

# Where do A D Negative Platelets Go ?

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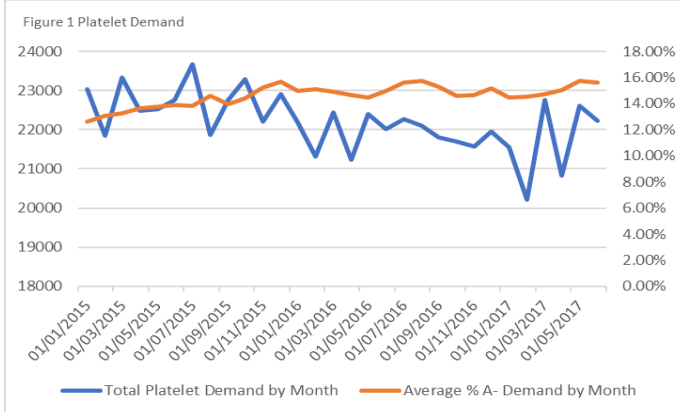
## Background

The Blood Stocks Management Scheme (BSMS) collects stock management data from hospitals and Blood Services in England, Wales, Northern Ireland and Eire.

Hospital demand for A D Negative platelets in England increased significantly in 2015. Demand has remained steady during 2016 at approximately 15% of all platelet orders. Any variability in demand corresponds with public holidays (Figure 1). 8 shortage alerts relating to A D Negative platelets were issued to hospitals during 2016.

NHSBT has escalated donor marketing activity and increased the number of platelets generated from pools.

This level of demand is unsustainable and a snapshot audit of A D Negative platelets was undertaken with hospitals to gain an understanding of where A D Negative platelets are being used and to enable recommendations to be made to encourage better practice.



## Methods

A list of A D Negative donation numbers issued to each of 268 hospitals during the period April to August 2016 was obtained from NHSBT Pulse system. 10 platelet units for each hospital were selected randomly and together with a proforma issued to each hospital.

Information was also requested on numbers and ABO group of platelet stock held at the hospital.

## Results

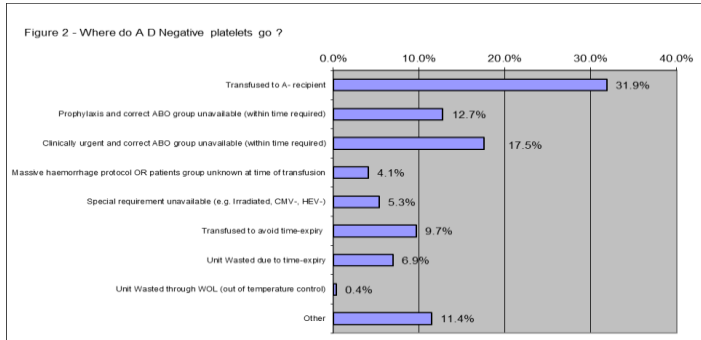
- A D Negative platelet issues are higher than the population average of 8% for all hospital platelet categories except the Very Low hospitals (Table 1).
- Over 50% of A D Negative platelets were issued to Very High hospitals in Quarter 1 2016. As these hospitals tend to use other ABO/D groups their A D Negative issues as a percentage of the total issues is lower than some of the other user categories.
- Few responses from Very Low category hospitals as some received very few or no A D Negative issues during the study period

Table 1 Survey response by hospital platelet usage category

Platelet Usage Category	No. hospitals in category	Surveys received	Category Range (units per annum)	A- issues in category ( Q1 2016)	A- issues as % of total
Very High	34	28	>2000	5229	15.80%
High	51	43	>950 and <=2000	2728	16.30%
Moderate	65	54	>400 and <=950	1976	17.70%
low	51	36	>120 and <=400	481	14.90%
Very Low	67	6	<=120	27	0.40%

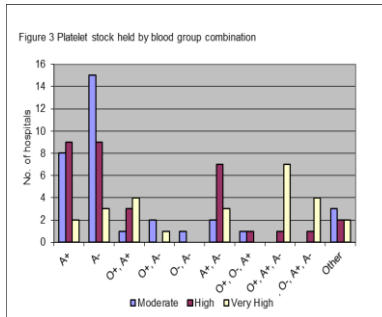
## Results

- 62% of hospitals responded to the survey corresponding to a total of 1348 A D Negative platelets.



- 32% were transfused to A D Negative recipients.
- 35% of A D Negative platelets were transfused to non A D Negative recipients for the following reasons:
  - (correct ABO/D match unavailable in the time required)
    - prophylaxis or,
    - clinically urgent or,
    - special requirement
  - 4% were transfused for a massive haemorrhage protocol or recipient's blood group was unknown
  - 7% time expired
  - 10% (approximately) were transfused to avoid time expiry.

## Stock Platelets



- 61% of survey respondents held a stock of platelets.
- Hospitals with very high platelet issues usually held a mix of ABO/D stock combinations.
- As hospital platelet issues decreased stock was more likely to be A D Negative/Positive

## Recommendations

- It is common practice for hospitals to stock A D Negative platelets believing that they are suitable for all patients.
- BSH guidance:
  - Best practice ABO/D match
  - Mis-match acceptable:
    - When urgent or specific requirements necessary
    - To prevent time expiry wastage (reduced risk of haemolysis if negative for HT agglutinins, non group O and if pooled platelets suspended in PAS)
    - D Negative platelets only essential for D negative women of child bearing age.
- Hospitals should hold ABO/D platelet stock to maximise the use of matched platelets.
- Hospitals only holding stock of A D Negative platelets should review use and consider alternative groups.