Annual SHOT Report 2016 – Supplementary Information

Chapter 12: Near Miss Reporting (NM)

Sub categorisation of total near miss errors n=1283

Table 12.3: Numbers of near misses originating in clinical or laboratory areas

Category of incidents	Number of cases	Percentage of cases
Clinical errors	983	76.6%
Laboratory errors	300	23.4%
Total	**1283**	**100%**

Near miss clinical errors n=983

Table 12.4: Clinical errors according to category

Category of clinical errors	Number of cases	Percentage of cases
Sample errors - Wrong blood in tube (WBIT)*	776	78.9%
Other sample labelling errors	29	3.0%
Request errors	48	4.9%
Component collection/administration errors	61	6.2%
Cold chain errors	60	6.1%
Anti-D immunoglobulin errors, e.g. requests for: incorrect volume, D-positive woman, woman with immune anti-D	9	0.9%
Total	**983**	**100%**

**Includes 1 full blood count (FBC) wrong blood in tube error where transfusion could have taken place based on an incorrect result*

Table 12.5: Near misses that could have led to IBCT-WCT n=881

Point in the process	Type of error made	Number of cases	Percentage of cases
Request error	Request for incorrect patient	6	0.8
	HSCT group error when requesting	1	
Sample taking	Wrong blood in tube (WBIT)*	775	88.0
Sample receipt	Entered to incorrect patient record	2	0.2
Testing	Misinterpretation	10	2.1
	Incomplete testing prior to issue	4	
	Manual group error	2	
	Transcription error	2	
	Equipment failure	1	
Component selection	D-positive issued to D-negative patient	5	1.5
	Wrong ABO group selected	6	
	Incorrect component type	2	
Component labelling	Component mislabelled	6	0.9
	Transposition of labels between patients	2	
Collection	Collection incorrect unit	21	3.0
	Wrong units sent to ward	3	
	Wrong details on collection slip	2	
Prescription	Not prescribed	0	0
Administration	Attempted administration to the wrong patient	31	3.5
Total		**881**	**100%**

HSCT=haemopoietic stem cell transplant
**1 other WBIT incident could have led to avoidable transfusions and is included in Chapter 11b, Delayed transfusion).*

Wrong blood in tube (WBIT) n=776

Definition of wrong blood in tube incidents:

- Blood is taken from the wrong patient and is labelled with the intended patient's details
- Blood is taken from the intended patient, but labelled with another patient's details

Table 12.6: Staff responsible for wrong blood in tube incidents

Staff responsible for taking sample	Number of cases	Percentage of cases
Doctor	223	28.7%
Nurse	197	25.4%
Midwife	149	19.2%
Healthcare assistant	72	9.3%
Phlebotomist	51	6.6%
Medical student	2	0.2%
Other/unknown*	82	10.6%
Total	**776**	**100%**

**Includes historical WBIT incidents reported to SHOT where details are unknown*

Table 12.7: Practices leading to wrong blood in tube

Practices leading to wrong blood in tube	Number of cases	Percentage of cases
Patient not identified correctly	339	43.7%
Sample not labelled at patient's (bed)side	238	30.7%
Sample not labelled by person taking blood	32	4.1%
Pre-labelled sample used	13	1.7%
Identity fraud	2	0.3%
IT auto merge	1	0.1%
Other	4	0.5%
Unknown	147	18.9%
Total	**776**	**100%**

Table 12.8: Circumstances leading to the detection of wrong blood in tube

How wrong blood in tube error was detected		Number of cases	Percentage of cases
Detected before laboratory procedures started (n=117)	Sample taker realised	65	8.4%
	Laboratory vigilance	44	5.7%
	Results from non-transfusion samples (e.g. FBC)	1	0.1%
	Other colleagues realised sampling error	7	0.9%
Detected during laboratory procedures (n=602)	During testing	290	37.4%
	At authorisation	264	34.0%
	Further sample differed	48	6.2%
Detected after laboratory procedures completed (n=57)	Other colleague realised sampling error	24	3.1%
	Sample taker realised	20	2.6%
	Results from non-transfusion samples (e.g. FBC)	8	1.0%
	Pre-administration checks	1	0.1%
	Patient realised the error	4	0.5%
Total		**776**	**100%**

Request errors n=48

Table 12.9: Categories of request errors

Request errors		Number of cases	Percentage of cases
Specific requirements not requested (n=37)	Irradiated	28	58.3%
	HEV negative	7	14.6%
	CMV negative	1	2.1%
	Group for HSCT patient	1	2.1%
Request for incorrect patient		7	14.6%
Request based on erroneous test results		2	4.15%
Request for wrong volume		2	4.15%
Total		**48**	**100%**

CMV=cytomegalovirus; HSCT=haemopoietic stem cell transplant

Table 12.10: Mode of detection of request errors

Mode of detection	Number of cases	Percentage of cases
In laboratory	11	22.9%
Bedside pre-administration check	18	37.5%
Other	19	39.6%
Total	**48**	**100%**

Component collection/administration errors n=61

Table 12.11: Component collection/administration errors

Collection/administration errors	Number of cases	Percentage of cases
Incorrect units collected by ward staff/porters	22	36.1%
Attempted administration to incorrect patient	31	50.8%
Unit expired on ward	2	3.3%
Wrong details on collection slip	2	3.3%
Other	4	6.5%
Total	**61**	**100%**

Errors related to management of the cold chain n=60

Table 12.12: Errors related to management of the cold chain

Cold chain errors	Number of cases	Percentage of cases
Components stored inappropriately*	56	93.3%
Incorrect transport/packing of units	3	5.0%
Returned to stock after out of temperature controlled environment >30 minutes	0	0.0%
Part used unit returned to blood refrigerator	1	1.7%
Total	**60**	**100%**

**Includes a case of anti-D immunoglobulin in a freezer*

Anti D Immunoglobulin (Ig) errors n=9

Table 12.13: Errors related to Anti-D immunoglobulin

Anti D Immunoglobulin errors	Number of cases	Percentage of cases
Requested for incorrect patient	1	11.1%
Requested for D-positive woman	2	22.2%
Requested for woman with immune anti-D	2	22.2%
Anti-D Ig not given when required	4	44.5%
Total	**9**	**100%**

Near miss laboratory errors n=300

The near miss laboratory errors reflect those discussed in Chapter 7, Laboratory Errors and MHRA Serious Adverse Events.

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Table 12.14: Categories of laboratory errors made

Near miss laboratory categories	Total	Percentage	Chapter					
			IBCT	SRNM	HSE	RBRP	ANTI-D	ADU
Sample receipt and registration	44	14.7%	2	23	0	18	1	0
Testing	46	15.3%	19	20	0	0	7	0
Component selection	66	22.0%	13	42	7	0	4	0
Component labelling, availability, handling and storage	144	48.0%	11	0	55	73	5	0
Total	**300**	**100%**	**45**	**85**	**62**	**91**	**17**	**0**

Sample registration and receipt n=44

Table 12.15: Sample receipt and registration errors

Sample receipt and registration errors	Number of cases	Percentage of cases
Incorrect identifiers entered onto LIMS	23	52.3%
Specific requirements not met	18	40.9%
Sample booked under incorrect record	3	6.8%
Incorrect patient merge in LIMS/PAS	0	0.0%
Total	**44**	**100%**

LIMS=laboratory information management system; PAS=patient administration system

Testing n=46

Table 12.16: Testing errors

Testing errors	Number of cases	Percentage of cases
Incomplete testing	23	50.0%
Interpretation/transcription	16	34.8%
Sample used outside BCSH validity guidelines	4	8.7%
Equipment failure/testing problem	1	2.2%
Manual grouping errors	2	4.3%
Anti-D grouping error of mum/baby	0	0.0%
Total	**46**	**100%**

BCSH=British Committee for Standards in Haematology

Component selection n=66

Table 12.17: Component selection errors

Component requirement or specification missed		Number of cases	Percentage of cases
Time expired component selected		7	10.6%
Incorrect D type selected		5	7.6%
Incorrect ABO type selected		6	9.1%
Incorrect component type selected		2	3.0%
Specific requirements not met (n=42)	Irradiated	23	34.9%
	Red cell phenotype	9	13.6%
	CMV	3	4.5%
	HEV	7	10.6%
Anti-D Ig issued to woman with immune anti-D		4	6.1%
Total		**66**	**100%**

Component labelling, availability, and handling and storage errors (HSE) n=144

Table 12.18: Component labelling, availability, and handling and storage errors (HSE)

Component errors	Number of cases	Percentage of cases
Component labels transposed	49	34.0%
Component mislabelled	31	21.5%
Cold chain errors	37	25.7%
Time expired component available	17	11.8%
Exceeded BCSH (Milkins et al. 2013) sample timing guidelines	7	4.9%
Incorrect component sent to ward	3	2.1%
Total	**144**	**100%**

Near miss specific requirements not met (SRNM) clinical and laboratory errors n=121

Table 12.19: Near misses that could have led to IBCT-SRNM (relates to Figure 10.8 in main 2016 Annual SHOT Report)

Point in the process	Type of error made	Number of cases	Percentage of cases
Request	Failure to request irradiated	28	29.8%
	Failure to request HEV negative	7	
	Failure to request CMV negative	1	
Sample receipt	Failure to notice request for specific requirements	23	19.0%
Testing	Incomplete testing prior to issue	15	16.5%
	Sample used outside its validity	4	
	Transcription error	1	
Component selection	Failure to issue irradiated	23	34.7%
	Failure to issue red cell phenotyped	9	
	Failure to issue HEV negative	7	
	Failure to issue CMV negative	3	
Total		**121**	**100%**

HEV=hepatitis E virus; CMV=cytomegalovirus