"The Heart of the Matter"

NCEPOD CABG Study

Mr Leslie Hamilton
Consultant Cardiac Surgeon
President
Society for Cardiothoracic Surgery in GB + I

SCTS

NCEPOD CABG Study

- Thanks
  - Unique study
  - NCEPOD: Expert Group, funding organisations
  - Heather Cooper
  - Colleagues: Surgeons, Anaesthetists, Database Managers

- Our response? (my response)
  - Background: "organisational factors"
    - low mortality; out-performing EuroSCORE
    - scrutiny → paranoia
  - Opportunity or threat?
  - Welcome: reflect on practice → high quality, safe care

NCEPOD CABG Study: Data Quality

- Interesting lessons – NHS – "outcome measures"
- Returns (1045 deaths) – predicted 1500
  - Exclusions: 117 (11%) miscoded; 6 alive!
  - Surgeon 87%; Anaesthetist 90%; case notes 79%
  - complete 68%
  - 38 NHS Units: 8 → 100% (12 → 100% surgical)
    - including Controls: 4 Units → 100%
- Discrepancies (no effect on patient care)
  - LV function : 29% ("poor" = 3 points in EuroSCORE)
  - Co-morbidities: recent MI (2); "unstable" angina (2); PVD (2)
- Note keeping: case notes - "poor standard"
  - ? Management priority

Principal Recommendations

- Referral and Admission Process
  - Findings: delays (7%); poor assessment (10%)
  - NSF: national protocols (? electronic)
    - information on co-morbidities
    - examples of best practice
    - generic / unit referral
  - minimum dataset → defined by SCTS
  - pre-admission clinics (risk of stroke: carotid dopplers)
  - acute myocardial ischaemia (ACS) : "unstables"
    - ? myocardial infarction (STEMI / NSTEMI)
      - surgery too early / too late (? 7 / ? 10 days)
        - » JTCVS 2008; 135:503 → min 3 days

Principal Recommendations

- <u>Scheduling of Operations</u>
  - < 10% "out of hours"
  - Consultant Surgeon involvement 98.4% !! (NB 83% "in hours")
  - "good practice" more frequently
    - Debate: Consultant "lead" or "delivered" (NHS Plan 2000)

Principal Recommendations

- <u>Multidisciplinary Case Planning</u>
  - "sometimes no intervention is appropriate"
    - society → what are we trying to achieve?
    - Death is the one certainty in life! – "AND"
    - "PEACE": Crampton J BMJ 2008; 336:1015
    - acute patients most challenging (1 Cardiologist / 1 Surgeon)
  - PCI vs CABG
    - literature: JACC 2005;46:589 ; BMJ 2007; 334:593
    - which cases should be discussed?
    - time: who should attend? → job plans

  - **British Cardiovascular Society (BCS)**
  - **British Cardiovascular Intervention Society (BCIS)**

Principal Recommendations

- Patient Investigations

  - Findings: 9% did not have appropriate (50% adverse effect)

  - Themes:
    - blood results (? time between PAC and operation)
    - trans-oesophageal echo (expertise / certification)
    - recent angiography
    - renal function

  - Written protocols
  - Pre-assessment clinics

Principal Recommendations

- Medical Management

  - need for more research
  - Guidelines → SCTS
  - Pre-op drugs
    - Surgeons guided by Cardiologists!
    - Cardiologists cannot agree
    - pre + post op AF (atrial fibrillation)
  - ACS: anti-platelet agents (inc Clopidogrel – 5 days)
    - risk of bleeding vs MI
    - ? previous stent
    - Surgeons and Cardiologists cannot agree

Principal Recommendations

- Non-elective, urgent, in-hospital cases ("unstables")
  - Concern: 69% in-patients > 3 days
  - Definition
    - cardiologists cannot agree!
    - balance: elective vs urgent (? 3:1)
    - remain under care of cardiologist
      - medical management
      - investigations (… days)
    - keep surgeon informed
  - Role of surgery (timing > 3 days: JTCVS 2008; 135:503)
    - STEMI / NSTEMI

Principal Recommendations

- <u>Co-morbidities</u>
  - Findings:
    - high incidence (EuroSCORE) - NB patients who died
    - age: median 73 years
    - height + weight not recorded in 25%
      - poor case notes (BSA needed for bypass flow calculation)
    - > 50% overweight / obese
    - LV function: EuroSCORE → "poor" = 3 points
      - anaesthetist "good": surgeon "fair / poor" in 30% (? "gaming")
      - surgeon "good": anaesthetist "fair /poor" in 20%
      - → different times, different methods (30%, 50%)
  - which investigations?: carotid dopplers?
  - Pre-Assessment Clinics (anaesthetist involved)
  - written pre-op plan

Principal Recommendations

- <u>Peri-operative Management and Post-op Care</u>
  - Anaesthetic process
    - wouldn't dare comment!
  - Post-op Care
    - who does it? → surgeon, anaesthetist, intensivist
    - **availability of ICU beds**
    - cardiac ICU vs general ICU
    - complications: 18% not well managed
      - tamponade: echo ??
      - 75% outcome adversely affected (95 / 126 patients)
      - **staffing in the future → EWTD** (SCTS letter to CEOs)
      - "senior" clinicians "readily" available

Principal Recommendations

- <u>Appropriateness of Surgery</u>
  - not appropriate in 8% (could not be assessed in 8%)
  - written operative plan in only 83% (? "acutes")
  - delegation
    - start of procedure: most senior = Consultant in 64%
    - anastomoses: SpR 15% (? training)
  - Themes:
    - failure to adapt technique
    - elderly patients – arterial grafts
      - benefit lost > 60 y (EJCTS 2008;33:977 But … ARTS trial)
    - "heroic" surgery vs palliation
    - avoidance of high risk cases (? all these died)
    - operation notes: extent of disease; reason for deviation

Principal Recommendations

- <u>Communication, Continuity of Care and Consent</u>

  - structured handover protocols
    - theatre →
    - ICU →
    - ward

  - Team working: "vast majority" said "yes" (96%)

  - Consent
    ⇨

The Society of Cardiothoracic Surgeons of Great Britain and Ireland

Parliamentary and Health Service Ombudsman

Consent in cardiac surgery

A good practice guide to agreeing and recording consent

Principal Recommendations

- Consent
  - definition of "obtaining" consent
    - consent is a "process" – Consultant must be involved
    - no information sheet in 10% of units
    - ? who signs the form
  - no consent form in 22% (impossible - poor notes)
  - Consultant signed in 19% (NB SHO in 31%)
  - risks:
    - death: not recorded in 54%
    - complications:
      - not recorded in 9%
      - incidence "rarely quoted"

      NB new GMC guidance (2nd June 2008)

"A Consultant should obtain consent …" (training?)

Principal Recommendations

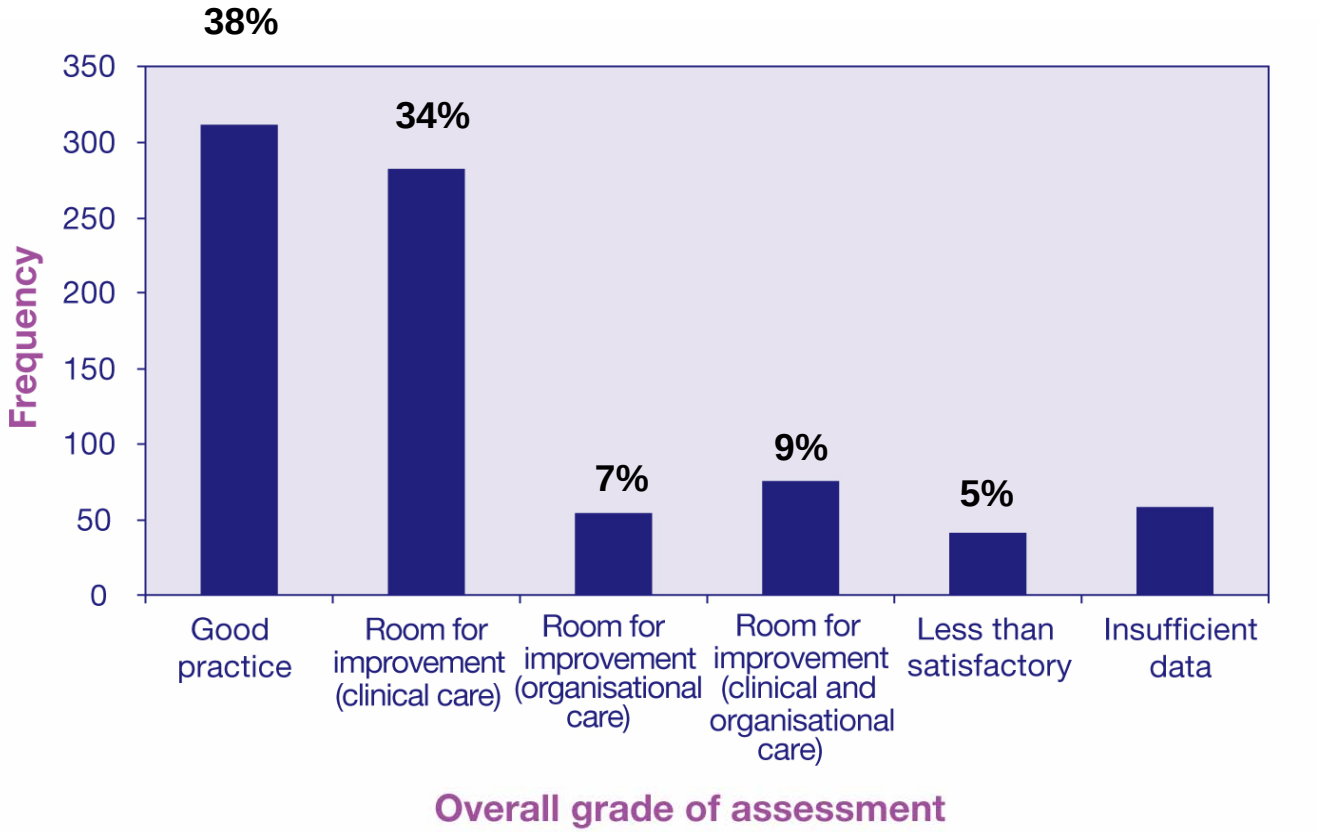
- <u>Multidisciplinary Review and Audit</u>
  - participation in clinical governance (including audit)
  - study: 38 NHS units (1 no meeting), 20 private sector
  - data quality: 60 cases "reviewed" in units with no meeting
  - autopsies: 41% cases (feedback / +ve findings?)
    - Coroner: reported 88% cases (autopsy in 39%, rate ↓ing)
  - "multi-disciplinary" team?
    - Anaesthetist in only 44% of cases
    - ? Cardiologist
    - but … resource / throughput implications
  - "robust systems in place to learn .."
  - NCEPOD system for grading quality of care: good discipline

SCTS Request to NCEPOD

- <u>Autopsy Review</u>
  - cause of death?
  - most assume surgical mistake
  - experience → rare to get explanation
  - publication of surgeon's results …

NCEPOD CABG Study

Conclusion



NCEPOD CABG Study

- Final Comments:
  - SCTS committed to improving quality of care
    - we requested the study
  - care is dynamic – constant improvements
  - important issues raised
    - ACTA / BCS / BCIS / Management
  - message to patients:
    - complex procedure – very low mortality
    - excellent teamwork
    - evidence of commitment to safety and quality
    - reassured


White Park Bay, Antrim Coast, N. Ireland