Patient Blood Management:
Tracking the Clinical Use of Blood

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How can we find out how blood is being used at the moment?

- Only by time consuming retrospective studies or prospective audit

- Or by asking transfusion teams for information
AIM II – Mining the data

LIMS data related to transfusion episode

PAS data related to length of stay, consultant, specialty

PAS coded data related to transfusion episode
Healthcare Resource Group (HRG)

Data mining software extracts relevant data (no patient identifiable features)

Datawarehouse hosted by ABC (in trial)

Analysis and reports
- Transfusion yes or no?
- Patient ID (encrypted)
  - Date of admission and discharge
    - Year of birth
    - Gender
  - Healthcare Resource Group (HRG)
  - Date and time of transfusion
  - Transfused component
  - Pre and post transfusion lab test result
  - Donation number and product code
    - Expiry date
    - Ordering physician
    - Directorate
  - Adverse events
  - Mortality Flag
Progress with the Trial...(6 months in)

- All 4 trial sites are currently extracting data (1 year of data)
- 2 Trusts are currently validating data prior to analysis
- Stakeholder group meeting regularly

- Time and resource from Lab, Trust and LIMS IT specialists
- Matching the data between LIMS and PAS (easier if there is a datawarehousing facility)
- HRG coding is not ideal

- Benchmarking of data between trial sites and internationally (USA, Sanguis)
- Incorporate coded reason for clinical use chosen at time of request by clinician
- Future roll out will depend on the success of the trial and the size of the hurdles to be overcome
What could benchmarking look like?

Comparison of use of red cells in primary hip replacement

This hospital has:
- a pre op anaemia management pathway
- uses IV tranexamic acid to cover surgery
- has a strict post op transfusion trigger
Action Plan for Improvement

**NBTC**
- Support development of IT systems that can provide patient level data for Patient Blood Management
- Work with national registries such as Bone and Joint and Cardiac Surgery Registries to ensure transfusion related data collected

**NHSBT**
- Support development of IT connectivity between Hospitals and NHSBT
- Support roll out of AIM II if trial successful

**Hospitals**
- Develop systems to capture the relevant clinical information at the time of request (mandatory / menu driven)
- Ensure LIMS / PAS specification allows for blood utilisation analysis
- Make case for resources to enhance transfusion team functions: data analysis / working relationships with Trust and laboratory IT teams