

Reference Guide

Adult Cryoprecipitate Dosing

- Cryoprecipitate (Cryo) is transfused as a concentrated source of fibrinogen.
- A standard **adult** dose is 3 – 4 g of fibrinogen (70 kg adult).¹
- 2 different size packs of Cryo are available in Australia. See table below.

Standard Adult Dose of Cryoprecipitate (Cryo):

Apheresis Cryoprecipitate	4 packs
Whole blood Cryoprecipitate	10 packs

- 1 pack of **Apheresis Cryo** is approximately equal to 2.5 packs of **Whole Blood Cryo**.² When necessary, a standard **adult** dose can be made up of both types of packs using this conversion factor, taking care to avoid errors.
- Apheresis Cryo is the predominant product used in SA however there may be times when Whole Blood Cryo needs to be substituted due to availability.
- In the case of children or neonates, refer to local critical bleeding protocols and/or contact a haematologist or senior transfusion laboratory scientist for advice.

Rationale for above adult dosing table:

- Provides a dose of around 3 - 4 g of fibrinogen, consistent with the current national critical bleeding guideline¹.
- **Fibrinogen content per pack:**
 - **Apheresis Cryo** fibrinogen content of **1185 ± 318 mg per pack** (mean ±1SD)²
 - approximately 1 Apheresis pack delivers 1g of fibrinogen
 - **Whole Blood Cryo** fibrinogen content of **396 ± 115 mg per pack** (mean ± 1SD)²
 - approximately 2.5 Whole Blood packs delivers 1g of fibrinogen
- When reviewing international studies of fibrinogen replacement, ensure that the current fibrinogen content in Australian Cryoprecipitate² is considered when estimating equivalence. Due to differences in manufacturing process between Blood Services internationally, fibrinogen content per 'unit' (pack) and per mL can vary considerably.
- A higher fibrinogen content in **Apheresis Cryo** packs (based on 2021 Lifeblood data²) has resulted in a change to 4 Apheresis Cryo packs per **adult** dose (previously 5 packs).
- Provides a standard **adult** dose independent of body weight, which is not always readily available to the hospital blood bank/transfusion laboratory.

Note:

- Some **adult** patients may be prescribed doses outside the above table based on their individual circumstances. Contact a haematologist or senior transfusion laboratory scientist for advice.
- Typically, 1 pack of **Whole Blood Cryo** per 5 – 10 kg body weight, or 1 pack of **Apheresis Cryo** per 10 – 20 kg body weight would be expected to increase the patient's fibrinogen concentration by 0.5 - 1.0 g/L.²

Endorsed by SA Critical Bleeding Advisory Group and SA Blood Management Council August 2023.

For more information contact your hospital blood bank/transfusion laboratory and refer to your local Critical Bleeding Guidelines.

References:

1. National Blood Authority. Patient blood management guideline for adults with critical bleeding. August 2023
2. Australian Red Cross Lifeblood, Blood Component Information: An extension of blood component labels (2023 Edition, accessed June 2023)

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