NATIONAL TRANSFUSION AUDIT
- JOINT RCP/ NBS

Presented by
Dr Fiona Regan
Consultant Haematologist, National Blood Service, North London
on behalf of RCP/ NBS Audit Working Group
1. Prospective audit of 40 episodes of transfusion - based on BCSH guidelines for Administration of Blood ...1999 (Transfusion Medicine)

   - Wearing of wristband
   - Monitoring of patients during transfusion
   - Documentation of transfusion

2. Audit of hospitals’ Transfusion Policy covering these
Participation

- All hospitals in England invited to take part (NHS and private)
- Wales
- Northern Ireland
- Scotland - not participated (recent similar audit)
- Auditors in each hospital trained using ‘dummy’ notes
- Audited while transfusion in progress

Hospitals nominated by Rational Blood Committee for Wales and NI Blood Transfusion Service - later participation: results later than England
Results
(England 2002-April 2003)

- 71% NHS Trust were represented (58% of all NHS hospitals - cf: 74% started)
- 11% Private hospitals (more started later)
- Each hospital’s own results fed back within 2 weeks of completion (automated)
- Comparative report November 03
A. Wristband worn during transfusion?

- 90% of patients did
- 10% did not - of these, 10% unconscious (52 patients)
  - 14% (1 in 7) all unconscious patients had no wristband
- **Commonest locations of patients without wristbands**
  - Paediatrics/ SCBU
  - Oncology
  - ITU/ CCU
  - Haematology
- **Relies on patient able to state full name and DOB**
B. Observations During Transfusion

- Excluded patients known/ assumed to be on continuous monitoring

- Pre-transfusion obs (P, BP, T)
  - None in 23% of all patients
  - None in 10% of unconscious patients
  - Therefore no baseline to judge change indicating reaction
• **Obs within 30 minutes of starting transfusion** (at 15 minutes recommended)

  - None within 30 minutes in 47% all patients
  - None within 1 hour in 28%
  - None during whole unit in 17%

  - In unconscious patients
    - None within 30 minutes in 48%
    - None within 1 hour in 26%
• **Lost opportunity to detect transfusion reaction early, stop transfusion and manage reaction**

• **Post-Transfusion obs**
  - In all patients - none done in 39%
  - Late reactions not detected - as symptoms occur - may not relate them to transfusion
• **Acute transfusion reactions**
  
  - Wrong blood (ABO incompatible) - 1 in 30,000
  - Bacterial infection (red cells) severe - 1 in 500,000
  - Allergic - 1 in 3,293 red cell units
    - severe/ anaphylactic - 1 in 57,000 red cell units (Domer, 2003)
  
  - 10,000 units of blood used per day in England
  - Combination of no wristband and no obs within 30 minutes
    - 4% of all patients
    - 8% of unconscious patients
    - Risk of wrong blood and not detected early
C. Signing of Compatibility Form/ Prescription Sheet

- To indicate blood actually transfused and patient ID checks done before transfused
- One or other signed in 98%
- Start time recorded in 94%
- Stop time in 24% (relating late reactions to transfusion may be difficult)
Questionnaire of Transfusion Policies/1

• 56% of NHS hospitals and 46% of private hospitals replied

• All those who replied had policies
  - 99% had policies on adequate labelling of x-match samples
  - 96% specified either that wristbands should be worn by all patients being transfused, or specified asking the patient to state their full name and DOB as an acceptable alternative
  - 99% had a policy requiring pre-transfusion obs
  - 94% had a policy requiring obs around 15 minutes into the transfusion
Questionnaire of Transfusion Policies/2

• Multiple defences and safety-nets against adverse outcomes in transfusion eg: wrong blood

• Many risk models, but if holes in each - risk increases
  • No wristband
  • Unconscious
  • No obs
  • Side room/ bay alone etc
Conclusions

• Where organisation of transfusion episodes in terms of either policies or processes in practice appears poor - Trusts need to investigate, as there is increased risk of transfusion incidents
References

Acknowledgements

- **John Grant-Casey** - Senior Clinical Audit Facilitator
- **David Dalton** - Project Assistant
- **Dr Mike Murphy** - Consultant Haematologist at NBS, Oxford
- **Dr Dorothy Stainsby** - Head for NBS Clinical Audit
- **Dr Mike Pearson** - Director, Clinical Effectiveness and Evaluation Unit and National Collaborating Centre for Chronic Conditions (RCP)
- **Derek Lowe** - Medical Statistician for RCP London
- All audit, nursing and laboratory staff at participating hospitals