

A Survey of Platelet Inventory Management in 228 Hospitals

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Background

The **Blood Stocks Management Scheme (BSMS)** has collected data on platelet issues and wastage in hospitals since April 2003.

Hospitals and blood services face many challenges in maintaining platelet supply. These include **short shelf life** (5 days) and **variability in demand**.

In 2003 a survey was carried out to look at platelet inventory management in hospitals.

A similar follow-up survey was carried out in 2009 to assess how platelet inventory management in hospitals had changed since 2003.

Areas of inventory management covered by the survey:

- Use of Standard Operating Procedures for ordering platelets from the blood services.
- Whether platelets are ordered for specific patients or held as stock.
- Number of hospitals holding a stock of platelets.
- Blood groups of platelets stocked.
- Training of staff in the indications for the use of platelets.



Methodology

The 2009 inventory practice survey was sent to **294** hospitals participating in the BSMS from England, Northern Ireland and Wales. **230** hospitals responded, which corresponds to a **78%** response rate.

228 hospitals initially replied, but since the original abstract 2 further replies were received, taking the total responses to 230.

Country	England and North Wales	Northern Ireland	Wales
Number of hospitals	208	8	14

Table 1 – Survey returns by country

The results were analysed and compared to the results of a similar survey carried out in 2003.

Hospitals in England, North Wales and Northern Ireland were assigned to a platelet usage category. These categories were used to compare results from the survey. The hospitals served by the Welsh Blood Service do not submit platelet data to the BSMS.

Platelet Usage category	Number of hospitals
Very High	35
High	40
Moderate	49
Low	53
Very Low	39

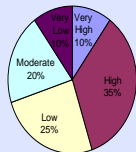
Table 2 shows the platelet usage categories together with the number of hospitals participating in the survey

Ordering

89% of hospitals have a Standard Operating Procedure (SOP) for ordering platelets from the blood service compared to 73% in 2003.

20 hospitals do not have an SOP, of which 45% come from the very high/high platelet usage categories (Figure 1).

Figure 1 – Proportion of hospitals without an SOP for ordering in each platelet usage category.



The number of hospitals ordering for specific patients rather than block ordering has not changed significantly since 2003 (Figure 2).

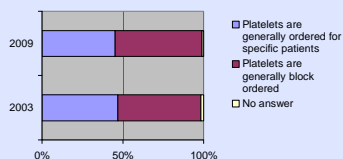


Figure 2 – Hospital ordering practice.

The higher a hospital's platelet usage category the less likely they are to only order for specific patients.

17% of very high platelet usage category hospitals only order for specific patients. This is **unchanged** since 2003.

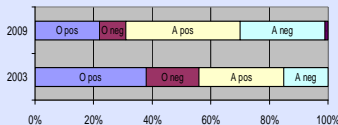
Stock and Storage

The number of hospitals routinely holding a stock of platelets has increased from 10% in 2003 to 23% in 2009.

The hospitals that do hold stock come primarily from very high and high platelet usage hospitals. This is similar to 2003.

The most widely stocked blood group is A pos compared to O pos in 2003 (Figure 3).

Figure 3 – Percentage of units stored by blood group.



10/163 hospitals that currently do not stock platelets are considering holding stock.

The most popular blood group to stock in these hospitals is **A neg** (60% of hospitals).

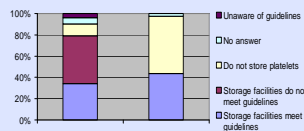
In very high platelet usage hospitals there has been a change in the reasons for stocking platelets since 2003.

Reason for stocking platelets	2003	2009
Cardiac Surgery	34%	49%
Haematology/Oncology	32%	57%
Massive trauma	16%	43%
Deliveriestake too long	5%	17%

87% of hospitals indicated that their platelet storage facilities meet the UKBTS guidelines compared with 79% in 2003.

The biggest shift has occurred in the very low platelet usage category where there has been a shift from non-compliance to not keeping stocks (Figure 4).

Figure 4 - Proportion of very low usage hospitals meeting platelet storage guidelines.



Training

The number of hospitals providing training to junior medical staff on the indications for the use of platelets has increased from 27% in 2003 to 44% in 2009.

The most commonly covered topic is "platelet trigger levels" (**82%** of hospitals providing training).

The percentage of hospitals providing training increases as platelet usage increases (Figure 5).

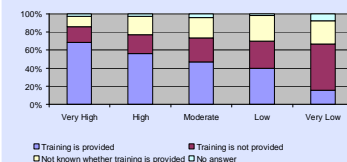


Figure 5 – Training provision by platelet usage category.

Responsibility for training is now primarily taken by the transfusion practitioner compared to the haematologist in 2003 (Table 4).

Training provider	Percentage of hospitals that provide training	
	2003	2009
Transfusion practitioner	40	85
Haematologist	80	51
Transfusion laboratory personnel	22	24
Other*	7	17

Table 4 – Training provider as a percentage of hospitals that provide training. Hospitals could choose multiple options.

***5%** of hospitals provide training through e-learning. This option was not mentioned in 2003.

Key findings and recommendations

- Improvements in availability of a platelet ordering standard operating procedure and in meeting the UKBTS (Red Book) storage guidelines have been driven by the implementation of the Blood Safety and Quality Regulations 2005.
- There are increasing numbers of hospitals holding stocks of platelets. Hospitals should consider the improvement in availability, potential increase in wastage and transport pressures when considering holding a stock of platelets.
- Group A platelets are more widely stocked by hospitals than group O. A Negative platelets are the choice for those hospitals considering holding stock. Flexibility and collaboration between the hospital laboratory and blood service is essential when ordering stock platelets.
- Training for junior medical staff on the indications for the use of platelets has increased in hospitals and is primarily the responsibility of the transfusion practitioner.
- A number of hospitals are providing e-learning training.

For more about the platelet inventory practice survey visit www.bloodstocks.co.uk