Safety Alternatives **Blood Bulletin** Autologous Appropriate

Produced by Northwest Region **Volume 7, Issue 1**

Editors for this Issue:

Julie Yates

Transfusion Practitioner, Warrington and Halton Hospitals NHS Foundation Trust

Email: julie.yates@whh.nhs.uk

Tony Davies,

Transfusion Liaison Practitioner.

NHSBT / SHOT.

Email: tony.davies@nhsbt.nhs.uk

In this issue:

Acknowledgements:

Grateful thanks to NHS Blood & Transplant for their continued help and support with the production and distribution of this newsletter. Also to the North West & North Wales Regional Transfusion Committee for funding to support printing.

"OBOS"

NHSBT's Online Blood Ordering System

OBOS is the **O**n-line **B**lood **O**rdering **S**ystem (OBOS) that has been developed by National Health Service, Blood and Transplant (NHSBT), hospitals and external suppliers to enable hospitals to order red cells/blood components on line.

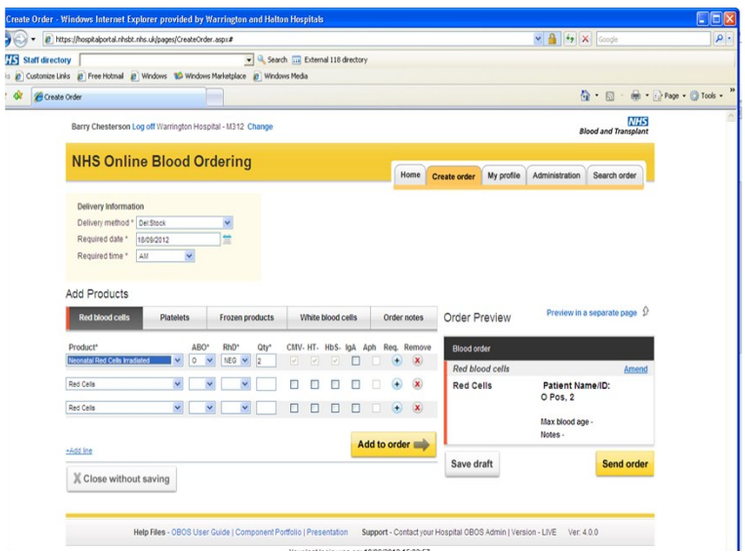
Orders for blood/blood components are placed onto OBOS and are transferred directly onto the NHSBT computer system (Pulse).

Warrington and Halton Hospitals NHS Foundation Trust began using OBOS in December 2010 replacing the conventional "fax ordering" system.

OBOS is very easy to use, and has improved the accuracy of orders. It also allows standing orders to be placed removing the necessity to place a separate order each time i.e. for patients requiring regular transfusions of specific red cells/blood components.

Following training, users are given individual access rights to the system allowing a full audit trail. Products available to order can be accessed using specific Tabs for each product and specific requirements available via drop down menus.

The ordering simply requires the input of:

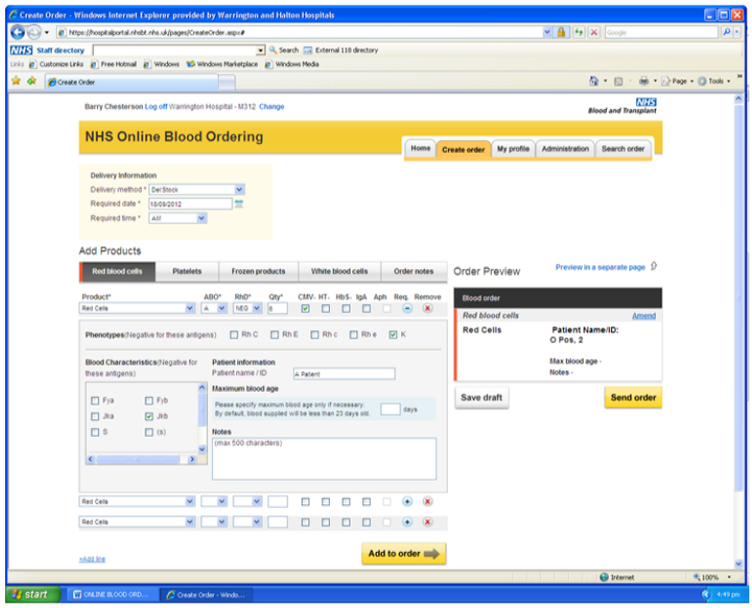


- Method of delivery (Stock, Ad Hoc or Emergency)

"OBOS"

Phenotyped units, age of red cells and any notes can be added by selecting the Req box

Once the order has been sent to OBOS, a PULSE order number is generated onto the NHSBT computer system, and the order prepared by NHSBT staff.



Order Summary

Last Updated at 9:23 AM Refresh to update again

Current Orders | Draft Orders | Standing Orders | Queued Orders (0)

Pulse No.	Date Ordered	Time Ordered	Ordered By	Required Date and Time	Delivery	Current Status
T0041611	14-Mar-2010	02:25 PM	Claire Guest	14-Mar-2010, 15:30	Collect	Notif. outstanding-dispatched
T0041577	14-Mar-2010	01:08 AM		14-Mar-2010, AM	Ad Hoc	Notif. outstanding-dispatched
T0041622	14-Mar-2010	06:34 PM	JR BMS	14-Mar-2010, 20:00	Collect	Notif. outstanding-dispatched
T0041468	12-Mar-2010	02:52 PM	JR BMS	15-Mar-2010, 16:30	Del Stock	Awaiting allocation (external)
T0041647	15-Mar-2010	08:25 AM	Julie Staves	15-Mar-2010, 09:30	Del Stock	Notif. outstanding-dispatched
T0041642	15-Mar-2010	07:09 AM	Julie Staves	15-Mar-2010, 09:30	Del Stock	Notif. outstanding-dispatched
T0041635	14-Mar-2010	11:30 PM	JR BMS	15-Mar-2010, 00:30	Collect	Notif. outstanding-dispatched
T0041646	15-Mar-2010	08:25 AM	Julie Staves	15-Mar-2010, 09:30	Del Stock	Waiting for Issue
T0041627	08-Mar-2010	12:03 AM	Julie Staves	15-Mar-2010, 09:30	Del Stock	Awaiting allocation (external)
T0041626	08-Mar-2010	12:02 AM	Julie Staves	15-Mar-2010, 09:30	Del Stock	Awaiting allocation (external)
T0041820	09-Mar-2010	12:05 AM	Julie Staves	16-Mar-2010, AM	Del Stock	Received from external system
T0041819	09-Mar-2010	12:05 AM	Julie Staves	16-Mar-2010, 09:30	Del Stock	Received from external system
T0041470	12-Mar-2010	02:58 PM	JR BMS	16-Mar-2010, 16:30	Del Stock	Received from external system
T0041998	10-Mar-2010	12:01 AM	Julie Staves	17-Mar-2010, 09:30	Del Stock	Received from external system

The 'Current Status' of the order can be viewed on line at any time.

Examples:-

Received from external system: Order has been received but not yet processed

Notif. Outstanding dispatched: Order has been sent and awaiting acknowledgement of receipt

Awaiting Allocation: Order has been viewed but waiting for allocation of products to order

Prepared, awaiting dispatch: Ready for delivery but not yet dispatched

Waiting for issue: Indicates that units have been allocated to the order but the order has not yet been prepared

Benefits from introduction of OBOS :

- Simple to use
- Orders fully auditable
- Ability to track orders through the process
- Cut down transcription and interpretation errors
- Cut down telephone calls
- Able to see status of orders

Serious Hazards of Transfusion (SHOT) Annual Report 2011

The 15th Annual SHOT Report was launched in July 2012, compiled from data submitted in 2011. We are approaching universal participation; with 98.4% of NHS organisations registered to SHOT, and received a total of 3038 reports, a 23.3% increase over 2010.

There were 1815 analysed cases, the remainder comprising 'Near Miss' and 'Right Blood Right Patient' reports. Although overall reports have increased (from 141 in 1996/7 to 1815 in 2011), the proportion of reported transfusion-related deaths and major morbidity continues to decrease, from 34% in 1996/7 to 6.9% in 2011, which is in itself a testament to successful haemovigilance.

From the data, we are able to calculate the risks of transfusion-related death in 2011 as 2.7/million components and major morbidity as 39.9/million components. (The UK Blood Services issue approximately 3 million blood components each year)

A changing pattern of transfusion-related harm has emerged over the last years – in 2010 and 2011 the main causes of potentially avoidable death and major morbidity were related to inappropriate, unnecessary and delayed/under transfusion (I&U) and to transfusion associated circulatory overload (TACO).

Appropriate use of blood components is essential, and rate and volume must be adjusted for the individual patient needs.

Elderly patients are particularly at risk of TACO, and many reports in 2011 suggested that some susceptible elderly patients are being transfused too rapidly.

In addition, a number of cases of inappropriate and unnecessary transfusions and TACO occurred as a result of red cell transfusion for chronic iron deficiency, which should be diagnosed and appropriately corrected with iron supplements rather than blood transfusion, and the underlying cause established and treated.

It is disappointing that half of all events reported relate to errors in the transfusion process, and these are obviously all completely avoidable. In addition, pathological reactions such as transfusion associated graft versus host disease (TA-GvHD), transfusion related acute lung injury (TRALI) and TACO are probably preventable by improved practice and monitoring, and some cases of haemolytic transfusion reactions (HTR) could be prevented if the diagnosis and previous transfusion history were more carefully obtained.

Laboratory errors increased slightly this year, including ABO grouping errors, often in the emergency situation where staff have been pressurised and tempted to take short cuts or use less robust manual techniques. Increased automation adds additional safety, but must be set up correctly, with alert flags in the laboratory computer system that must not be ignored or overridden. It is very important to take into account all relevant patient history and to search for previous results particularly for patients with specific transfusion requirements, such as those with haemoglobinopathies.

For all the reasons above, the key message from SHOT 2011 is 'Back to Basics', re-emphasising the importance of the essential steps in the transfusion process;

- Taking the blood sample from the correct patient
- Correct laboratory procedures and issuing of the correct component
- Appropriate prescription, volume and rate for the individual patient needs
- Identification of the patient at the bedside at the time of administration
- Monitoring and dealing with adverse outcomes of transfusion

A consistent theme in all these steps is the key issue of correct patient identification , and this must become a core skill for all groups of staff involved in transfusion.

SHOT Reporting Categories 2012

- **IBCT:** Wrong Blood Transfused (Incorrect Blood Component Transfused)
- **IBCT:** SRNM (Specific Requirements Not Met)
- **ADU:** Avoidable transfusion, Delayed transfusion, or Under transfusion - (formerly Inappropriate and Unnecessary transfusion)
- **HSE:** Handling and Storage Errors
- **RBRP:** Right Blood Right Patient
- **Near Miss** (An error discovered prior to the transfusion that could have caused harm to the patient)
- **ATR:** Acute Transfusion Reaction
- **HTR Acute:** Acute Haemolytic Transfusion Reaction (reaction within a 24 hr period of a transfusion)
- **HTR Delayed:** Delayed Haemolytic Transfusion Reaction (reaction after the 24 hr period, often 5-10 days later)
- **PTP:** Post Transfusion Purpura (drop in platelet count 5 - 10 days after transfusion)
- **PUCT:** Previously Uncategorised Complication of Transfusion (Pathological reaction or adverse effect in temporal association with transfusion which cannot be attributed to already defined side effects and with no risk factor other than transfusion)
- **TA-GvHD:** Transfusion Associated Graft versus Host Disease (engraftment of viable lymphocytes from the blood component in the patient's organs/tissues causing organ rejection in the patient)
- **TACO:** Transfusion Associated Circulatory Overload (occurring within 6 hrs of the transfusion)
- **TAD:** Transfusion Associated Dyspnoea (respiratory distress within 24 hrs that is not TACO, TRALI or an allergic reaction)
- **TRALI:** Transfusion Related Acute Lung Injury (Acute dyspnoea with hypoxia and bilateral pulmonary infiltrates during or within six hours of transfusion)
- **TTI:** Transfusion Transmitted Infection (post-transfusion infection when there is no other source of infection identified) prior to transfusion and no evidence of an alternative source of infection.

For further information about anything in this edition contact:

Julie Yates, Transfusion Practitioner, Warrington Hospital; email: julie.yates@whh.nhs.uk

Tony Davies, Transfusion Liaison Practitioner, NHSBT; email: tony.davies@nhsbt.nhs.uk