Transfusion - Fresh frozen plasma (FFP) and cryoprecipitate administration

Who must comply with this procedure?
Registered Nurses, Registered Midwives, Medical Officers, Perfusionists, Enrolled Nurses within their scope of practice, students on clinical placement.

This procedure applies to: all Southern Health staff who transport, check and/or administer FFP or cryoprecipitate or monitor a patient who is receiving FFP or cryoprecipitate.

Precautions and Contraindications

- Careful donor selection and available laboratory tests do **NOT** eliminate all potential hazards of FFP or cryoprecipitate transfusion. Refer to Blood Components and Human Plasma Products Background – Risks of Blood Component Transfusion chapter

- If there is an interruption when checking, begin again.

- If there is **any** delay in commencement of the transfusion return the unit to Blood Bank **immediately**.

- FFP can be given as fast as tolerated by the patient, generally over 30 mins to 2 hrs but more quickly if the patient condition warrants.

  Cryoprecipitate can be given as fast as tolerated by the patient, generally over 10 - 30 mins but more quickly if the patient condition warrants.

- FFP and cryoprecipitate must be completed within 4 hours of spiking the unit or the remainder discarded.

- Commence transfusion before 20:00hrs except in emergency situations.

Compatible fluids

- 0.9% sodium chloride
- 4% albumin

*Morphine, pethidine and ketamine* diluted in 0.9% sodium chloride, for patient controlled analgesia or continuous side arm infusion can be co-administered via a non-reflux valve if it is not possible to insert a second line.

Incompatible fluids

- no medications or solutions (particularly 5% glucose, hypotonic sodium solutions and solutions containing calcium) should be added to or infused through the same tubing

Equipment

- signed order on the Intravenous Infusion Chart MRL09
- Blood Administration Form MRL30
- observation chart
- compatibility report
- goggles
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- gloves
- 0.9% sodium chloride to prime or flush IV line
- blood giving set (has an in-line filter)

Optional
- intravenous pump

Procedure

1. Transfusion must commence as soon as possible once the component has left storage. Therefore prior to collecting the component from Blood Bank:
   1.1. check if the patient is wearing a red identification band; if so check the alert divider to ascertain the nature of the alert
   1.2. ensure the patient has consented to the transfusion as per Southern Health consent policy
   1.3. check if the patient has been ordered a pre-med & administer
   1.4. ensure the patient is in an area where they can be readily observed by staff
   1.5. discuss with the patient what you plan to do
   1.6. check intravenous access is patent
   1.7. ensure you have all the equipment ready
   1.8. record a set of baseline observations (temperature, pulse rate, blood pressure and respiration rate) on the observation chart

2. Collect the component from Blood Bank as per the “Collecting blood components from Blood Bank” procedure

Checking

3. Two qualified staff must check the component at the bedside immediately before administration, using the checklist on the Blood Administration Form MRL30. The person spiking and hanging the unit must be one of the people undertaking the checking process.

4. If when performing the following checks any discrepancies are noted do not proceed with the transfusion and contact Blood Bank immediately.

5. If possible, ask the patient to tell you their first name, surname and date of birth. Special care should be taken for patients who cannot state their name e.g. verify their identity with a parent, family member or carer if present.
   5.1. Check that the patients first name, surname, date of birth and UR number exactly match on the:
      5.1.1. compatibility label
      5.1.2. compatibility report
      5.1.3. identification wristband
      5.1.4. Intravenous Infusion Chart MRL09

6. Check on the unit label it is the right component. This includes any modifications (e.g. cryo-depleted plasma) as specified on the Intravenous Infusion Chart MRL09.

7. Check the unit ABO group, Rh(D) group and unique donation number exactly match on the:
   7.1. compatibility label
7.2. compatibility report
7.3. unit label

8. Check the expiry date on the unit label.

9. Examine the unit for signs of damage or deterioration such as leakage &/or unusual colour. If there is any evidence of damage or deterioration, return the unit to Blood Bank as soon as possible.

10. Instruct the patient to notify a nurse or doctor immediately if they begin to experience shivering, flushing, itching, pain, shortness of breath or begin to feel anxious or unwell.

**Commencing the transfusion**

11. Perform hand hygiene and put on gloves and goggles.

12. Mix thoroughly by gently inverting the unit.

13. Connect the unit to the giving set – the line can be primed with the component or 0.9% sodium chloride.

14. If using a pump the settings must be checked by 2 staff.

15. Infuse slowly over the first 15 mins (rate should not exceed 5mL/min unless otherwise indicated) & observe the patient carefully to detect early signs of a transfusion reaction.

16. Record the patient’s temperature, pulse rate, blood pressure and respiration rate at least:
   16.1. within 15 mins of the transfusion starting (once the component has entered the vein)
   16.2. then hourly until the transfusion is complete &
   16.3. on completion
   16.4. more frequently if the patient condition warrants

17. If there are no signs or symptoms of a reaction increase to the rate prescribed on the Intravenous Infusion Chart MRL09. If there are signs and symptoms of a reaction, stop the transfusion and refer to the "Transfusion Reactions: Management and Reporting" procedure.

18. FFP can be given as fast as tolerated by the patient - generally over 30 mins to 2 hrs but more quickly if the patient condition warrants.

   Cryoprecipitate can be given as fast as tolerated by the patient - generally over 10 - 30 mins but more quickly if the patient condition warrants.

   FFP and cryoprecipitate must be completed within 4 hours of spiking the unit or the remainder discarded.

**Documentation**

19. Complete the following
   19.1. *Compatibility report*: signatures/initials of the 2 staff who performed the check and the date and time the transfusion was commenced
   19.2. *Intravenous Infusion Chart MRL09*: signatures/initials of the 2 staff who performed the check and the date & time the transfusion was commenced and completed
   19.3. *Blood Administration Form MRL 30*

**Changing the IV line**

20. Change the IV line at the completion of the transfusion episode or at least every 8 hours.

21. Dispose of the IV line in an infectious waste bin.

**Completing the transfusion**
22. Flush the line at the end of the transfusion episode with 0.9% sodium chloride.
23. Dispose of the IV line and unit in an infectious waste bin.

Useful Resources
Southern Health Transfusion Service website
Australian Red Cross Blood Service website

Keywords or tags
cryo, clinical plasma

Document Management
Policy supported: Blood components and human plasma products
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