South Central Regional Transfusion Committee

South East Coast Regional Transfusion Committee

Lessons Learned – Covid-19

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A joint venture between Ashford and St. Peter's Hospitals NHS Foundation Trust, Frimley Health NHS Foundation Trust, Royal Berkshire NHS Foundation Trust and Royal Surrey County Hospital NHS Foundation Trust. Legal entity host Frimley Health NHS Foundation Trust

NHS Pathology Solutions

Why make a ‘Lessons Learned’ document?

- At request from NBTC Emergency Planning Working Group (EPWG)
- To widely share current learning
- To create documented ‘memory’ for any future events

What is our ‘Lessons Learned’ document?

- Shared Document by NBTC National Transfusion Practitioner Network and Lab Managers’ Group

- Made through submissions from TPs all over the UK, including the devolved countries through our BBTS links.

	Why was action required?	What Worked Well?	What Could be Improved?	Tips, Tricks and Learning Points
Sampling	https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html https://www.gov.uk/government/publications/wuhan-novel-coronavirus-guidance-for-clinical-diagnostic-laboratories/wuhan-novel-coronavirus-handling-and-processing-of-laboratory-specimens Guidance indicated that laboratories needed to do their own risk assessment for sampling handling and processing. Some Trusts decided the clinical area required further support to safely send Covid -19 positive patient samples to BTL	Local dissemination of new guidance including one or several of the below was created and disseminated promptly by the individual TP teams. These documents could be used sent via email and/or used as posters meaning face to face training was not required. -'Buddy System' for sampling labelling (sample taken in dirty zone, decontaminated, then given to single buddy in clean zone to label -'Double bagging' for sampling (sample taken, labelled and bagged in dirty zone, then dropped into clean bag in clean zone -Advice on how to use your ID badge barcode to use PDA in	-Different Trusts came to Different conclusions on whether sampling needed adjustment. The infection control team in several hospitals decided that blood sample collection from these samples could be treated in The same way as other infectious patients. -as this was not developed ahead of time in any hospitals, it meant The TPs had to work quickly to develop The guidance, and distribute it effectly so all sample takers were aware -Although The 'Buddy System' reduced The risk of infection, it increased The risk of WBITs as the sample labeller was not the sample taker, however, this risk was reduced by ensuring The sample was labelled immediately. Careful risk assessments were required	Risk assess samples coming into BTL early, but be prepared for guidance to change
Traceability	Many BTLs require paper/cardboard traceability tags to be returned to complete traceability, but there were concerns that Covid-19 could survive and potentially be transmitted by these fomites: https://www.nejm.org/doi/full/10.1056/NEJMc2004973 https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(20)30003-3/fulltext#seccestitle10	BTLs completed risk assessments to protect their staff handling the tags. -Many BTLs began to quarantine received tags for a certain length of time to reduce risk which reassured staff and did not significantly delay traceability. -MHRA contacted teams to pre-emptively answer queries regarding traceability https://www.gov.uk/guidance/information-for-hospital-blood-banks-during-the-coronavirus-covid-19-outbreak -Some hospitals' risk assessment noted little difference between tags and samples so continued using tags as normal maintaining good hand hygiene and/or appropriate PPE (gloves) -Transfusion teams stopped sending Datix for traceability to alleviate workload in the busiest areas. (Still required later investigation) -TPs issued advice regarding how to appropriately use their	Delays and potentially lost traceability occurred whilst the new processes were designed -Hospitals noted a downturn in traceability immediately, probably due to a mixture of clarity issues regarding traceability processes, reduced Datix's, and different staff being involved in the transfusion. This creates lots of cases for the TPs to investigate in the future. -Where staff struggled to access the barcode on their ID badges, vein to vein PDA use decreased, affecting traceability	Risk assess routine traceability procedure early, and communicate clearly any changes to the process. Use your communication teams. Guidance may change as more evidence is gained regarding fomite transmission
Administration	Some hospitals were strictly not allowed any paperwork at all to enter the 'red zone'. For hospitals which are 'paper heavy' this led to several transfusion challenges such as appropriate use of paper prescription, transfusion integrated care pathways etc.	TPs worked quickly and efficiently to build and risk assess work arounds such as: -Keeping the Transfusion Prescription in the green zone -Clarifying that all checks must occur in the red zone -Recording evidence of checks in the green zone	In normal circumstances, it is strongly encouraged to keep transfusion paperwork at the bedside to minimise the risk of mismatching the paperwork with the patient. Having to teach 'work arounds' undermines regular teaching.	Risk assess transfusion paperwork going to infectious areas, and check with your local infection control team. Check you are confident any proposed changes will not increase the risk of wrong blood transfusion.
Collection	Many hospitals used reusable 'red boxes' for component collection, but these were not permitted into/out of the 'red zone' in some hospitals.	TPs issued local guidance so staff could leave the red collection box in the green zone. Some hospitals used disposable red collection bags to move blood from the nearest green zone into the red zone. Blood receipt occurred in the green zone		Risk assess delivery of blood to red zones and check with your local infection control team. Check you are confident any proposed changes will not increase the risk of wrong blood
Satellite Blood Fridges	Some hospitals had satellite blood fridges which happened to be located in infectious areas. Hospitals had to communicate clearly between the clinical areas and BTL to decide how to manage these fridges. Changes may include: -Taking the fridge out of action until the pandemic was over -The clinical areas informing BTL when it was safe to stock (e.g. after deep cleaning) -BTL staff being trained to use medium level PPE (surgical masks etc.) to enter areas (but not 'Red Zones') -Depleting stock if Covid-19 patients were expected to use less stock than the patient group normal served by that satellite blood fridge -Bringing new (or resiting) blood satellite fridges into service -Communicating nearest remote allocation fridge/emergency blood if a	-TPs were well placed to facilitate communication between clinical areas and BTL -Many TPs reported being pro-active in contacting clinical areas to determine logistical changes - Reports that clinical areas were aware of The TPs and remembered to contact them for advice -Inappropriate wastage reduced by good blood stocks management	-Some clinical areas were unaware of The time taken to validate and map a new fridge, requiring significant TP and BTL time to find a work around -as normal service was much reduced, Some areas took advantage and refurbished or moved around their department. in Some cases satellite fridges were moved without communication with transfusion teams. TPs discovering this had to alert BTL as remapping would be required. -Hard to ensure all staff were aware which satellite fridges were operational in hospitals that had several	Contact each clinical area to establish if their use will change, and if it will be in a green, amber or red zone. -Evaluate appropriate stock levels during pandemic, allow HTT to review regularly

Key for what we looked at

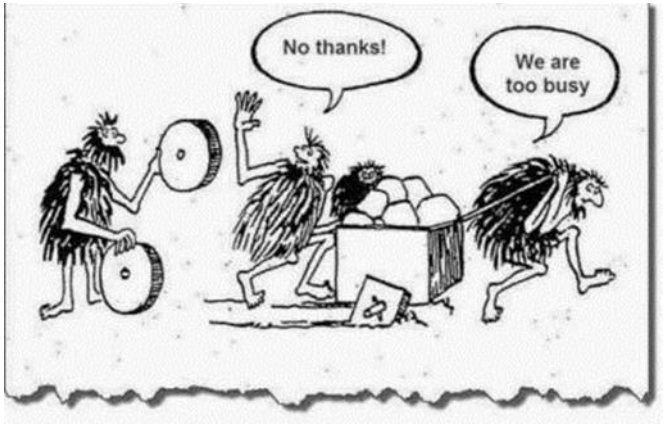
Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

- Why was action required?

What worked well? (TP)

What worked well? (BTL)

- What could be improved?
- Tips, Tricks & Learning points



Sampling

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

- Centre of Disease Control & Prevention issued guidance on handling Covid-19 positive samples

  https://www.cdc.gov/coronavirus/2019-ncov/lab/lab-biosafety-guidelines.html

Local dissemination of new guidance including one or several of the below was created and disseminated promptly by the individual TP teams.

- 'Buddy System' for sampling labelling (sample taken in dirty zone, decontaminated, then given to single buddy in clean zone to label)
- 'Double bagging' for sampling (sample taken, labelled and bagged in dirty zone, then dropped into clean bag in clean zone)
- Advice on how to use your ID badge barcode to use PDAs in hot zone (cleaning/photocopying etc)

Sampling

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Access to category 3 flow cabinets is limited in most transfusion laboratories. The concern expressed by BMS staff eased as staff became more familiar with handling these samples

- During previous incidents involving the handling of potentially dangerous samples (eg Ebola outbreaks) most laboratories had implemented a policy of using universal products (ie O red cells, A platelets and AB plasma) without the antibody screen so as not to expose the BMS staff to the virus. The number of patients in these cases was low. The prediction with Covid-19 was that patient numbers would be considerably greater so group specific was not sustainable

Sampling

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Different Trusts came to different conclusions on whether sampling needed adjustment. The infection control team in several hospitals decided that blood sample collection from these samples could be treated in the same way as other infectious patients.

- As this was not developed ahead of time in any hospitals, it meant the TPs had to work quickly to develop new guidance, and distribute it effectively so all sample takers were aware

- Although The 'Buddy System' reduced the risk of infection, it increased the risk of WBITs as the sample labeler was not the sample taker, however, this risk was reduced by ensuring the sample was labelled immediately. Careful risk assessments were required.

- The receipt of information on handling samples would have prevented a lot of concern. The earliest advice was directed only at microbiology departments. Some laboratories proposed sending all their potentially positives samples to NHSBT.

Traceability

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

- Many BTLs require paper/cardboard traceability tags to be returned to complete traceability, but there were concerns that Covid-19 could survive and potentially be transmitted by these fomites:

https://www.nejm.org/doi/full/10.1056/NEJMc2004973
https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(20)30003-3/fulltext#seccestitle10

- BTLs completed risk assessments to protect their staff handling the tags
- Many BTLs began to quarantine received tags for a certain length of time to reduce risk which reassured staff and did not significantly delay traceability
- MHRA contacted teams to pre-emptively answer queries regarding traceability

https://www.gov.uk/guidance/information-for-hospital-blood-banks-during-the-coronavirus-covid-19-outbreak

- Some hospitals' risk assessment noted little difference between tags and samples so continued using tags as normal maintaining good hand hygiene and/or appropriate PPE (gloves)
- Transfusion teams stopped sending Datix for traceability to alleviate workload in the busiest areas. (Still required later investigation)
- TPs issued advice regarding how to appropriately use their barcodes if hard to access due to PPE

Traceability

Why?	√TP's	√BTIM 's	Needs improving	Tips/Tricks/learning

Electronic systems for traceability worked well. The PDAs/Tablets are easily cleaned, and this meant reduced risk from tags being sent to labs. Laboratories using tags found scanning and emailing worked well or exposure to UV light could be used to reduce the risk

Delays and potentially lost traceability occurred whilst the new processes were designed

- Hospitals noted a downturn in traceability immediately, probably due to a mixture of clarity issues regarding traceability processes, reduced Datix's, and different staff being involved in the transfusion. This creates lots of cases for the TPs to investigate in the future.
- Where staff struggled to access the barcode on their ID badges, vein to vein PDA use decreased, negatively affecting traceability.

Satellite Blood Fridges

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Some hospitals had satellite blood fridges which happened to be located in infectious areas. Hospitals had to communicate clearly between the clinical areas and BTL to decide how to manage these fridges.

TPs were well placed to facilitate communication between clinical areas and BTL

- Many TPs reported being pro-active in contacting clinical areas to determine logistical changes
- Reports that clinical areas were aware of TPs and remembered to contact them for advice
- Inappropriate wastage reduced by good blood stocks management

Reduction of stock in remote issue fridges which were likely to be used less. Closure of fridges if located in areas which may not be in use. Back up plans for maintenance in case of failure of fridges in hot areas

Training & Competency Assessments

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Due to social distancing, and increased workload in key areas, completing competency assessments became challenging

- TP/trained trainers continued to perform competency assessments on the ground
- Some hospitals granted extensions to staff who had not been regularly performing the task
- Some hospitals designed 'self-assessments' for use during Covid-19
- Some hospitals created 'skills cafes' to answer transfusion questions for staff returning to clinical areas

- Some laboratories found that the reduction in workload allowed additional opportunity and time for training and competency assessment. Social distancing and the use of PPE helped ensure this opportunity was taken. Laboratory competency assessments were put on hold on some sites during the peak of the crisis. Remote assessments used for staff shielding or in sites where lab staff were wfh

Training & Competency Assessments

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Some trainers/TPs were redeployed making it harder to perform competency assessments. Delayed consideration to backfilling this role.

- Competency assessments had to be done in very small groups (often max 2) which was more time consuming for the trainer. Delay to move to remote training.

Component Request / Prescribing

Why?	√ TP's	√ BTIM 's	Needs improving	Tips/Tricks/learning

Changes in site staff and patient mix caused challenges in normal blood 'prescribing' practices, especially in hospitals using paper prescriptions

Some hospitals allowed Nurses to start signing request for blood components for regularly transfused patients (based on clear guidance)

- One hospital created a blood prescription package inside a system usually used for chemotherapy

Acknowledgements

- Big Thank You to:

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Any Questions?