London & South East Transfusion Science *TAG*

Meeting held on Friday 1st November 2019

at Great Ormond Street Hospital

Sponsored by *BPL*, Haier BioMedical and Sarstedt

1 Attendance Record:

Key: < present >

< *apologies for absence* >

Name	Based at
Aisha Ali	*UCH*
Andrea Ferringe	Dartford & Gravesham
Andrew Osei-Bimpong	
Andrina Dowling	
Anna Capps-Jenner	TDL Ealing
Anna Demichele	Bedford
Anna Li	Royal Free
Arlene Nubi	Bedford
Beverley Crane	Croydon Health Service
Bob Goddard	*QEQM* Hospital
Carol Stenning	St Richard's
Caroline Subramaniam	*UCL*
Catherine Lorenzen	East Kent
Cathryn McGuiness	
Chloe Orchard	St George's
Chris Hessey	Watford
Chris Robbie	*MHRA*
Cristina Lobato	*GSTT*
David Johnson	St Mary's
David Stokes	St Anthony's
David Veniard	*PRUH*
Dena Howlett	
Deepa Takhar	*NHSBT CSM*
Denise Jameson	RF London
Donna Wiles	TDL
Doris Lam	*NHSBT*
Edgar Malundas	Lister
Elias Bhonda	*NHSBT*
Elizabeth Bergh	GSTT
Emma Sutton	Dartford & Gravesham
Etain Clarke	*TDL QM*
Gareth Heywood-Beldon	Whipps Cross
Helen Nabakka	Epsom & St Helier
Iroro Agba	King's College

Ishmael Carboo	*BUPA* Cromwell
Ismay Humphreys	
Jayne Lambert	Spire Alexandra
Jen Heyes	*NHSBT*
Jeyakumar Visuvanathan	St Peters (Chair)
Joanne Lawrence	Royal Surrey County Hospital
Joe Nanuck	*QEH* Woolwich
Joyce Overfield	SPIRE Montefiore
Judy Chetram	
Julia Cheeseman	Royal Marsden Sutton
Julia Lancut	Newham
Julia Stanger	Ealing
Julie Cole	*RSCH* Brighton
Juliette Gevao	Royal National Orthopaedic
Kasia Ballard	West Middlesex
Ken Amenyah	Kings College
Kirsten King	SPIRE Gatwick Park
Ladan Dirie	Hommerton
Lesley Jones	St Anthony's
Linda Price	
Lloyd Noble	Imperial College
Louise Bingham	*BMI* Chaucer
Lucy Ncube	*HCA* Laboratories
Maria Poole	Heatherwood & Wexford Park
Mike Dawe	*MHRA*
Mohamed Elmi	Homerton
Mohammad Rashid	*NHSBT*
Nelsonseelan Johnson	*FHFT*
Nirupa Ruwal	London Independent
Pamela Glinski	Brighton & Sussex
Patricia Richards	Lewisham and Greenwich
Paul Wadham	Royal Marsden Fulham
Pauline Bigsby	Viapath
Penny Eyton-Jones	Great Ormond Street
Peter Struik	Itinerant Scribe
Rachel Nicholas	Medway/Darent Valley
Randa Bonis	Parkside
Rashmi Rook	Redhill, East Surrey
Richard Whitmore	*NHSBT* Tooting
Robert Reilly	Pembury
Roese Spicer	Kent and Canterbury
Saaba Ahmed-Khaderi	Chelsea & Westminster
Sally Procter	*NHSBT* Education
Sally Sharp	Harefield
Samantha Marston	Whittington
Senait Tesfazghi	Spire Healthcare
Sheena Gardner	The London Clinic
Steve Owen	Royal Brompton
Steve Rickard	Nuffield Woking

Sudhakar Vimalanathan	
Susan Mitchell	East Kent
Thais Ferrari	Dartford and Gravesham
Tim Maggs	St Thomas
Tracey Tomlinson	*NHSBT RCI*
Vashira Chiroma	Hammersmith
Vince Michael	St George's
Zoe Sammut	St Richard's
Harry Pomfer	Haier
Bill Chaffe	*BBTS*
Callum Gosford	Sarstedt
Jamie Noell	Sarstedt
Ben Courtney	*UKAS*

2 Chairman's Opening Remarks:

Jey welcomed everyone and thanked Great Ormond Street for the use of the room. Attendance was particularly good this time, somewhat better than expected and thus the very snug and cosy ambience. He thanked the sponsors for their generous support without which these meetings would not be possible and urged people to take the opportunity to talk to them during the lunch period.
We said goodbye to David O'Connor and Kumar.Uthayakumar who have retired and welcomed David Stokes to his first meeting.
Sometimes *TLMs* can be asked by their managers if these meetings are really that important and whether they need to attend. There was some discussion as to whether attending *TAG* meetings should be part of the *TLM* job description if not of particular benefit to us but as a legacy for future post-holders

3 60 Minute Rule - *RBC* Quality and Safety: Stephen Thomas

The '30 minute' rule was based on old studies of the effects of temperature excursions on the quality and safety of *RBC* for transfusion and has led to the wastage of about 10,000 units per year. Changing to a 60 minute rule would reduce this but studies were needed to gather evidence of the effects on *RBC* as there was little evidence for the storage guidelines.
Studies showed that the degree of haemolysis and other adverse effects on *RBC* were proportional to the number and severity of the temperature deviations. Units take time to equilibrate with the surrounding temperature and bacteria also have a lag time in responding to increased temperature and laboratory tests and bacterial studies suggested that it should be safe to extend the 30 minute rule to 60 minutes for both adult and paediatric units and the guidelines were updated – see *Guidelines for the Blood Transfusion Services in the UK* 8th Edition sect 7.6.5.

For occasions when red cells are removed from 2-6°C controlled storage and returned then:
- If possible, time out of a controlled temperature environment should be restricted to under 30 minutes
- if 30 minutes is exceeded the unit should not be returned to the issue location in the refrigerator, but returned to the transfusion laboratory or quarantined remotely using electronic blood tracking
- up to 60 minutes out of controlled temperature is acceptable, provided the unit is then quarantined by placing in a secure refrigerator for at least 6 hours prior to reissue, to allow the unit to return to 2-6°C.
- Hospitals will need to identify such units so that they are not subject to being out of controlled temperature storage for between 30 and 60 minutes on more than three occasions.

Hospitals implementing systems to enable them to make this change have seen a dramatic reduction in the number of units wasted with considerable financial savings. Hospital *LIMS* can help if units are recorded as 'quarantined' as there is then a record of the time it was put into and taken out of quarantine. Hospitals can safely assume that if a unit is issued to them there has been no '30minute' excursion at *NHSBT.*

4 *BBTS*: Bill Chaffe

Bill was pleased to see so many people attending and it reminded him of the various incarnations of the *TAGs* of yesteryear which he had chaired in their early days back in the 70s and 80s which had Peter and Richard nodding with wistful memories and silent nostalgia for people long gone and heated discussions about antibodies and whether glass tubes were better than plastic and the like.
He was very impressed at the number of people who indicated that they were members of the *BBTS* as he was here to encourage people to join: if you want things to change you need to get involved.
There are currently about 1600 members and the Society aims to be a professional body which looks out for everyone, whatever their role, within the world of transfusion.
BBTS aims to play a leading role in safe and effective transfusion practice by delivering high quality education and training, setting standards and promoting research and development and innovation.
There is always a 5 year plan and a 10 year vision to guide the society's activities to help members and to ensure that money is well spent. Presently they are trying to improve communications and to enhance the education offering all managed, apart from the paid office staff, by volunteers. There is a new website and new *CPD Manager* package allowing members to quickly and easily record and review all their *CPD* activity
There are many Special Interest Groups and BBTS are willing to consider setting up new ones if there is sufficient demand.
The Communications Group encourage two way communication with members, as it is key to everything, with active links with a range of professional bodies.
In terms of education they offer courses delivered by experts in their field for a range of Specialist Certificates and are working on offering a range of courses to fill in the gaps of what is being offered elsewhere.
The Annual Conference in Harrogate in September seemed to be favourably received. The 2020 meeting will be in Glasgow. Bursaries are available but there was some discussion as to whether different payment methods could be made available to make it easier to have the expense accepted.

https://www.bbts.org.uk/

5 Laboratory Matters:

SABTO Guideline – plasma recipients born on or after 1.1.96

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/775670/PCWG_statement.pdf

In March 2019 *SABTO* published a report on the importation of plasma and use of apheresis platelets as risk reduction measures for vCJD. This recommended that the risk reduction measures of the provision of imported plasma and apheresis platelets for individuals born on or after 1st January 1996 or with TTP be

withdrawn, although there was uncertainty as to whether users still expected a pathogen inactivation stage.
This posed logistical problems for *NHSBT* who held large stocks of pathogen inactivated plasma which would be wasted if all hospitals stopped using it at the same time.

Sp-ICE
As laboratories increasingly rely on in-house results fewer are referring samples to *NHSBT* and thus results are not available on *Sp-ICE.* One potential solution was for *RCI* to offer reduced confirmatory testing charged just to cover consumables (£15) but a pilot study led to only two samples being received. *NHSBT* are looking into ways of allowing other people to enter results on to *Sp-ICE*.

In-House Thermometer Calibration
A laboratory was considering doing this to provide a back-up should their electronic system fail for any reason and wondered whether anyone had done this. There was much discussion as to how this would be done and the required criteria – use and criticality would need to be considered. The consensus was that rather than recalibrating it was far cheaper, albeit wasteful and environmentally unsound, to buy new, calibrated thermometers when required

O RhD Positive *RBC* for Emergency Use
Most hospitals are now providing these or working towards this. The question of how to treat transgender patients was raised at one hospital which chose to use child-bearing potential as the deciding factor.

6 Accreditation - Ben Courtney (UKAS Accreditation Manager)

UKAS are assessors, appointed as the national accreditation body and must assess to international standards and comply with *ISO17011.* They must be adaptable, approachable and collaborative.
Accreditation establishes the laboratory's competence. Although some assessors can be overzealous *UKAS* does not want to stifle innovation and is not desperate to find non-conformances or obsessed with metrological traceability, only bothered about test results and concerned about the overall service.
Feedback from users shows that *TATs* and communcation should be improved and that assessor inconsistency is a problem (although consistency should not be confused with uniformity) and that assessments are thorough and reports accurate, useful and clear.
There seems to be uncertainty as to what constitutes an *ETS* (extension to scope). They incliude adding a new location, adding new equipment of a different type, a new or changed kit/new sample type, merging two or more separately accredited labs, adding a flexible scope or new standard and adding new analytes or staining materials, antigens or antibodies.
ETS do not include moving equipment from one area to another, additional, replacement or upgraded analysers, changes to peripheral equipment, *LIMS* upgrades, test kit formulation changes or changes of components.
A lot of questions can be answered by referring to the *UKAS* website, which includes *ISO*20914 concerning the measurement of uncertainty.
Plans include a pre-visit questionnaire, account management meetings with laboratories, developing a risk-based approach and a review of how extensions to scope are handled to see if the process can be streamlined.
UKAS accept that the service it delivers can always be improved.

Althouigh *UKAS* can't give guidance they can recommend avenues of approach: one recommendation is to come to meetings like this which offer valuable peer support.

https://www.ukas.com/

7a Sarstedt

Their best known product is probably the *Sahara* dry plasma thawer, 2 or 4 bag models with the temperature measured directly from the bag. They also produce heat sealers for units and tube segment openers and *Transmed* blood transport and storage boxes (pictured) which maintain the product temperature with pre-cooled elements. .

https://www.sarstedt.com/en/products/transfusion/

7b Haier Biomedical

Based in China,the *UK* subsidiary has offices in Middlesex and warehouses in Sussex and Derbyshire with a service team and trained engineers, Haier make a full range of cold storage products with a range of blood refrigerators designed to maintain a uniform temperature throughout the whole cabinet.
There are a range of models and specifications including integrated blood management using electronic *RFID* tags attached to individual units.
The Haier Monitoring system is simple, smart and easy to install with no need to be connected to your hospital *IT* system as it uses roaming *GPRS*, uploading to the cloud and not affected by power supply problems, *RF* interference, *IT* issues etc. Information can be accessed by a wide range of equipment ('anything with a screen')

https://www.haierbiomedical.co.uk/

8 *NHSBT* Update:

Delivery vans: *NHSBT* are moving away from refrigerated vans to standard vehicles with all components being delivered in boxes which should result in a more constant and reliable product and ease loading the vans at the Centre. This does mean that labs will have to store more boxes although they will be picked up at the next routine delivery (*TNT* drivers doing routine scheduled deliveries are expected to take boxes back too)

***EDN* update:** In October this was thought to work but feedback to *NHSBT* has shown there are problems, which are being looked into, when the *EDN* transfer has not worked as it should.

Customer Satisfaction Survey: There were significantly fewer replies than usual which doesn't help *NHSBT* identify problem areas.
The greatest area of dissatisfaction was routine deliveries - the timing, not the service provided. Deliveries will be reviewed.

***RCI* Reports:** There was some discussion as to whether labs wanted these in plain text rather than tabulated but the low response rate to the survey meant it was not possible to tell the scale of the demand. To be discussed further at the next meeting.

Fax Machines: These have generally been removed from use in the *NHS,* a policy enacted without consideration of their use by *NHSBT.* They don't require *IT*

and are thus a robust, and good reserve means of communication with no obvious alternative replacement. *NHSBT* has procedures for using internal departmental emails but these are not monitored and so hospitals need to phone to alert someone if they are used.
Hospitals are encouraged to set up similar accounts but it is vital that all staff, including lone workers, know how to access them.

Platelets: Laboratories continuing to monitor and review stocks has helped demand to be met. *RBC* demand is not going up but platelet use is, especially A RhD negative. Pooling at current levels requires the collection of A RhD neg *RBC* donations above the *RBC* requirement leading to wastage. There are not enough apheresis donors to meet the demand of 600 packs per month.
At least 24 hours notice should be given when ordering *HLA* selected platelets for the weekend in normal working hours – *OOH* services are for emergencies only not routine orders.

Ro *RBC:* *NHSBT* remains understocked as regards Ro units for sickle patients.The more notice given the better the chance of an order being met and if not already doing so then clinical teams should be encouraged to give you advance notice. 60% of the Ro usage is within the M25 and *NHSBT* is finding ways of working with London hospitals to help in getting more *BAME* donors and thus increase stocks of Ro blood.

Patients on Daratumumab: If not bleeding, even if anaemic, these patients may not require an antibody screen on-call. All these patients can be grouped provided antiglobulin techniques are not used and thus can usually be referred to *RCI* during the routine working day.

9 2018 *SHOT* Report

https://www.shotuk.org/wp-content/uploads/myimages/SHOT-Report-2018_Web_Version-1.pdf

Transfusion is still relatively safe - most of the reports are near miss events.
After 10 years of *SHOT* 90% of the errors in the process are still within the laboratory's control.
Most of the transfusion associated deaths were preventable and more frequently this is due to delays happening not just inclinical areas but in laboratories too. The key *SHOT* messages involve rethinking transfusion education, investigating incidents to identify systemic issues, staffing challenges, learning from near misses, and ensuring *SOPs* are simple to follow and explain the rationale for each step.
The common response to a mistake is to add another step to the *SOP* which becomes ever longer and more unwieldy.
Overall about a third of errors occurred in the laboratory: a lot of wrong components being selected, errors in storage and labelling of components – these stages need to be robust and clear.
Robust procedures are needed for *IT* downtime to prevent delays to transfusion with a clinical impact.
Implementation of Electronic Identification systems has been patchy in the UK and needs to be hastened as they reduce the number of wrong components transfused.
Key laboratory messages concern failures to follow correct procedures, robust root cause analysis and ensuring staff complete annual *GMP* training,
SHOT are keen for managers to consider human factors when investigating errors rather than just blaming the person involved (which is quick and easy), looking at the person and the system in collaboration. It is uncommon for an individual to be

solely responsible for an incident. Amending the underlying issues will help prevent further incidents. Investigators need knowledge and understanding of human factors and ergonomic principles to assess all aspects of incidents and bring about sustainable change. We need to look at ways of stopping people being able to do something wrong and ensure they are not being set up to fail.
Essentially a safe system makes it easy to do the right thing and difficult to deviate or do the wrong thing.
It is necessary to make people feel it is safe to work in transfusion and thus want to work in transfusion – staffing levels are still a concern with a high level of inexperienced staff without adequate specialist support and increased vacanies which can lead to deskilling through recruiting at lower banding.
A survey of laboratory culture was undertaken in response to some laboratories threatening staff who made errors with disciplinary action. *SHOT* recommend that all *NHS* organisations must move away from a blame culture and that all clinical and laboratory staff should be encouraged to become familiar with human factors and ergonomic principles.
The 2020 *SHOT* Symposium will be held at the Lowry Theatre in Manchester on Tuesday 7th July.

http://shotuk.org/annual-shot-symposium

A short *SHOT* video about laboratory errors is available for general use

https://www.youtube.com/watch?v=-SNmVf49e3k

Other educational resources are available at

http://shot.uk.org/resources/current-resources/

9A *MHRA*

When notifying an error to *SABRE* the initial report *must* be made within 48 hours of the error first being known about. This is not always being complied with.
This is written into the regulations which state that the regulator must have all the information made available to them.

10 *NLM* Meeting:

The group is working on a competency template for senior staff.

11 Future Meetings:

TBA 2020	*TAG*
Tuesday 7th July 2020	*SHOT* Annual Meeting