Annual SHOT Report 2017 – Supplementary information

Chapter 13: Errors Related to Information Technology (IT)

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In 2017 there were 200 reported incidents of errors related to IT systems (210 including anti-D immunoglobulin (Ig) errors). The cases included are drawn from the other chapters of this report as shown in Table 13.1 and these are categorised in Table 13.2 according to the errors, and the reason for the error, based on the reporter's classification and the author's interpretation of the report.

Table 13.1: Source of cases containing errors related to information technology

Error	2017
Incorrect blood component transfused–wrong component transfused (IBCT-WCT)	21
Specific requirements not met (SRNM)	112
Right blood right patient (RBRP)	24
Avoidable, delayed and under or overtransfusion (ADU)	16
Handling and storage errors (HSE)	27
Total	**200**
Anti-D Ig errors	10
Total including anti-D	**210**

Deaths n=1

There was one transfusion-related death where IT systems contributed. This was a blood delay related to accessing a satellite refrigerator under electronic control.

Major morbidity n=1

There was one case with potential for major morbidity in a woman of childbearing potential due to alloimmunisation after exposure to K-positive red cells.

Minor or moderate morbidity n=4

There was one case with significant haemolysis where IT systems contributed to moderate morbidity. There were two cases delays where the laboratory information management systems (LIMS) was unable to issue red cells or plasma in a timely way which resulted in minor morbidity. There was an over-transfusion incident related to the use of a haemoglobin (Hb) on a blood gas analyser but no significant harm.

No harm

All the other cases did not result in any harm to the recipient of the transfused components.

In 2017, 59.5% (125/210) of the IT incidents originated in the transfusion laboratory and 40.5% (85/210) originated in the clinical area.

Table 13.2: Summary of errors related to information technology

Error	Total reports	Right blood	Wrong blood	Unit transfused when special requirements not met						Wrong group HSCT/SOT	Handling and storage errors	Avoidable or delayed
				Not irradiated	Not CMV/not PAS[1]	Not MB/VIP	Ag positive unit/not phenotyped	HLA-matched	HEV- not provided			
Failure to consult or identify historical record	**10**			2			4			4		
Failure to link, merge or reconcile computer records	**12**		1	5			6					
Wrong record selected on LIMS or PAS[2]	**8**	5	1							1		1
Warning flag in place but not heeded	**18**		2	4		2	4	2		3		1
Warning flag not updated	**32**		1	14	2		9	1	3	1	1	
Failure to use flags and/or logic rules	**42**			23		2	9		8			
Computer or other IT systems failure	**11**	1	1	1	1		5				1	1
Errors related to computer system	**6**	2					3					1
Errors related to electronic blood management system	**13**	3	3									7
Other equipment failure	**30**										25	5
Incorrect result or data entered or accessed manually	**13**	9	2				1			1		
Discrepancy between LIMS and PAS[2]	**3**	3										
Blood issued against wrong patient ID (sample or request form)	**1**	1										
Electronic blood ordering/OBOS	**1**				1							
EI cases (DOUBLE COUNTED)	**(13)**						(13)					
Total	**200**	**24**	**11**	**49**	**4**	**4**	**41**	**3**	**11**	**10**	**27**	**16**

CMV=cytomegalovirus; PAS[1]=platelets in additive solution; MB=methylene-blue; VIP=virally inactivated plasma; HLA=human leucocyte antigen; HEV=hepatitis E virus; HSCT=haemopoietic stem cell transplant; SOT=solid organ transplant; PAS[2]=patient administration system; ID=identification; OBOS=online blood ordering system; EI=electronic issue