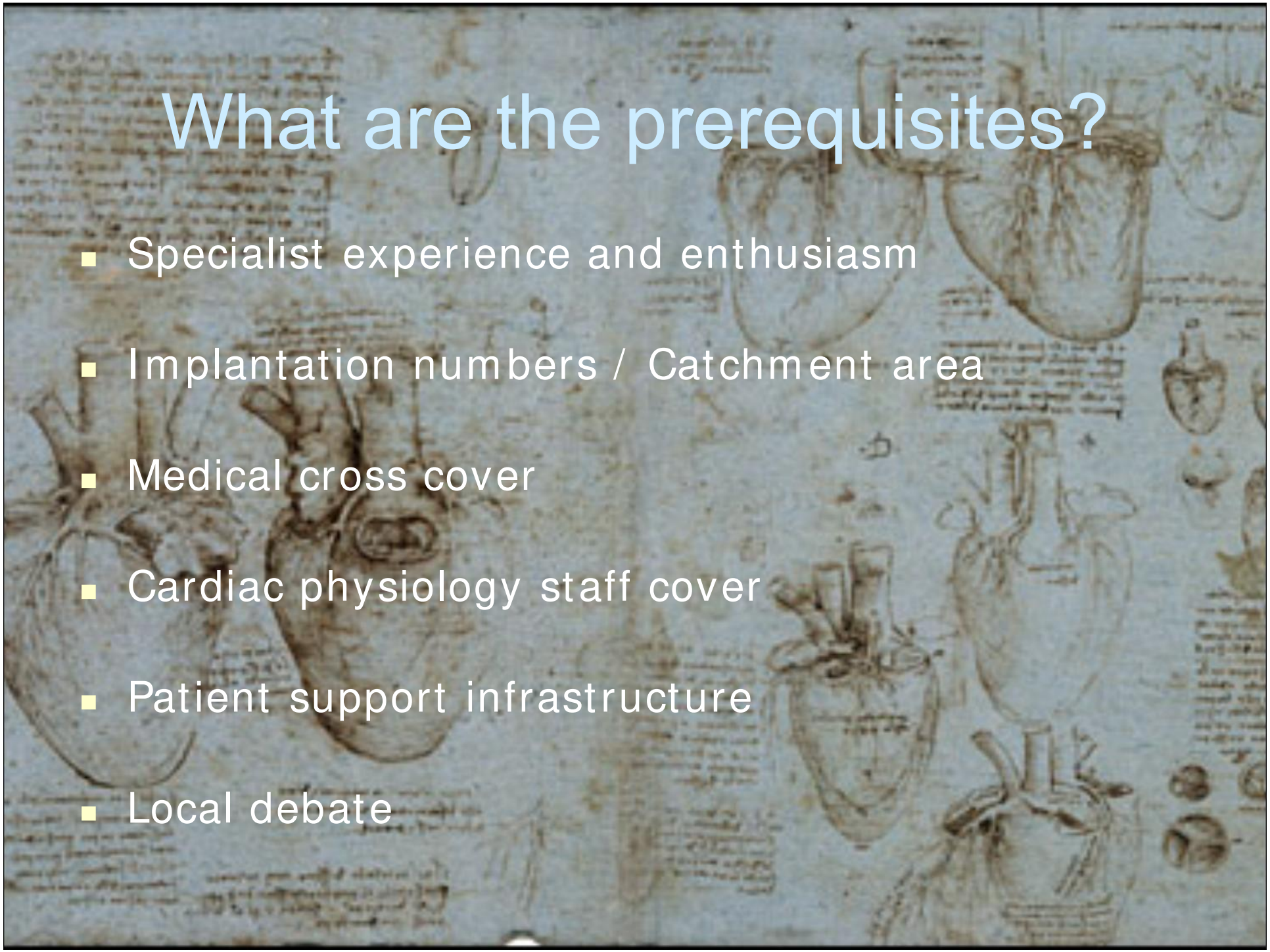
Use of ICDs varies between English health regions, and use is not commensurate with need. Although incomplete data could be contributing, an inverse care law seems to be operating. This, along with the slow diffusion of the technology and setting of services predominantly in larger tertiary centres, 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


Capacity
Unmet demand
incident and prevalent population
Demographically increasing demand
Increasing systematic identification
Competing demands
Primary PCI
AF ablation
CRT



What are the prerequisites?

- Specialist experience and enthusiasm
- Implantation numbers / Catchment area
- Medical cross cover
- Cardiac physiology staff cover
- Patient support infrastructure
- Local debate

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

RT

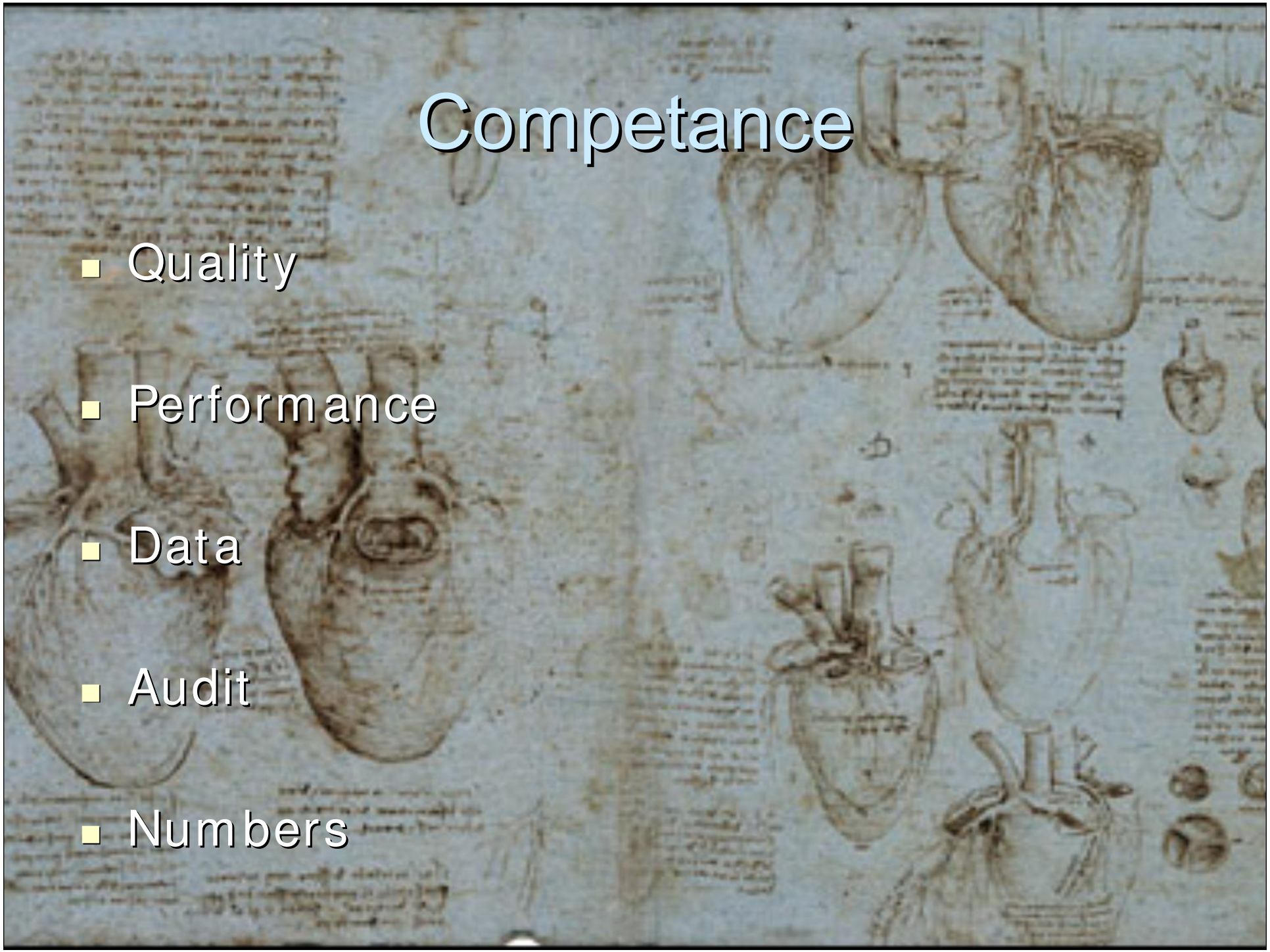
atients

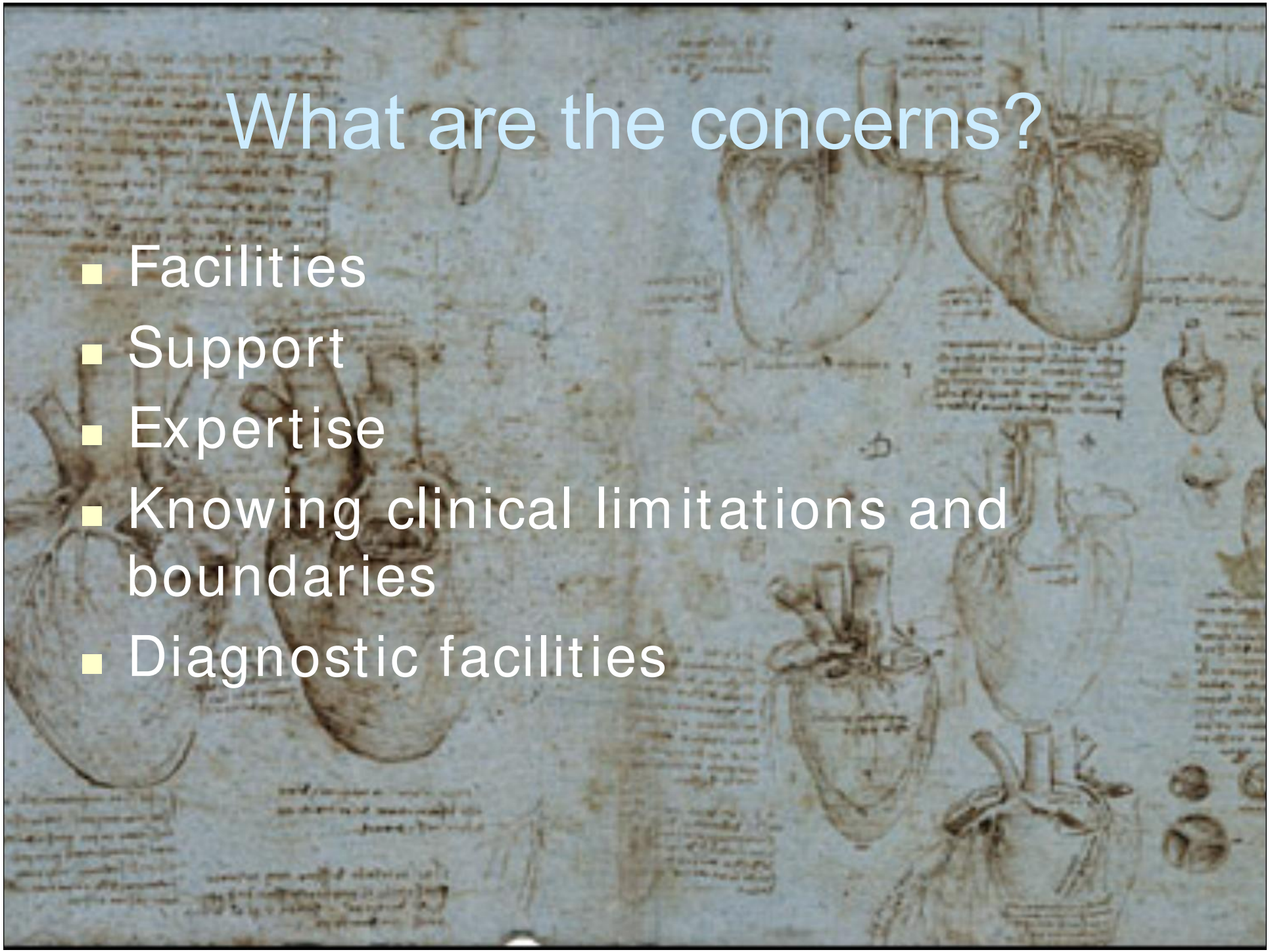
al in

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,[a] Kenneth A. Ellenbogen, MD,[b] Stephen C. Hammill, MD,[c] David L. Hayes, MD,[c] Dwight W. Reynolds, MD,[d] David J. Wilber, MD,[e] Michael E. Cain, MD[f]


Competance
Quality
Performance
Data
Audit
Numbers



What are the concerns?

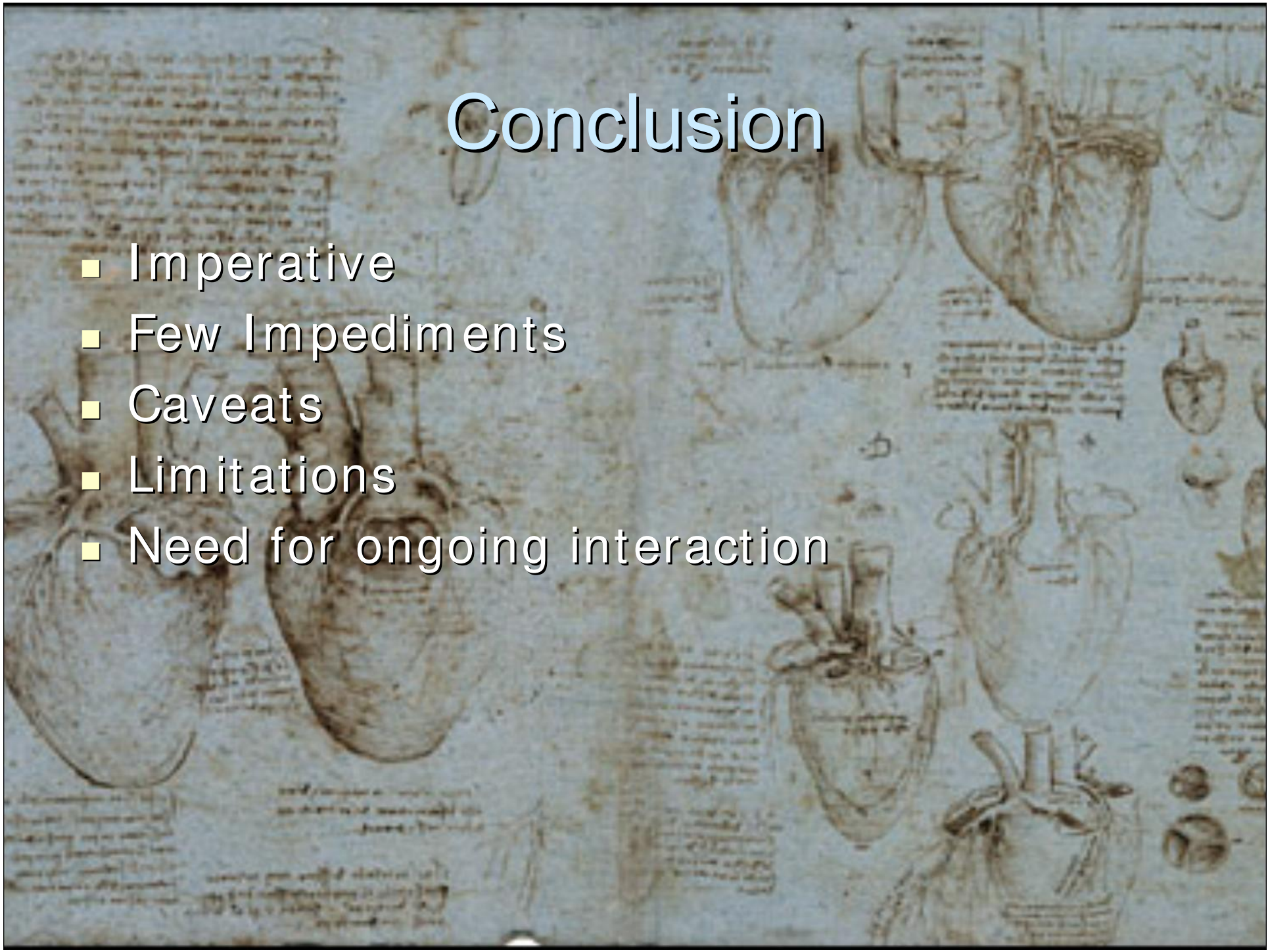
- Facilities
- Support
- Expertise
- Knowing clinical limitations and boundaries
- Diagnostic facilities

Recognition 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

Advantages

- Access
  - 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
- Familiarity – patient support
- Implantation is not an isolated technical service



Conclusion

- Imperative
- Few Impediments
- Caveats
- Limitations
- Need for ongoing interaction