Saving A RhD Negative Platelets

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Berkshire & Surrey Pathology Services

A joint venture between Ashford and St. Peter's Hospitals NHS Foundation Trust, Frimley Health NHS Foundation Trust, Royal Berkshire NHS Foundation Trust and Royal Surrey County Hospital NHS Foundation Trust. Legal entity host Frimley Health NHS Foundation Trust

NHS Pathology Solutions

In response to NHSBT initiative to reduce the use of A Negative platelets, Berkshire and Surrey Pathology Services (BSPS) audited their use to see if a saving could be made.

Aims

To determine if a saving could be made by introducing A RhD Positive platelets as stock by determining how many units of A RhD Negative platelets are used and how many of those are actually transfused to A RhD Negative patients.

Guidelines

BSH Guidelines on platelet transfusions:

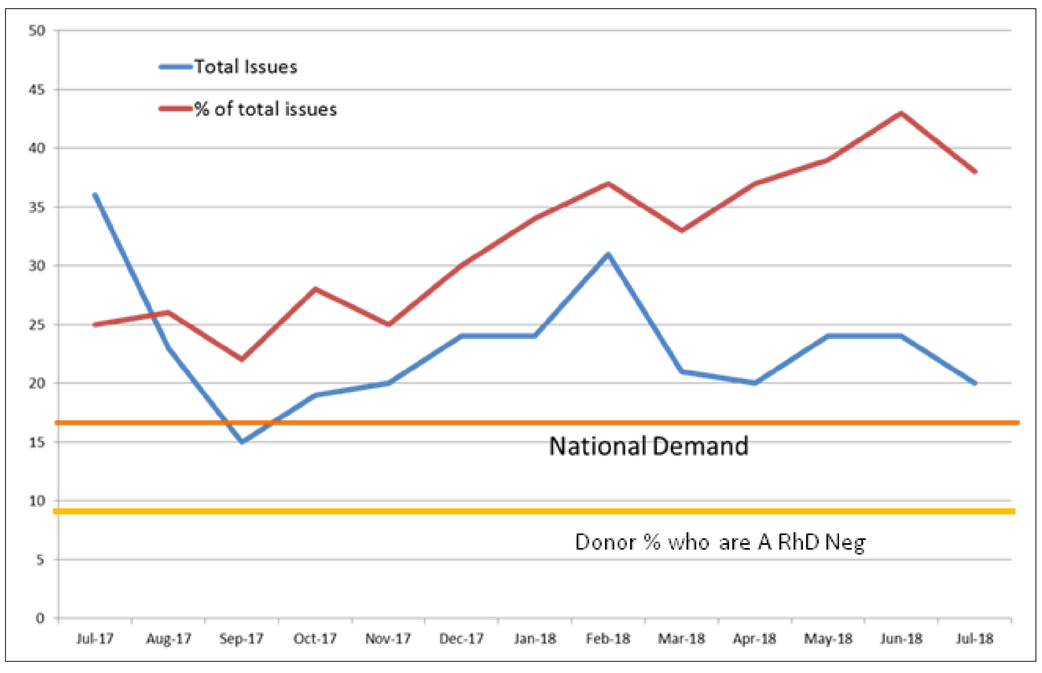
- RhD Negative girls or women of childbearing potential should receive RhD Negative platelets. If unavailable, RhD Positive platelets can be given with anti-D prophylaxis (1B)
- For RhD Negative boys under 18 years of age, those who already have anti-D antibodies, and transfusion dependant adults, the platelet of choice is RhD Negative. RhD Positive platelets should be given if RhD negative platelets are unavailable or to prevent wastage of RhD positive components. (1B)

Method

Traceability statistics were pulled from the Laboratory Information Management System (LIMS) for the three BSPS sites that use the same system (ASPH, FPH, RSCH), for six months, January to June 2018.
HWPH already had data for A RhD Negative platelet use from a previous audit of Haematology patients, so this was incorporated in to the audit
RBH have been using A RhD Positive platelets for stock since 2010 so BSMS data for total A RhD Negative platelet issues were compared for all sites to compare usage.

Results

Figure 1: HWPH A RhD Neg Platelet issues July 2017-18



Results

Table 1 shows the total number of A RhD Negative platelets transfused, with the total number transfused to A RhD Negative patients (and the same for A RhD Positive platelets.

Site	Total No Platelets Transfused Jan – June 2018	Total No A RhD Neg Platelets Transfused	Total No A RhD Neg Platelets Transfused to A RhD Neg patients	Total A RhD Neg platelets Transfused to RhD Neg <50 females	Total No A RhD Pos Platelets Transfused	Total No A RhD Neg Platelets Transfused to A RhD Pos patients
ASPH	371	131*(53%) (31% exc NP)	6 (5%)	0 (excluding neonatal units)	47 (13%)	24 (51%)
FPH	225	80** (36%)	20 (25%)	0 (excluding neonatal units)	72 (32%)	47 (65%)
RSCH	283	92 (33%)	5 (5%)	1	80 (28%)	47 (59%)

*17 Units of A RhD Neg platelets were Neonatal platelets
**1 Unit of A RhD Neg platelets were Neonatal platelets

Table 2 shows details of Massive Haemorrhage triggers that used platelets

	ASPH	FPH	HWPH*	RSCH
Total number of MH calls Jan-June 2018	43	28	35	44
Number of MH calls that used platelets	8	4	12	8
Number that used A Neg Platelets	5	3	Not Available	5
Number of female MH patients < 50yo who received platelets	1	0	1	1

*Data for April – July 2018

Table 3 shows A RhD Negative platelet issues for BSPS for 12 months

	ASPH	FPH	HWPH	RBH	RSCH
Jun-18	16	14	24	5	14
May-18	24	17	24	13	15
Apr-18	18	23	20	6	15
Mar-18	26	14	21	8	12
Feb-18	18	16	31	3	16
Jan-18	20	15	24	5	31
Dec-17	26	13	24	2	17
Nov-17	20	17	20	2	17
Oct-17	17	13	19	0	29
Sep-17	16	11	15	3	15
Aug-17	22	12	23	2	21
Jul-17	19	14	36	29	34
TOTALS	**242**	**179**	**281**	**78**	**236**

This BSMS data clearly shows the impact on A RhD Neg platelet usage at RBH where A RhD Pos stock platelets are already in use.

Conclusions

The risk of giving RhD Positive platelets to a woman of childbearing age in an emergency was extremely low and the risk could be mitigated by giving anti-D post transfusion.
Based on these results it was unanimously agreed to change to A RhD Positive platelets for stock / emergency use.
The impact on A RhD Negative platelet usage will be monitored as part of the BSPS KPIs going forward.