Lesssons Learned From The Covid-19 Pandemic

Transfusion Practitioner Response

BTL Response

Transfusion Practitioner and BTL Combined Response

	Why was action required?	What Worked Well?	What Could be Improved?	Lightning Take
Sampling and Sample Processing	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 new processes 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.	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.	Seek immediate advise from local infection control, and regional/national groups. If changes to policy required, share tools with colleagues. Minimise change and share through multiple channels to ensure all staff aware. Risk assessments likely required in both BTL and clinical area, share with colleagues
		Buddy System for sampling labelling (sample taken in dirty zone, decontaminated, then given to designated buddy in clean zone to label)	As the new guidance was not developed ahead of time in any hospitals, it meant The TPs had to work quickly to develop updates, and distribute it effectively so all sample takers were aware	
		Double bagging for sampling (sample taken, labelled and bagged in dirty zone, then dropped into clean bag in clean zone)	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	

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		Electronic Vein2Vein Tracking Guidance: Advice on how to use your ID badge barcode to use PDA in hot zone: options included using clear bags over ID badges, photocopying IDs and destroyed post shift.	Access to category 3 flow cabinets is limited in most transfusion laboratories. The receipt of information on handling sample would have prevented a lot of concern. The earliest advise was directed only at microbiology departments. Some laboratories proposed sending all their potentially positive samples to NHSBT. The concern expressed by BMS staff eased as staff became more familiar with handling these samples	
			Some Infection control departments recommended not sending suspected or confirmed COVID-19 positive samples via the air tubes. This was hard to ensure compliance unless air tube switched off. Many Trusts reversed this decision as increased in TAT for results/products as delays in samples arriving and increased portering demand altered the risk vs benefit assessment.	
Component Requesting/ Prescribing	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)		TP team to discuss with clinical areas/silver command to determine if paper prescriptions are a risk
		One hospital created a blood prescription package inside a system usually used for chemotherapy		

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Selection of blood products	BTLs had to quickly decided if they were issuing emergency components only based on sampling considerations	Providing information in the form of a FAQ from NBTC worked well and got this message out quickly to BTLs	During previous incidents involving the handling of potentially dangerous samples (e.g. Ebola outbreaks) most laboratories had implemented a policy of using universal products (i.e. 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 so this was achievable. The prediction with COVID-19 was that patient numbers would be considerably greater and as group specific was not sustainable but keeping BMSs safe had to be a priority. There was a lot of concern before adequate communication regarding sample processing received.	BTL to immediately risk assess safety of processing samples, and alert HTT/Silver command if delays/change of process expected. This will likely need updating as new information becomes available.
Administration	Hot Zones minimised their paper requirements making paper prescriptions challenging	Good communication and trouble shooting regarding remotely prescribed units etc. Essential paper kept at bedside and filed later.	Process change should be minimised during emergency	TP team to discuss with clinical areas/silver command to determine if paper prescriptions are a risk
		New/returning staff quickly and safety trained despite social distancing challenges (see below for assessment info)		
Return of blood products	Concern regarding if blood components which had been taken to the bedside but not transfused are safe to return to stock	NHSBT advice was circulated within a FAQ from NBTC	NHSBT reluctant to send out advice nationally but did provide some advice for FAQ which helped.	HTT to issue guidance on return of blood products exposed to clinical area
		Some infection control departments provided useful information	Some trusts found their infection control team were reluctant to help.	
Red cell stock levels	Red cell stock levels need to be in line with usage to ensure an adequate supply without excess wastage	Use of VMI (Vendor Managed Inventory, NHSBT imitative used by a minority of BTLs) simplified the changing of targets levels	Rapid reduction in red cell stock is difficult, you can reduce your target levels quickly but the levels take considerable time to reduce.	Have pre-set levels to reduce routine stocks for when elective surgery

		Some BMS staff are nervous about reduction in stock levels but good communication to ensure they are aware of associated reduction in usage helped. Reassured staff that additional deliveries are always available	Unless you close blood fridges - stocks of emergency stock don't really change. This leads to the similar number of short dated O blood to try and use up in a time of reduced usage.	etc. is cancelled. Check emergency blood management policy up to date.
		Reviewed stock levels regularly and ensure the BMS staff are aware of the current target levels to reduce the risk of over ordering		
		Emergency blood management policies well updated		
		Communication and logistics to move units between sites.		
Platelet stock levels	Platelets stock levels need to be in line with usage to ensure an adequate supply without excess to prevent wastage	Reviewed stock levels regularly and ensure the BMS staff are aware of the current target levels to reduce the risk of over ordering	Stronger communication needed to aid demand prediction, cancellation of haematological transplantation reduced requirement but current patients had ongoing requirements. Lockdown reduced trauma requirement for all products but hard to reduce stock as emergency resource requirement remains	Have pre-set levels to reduce routine stocks for when elective surgery etc. is cancelled. Check emergency blood management policy up to date.
		Some hospitals moved to essential stock only and accepted that there will be additional NHSBT transportation costs		
		Emergency blood management policies well updated		

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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.	Delays and potentially lost traceability occurred whilst the new processes were designed	Encourage PDA use by finding work around if needed. Earmark time to retrospectively find traceability when possible.
		Many BTLs began to **quarantine returned tags** for a certain length of time to reduce risk which reassured staff and did not significantly delay traceability.	Hospitals noted a downturn in traceability immediately, probably due to a mixture of clarity issues regarding traceability processes, reduced Datixes, and different staff being involved in the transfusion. This creates lots of cases for the TPs to investigate in the future	
		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	Where staff struggled to access the barcode on their ID badges, vein to vein PDA use decreased, affecting traceability	
		Transfusion teams **stopped sending Datix** for traceablility to alleviate workload in the busiest areas. (Still required later investigation)		
		Electronic systems for tractability 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		
		TPs issued advice regarding how to appropriately use their barcodes if hard to access due to PPE		

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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.	Taking satellite fridges in covid or closed areas out of action until clean/open	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	HTT to communicate with silver command and review situation for all satellite fridges. Remind clinical areas to contact HTT /BTL for movement/stock changes
		Depleting stock if Covid-19 patients were expected to use less stock than the patient group normal served by that satellite blood fridge	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.	
		Bringing new (or re-siting) blood satellite fridges into service	Hard to ensure all staff were aware which satellite fridges were operational in hospitals that had several	
		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')		
		Communicating nearest remote allocation fridge/emergency blood if a fridge was taken out of service in an area still treating patients		
		Good BSMS resulted in wastage avoidance		
		Using TPs to facilitate enhanced communication between clinical areas and BTL		

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Theory Training	Due to social distancing, face to face training had to be cancelled	Most hospitals had an e-learning option for mandatory training	Agency and bank staff are often unable to access the Trust's main learning platform, and are thus unable to perform local e-learning	Assess if training affected and offer alternatives like e-learning, small group training and assisted self assessment. Consider extending training deadlines.
		Some learning departments offered to video transfusion induction before lockdown to provide training	Some staff find face to face training more effective, but were obliged to complete e-learning	
		As lockdown extended, TPs offered socially distant training for small numbers where e-learning was less appropriate	Transfusion training was not priotised, even though some staff were expected to transfuse after being away from transfusion requirements for an extended time	
		MS Teams etc. was utilised to train remotely		
		Acknowledged staff working in difficult circumstances and did not penalise if late to complete their training		
Practical training/ Competency Assessments	Due to social distancing, and increased work load in key areas, completing competency assessments became challenging	TP trained trainers continued to perform competency assessments on the ground	Some trainers were redeployed making it harder to perform competency assessments	Assess if training affected and offer alternatives like e-learning, small group training and assisted self assessment. Consider extending training deadlines.
		Some hospitals granted extensions to staff who had not been regularly performing the task	Competency assessments had to be done in very small groups (often max 2) which was more time consuming for the trainer.	
		Some hospitals designed new 'self assessments' for use for Covid-19	Laboratory competency assessments were put on hold on some sites during the peak of the crisis	

		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 assement. Social distancing and the use of PPE helped ensure this opportunity was taken.		
		Remote assessments used for staff shielding were appropriate		
Equipment maintenance	Some suppliers not willing to attend lab to do scheduled preventative maintenance on analysers and other equipment	Use of deviation forms and risk assessments to document decision to delay maintenance activities		Escalate maintenance issues to HTT. Deviation and risk assessments may be required
Staff working practices	Social distancing and Covid safety at work	TPs continued to be required on site to complete training, communication etc., but some amount of working from home was achieved especially in sites with multiple TPs.	Multiple laboratories reported issues with staff having problems securing childcare which meant they were unable to work. Balancing the number of staff in the department required for an unpredictable workload was difficult.	WFH where possible. Escalate issues with IT support early.
		This was handled differently in different hospitals. Some laboratories split their staff into 'teams' and covered 12 hour shifts per day which helped as staff worked in more isolated groups. Laboratories covering multiple sites reduced the transfer of staff between sites. The use of risk assessments to ascertain which staff needed to be shielded or needed a greater degree of self	Some delays in setting up IT systems to work from home	

		isolation		
		Laboratory staff were encouraged to work from home to do CPD, SOP compliance, theory training which led to higher compliance than baseline. Senior staff wfh were able to authorise panels, and perform data based audits.	Laboratories found it challenging to run separate staff streams, especially when workload started to increase.	
Communication	Communication underpinned the majority of the successes and failures of transfusion working during Covid-19.	Ensuring strategic teams/silver command are aware of risks to blood supply led to a stronger communication link and more early warning regarding potential changes to Trust processes.	Trust boards are so busy with all the associated issues for COVID-19 that it is unlikely that blood transfusion will be on their 'radar' unless there is an issue. As such it is essential that the HTT remains alert and asks questions/gathers information as required.	
		Keeping in touch for immediate teams (BTL/TP/HTT) including staff wfh	Trust guidance on new protocols and policy being released where not always being communicated to the Laboratory leads. Information of changes in the working environment associated with return to normal business is difficult to obtain. Having guidance on when high blood component procedures (e.g. cardiac surgery) were due to return being performed would allow both the hospital laboratory and NHSBT to plan for the increase in blood components associated with this.	Enhanced communication will be needed between TP team, BTL, NHSBT, HTT, silver command and key clinical areas.

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		Ensuring a continued presence at staff briefings allows a overview level of relevant communication. Direct communication from the Transfusion Consultant to the Operations manager ensures that the potential issues are highlighted at a board level.		
Finance and Cross Charging	Hospitals pulled together as one team to help each other, but this created some necessary financial unpicking. Some hospitals even had NHS patient's in private wards being Nursed by private Nurses.	All teams shared and worked together effectively, management worked hard to solve financial queries unobtrusively		Escalate financial concerns but do not delay patient care
		Work was completed in a timely manner but BTL also queried with the financial teams		
Governance Meetings	HTT and HTC became harder to hold due to social distancing and increased workload	Meetings moved to online platforms like MS Teams	Some meetings delayed or cancelled	Move meetings to MS Teams early
			Key members struggled to participate due to increased workload	
			Actions delayed due to Covid-19 pandemic	