

NZBS BLOOD COMPONENT MONOGRAPH RED CELLS FOR IUT LEUCOCYTE DEPLETED

REASON FOR ISSUE: Update to include ISBT 128 component codes.

Council of Europe Guide Monograph	Red Cells, Leucocyte Depleted for Intrauterine Transfusion
eProgesa Component Names	Red Cells for IUT Leucocyte Depleted
eProgesa Component Codes	EA955V00, EB118V00

1. DEFINITION AND PROPERTIES

Red Cells for Intrauterine Transfusion (IUT) Leucocyte Depleted (Red Cells, IUT) is a red cell component for intrauterine transfusion.

Red Cells, IUT has a haematocrit of 0.75 – 0.90.

Red Cells, IUT contains less than 5×10^6 leucocytes per original source component.

2. PREPARATION

Red Cells, IUT is prepared by the secondary processing of *Whole Blood, LD* or *Whole Blood, Plasma Reduced LD*. In order to achieve the required haematocrit, most of the storage medium is removed.

In the event that a suitable unit of *Whole Blood, LD* or *Whole Blood, Plasma Reduced LD* is unavailable; *Red Cells, IUT* may be prepared by the secondary processing of *Red Cells, Resuspended LD*. This will require prior approval by an NZBS TMS / MO and evidence that the responsible neonatologist has been informed.

Red Cells, IUT must be compatible with both mother and fetus. In the event that the fetal blood group is not known, a type O RhD negative donation must be selected unless the mother has blood group antibodies that necessitate the use of another blood group. The red cells must be antigen-negative for any relevant maternal allo-antibodies. The donation must be from a donor who has donated at least once in the last 6 months.

The component must not contain irregular antibodies of clinical significance.

Red Cells, IUT must be used within five days of donation.

Red Cells, IUT must be irradiated and used within 24 hours of irradiation.

3. RELEASE REQUIREMENTS AND QUALITY CONTROL

Release requirements are as indicated for the source component with the following quality monitoring standards;

Parameter	Requirements	Frequency of control
Haematocrit	0.75 – 0.90	All units
CMV	Negative	
High titre anti-A or B	Negative	
Direct Antiglobulin Test (DAT)	Negative	

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4. STORAGE AND TRANSPORT

The storage and transport conditions are as for the source components.

The storage time must not be longer than 24 hours after concentration and irradiation. The component must be used within five days of donation.

5. LABELLING

The additional and / or amended labelling requirements to those of the source component are:

- the blood group phenotype if the maternal antibody is other than anti-RhD;
- the modified date and time of preparation;
- the modified date and time of expiry;
- additional component information: irradiated, etc. (as appropriate);

6. WARNINGS

Compatibility of this component with maternal serum / plasma must be verified by suitable pre-transfusion testing.

The rate of transfusion should be controlled to avoid excessive fluctuations in blood volume.

As the fetus is at increased risk of graft versus host disease, the component must be irradiated.

Adverse reactions:

Note: Although the component is given to the fetus, because of placental transfer adverse reactions may also affect the mother.

The general adverse reactions are outlined in the relevant source component monograph.

In addition, the fetus is especially vulnerable to:

- CMV infection;
- Citrate toxicity;
- Metabolic imbalance (e.g. hyperkalaemia);
- Transfusion-associated circulatory overload (TACO)