

2022 Annual SHOT Report – Supplementary information

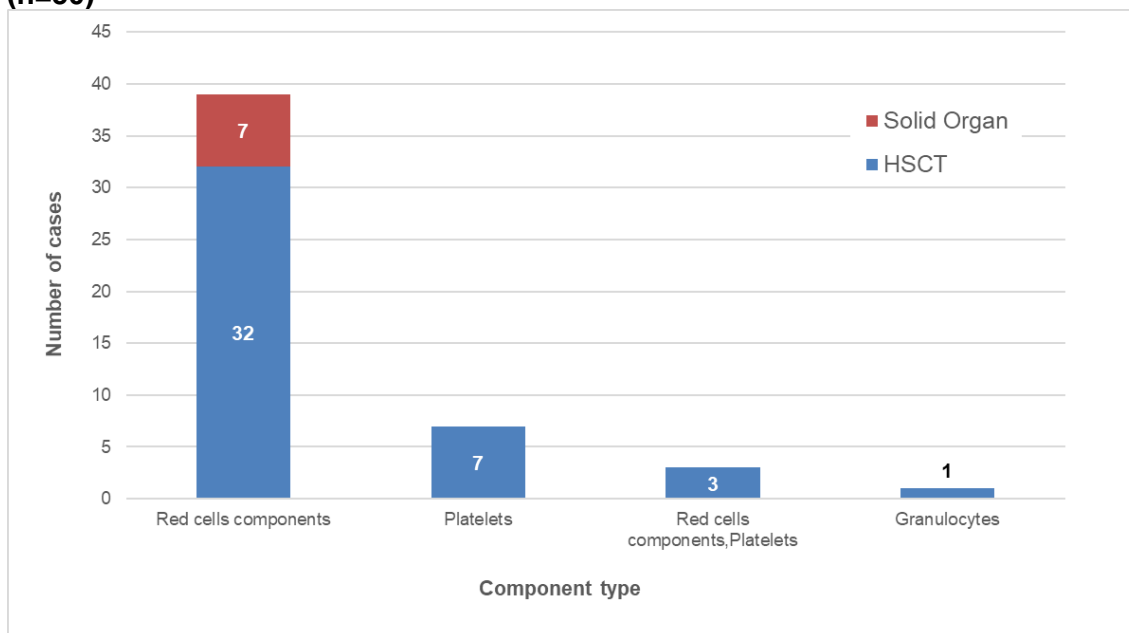
Chapter 25: Transfusion Errors in Transplant Cases

Additional analysis and case study not included in the main 2022 Annual SHOT Report.

Blood components in transplant cases

The most commonly implicated blood components in the IBCT-WCT and IBCT-SRNM errors reported were red cells. Figure 25.3 shows the distribution of blood components involved in these cases.

Figure 25.3: Blood components implicated in the IBCT-WCT and IBCT-SRNM errors reported (n=50)



Failures in communication

Case 25.3: Failure by the clinical team to complete the specific requirements form

An email communication was received regarding a patient due for stem cell harvesting. The consultant noted the email but saw that transfusion management staff also were included in email and, due to workload did not complete the specific requirements request form. The consultant recorded in the medical records that the patient was planned for stem cell harvest but failed to record the requirement for irradiated cells. The patient subsequently required a red cell transfusion, which was prescribed by the FY1 covering the medical wards, who was not on a haematology rotation. Non-irradiated red cells were provided by the laboratory and transfused to the patient.

Where communications are made via email to generic or multiple inboxes there must be a robust, agreed process for ensuring that the requirements are actioned, and all computer systems updated in a timely manner.

Wrong ABO-group transfusions in HSCT recipients reported in 2022

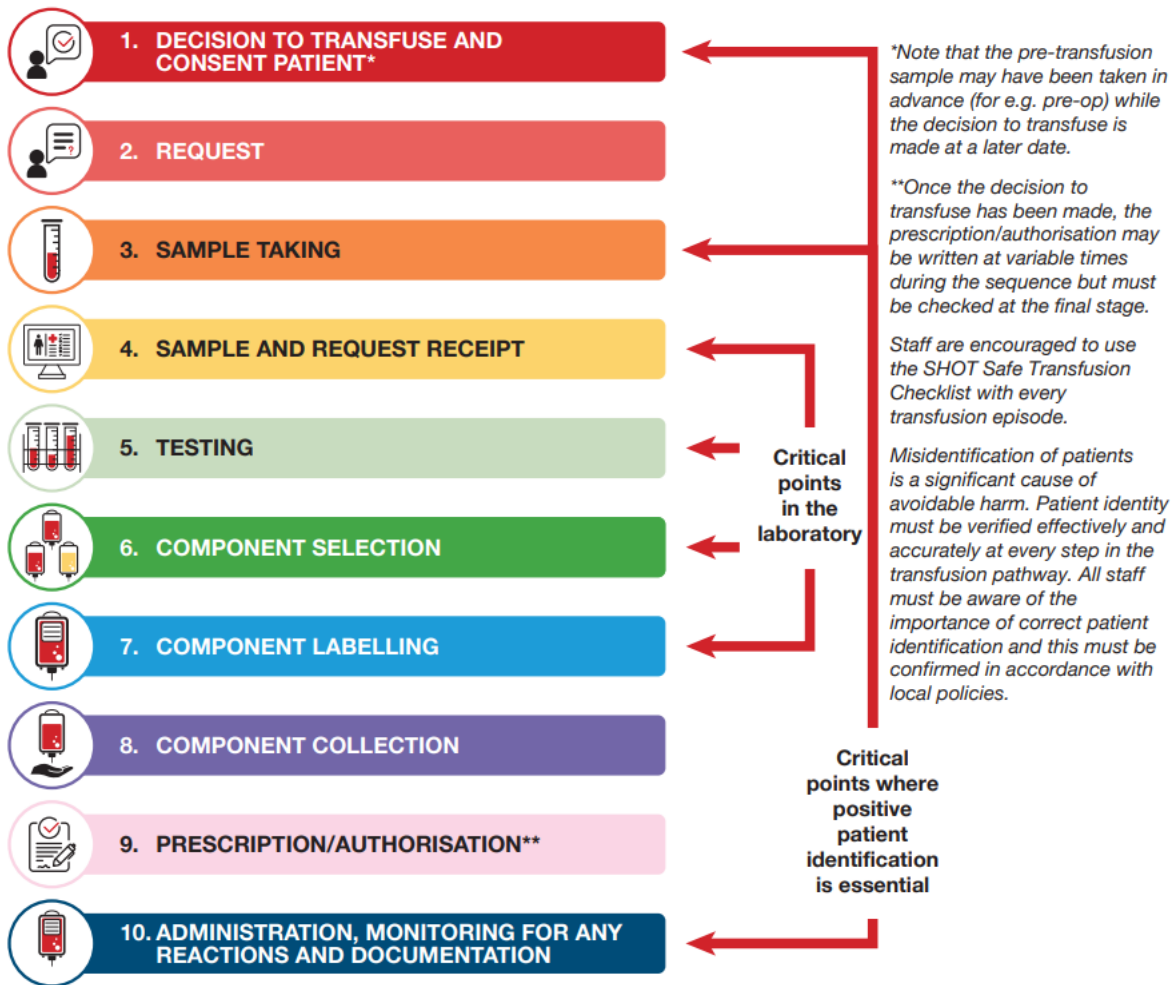
Table 25.1: ABO and D transfusion errors in HSCT patients 2022 n=17

	Case no.	ABO/D	Component	Gender	Patient group	HSCT donor group	Component group transfused	Error
Clinical	1	ABO	PLATELETS	Female	O	B	O	Laboratory not informed
	2	ABO	RED CELLS	Male	B D-pos		B D-pos	Sample labelling error
	3	D	PLATELETS	Male	A D-pos	O D-neg	A D-pos	Laboratory not informed
Laboratory	4	ABO	RED CELLS	Male	A D-pos	O D-pos	O D-neg	Incorrect decision
	5	ABO	PLATELETS	Male	A D-pos	A D-pos	O D-pos	LIMS alerts not heeded
	6	ABO	RED CELLS	Female	A D-pos	O D-pos	A D-pos	LIMS alerts not heeded
	7	ABO	RED CELLS	Female	A D-pos	A D-pos	O D-pos	LIMS alerts not heeded
	8	ABO	RED CELLS	Male	B D-pos	O D-pos	B D-pos	LIMS not updated
	9	ABO	RED CELLS	Female	O D-pos	A D-pos	A D-neg	LIMS not updated
	10	D	PLATELETS	Female	O D-pos	O D-neg	A D-pos	No functionality in LIMS
	11	ABO	RED CELLS	Male	A D-pos	A D-neg	A D-pos	LIMS updated incorrectly
	12	D	RED CELLS	Male	B D-neg	B D-neg	O D-pos	LIMS not updated
	13	ABO	OTHER	Male	A D-pos	O D-pos	A D-pos	LIMS configuration
	14	ABO	RED CELLS	Male	B D-neg	O D-pos	B D-neg	LIMS alerts not heeded
	15	ABO	RED CELLS	Male	A D-pos	O D-pos	O D-pos	LIMS alerts not heeded
	16	D	RED CELLS	Male	A D-neg	A D-neg	A D-pos	LIMS configuration
	17	D	RED CELLS	Male	B D-neg	B D-neg	O D-pos	LIMS alerts not heeded

The 10-step transfusion pathway

The 10-step transfusion pathway has several checkpoints where errors may be detected (Figure 25.4). It is notable that where the first error has occurred in the laboratory there are several additional steps where the mistake could have been detected either by the BMS at checking within the laboratory, or at the time of transfusion with the pre-administration checks. This demonstrates the importance of each member of staff doing their own checks thoroughly and not relying on the safety of a previous step.

Figure 25.4: The 10-step transfusion pathway



Other points of detection include the patient or a relative informing the clinical team of the patient's requirement for irradiated blood components highlighting the importance of patient and family education explaining the need for specific transfusion requirements at the time of consent and providing relevant information leaflets.