

**Scottish National Blood Transfusion Service
Policy Record**



Ref: NATP CLIN 038 02
Cat: CLINICAL

**Title:****SNBTS POLICY FOR USE OF HIGH TITRE BLOOD COMPONENTS****Background:**

SNBTS Manufacturing has been testing **ALL** Blood Donors for the presence of High Titre group A and group B antibodies since April 2017.

This testing is done to minimise the risk of causing clinically significant haemolysis due to the presence of high titre Anti-A or Anti-B when blood components are transfused to patients of other blood groups.

Key Changes from Previous Revision

Policy moved from previous template to NATF1490

CR5988 – labelling of leucocytes, buffy coat, pooled, added at paragraph 9 and table 1

CR6903 – paragraphs 2 & 3 amended for labelling of red cell components for neonates/infants

Change in labelling of platelet pools at paragraph 5 and table 1 – to allow use of high titre positive buffy coats

Policy Agreement	CGSG: 5 th March 2019	SMT: N/A
Supersedes Policy Ref:	NATP CLIN 038 01	
Date Of Implementation:	6 th August 2019	

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SNBTS Manufacturing changed from testing 10% of blood donors to 100% testing in April 2017. This change was implemented to increase the safety of blood transfusion by identifying any donor with potentially harmful High Titre anti-A and/or anti-B antibodies.

This policy describes the labelling of all High Titre Positive and High Titre Negative blood components. It also describes the order that components should be selected for patients of differing blood groups to include the change to high titre labelling, giving first, second and third choices.

Component Labelling:

1. Red Cells in Additive Solution – Due to low residual volume of plasma in SAG-M Red Cells, any ABO/D compatible donation may be chosen for transfusion to a patient. This includes O RhD negative red cells for issue as emergency blood. It also includes group A or B red cells being given to group AB patients. SAG-M red cells which are high titre positive will be labelled “Not for Neonatal Use”, but may be issued safely to adult patients.
2. Plasma-reduced Red Cells (Red Cells for Exchange and Intrauterine Transfusions) – Due to the significant residual plasma content and size of the patient, these components will only be manufactured from donations found to be high titre negative.
3. Red Cells in additive Solution for Neonates and Infants (Paedipacks) – Due to the residual plasma content relative to the size of the patient, these components will only be manufactured from donations found to be high titre negative.
4. Platelets, Apheresis – All high titre negative apheresis platelets will be labelled “High Titre Negative” and can be given to patients with a different ABO group. Apheresis platelets which are high titre positive will be labelled “Not for Neonatal Use”.
5. Platelets, Pooled – All pools manufactured from donors who have been tested and found to be high titre negative will be labelled “High Titre Negative”. Where a pool contains a buffy coat from a donor who has been tested and found to be high titre positive, the pool will be labelled “Not for Neonatal Use”.

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6. Apheresis Platelet Paedipacks – Will only be produced from donors who have been tested and found to be high titre negative and will be labelled “High Titre Negative”.
7. Fresh Frozen Plasma and Cryoprecipitate – All high titre negative frozen components will be labelled “High Titre Negative”. Frozen components which are high titre positive will be labelled “Not for Neonatal Use”. All pre-thawed FFP should be high titre negative group A.
8. Methylene Blue treated FFP and cryoprecipitate – MB components are NOT high titre tested and NOT high titre labelled. In those born after 01.01.1996 group ABO specific frozen components should be given where the blood group is known and group AB should be given where the blood group is unknown.
9. Leucocytes, buffy coat, pooled – All pools manufactured with buffy coats from donors who have been tested and found to be high titre negative will be labelled “High Titre Negative”. Where a pool contains a buffy coat from a donor who has been tested and found to be high titre positive, the pool will be labelled “Not for Neonatal Use”.

A summary of high titre labelling for components is shown in Table 1 below:

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Table 1 High Titre Labelling of blood Components

	High Titre test result	
	High titre negative	High titre positive / untested
Red Cells	High titre status not printed – not required	“Not for Neonatal Use” printed
Platelets Apheresis	“High Titre Negative” printed	“Not for Neonatal Use” printed
Platelets Pooled	“High Titre Negative” printed	“Not for Neonatal Use” printed
FFP	“High Titre Negative” printed	“Not for Neonatal Use” printed
Cryoprecipitate	“High Titre Negative” printed	“Not for Neonatal Use” printed
MBT plasma components	High titre status not printed	High titre status not printed
Leucocytes, buffy coat, pooled	“High Titre Negative” printed	“Not for Neonatal Use” printed

Component Selection:

ABO selection of components and the requirement for high titre negative components is shown in Table 2.

Neonates and children of less than 1 year of age will have an automatic protocol in Traceline that states patient should receive high titre anti-A,B negative blood components. Where high titre negative components are indicated and there are not available, components labelled “Not for Neonatal Use” should only be issued after MEDICAL APPROVAL.

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Table 2 Component selection by recipient ABO group

Patient ABO Group	Red Cells	Platelets	Plasma (FFP and cryoprecipitate)
O			
First choice	O	O	O
Second choice	-	A	A or B
Third choice	-	B	AB
A			
First choice	A	A	A
Second choice	O	B high titre negative	AB
Third choice	-	O high titre negative	-
B			
First choice	B	B	B
Second choice	O	A high titre negative	AB
Third choice	-	O high titre negative	-
AB			
First choice	AB	AB	AB
Second choice	A or B	A or B high titre negative	
Third choice	O	O high titre negative	
Unknown Group			
First choice	O	A high titre negative	AB
Second choice	-	B high titre negative	-
Third choice	-	O high titre negative	-

Notes:

- Due to small residual volume plasma there is no requirement to select high titre negative Red Cells (SAG-M)
- Group B and AB Platelets may be unavailable due to low number of donors.