LEEDS TEACHING
HOSPITALS NHS TRUST

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WHY DO WE NEED TO TRACK BLOOD?

• CPA Accreditation requires that hospitals have a system to log the location of blood in the hospital.
• National Guidelines state that red cells must not be reissued if they have been out of a controlled blood fridge for > 30 minutes.
• Collection of the wrong unit from a blood fridge is the commonest root cause of incompatible blood transfusions.
LEEDS TEACHING HOSPITALS

• Largest acute Trust in UK
• 2 Teaching hospitals on 6 sites
• > 2000 beds
• 2 Blood Banks and 23 satellite blood fridges
• Paper-trail at one centre, no tracking at other, incompatible IT networks
• 15,000 staff (most of whom seem to collect blood from fridges!)
LEEDS BLOODTRACK PROJECT

• Supported by £185k Modernisation of Pathology funding from DoH
• Developed with IBG datalog
• Installation and training from August 2001
• System went live in Jan 2002
Base Unit
adjacent to every blood fridge
networked to central processor in lab
• Log-in screen.
• Touch-screen interface.
• Awaiting bar code from user ID badge to unlock fridge.

• Emergency Access always available if required.
• Touch the picture to select option.
• Simply hold the blood unit in front of the scanner.

• Scanner reads all barcodes, selecting and storing those required automatically.
• Good scan - no further action required.

• Easy to understand - Green for OK with audible acknowledgement.
• Red warning for errors.
• Audible & visible warnings of any problems.
• Message automatically sent to Base Unit from remote unit.
Patient-specific information can be added to allow ID at the fridge

- As a visual check of the name/hospital number/date of birth
- Or by scanning a bar-code on the collection slip

Upon bag collection, this can be a simple confirmation of the patient details from an on screen message....

..or a scan of bar coded patient documentation brought to the fridge.

Will introduce in 2004 when Telepath interface installed in Leeds
• The checking system provides a warning to prevent wrong blood from being removed.
• Base unit in lab alerted
LEEDS BLOODTRACK PROJECT

How are we doing?
LTH Incomplete audit trail wastage 2002 to 2003

Blood track started
(March 02)
THE GOOD THINGS

• Excellent audit trail
• We know where the blood is
• We know who did it
• Generally good compliance by users (the porters love it – it proves where and when they delivered the blood)
• Raised profile of blood safety and improved liaison with clinical areas
• Patient ID will be a big step forward to Better Blood Transfusion
THE PROBLEMS

• “Scaling up” on a large, complex site using IT networks of variable quality and design
• Need continuing development and support from manufacturers
• Training – must be taken to the users, continuous programme – major issue
• Demands on lab staff – training and trouble-shooting
• Need a back-up system for major failures (rare)
What if system goes down?

• Extremely robust in day to day operation and failures are rare
• **BUT** – August/Sept 2003:
  • soBig virus and Blaster worm
  • Trust systems disrupted (BloodTrack fine)
  • During recovery, patches and reroutes on network caused sporadic failures at LGI (not at St James’s)
  • System temporarily suspended at LGI while boffins identify and correct the problem
• **Back to the paper trail!!**
**LAW OF DIMINISHING RETURNS**

- **BENEFIT**
  - Hepatitis C PCR
  - Electronic ID and blood-tracking

- **COST $$$**