

Guidelines for the Blood Transfusion Services

A4.1 Granulocytes, Apheresis

<http://transfusionguidelines.org/red-book/annexe-4/a4-1>

Redundant Component

A4.1 Granulocytes, Apheresis

A component prepared from anticoagulated blood, which is separated into components by a suitable apheresis machine with retention of granulocytes as the major cellular product, suspended in a portion of the plasma. The remaining elements may be returned to the donor.

A4.1.1: Technical information

- The component is not leucocyte depleted.
- The component contains red cells and requires compatibility testing.
- Granulocytes may be collected by a variety of apheresis systems using different protocols. Since yields may vary, each procedural protocol must be fully validated, documented and specifications set accordingly.
- Cytomegalovirus (CMV) seronegative granulocytes should be considered for CMV seronegative recipients.
- The component must not be agitated during storage.
- The component must be irradiated before use.
- Granulocytes, Apheresis should be transfused through a 170–200 µm filter.

A4.1.2: Labelling

For general guidelines, see section 6.6.

The following shall be included on the label:

(* = in eye-readable and UKBTS approved barcode format)

- Granulocytes, Apheresis* and volume
- the blood component producer's name*
- the donation number*
- the ABO group*
- the RhD group stated as positive or negative*
- the date of collection
- the expiry date and time*

- the temperature of storage
- the statement 'Do not agitate'
- the blood pack lot number*
- the name, composition and volume of the anticoagulant solution.

In addition, the following statements should be made:

INSTRUCTION

Always check patient/component compatibility/identity
Inspect pack and contents for signs of deterioration or damage
Risk of adverse reaction/infection, including vCJD

A4.1.3: Storage

For general guidelines, see section 6.7.

- Granulocytes, apheresis should be used as soon as possible after their preparation. If storage is unavoidable, provided the component has been prepared using a closed system, the component should be stored, without agitation, at a core temperature of $22 \pm 2^\circ\text{C}$ and used within 24 hours of collection.

A4.1.4: Testing

In addition to the mandatory and other tests required for blood donations described in Chapter 9, all components tested for the parameters shown in Table A4.1 shall meet the specified values.

Table A4.1 Granulocytes, Apheresis – additional tests

Parameter	Frequency of test	Specification
Volume	1% or as determined by statistical process control (if ≤ 10 components produced per month then test every available component)	Within locally defined nominal volume range (≤ 500 mL)
Total granulocyte count		$>1 \times 10^{10}/\text{unit}$

A4.1.5: Transportation

For general guidelines, see section 6.11.

- Containers for transporting Granulocytes, Apheresis should be equilibrated at room temperature before use. During transportation the temperature of the component must be kept as close as possible to the recommended storage temperature and, on receipt, unless intended for immediate therapeutic use, the component should be transferred to storage at a core temperature of $22 \pm 2^\circ\text{C}$.
- Plastic overwraps should be removed prior to storage.