

2022 Annual SHOT Report – Supplementary information

Chapter 5: Acknowledging Continuing Excellence in Transfusion (ACE)

Additional case studies not included in the main 2022 Annual SHOT Report.

ACE case studies

Case 5.3: Service improvements expedited by introduction of 'Improvement and Development Lead' role

A lead BMS was employed as an 'Improvement and Development Lead' by a large foundation Trust to drive transformation and innovation. Service change was traditionally led by the transfusion managers who have many conflicting priorities and improvements, or developments were sometimes side-tracked for more immediate issues. The role was created to give the freedom from the routine roles of a transfusion manager to concentrate on change and expedited many of the service improvements and transformational needs of the service. In this Trust, change is now planned in line with best practice and managed to a high level. The Trust has written an article on the role for 'The Biomedical Scientist' magazine to share successes and learning with others.

Case 5.4: Good practice by laboratory staff triggers lifesaving treatment of baby

A BMS identified a mixed field result within a group and screen sample for a pregnant patient. This prompted the BMS to contact the clinical area to request an additional sample and highlight the risk of large fetomaternal haemorrhage. The patient was brought back into hospital for cardiotocography, the results of which were suspicious and resulted in early delivery of the baby. The baby was very anaemic and required red cell transfusion. If this had not been noted by the BMS and escalated, the mother may not have been reassessed and the baby not successfully delivered. A 'Greatix' report was raised within the organisation to acknowledge the prompt action of the BMS who has also received acknowledgment throughout the pathology network.

Case 5.5: Large scale cold chain failure rectified with involvement of many teams

Cold chain temperature monitoring equipment at a Blood Service laboratory alarmed, however the 'Trend' software showed no temperature within the pop up. The 'Trend' software was rebooted, and staff noticed no further issues. A request was made with engineers to attend the site to check the system, and when the engineer attended the site, they discovered another cold storage facility was at risk of failing due to a part failure and that there were eight further sensors that were not reliable. If left unidentified this could have affected component freezers, and platelet incubators within the Blood Service.

The incident required lots of different professionals to come together at every short notice to contain the initial incident, correct the fault and then requalify the system. Learning regarding contingency procedures has been shared at management meetings.

Case 5.6: Large scale cold chain failure rectified with involvement of many teams

A major haemorrhage protocol (MHP) activation situation occurred in the ED resus of a medium sized hospital. The clinical staff on duty followed all procedures correctly, the communication between the clinical area and laboratory was excellent. The BMS on duty was informed of when the patient was expected, a single person for communication was established and all products taken out of Haemobank or required from the BTL were communicated clearly in a timely manner. Furthermore, the MHP was also stood down at the end of incident.

Good communication between the clinical area and the BTL allowed for a very smooth running of MHP with one person allocated to form that line of communication. Learning from this event was shared via email with the matron in the ED for her to disseminate to members of the team.

Case 5.7: Innovative solution to rectify excessive time to transfuse errors

A Trust developed an innovation project to address previous red cell transfusions that went over 4 hours, including >5-hour episodes that were reportable to SHOT. 'Transfusion Take-Down Tags' were designed, trialled, and produced to increase shared awareness of transfusion end times in the clinical area, to inform all staff in the vicinity and empower the patient, to prompt an appropriately trained member of staff to take the red cell unit down within 4 hours of removal from the cold chain.

In a small-scale trial, the tags increased compliance with the Blood Safety and Quality Regulations (BSQR 2005) and reduced the risk of potential, bacterial infection. Feedback from 100% of patients during the trial period showed they understood the concept and felt safer during their transfusion. There were no further incidents of transfusions exceeding 4 hours during the trial usage of the tags. Following manufacture of the tags, funded by the Trust Q.I. department, Trust-wide rollout and adoption into local protocols/procedure has occurred. A non-disclosure agreement protecting the original idea was shared with all Trusts in the region (Southwest) to get useful feedback before instructing a manufacturer. One other Trust in the region, is conducting an independent trial using a set of demo tags supplied by the Innovation department.

This innovation empowers the patient to be involved in their care during a transfusion and means that they can prompt a staff member to complete their transfusion and take the unit down if it is nearing the 'take down time'.

Case 5.8: Development of innovative e-learning for transfusion module

A transfusion practitioner team developed an e-learning module to replace the previous face-to-face training, allowing staff more flexibility to complete it. The platform hosting the e-learning has contacted the team to ask for permission to share the e-learning with other NHS Trusts looking to implement similar training. This e-learning has allowed training, which was severely affected during the COVID-19 pandemic to recommence and allows content to be tailored to local areas.

An education team lead at another large Trust has expressed interest in using this module for training in their own Trust, allowing a joined-up approach across the country.