



# Don't be Negative for O Positive



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# Pre-Transfusion Compatibility Procedures in Blood Transfusion Laboratories

Date: 06 December 2012

8.6.2. Group O red cells should be used in emergency situations where the ABO group has not yet been established.

8.6.3. For large volume blood replacement (e.g. more than 8 units of red cells), D positive red cells should be issued to females over the age of 50 and adult males in whom no anti-D is detectable, thus preserving stocks of O D negative red cells for women of child bearing potential. (NBTC, 2009).

**JPAC** Joint United Kingdom (UK) Blood Transfusion and Tissue  
Transplantation Services Professional Advisory Committee

## 7.3.1: Red cell transfusion in major haemorrhage

Red cell transfusion is usually necessary if 30–40% blood volume is lost, and rapid loss of >40% is immediately life threatening. Peripheral blood haematocrit and Hb concentration may be misleading early after major acute blood loss and the initial diagnosis of major haemorrhage requiring transfusion should be based on clinical criteria and observations (see Figure 7.2).

For immediate transfusion, group O red cells should be issued after samples are taken for blood grouping and crossmatching. Females less than 50 years of age should receive RhD negative red cells to avoid sensitisation. The use of Kell negative red cells is also desirable in this group. Group O red cells must continue to be issued if patient or sample identification is incomplete or until the ABO group is confirmed on a second sample according to local policy (see Chapter 2).


ABO-group-specific red cells can usually be issued within 10 minutes of a sample arriving in the laboratory. Fully crossmatched blood is available in 30 to 40 minutes after a sample is received in the laboratory. Once the volume of blood transfused in any 24 hour period is equivalent to the patient's own blood volume (8–10 units for adults and 80–100 mL/kg in children), ABO and D compatible blood can be issued without the need for a serological crossmatch.



# Guidelines are for guidance

Guideline

Addendum

 Transfusion

**Haematological Management of Major Haemorrhage**

Published: 06/07/2015

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Further details



Guideline

Addendum

 Transfusion

**Pre-Transfusion Compatibility Procedures in Blood Transfusion Laboratories**


Published: 06/12/2012

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Further details

Guideline

Addendum

 Transfusion

**Use of Irradiated Blood Components**


Published: 18/11/2010

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Further details

Guideline

Addendum

 Transfusion

**Administration of Blood Components**

Published: 06/11/2017

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Further details

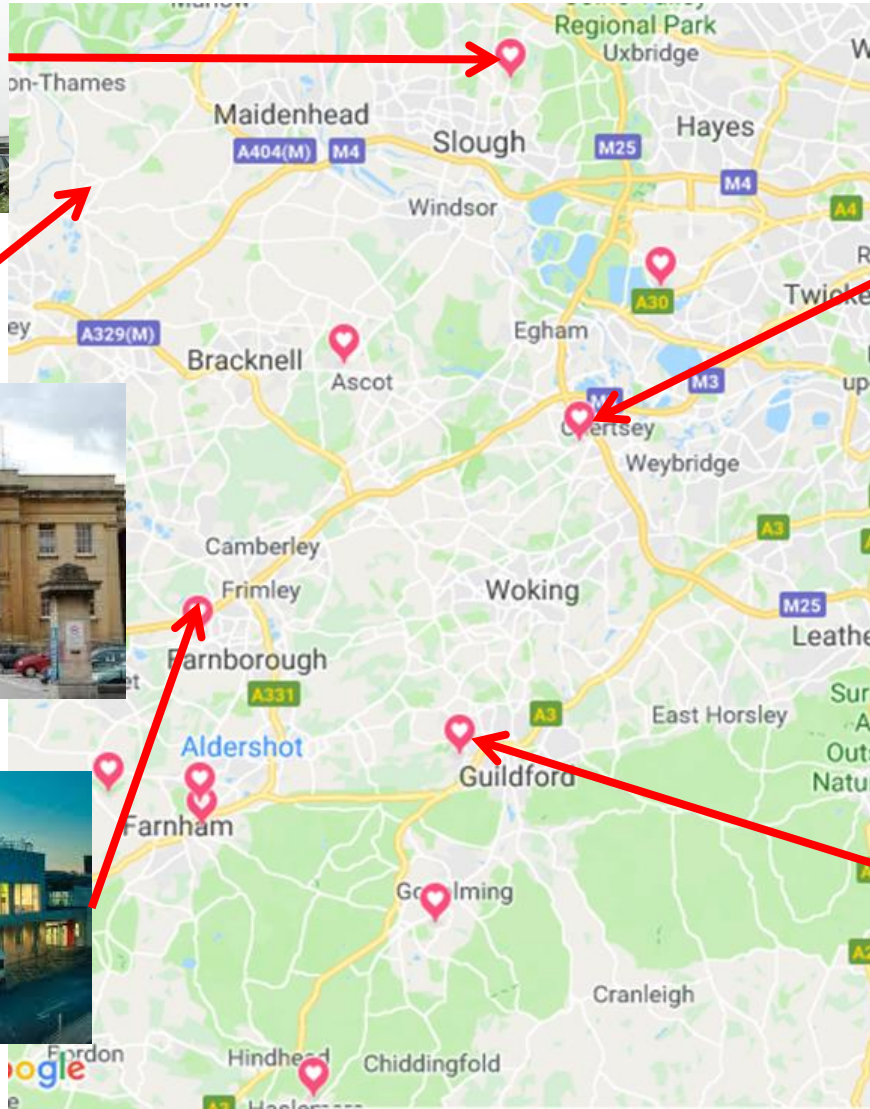
## Blood transfusion (NG24)

This guideline covers the assessment for and management of blood transfusions in adults, young people and children over 1 year old. It covers the general principles of blood transfusion, but does not make recommendations relating to specific conditions.

NICE guideline    Published November 2015



# Large five site network – had the potential to make a big impact on O Neg usage in the area





2 trusts have helipads

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5 MATERNITY UNITS

All 5 sites have at least one satellite fridge  
with Emergency Blood



2 Regional Cancer Centres but  
all sites have cancer services



5 EDs but none are major  
trauma centres





2017



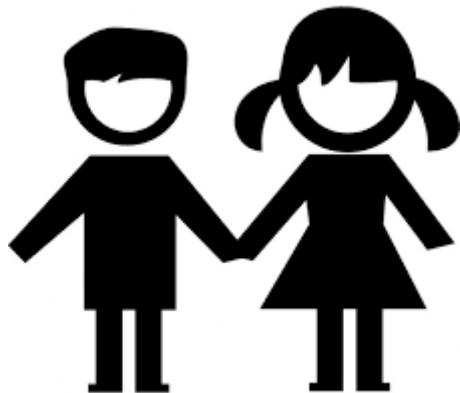
## **Surrey Pathology Services**

- Writing & implementing new cross site BT policy
- Opportunity to make changes to practice
- Because RBH had been using O Pos successfully for 5 years already we had confidence to implement at the other sites.

## **Royal Berkshire Hospital**

- Joined the partnership in March 2017
- Too late to come in on single policy on this review
- BUT – good practices that were already embedded could be added to the SPS policy in readiness for the next review
- RBH had been using O Pos since 2012

# Slowly slowly catchy monkey!



# The Maternity Conundrum

- RSCH & ASPH had separate satellite fridges for the sole use of Maternity so remained exclusively O Neg
- FPH had theatres & maternity sharing a fridge so we delayed putting O Pos in there for 12 months
- Soon became evident that main theatres used most EM blood on.....





# The Solution

- I took the problem to the joint Anaesthetics and Obstetrics Governance meeting
- Presented the statistics and the proposal to put O Pos in the theatre fridge
- Senior Obstetric Consultant comment?
- “If I need blood to save a woman’s life, I will use any emergency blood to do so, regardless”



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**BLOOD**  
DOESN'T GROW  
**ON TREES**

# Monitoring using KPIs

This is a snippet of our KPI document which shows how we monitor O Neg usage etc using NHSBT targets where appropriate.

So far there have been O Neg units given to women >50yo and Men >18yo

But there have been no O Pos units given inappropriately to women <50yo or any <18yo



Source	No	COMPONENT USAGE	TARGET
NHSBT aggregated issue & wastage docs	3	Total ADULT RC issues	TBC
	4	O- % of Adult RC issues	<12.2%
	5	Total Platelet issues	NA
	6	A RhD neg platelet issues	NA
BSMS O neg report	7	O neg stock (Actual-recommended)	< 0 units
Source	No	APPROPRIATE USE	TARGET
Business Office	8	crossmatch / tx ratio	80%
TP's	9	% of pre tx Hb's <70g/L	70%
	10	% of pre tx Hb's <80g/L	70%
	11	% of post tx Hb's ≤ 90g/L	70%
	12	% single unit tx/Hb measured between units	70%
	13	% correct emergency blood	100%
Source	No	WASTAGE	TARGET
NHSBT Highlight report	14	RBC WAPI	TBC
	15	O neg RC WAPI	4.2%
	16	Platelet WAPI	3.6%