Implementation of Blood 360

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Blood 360

Blood360 ensuring right blood right patient with vein to vein traceability

Blood360 is an Electronic Blood Tracking system that uses kiosks to control access to Blood fridges. The user logs in using fingerprint access then scan the patient's blood collection slip, the kiosk then unlocks the fridge and then scans the blood bag to confirm it's the correct one for the patient.

At the Bedside Blood360 runs on a handheld device to maintain the integrity of the blood products and the safety of the patient. The user scans the patient's wristband to confirm their identity and then the unit of Blood. Blood360 will then cross-check that the identifiers match.

Blood360 – Implementation plan

- Project split into 3 phases

- Phase 1 – Wristbands ~ 2015
  Included new printers for wristbands for all clinical areas. Not really any lab involvement at this stage
- Phase 2 – Collection; Kiosks, new fridges etc. – end of 2016 early 2017
  Massive training programme – who's going to do it. BB Manager / TP / IT trainers all involved.
  Lab training – how to work kiosks / how to maintain / who to call when they go wrong – different competencies to clinical area needed.
  New satellite fridge provided for NNU (Obs/Gynae use)
  Trust board wanted a weekly report on % staff trained so no delay in obtaining blood – Always had fallback of signing out register.
- Phase 3 – Receiving/Administration & Batch Issue - Ongoing !!!

Phase 3 – Receiving/Administration - Bedside

- Plan to pilot in Chatsfield Suite (Haem/Oncology Unit)
- Trialled in May 2002 – 2 weeks
- User Friendly
- On the job training – TP / Sisters
- Ward Receipt √
- Start Transfusion √
- End Transfusion √
- However – Problem with BH system and LIMS fating unit. Systems not communicating properly

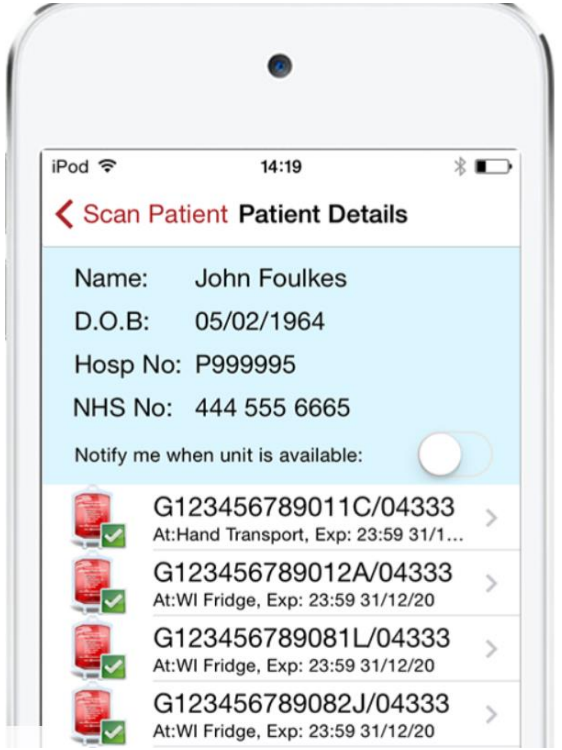
Phase 3 – Batch Issue

- The batch product module has the facility to not only trace the product but the ability to uniquely label the individual batch products in the lab, via our Blood360 solution.
  Had to ensure printers could produce required label
- A Blood360 mobile printer is used to print the 2D barcodes in the lab starting the traceability cycle at the source. In the same way, a blood unit is managed, the system uses the kiosks to control access to a storage unit.
  Change of process of how anti-D is booked into LIMS and labelled up.
  Required training of ANC staff who do not usually collect blood but will need training to collect anti-D using kiosks.
  All ready to go. Training given to Blood Bank Manager / TP / Senior BB BMS's. Needs to go through testing process in the lab before it can go live.

Phase 3 – Requesting Blood

- With Blood360 you can request blood at the patient's bedside where it is needed. It's as simple as opening the app, if there is a green tick next to the blood unit then its ready for collection. Click on the unit you want and select request unit. The porter or blood bank are informed and the blood unit delivered to the ward. Other features include the option to be notified when the unit is available, a message is pinged to your handheld device that informs you the instant the unit is placed in an issue fridge.

DBTH uses teletracking to collect blood. Another system involved in the process. Involves Msoft / Teletracking / IT to make sure this is set up and works correctly - Ongoing



Problems encountered/ Reasons for delays

- Large training commitment

  Huge amounts of staff required training - prior to go-live of collection / lab side loading of product / prior to roll out of phase 3 bedside
- Approval of phase 3 business case / Funding for handheld devices.

  This was resolved by utilising the handheld devices purchased by the trust for E-obs
- Staff turnover – Considerable amount at all levels of involvement = inconsistency

  IT project management - 3 different project leads
  Initial project lead really focussed, really pushed different departments when things were not progressing. Current PL dealing with a lot of different projects – cancelled meetings etc.
  Like many projects they start well but run out of impetus unless there is a champion who really keeps driving things forward until the project is complete.

Problems encountered/ Reasons for delays

- Political Issues

  Issues with Bloodhound regarding stage payments and with the procurement in general that although we weren't party to, did make the input from the supplier difficult.

- Product Issues

  The devices, including the kiosks are not particularly robust, and we have had a lot of issues with connectivity. With the constant move around of equipment and the move on of technology (e.g. Handhelds) we have found testing has gone very slowly, and things have not been working, we have had a period of moving or down time and we have to re-establishing connectivity and security. This has not been easy when we have effectively been fitting this in around other projects.

- Multiple system interfacing

  Msoft / Teletracking / LIMS / Trust IT
  Teletrackings access availability to our internal servers – main recent delay.
  In the past DBTH allowed third party companies to gain access via shared remote accounts but this was changed in the last 12 months, now each person from third party companies must use an individually set up and approved account for them which takes a considerable amount of time.

Problems encountered/ Reasons for delays

- Pathology IT issues

  In terms of technology, From a lab system point of view, we have tried to fit interfaces around what is now an older version of our lab system. The supplier has created a major upgrade that has additional functionality for Bloodbank based around the proposed new product labelling. We would have to take the whole system upgrade to take this module, and as such there is no funding or appetite for this given that we are likely to have a new single LIMS in the region. The retrofitting of certain functionality has not been easy.

  The pathology IT team feel that there has not been a clear demonstration of the facilities of the Bloodhound system. We seem to be learning more by exposure than we do by design. As such we seem to have had a development that has been more around getting it to work than by having a clear model of how we want the system to function and interact with our lab system and other connected systems. The final results can be a little clunky. The lack of a clear specification has meant that the development and troubleshooting of interfaces has at times been difficult.

- Covid

  The bloodhound project was put on a complete hold by the COVID pandemic, in all probability just at the point where we were making some positive progress with the later phases. We had to go back and revisit parts of the project at a point of much delay. Although the virtual meetings allowed things to restart, we could have done with a physical meeting so we knew who was involved.

Advice

- Don’t underestimate the amount of training involved

  Utilise IT – ensure this is in the business plan. Have Train the Trainers in each area.
- Knowledge of other trust projects

  Be aware of what can help get your business plan / funding approved
- Keep the pressure on

  The momentum of the initial roll out is driven by the lab, but these are largely projects where the next phases are more clinically focused. As a transfusion team don’t take the pressure off the project thinking the next stage is the responsibility of others to help implement the later phases. In reality the benefits are for the patient, and pathology are as well placed as anyone to push this forward.
- Expect multiple system interfacing problems.

  The best systems in the world will struggle when trying to work alongside other systems. There are bound to be problems. Ensure that people from all different systems attend the meetings. Things have failed to progress because people don’t attend the meetings

Would we go through it all again ??

Blood360 - ensuring right blood right patient with vein to vein traceability.

- **Removes human error**
- **Improves transfusion safety, therefore improving patient safety.**

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Thank you, any questions?