# Blood Prescribing

## Indications

<table>
<thead>
<tr>
<th>Symptomatic anaemia (e.g. reduced exercise tolerance, organ or tissue compromise)</th>
</tr>
</thead>
</table>

## Component

<table>
<thead>
<tr>
<th>Red cells leucodepleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole blood derived unit: 260 mL</td>
</tr>
<tr>
<td>Paediatric (paed) unit: 60 mL</td>
</tr>
</tbody>
</table>

## Dose

- Symptomatic anaemia:
  - Usually one unit and reassess or calculate:
    - **Adult:** $0.4 \times \text{patient weight (kg)} \times \text{desired Hb rise (g/L)}$
    - **Neonates and paediatrics:** $0.5 \times \text{patient weight (kg)} \times \text{desired Hb rise (g/L)}$

## Administration time

- 2 hours
- At risk of cardiac overload: up to 4 hours

## Response

- Expected Hb rise in a 70 kg stable adult is 10 g/L per unit

## Indications

<table>
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<tr>
<th>Thrombocytopenia or abnormal platelet function with bleeding or at risk of bleeding.</th>
</tr>
</thead>
</table>

## Component

<table>
<thead>
<tr>
<th>Platelets leucodepleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apheresis: $280 \times 10^9$ in 210 mL</td>
</tr>
<tr>
<td>Pooled: $290 \times 10^9$ in 370 mL</td>
</tr>
<tr>
<td>Paed: $75 \times 10^9$ in 55 mL</td>
</tr>
</tbody>
</table>

## Dose

- **Body weight**
  - Volume: 5–10 mL/kg
  - Units: 1 Paed
  - Volume: 50 mL
  - Units: 1 Paed
  - Volume: 100 mL
  - Units: 2 Paed
  - Volume: 150 mL
  - Units: 3 Paed
  - Volume: 1 apheresis or pooled

## Administration time

- 30 mins

## Response

- Expected platelet rise in a 70 kg stable adult is 20–40 $10^9$/L
- Expected platelet rise in an 18 kg child from one paed unit is 20 $10^9$/L

1 Approximate values only, see transfusion.com.au for detailed data. Consider special requirements e.g. irradiation.

2 All components may be given more rapidly if required. All must be completed within 4 hours of removal from controlled storage.

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## Blood Prescribing

### Indications

1. **Deficiency of clotting factors with bleeding or risk of bleeding where specific therapy (e.g. clotting factor concentrate) is not appropriate or available (e.g. DIC)**
   - **Component**: Fresh frozen plasma
   - **Dose**
     - Adults, neonates and paediatrics: 10–15 mL/kg
     - Paed unit: 70 mL
     - FFP contains all coagulation factors
     - Round to nearest unit where possible
   - **Administration time**: 30–120 mins based on volume tolerance
   - **Response**: Assess clinical response and repeat laboratory/viscohaemostatic assay (e.g. ROTEM/TEG) as per hospital protocol

2. **Fibrinogen deficiency or dysfunction with bleeding or risk of bleeding (e.g. massive transfusion)**
   - **Component**: Cryoprecipitate
   - **Dose**
     - Whole blood unit: 0.35 g fibrinogen in 35 mL
     - Apheresis unit: 0.90 g fibrinogen in 60 mL
     - **Body weight**
       - WB units
       - Apheresis units
       - 5–20 kg: 2, 1
       - 20–35 kg: 4, 2
       - 35–50 kg: 6, 3
       - 50–65 kg: 8, 4
       - Adult: 10, 5
     - Whole blood and apheresis can be used to form a dose
   - **Administration time**: 30–60 mins
   - **Response**: Assess clinical response and repeat laboratory/viscohaemostatic assay (e.g. ROTEM/TEG) as per hospital protocol

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1. Approximate values only; see [transfusion.com.au](https://transfusion.com.au) for detailed data. Consider special requirements e.g. irradiation.
2. All components may be given more rapidly if required. All must be completed within 4 hours of removal from controlled storage.