2020 Annual SHOT Report – Supplementary information

Chapter 10: Incorrect Blood Component Transfused (IBCT) n=323

All cases below resulted in ABO incompatible (ABOi) transfusions

Case 10.4: Positive patient identification not carried out

A patient in his 60s with bladder cancer was being given a second unit of blood to increase his Hb from 91g/L (result after first unit was transfused). A paper 'authority for collection of bloods and blood components' form was completed and was taken by the porter to the laboratory to collect the blood component. The patient's identification (ID) label should be added to this form, signed and dated by the nursing staff. The incorrect patient's ID label was put onto the request form, and this was used to collect the unit. The unit of blood arrived on the ward with details on the tag matching those on the collection slip. The nursing staff failed to check the patient name on the unit of blood directly against the patient's ID wristband or to check the patients name, hospital number and date of birth on (Prescribing Information and Communication System) *PIC against the unit of blood. The checks were made between the authority for collection of blood and blood components form only. After 15 minutes the patient began to experience shortness of breath and abdominal pain, the transfusion was stopped but the tag details were not checked. The doctor was informed and the advice was to wait until symptoms settle (thought to be related to underlying condition) and restart transfusion. The nurse then went off shift and the incorrect unit of blood was only recognised by the nurse on the next shift when they went to re-start the blood.*

The use of a single folder on the ward, holding every patient's sticky identification labels presented an unnecessary risk.
Patient's wristband was scanned and observations were recorded onto PICs in line with the transfusion procedure. The nursing staff failed to check the patient name on the unit of blood directly against the patient's identification (ID) wristband or to check the patients name, hospital number and date of birth on PICs against the unit of blood.
Prescribing, supplying and monitoring of the blood transfusion process is via multiple systems that are not interlinked e.g. PICS in the clinical location and the laboratories system for blood release and tracking.

Good practice
Prompt recognition that the patient was having a clinical crisis and measures taken to detect the cause which led to the transfusion being stopped. Once the incorrect transfusion was picked up the staff followed the 'Management of Transfusion Reaction' guidelines.

Case 10.5: Confusion over documentation leads to incorrect transfusion

A patient (patient 1) in his 50s was being treated for a gastric adenocarcinoma with chemotherapy. It was noted during his outpatient consultation that his Hb had dropped to 44g/L. The patient was admitted to hospital for an urgent blood transfusion of three units of red blood cells. The first two units were transfused without any issues. A few minutes after the third unit was commenced the patient complained of an 'impending sense of doom'. A doctor, who was already dealing with an emergency elsewhere, advised giving hydrocortisone and chlorphenamine and to restart the blood if the patient settled. The medication was given as advised and the patient initially responded to the treatment and became settled but subsequently developed rigors. It was then noted that the unit of blood connected to the patient was intended for another patient (patient 2) with the same surname.

Staff from the security team are allocated to collect blood components overnight. The security member of staff went to the ward to obtain the paper collection card and then went to the blood collection room. This collection card contained the details of patient 1. The staff member selected the correct compatibility slip in the blood collection room folder, placed the ward collection card in the appropriate box and went to the refrigerator to collect the unit of blood. He recalled that the blood was not in the allocated shelf as indicated on the compatibility slip. He lost his place in the compatibility folder but could recall the patient's surname. He found patient 2's compatibility slip and proceeded to collect the unit of blood intended for patient 2.

The blood component should be tracked and signed out on Clinical Web Portal (CWP) using the computer in the blood room but the member of staff was unable to log on that evening and had experienced issues previously with the computer in this respect.

The blood was taken to patient 1's bedside and verbal checks were attempted but the patient complained about being woken up. The nurse recalls checking the surname (same surname as patient 2) on the patient's wristband and commencing the transfusion.

Good practice

Staff reacted promptly and professionally when the incident was recognised to ensure the patient received the correct treatment. Apologies were given promptly by all staff involved. The duty of candour process was observed to be thorough and clearly and carefully communicated to the patient. There has been clear evidence of concern for the patient by both staff directly involved in the incident. Immediate cascade of learning was commenced following the incident via team huddles, team building day, divisional governance day and an organisation wide alert.

Case 10.6: More than one unit of blood checked at the same time and bedside checks not carried out

A patient in his 50s with sickle cell disease was having a 'top up' blood transfusion in the haematology outpatients dept. The nurses checked two units for two different patients at the same time against the electronic prescriptions and administered the unit intended for one patient to the other. The alarm on the pump sounded as the cannula had blocked and was at this point it was realised the patient was being given a unit of blood intended for another patient and the transfusion was stopped. The final checks had been completed by two nurses but away from patient's bedside. A bedside checklist had not been used and the final bedside checks had not been carried out. The patient was not wearing a wristband and positive patient identification was not made.

Case 10.7: Bedside check not carried out leading to ABOi transfusion

A patient in his 60s was being treated for anaemia which was still being investigated, pre-transfusion Hb was 68g/L. A unit of blood was ordered and was collected by the healthcare assistant (HCA). When the unit arrived on the ward two nurses undertook the pre-administration checking procedures at the nursing station, and not at the patient's bedside. One nurse then took the unit of blood and the associated paperwork to the patient's bedside (the other nurse was called away to deal with something else). The nurse proceeded to complete the bedside checks alone but did not carry out positive patient identification by checking the patient's ID wristband and the transfusion was started. Approximately 35 minutes later the patient began to experience breathing difficulties and became 'shaking and jittery'. The transfusion was stopped and at this point it was noticed that the unit of blood being transfused was for another patient. The patient was admitted to HDU overnight for observations due to the reaction to the wrong blood administration.

A single nurse bedside check was completed rather than a two-person check. This was as a result of one nurse dealing with a telephone call and not accompanying the other nurse to the patient's bedside. The single person bedside check utilised the transfusion paperwork alone, rather than checking the unit of blood to be transfused against the patient's wristband as per transfusion protocol.

The patient had not had their observations completed prior to the start of the transfusion process. The nurse then had to do this which caused a delay and a break in the formal transfusion checking process. The cannula extension also required to be adjusted to allow intravenous fluids to run, resulting in further distraction from the formal transfusion checks.

Case 10.8: ABOi transfusion caused by a distraction

A patient in her 80s was being treated in the Haematology day care unit for chronic anaemia and was due to have a blood transfusion. The unit was short staffed, and another patient was seriously ill requiring the full attention of another qualified nurse. The nurse collected red cell units for several patients and opened the transport box in the department, placing two units on the work surface. Administration checks were carried out for patient 1 using the electronic blood tracking system with the correct unit. The nurse was momentarily distracted and when they turned back picked up a unit of blood, set this up and began administration via a pump. When the nurse turned to deal with the second unit of blood (for patient 2) it was realised that the wrong unit had been started for patient 1. The pump with the wrong unit was stopped immediately. No volume change had been registered on the pump so although it was connected and started it was unlikely that the patient had received any of the wrong blood, an estimate was less than 0.1mL of blood transfused if at all.

The day care unit should have had five nurses on duty but only had four. At the time of the incident five patients were receiving transfusions, two patients had units running that had just been started. One patient had a transfusion about to end. Two patients were awaiting their first unit. All five patients were in the same room. The nurse has full insight into the error made – was trying to work quickly and took shortcuts that they would never normally do.

Case 10.9: Two units of group O FFP transfused to a group A recipient despite a LIMS flag being present

A female patient in her 50s was admitted as a code red trauma patient following a road traffic collision. She suffered a massive haemorrhage, arrived in the emergency department and received several units of emergency group O red cells before a group and screen sample could be taken. A sample was taken and processed by the laboratory, but the results showed dual populations because of the O red cells transfused and the group was inconclusive. There was a historical blood group from 1992, but this could not be linked to the current record in the LIMS. The patient's blood group was manually edited to group O with a flag added to the LIMS record to give universal components only as stated in the laboratory procedure for this situation. FFP was later requested and the BMS on duty selected, thawed, and issued two units of group O instead of AB or A as a universal plasma component. The alert flag to give universal components was shown but not acted upon. Both units were collected and transfused with no reported harm to the patient.

This case shows another example of LIMS warning flags and alerts being overridden. Critical LIMS flags should not be easily overridden and should require definitive action to overcome the influences of cognitive bias and alert fatigue. The laboratory has put in place a preventative action which now requires the BMS to enter a comment in the alert when it is displayed to acknowledge that the flag has been seen. This should be made a mandatory requirement of LIMS providers when building systems for laboratories. Distractions during critical transfusion processes are dangerous. Workspaces should be designed in a manner that reduces distractions in safety critical steps.

Case 10.10: Group O CCP transfused to a group A recipient

A female in her 30s who was blood group A, was enrolled on the convalescent plasma arm of the REMAP-CAP trial and was transfused with a unit of group O COVID convalescent plasma (CCP). On investigation there was no ABO-compatible convalescent plasma in stock and instead of ordering this from the Blood Service the BMS selected group O after discussion with a less experienced member of staff and thought this would be acceptable because the unit was HT-negative. The LIMS had an alert flag for the ABO-incompatibility, but this was not heeded. A unit of group O CCP was also issued to the same patient the previous day, however this was wasted as it had been stored inappropriately in the ward refrigerator. The ABO-incompatibility was not detected upon return of this unit and was only raised when a different BMS was issuing the 2nd dose (3rd unit) and saw the ABOi units in the patient's history. The laboratory has now had the LIMS updated to prevent group O plasma components being issued to a non-group O recipient. No patient harm was reported.

This incident occurred in challenging circumstances with a new blood component. Appropriate advice for such situations should be provided in documentation and a central point of contact should be available 24/7 for escalation in critical situations. Incidents where the LIMS alerts and flags being ignored and overwritten are happening year on year. LIMS providers need to address this particular outcome by making it impossible to issue group O plasma to a non-group O patient without specifying a reason for the exceptional issue of ABOi plasma (e.g. major incident). This process should also include communication and referral to a haematologist for concessionary release if required.