Benchmarking SHOT data

Dorothy Stainsby
SHOT Medical Co-ordinator
What denominators?

- Blood use by reporting/non-reporting hospitals
- Laboratory activity
- Who receives blood, where and when?
What sources of data?

- Participant surveys
- Blood Stocks Management Scheme
- Other blood services issue data
- Audit databases
- Epidemiological surveys
- NEQAS
Participation in SHOT

- Participation survey 2003
  - 351/415 hospitals (85%) ‘participated’
  - 195/351 (56%) submitted incident reports
  - 47% of all eligible hospitals
  - mean number of reports per hospital was 2.9
  - range 1 - 28
BSMS Open Meeting 2004

!!ONLINE INFORMATION NOW AVAILABLE!!

The BSMS Open Meeting 2004 was held on 19 May. A big thank you to all those who came along and made it such a success. To remind yourself of what went on or, for those who couldn't attend, to find out more, visit the open meeting mini-site.

Click me for proceedings of the BSMS Open Meeting 2004

BLOOD STOCKS MANAGEMENT SCHEME

The Blood Stocks Management Scheme is a partnership venture between the National Blood Service and participating hospitals. It has been established to promote better practice in the management of blood stocks throughout the NHS.
Profile of reporting/non-reporting hospitals

• Large or small?
• How much blood do they use?
• What proportion of national blood use is represented in SHOT?
IBCT reports and red cell issues

• NBS issued 2,144,722 red cells in 2003

• 155/301 (52%) of eligible hospitals in England & N Wales reported IBCT events

• 1,522,425 (71%) of red cells issued went to those 155 reporting hospitals
SHOT reports and red cell issues

- 397 SHOT reports from 1,522,425 red cell units issued to reporting hospitals (BSMS)
  - = 1 report per 5708 red cells issued
  - Inter-hospital range 1:107 to 1:25954!
BSMS hospital ‘clusters’

- Hospital types
  - teaching, DGH, private
- Usage
  - < 6000 red cells pa
  - 6000 - 11000
  - > 11000
- 5 ‘clusters’
  - high use teaching
  - high use DGH
  - moderate use
  - low use
  - private
Reporting by hospital clusters

- **High DGH**
  - 19/22 (86%) reported incidents
  - mean 1:8513 rbcs issued
  - range 1:2500 - 1:20467

- **High teaching**
  - 28/35 (80%) reported incidents
  - mean 1:8541 rbcs issued
  - range 1:1223 - 1:25954

- **Moderate users**
  - 69/111 (62%) reported incidents
  - mean 1:5288 rbcs issued
  - range 1:815 - 1:13145

- **Low NHS users**
  - 21/48 (44%) reported incidents
  - mean 1:3226 rbcs issued
  - range 1:107 - 1:7861

- **Private hospitals**
  - 6/47 (13%) reported incidents
  - mean 1:1000
  - range 1:122 - 1:1901
What next?

- Expand to include Scotland, Wales, NI
- Further collaborative work with BSMS
- Feedback to all hospitals
- Regional data on request (but no league tables!)
- Approach non-reporting high users
- Caution in interpreting data on low users
Laboratory activity

• Participant survey
  – 262/386 (68%) returned
  – 210 (80%) provided workload data
• Overall ratio of workload done in ‘core’ vs ‘non-core’ (on-call or shift) hours is 80:20
• Ratio of lab errors from IBCT reports in ‘core vs ‘non-core’ hours is 60:40
Laboratory staffing levels

• 249/262 respondents provided info on staff
• Mean 4.3 (0.3 - 52) wte staff in transfusion labs
• Appears to be little correlation between staffing levels and workload
• 24 multidisciplinary labs
  – mean 6000 cross-matches pa (900 - 23,500)
Staffing of on-call/shift work

• 8 labs entirely transfusion on-call
• 150 combined with haematology
• 81 labs work multi-disciplinary on-call (various combinations of disciplines)
• Mean 17.2 staff participating in on-call/shift
• 3.5:1 ratio on-call:permanent staff
Blood administration
who, when, where?

• ‘Where does blood go?’ study in N England
  – 1.2% of blood goes to infants <12 months
  – 8% (28/348) of IBCT reports in 2003 related to infants <12 months

• Are there other ‘vulnerable’ groups?
  – e.g. massively transfused patients
When?

- Relevant because of ‘hospital at night’ initiative
- 1 hospital in Scotland over 1 month
  - 233/594 (39%) red cells transfused between 20:00 and 08:00
  - 65/176 (37%) of collection/administration errors between 20:00 and 08:00
Where?

- Distribution of errors in clinical areas
- No denominator data on where blood is given
What next?

- Further collaboration with BSMS
- Further analysis of lab survey
- Further work on ‘where?’
- Explore other data sources
- Open to suggestions!
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