2020 Annual SHOT Report – Supplementary information

Chapter 15: Laboratory Errors n=639 (439 errors and 200 near miss)

Case 15.6 Sickle Cell Disease patient with a Hb of 51g/l transfused incorrect red cells

A six-year old female patient who was unknown to the hospital was admitted with sickle cell disease (SCD) and a Hb of 51g/l. A sample was sent for a group and antibody screen. The blood group was processed, and a dual population of red cells was seen in the D type. The biomedical scientist (BMS) rang the ward to ask for the patient's transfusion history but they did not have any details. The BMS then translated the blood group to O positive as the population of D positive cells looked greater than the D negative cells. This was also done in the assumption that the patient had been given group O D negative blood at another hospital. The BMS then issued two group O D positive red cell units and both were transfused. The laboratory procedure is to give O D negative red cells when the patient's D type cannot be established, if the patient is a woman of childbearing potential or a child <16 years old. This was not done in this case. For SCD patients, it is also required to transfuse red cells that are negative for HbS and to perform and Rh phenotype and issue phenotype compatible units, but this was also not done. The Specialist Services electronic reporting using Sunquest's Integrated Clinical Environment (Sp-ICE) system was checked the next day and it was found that the patient was a D variant requiring D negative, E negative and HbS negative red cells for transfusion. On investigation it was found that not only were both units D positive, but one unit was E positive and only one was HbS negative.

Laboratories must ensure that all staff are fully trained and competency assessed to be able to work unsupervised and there must also be a process in place for staff to be able to contact senior staff for any help or advice when needed. Laboratories should also have a clear process in place for when staff need to make use of the Sp-ICE system when patients attend different hospitals for treatment, especially when discrepant results are obtained and/or the patients has a condition known to need specific requirements.

Case 15.7 Red cells and cryoprecipitate issued with incorrect DOB- Cryoprecipitate transfused

A female patient in her late teens was admitted to hospital B as an emergency transfer from hospital A. The laboratory had been given advance notice of the patient as a haematological referral (acute promyelocytic leukaemia with disseminated intravascular coagulation and multisite bleeding). The laboratory information management system (LIMS) at hospital B has a shared database with hospital A and the patient identification details had been registered on this prior to transfer. Patient had received two units of emergency O D negative red cells prior to transfer. The laboratory at the receiving hospital B received group and screen samples and a request for four units of red cells at 20:22. The samples were booked in against the patient details accessed by the LIMS from hospital A, however there was a discrepancy in DOB which was not detected at this stage. A further request was received for two units of cryoprecipitate and these issued and collected and transfused at 22:30hrs. The four red cell units moved to the Critical Care Fridge at 23:00. When a nurse checked the patient details on the first unit removed for transfusion, a date of birth (DOB) discrepancy was noticed, and the laboratory was informed. When the BMS checked the patient information on the request form and samples against the LIMS, the error in DOB on the LIMS was noticed. The red cell

units were recalled, error corrected on the LIMS and red cells re-labelled, but the two units of cryoprecipitate had already been transfused. On investigation the DOB error occurred in hospital A and the laboratory was aware but was unable to amend as the record had become locked but did not alert hospital B of this. The laboratory in hospital B has a sample to LIMS second check process in place prior to analysis and the paperwork was signed to say this had been completed but the error had not been picked up. The nurse who transfused the cryoprecipitate failed to notice the error in the pre administration checks.

As more pathology networks are created, any that share the same LIMS must ensure that all patient data inputted is correct and any issues should be rectified immediately and if this is not possible a flag or alert should be added to the patient's record to make all laboratories aware.

Example of a laboratory handover sheet.

Date: / / Page: of

Blood Transfusion Handover Sheet

Sign staff names involved in handovers:

Late shift _____ Night shift _____ Early Shift _____ Day Shift _____

PATIENT Outstanding Crossmatching or Other Work (N.B: Escalate urgent items to senior staff immediately if unable to action)

Patient Name & Number	Test Required	Time Required / Urgency	Details	Added by (initials)	Actioned by (initials)

Other items: Equipment & reagents, component/product Stock and Additional items

Category, E, S or A	Information	Urgency	Added by (initials)	Actioned by (initials)

All items not resolved must be copied onto page 1 for next day's shift and escalated to senior staff if necessary