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Keeping Track of Blood

Challenges and advances of vein to vein blood tracking

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Why trace where blood goes?

- Because we have to – it's the law!
- BSQR 2005 – track from donor to recipient
- Records must be kept for 30 years

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MHRA

legislation.gov.uk

The challenge

- The number of components issued last year in the UK was approximately
  - 2 million red cells
  - 300,000 doses of platelets
  - 250,000 units of FFP
  - 120,000 units of cryoprecipitate

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Which results in….

Lots of paper!

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And…..

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The Answer?

Electronic Clinical Transfusion Management System

(ECTMS)

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ECTMS

- Electronically trace blood using barcode scanning technology at every stage of the transfusion process
- Blood samples, request into laboratory, blood collection from lab and bedside check

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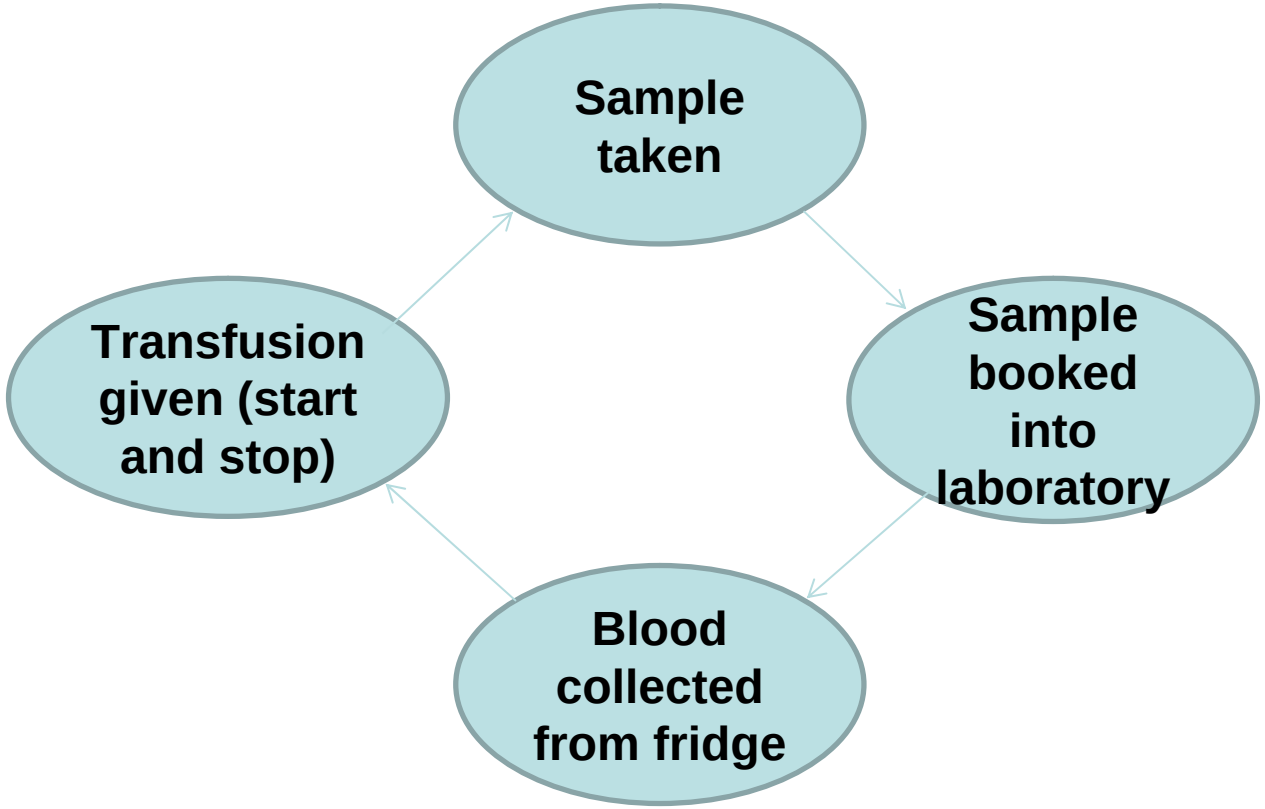
The kit

Overview


Sample taken
Sample booked into laboratory
Blood collected from fridge
Transfusion given (start and stop)

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Medway's project

- Project started late 2008
- OJEU procurement (6 months)
- Project group formed
- Hardware set up
- Wristbands designed
- Fridge secured April 2011
- First bedside pilot September 2011
- Staged roll out 3-4 areas at a time

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Now live in

- Haematology/ oncology day units
- 3 elderly care wards
- 8 medical wards
- MAU and SAU
- ICU, CCU, Medical HDU, Surgical HDU
- POCU
- Emergency Department
- In-patient phlebotomy

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- 40 kits rolled out so far
- 4000 units transfused using system
- 11500 samples taken using system
- Another 26 kits on order
  - Maternity
  - 4 surgical wards
  - Paeds/ neonates
  - ?outpatient phlebotomy/ community

Advantages

- Minimises biggest risk of transfusion – human error. At each stage, including laboratory
- Availability of data – who had what and when? Is blood available? Audit
- Reduces rejected samples – accurately and legibly labeled samples
- Saves time (after some practice)

More advantages

- Improves documentation – stickers at each stage
- Ensures only trained and competent staff can be involved in transfusion
- Allows inclusion/ exclusion of staff by role, training status etc

Disadvantages

- Cost
- Can bring its own problems – new and inventive ways to get things wrong!
- Resource intensive to implement
- Staff resistance (some staff)
- Dependant on staff actually using it
- On-going system support – but staff may be freed up from other jobs

Other potential benefits

- Single nurse check
- Decision support – is transfusion appropriate?
- Remote issue – on site (e.g. fridges in theatres, Emergency Department) or on another site
- Data sharing – NHS Trusts⟷NHSBT
- Recording of observations, alerting of abnormalities

Recommendations

- Get high level Trust support –Board, Governance or Safety Committees
- Resource project adequately - project management, change analysts, IT
- Involve all key stakeholders – lab, ward, medical
- Feel free to contact me for advice
- Don’t expect sudden results!

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