

## ... on **DATA TRANSPARENCY**

### Introduction

During the last few years the BSMS has begun the process of moving from data confidentiality to transparency.

The process began with a successful pilot in the North East Regional Transfusion Committee (RTC) and complete regional transparency followed in January 2009. This allowed all hospitals in England and North Wales to view the data of all other hospitals within their RTC on VANESA, and in the case of Wales all hospitals served by the Welsh Blood Service. Hospitals in Northern Ireland, Scotland and the Irish Republic are already transparent in their regions.

The next phase of transparency is now in progress. A new version of VANESA, due to be launched early in December 2010, will enable NHSBT

hospitals to compare their data with that of other hospitals on a national level. This update will allow participants from all blood services to easily create tables comparing issues and wastage with other hospitals.

A further phase of data transparency will involve increasing visibility of data between hospitals and blood services, a practice that is already in place in Scotland, Northern Ireland and the Irish Republic.

In this issue of Spotlight David Sack and Lyndon Richards from Merthyr Tydfil introduce their experience of data transparency, and describe how they feel the ability to compare data with other hospitals can benefit everyone involved.

### Inside this issue:

<b>Introduction</b>	1
<b>ARTICLE: Data transparency and its value</b>	1
<i>Background</i>	2
<i>What can data transparency be used for?</i>	2
<i>So is data transparency useful?</i>	3
<b>Contact details</b>	4

## Data transparency and its value

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### Definition of data transparency\*

- 1) The ability to easily access and work with data no matter where they are located or what application created them.
- 2) The assurance that data being reported are accurate and are coming from the official source.

### Background

We were asked by BSMS manager Sue Cotton to write an article on the value of data transparency. This was an interesting challenge as we had been discussing the value in the Welsh region for some time. We had also made all of the data from blood banks in Wales transparent and this was proving useful.



\*definition according to  
[http://www.pcmag.com/encyclopedia\\_term/0,2542,t=data+transparency&i=40862,00.asp###](http://www.pcmag.com/encyclopedia_term/0,2542,t=data+transparency&i=40862,00.asp###)



Red cell units have a maximum expiry of 5 weeks from the date when the donor is bled. Periodically, the blood services suffer from shortages (particularly in some blood groups such as O Rhesus negative) and it is incumbent on hospital blood banks to manage their supplies efficiently and ensure blood stocks are not wasted.

Most Welsh, English and Northern Irish hospitals are members of the Blood Stocks Management Scheme (BSMS) and regularly report details of their blood usage, wastage etc

so that comparisons can be made with hospitals supplied by the same regional transfusion centre, as well as similar sized hospitals in other areas of the country. This allows benchmarking of performance against peers. Ireland and Scotland have also recently joined the scheme. In Cwm Taf Local Health Board we have thus chosen to use red cell wastage rates as a Key Performance Indicator (KPI) for blood transfusion within the two blood banks, presenting data from the BSMS.



## What can data transparency be used for?

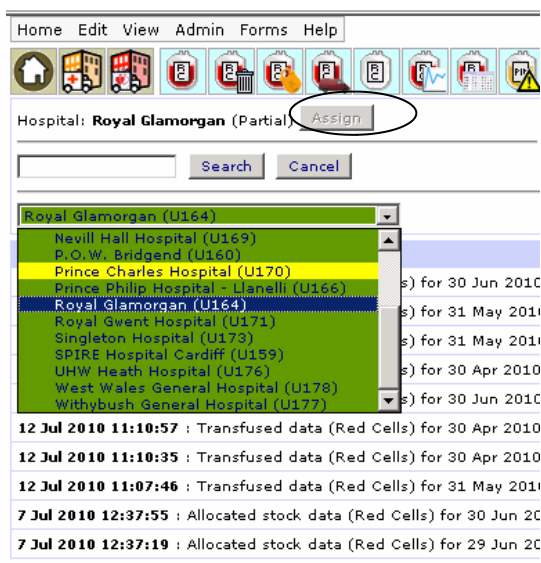
### Training

One major use of transparency is training. We have found that when staff from other blood banks visit for training, being able to access their site is a benefit.

We ask the visitors to bring their daily blood bank stock data, detailing at least a week, and then we go through the data entry process. The data for daily stock of red cells and platelets, the wastage of these products, and allocated and transfused data are entered. The data are then used to pull out graphs and tables.

Figure 1— How to view other hospitals' data.

On the VANESA home page select the hospital blood bank data you want to look at and click on Assign (circled). Once you have selected the hospital you are interested in you can examine data in the normal way, but you can only enter data if it is your blood bank.



### Sharing stock data with the blood services

During a period of shortage of group O rhesus negative blood recently the Welsh Blood Service (WBS) had the ability to look up every blood bank in Wales and evaluate current stock. Well they could have if everyone had their entries up to date! With the advent of a new Laboratory Information Management System (LIMS) and the possibility of the BSMS data being downloaded automatically this will no longer be an issue.

There is another advantage in the blood service being able to see hospital data. During times of shortage it would be possible to move blood between hospitals to restore balance in a cost effective manner. This would be dependent on blood banks being happy to accept blood from, and move blood to, other laboratories and on the existence of an acceptable validated cold chain process for blood transfer.



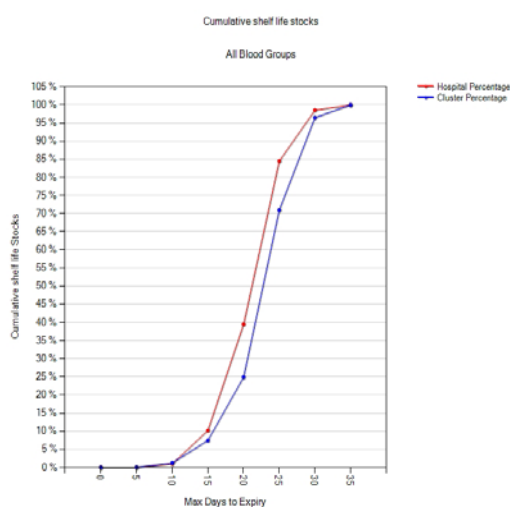
## Benchmarking

Being able to compare your data with labs of roughly the same size and workload is helpful. If you see that a hospital is having better wastage through time expiry than your own it may be worth investigating why.

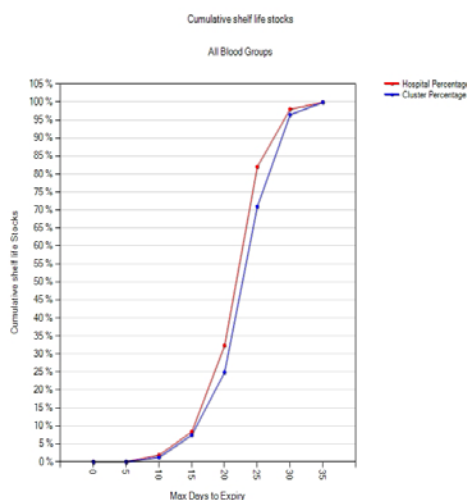
- Are you getting shorter dated blood from the Blood Service?
- Are you keeping too many units in stock?
- Is their ISI lower than yours? The ISI tells you how many days stock you are keeping on the shelf and, generally speaking, the higher the ISI the greater the wastage through time expiry. Using the issuable stock index (ISI) for your comparison examine the data from a better performing laboratory.

### Cumulative Shelf Life:

#### Prince Charles, Merthyr Tydfil (PCH)



#### Royal Glamorgan, Llantrisant (RGH)

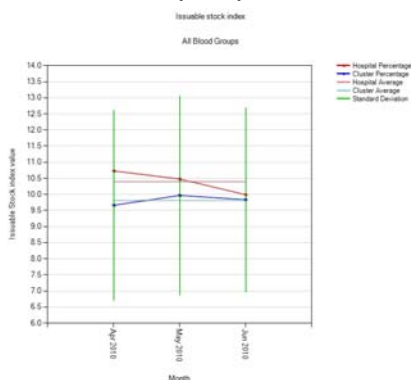


There is very little difference between the shelf life of stock received from the blood service at the two blood banks.

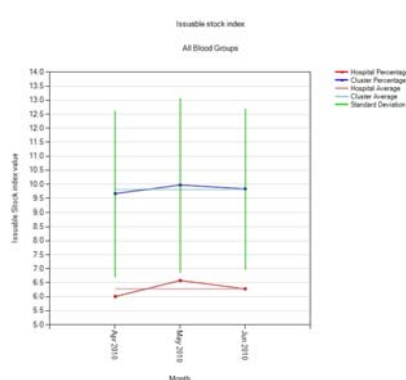
Figure 2– Comparison of the shelf life of RBC stocks arriving at Prince Charles and the nearby Royal Glamorgan. The cluster group is WBS served hospitals for both graphs.

### Issuable Stock Index:

#### Prince Charles, Merthyr Tydfil (PCH)



#### Royal Glamorgan, Llantrisant (RGH)



The ISI between the two hospitals is significantly different. Royal Glamorgan has a lower ISI - probably because the Welsh Blood Transfusion Centre is only a short goal kick away! For Prince Charles there is a 20 mile drive across a mountain so stocks are kept that bit higher.

Figure 3 - Comparison of ISI between Prince Charles and Royal Glamorgan. The cluster group is WBS served hospitals for both graphs.

## So is data transparency useful?

In Cwm Taf we have found that the data we pull from the BSMS is useful for comparison within the trust as well as with our Welsh counterparts.



Month	PCH	RGH	Welsh average	UK DGH average
April	1.4%	3.5%		
May	0%	1.0%		
June	0.4%	1.9%		
<b>Quarterly average</b>	<b>0.6%</b>	<b>2.1%</b>	<b>3.7%</b>	<b>2.3%</b>

Table 1 - Cwm Taf red cell wastage rate April – June 2010 \* data as of 14th July 2010

The percentages in the table above are from the BSMS WAPI - Wastage As a Percentage of Issue. The Welsh average includes all hospitals in Wales whilst the UK average includes District General Hospitals (DGHs) only as it would not be a good comparison to include e.g. very large teaching hospitals from England. The data in the table above demonstrates that the Cwm Taf blood banks

maintained wastage rates below both the Welsh and UK DGH averages during the April – June 2010 quarter.

The table above includes wastage for all reasons but the data can be divided further into fridge or cold chain failure, time expiry or miscellaneous reasons. Transparency enables us to view the reasons in greater detail.

**Prince Charles, Merthyr Tydfil (PCH)**

**Royal Glamorgan, Llantrisant. (RGH)**

Wastage as a percentage of issue

Wastage as a percentage of issue

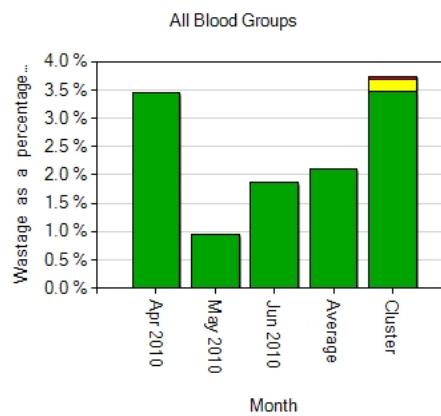
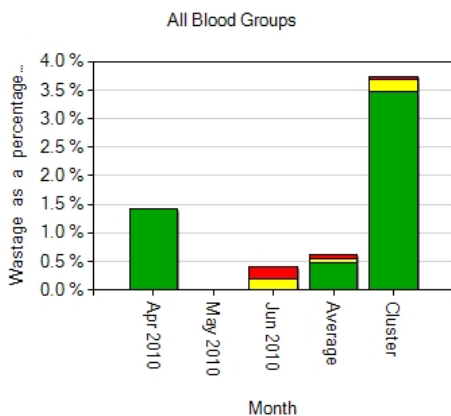


Figure 4 - Comparison of wastage reasons between Prince Charles and the Royal Glamorgan.

- Fridge failure
- Miscellaneous
- Out of temperature control - outside laboratory
- Time expired

Blood wastage may occur for a number of reasons. The most common is due to outdated and is virtually impossible to prevent totally, as any industry that deals with perishable products will recognise. Hospital blood banks may, for example, receive blood from their regional blood service which is already three weeks old on receipt. The hospital then has to constantly monitor expiry dates and ensure they don't over stock to keep wastage as low as possible. Wastage may also occur due to refrigeration failure, accidental damage during administration and poor practice at ward level. This results in blood not being

transfused but being left out of controlled refrigeration, making it unsuitable for re-use. Blood bank staff therefore have a continuing educational role in ensuring clinical staff do not waste this valuable resource.

## Conclusion

BSMS data transparency allows us to monitor our own performance and the performance of our peers. In this way we can see who performs well and work together to share beneficial ideas to improve and keep wastage to the minimum.

Hospitals and the blood services working together to maximise the use of donated blood by increasing understanding of blood supply management.  
[www.bloodstocks.co.uk](http://www.bloodstocks.co.uk)

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