26. CLINICAL INDICATIONS

FOR FRESH FROZEN PLASMA

Fresh Frozen Plasma (FFP) is indicated in patients with a coagulopathy who are bleeding or at risk of bleeding where a specific therapy such as vitamin K or factor concentrate is not appropriate or available.1

Key messages

- FFP contains all coagulation factors including Factors VIII and V.1

- Each FFP transfusion should be an independent clinical decision and take into account the relative risks and benefits to the patient.2

- Assessment of bleeding risk is complex and requires careful consideration of patients’ clinical status and laboratory parameters. Specialist haematology advice may also be required.3

Clinical implications

- In patients with critical bleeding requiring massive transfusion, suggested doses of blood components is FFP: 15 mL/kg or as per the local Massive Transfusion Protocol.4

- The prophylactic use of FFP in cardiac surgery is not recommended.5

- The routine use of FFP in medical patients with coagulopathy (including those with liver impairment) is not supported.2

- The routine use of FFP in critically ill patients with coagulopathy is not advised. The underlying causes of coagulopathy should be identified.3

- For guidance on the use of FFP in warfarin reversal or in specific patient groups, refer to5:

 An update of consensus guidelines for warfarin reversal, on behalf of the Australasian

Society of Thrombosis and Haemostasis (2013).6

 Australian Haemophilia Centre Directors’ Organisation (AHCDO) guidelines for patients

with specific factor deficiencies (www.ahcdo.org.au)

 Thrombotic Thrombocytopenic Purpura: Guidelines for the Use of Fresh-Frozen

Plasma, Cryoprecipitate and Cryosupernatant (2004).7

Background

The National Blood Authority Patient Blood Management Guidelines provides some guidance on the use of FFP:

In patients with critical bleeding requiring massive transfusion, suggested doses of blood components is FFP: 15 mL/kg (CBMT-PP10) or as per the local Massive Transfusion Protocol.4

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The prophylactic use of FFP in cardiac surgery is not recommended (PO –R21).5

The routine use of FFP in medical patients with coagulopathy (including those with liver impairment) is not supported. Tests for coagulation correlate poorly with bleeding risk in liver impairment. The underlying causes of coagulopathy should be assessed. Where FFP transfusion is considered necessary the risks and benefits should be considered for each patient, and expert guidance sought (MED- PP16).2

The administration of FFP may be independently associated with adverse events, including adult respiratory distress syndrome (ARDS) and acute lung injury (ALI). The decision to transfuse these products to an individual patient should take into account the relative risks and benefits (CC-PP6).3

Assessment of bleeding risk is complex and requires careful consideration of patients’ clinical status and laboratory parameters. Specialist haematology advice may also be required. However, patients with an INR ≤2 may not benefit from the administration of FFP and can generally undergo invasive procedures within the ICU without any serious bleeding; higher INRs may be tolerated in certain clinical situations (CC-PP7).3

References

1. Australian Red cross Blood Service. Blood Component Information Circular of Information – An extension of blood

component labels. Australia 2012.

2. National Blood Authority Patient blood management guidelines: Module 3 – Medical. Australia, 2012.

3. National Blood Authority Patient blood management guidelines: Module 4 – Critical Care. Australia, 2012.

4. National Blood Authority Patient blood management guidelines: Module 1 – Critical Bleeding Massive Transfusion.

Australia, 2012.

5. National Blood Authority Patient blood management guidelines: Module 2 – Perioperative. Australia, 2012.

6. Huyen A Tran, Sanjeev D Chunilal, Paul L Harper, Huy Tran, Erica M Wood and Alex S Gallus,. An update of consensus guidelines for warfarin reversal on behalf of the Australasian Society of Thrombosis and Haemostasis, The Medical Journal of Australia 2013: 198 (4): 198-199.

7. O’Shaughnessy DF, Atterbury C, Bolton Maggs P, Murphy M, Thomas D, Yates S, et al. (2004). Guidelines for the use of fresh-frozen plasma, cryoprecipitate and cryosupernatant. British Journal of Haematology 126 (1): 11-28.

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