

Blood Transfusion on Dialysis Guidelines

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INTRODUCTION

Anaemia is a common symptom in patients with established renal failure necessitating some patients to receive blood transfusions where there is no other option. Every attempt is made to avoid blood transfusion in potential transplant recipients (to reduce the risk of developing antibodies).

Renal patients on haemodialysis must only be given blood transfusions during dialysis to prevent inducing fluid overload & hyperkalaemia.

1.0 AIM / PURPOSE

For all registered staff in SATH Renal Units to follow the same policy on Blood Transfusions and to use the specific Haemodialysis Blood Transfusion Audit form for all dialysis patients (Attached to this policy).

Only registered staff who have completed their blood transfusion training may be deemed competent to order blood and transfuse blood to a patient on dialysis.

2.0 OBJECTIVES

For all renal staff across SATH Renal Units to be competent in blood transfusion practices to ensure safe practice when administering a blood transfusion on dialysis.

3.0 DEFINITIONS USED

UFR – ultra filtration rate

PRC – Packed red cells

4.0 SPECIFIC DETAIL

- Haemodialysis Blood Transfusion & Audit Form is to be used for every transfusion given. This is printed on pink paper.

- Transfusions may be started 15 – 30 minutes after commencing dialysis.
- Each unit is given over 30 minutes.
- Patient should continue to dialyse for 20 – 30 minutes post transfusion or after satisfactory potassium level on VBG result.
- Extra fluid is removed from the patient to compensate for the volume of blood to be given. UF rate should take the volume of blood into account, usually 250 – 300 mls per bag of PRC's. (The specific volume is recorded on the pack)
- Blood is transfused pre dialyser directly into the arterial port by negative pressure. ***This is extremely important as there is a high risk of air being sucked into the blood circuit if the blood and giving set is allowed to empty.*** Therefore patients requiring a transfusion should be allocated to the acute end to ensure close observation.
- Blood may be given rapidly during dialysis because potassium is removed rapidly by diffusion as well as fluid by ultrafiltration.
- Staff will need to be more vigilant with clotting of the blood circuit and adjust anti-coagulation as required.
- ONLY 2 units of blood may be collected at any one time. If more than 2 units are needed, porters will store in theatre fridge to be collected when required.
- A new blood Giving set is required if giving more than two units.

Identifying patients for blood sampling and transfusion (see Photo identification policy)

- If blood bank do not have a previous record of a patient's blood group etc, they will request 2 samples taken at different intervals by 2 different members of staff. These 2 samples and the forms, if taken correctly, should be identical.
- Blood forms must be printed prior to sample being taken and ID confirmed with patient before sample is taken.
- Patient identity can be checked verbally and by ID band (if inpatient) or by renal photo identification held in their dialysis folder. All ID checks to be made by two nurses at the bedside.

Procedure

1. Haemodialysis Blood Transfusion & Audit form to be initiated. Before calling for blood, ensure:
 - a. That Blood has been prescribed
 - b. Patient has access
 - c. Blood has been ordered and is available
 - d. Patient has consented
2. Patient should be on dialysis for at least 15 minutes before blood is ordered.
3. Blood **must** be autofated on arrival to the renal unit by the porter and the receiving nurse and **must** be autofated out post transfusion.
4. Check blood as per hospital policy. ***Two person check at bedside is essential.*** Observations of Temperature, HR, BP & O2 sats to be recorded pre, after 15 mins and post each bag transfused.
5. A new blood giving set is to be used for each two units of blood transfused.

6. Peel the labels from the blood bag and place in the medical notes. The unique blood transfusion bag batch number sticker should be placed on the drug chart for each bag transfused.
7. Attach the giving set to the infusion limb of the arterial bloodline.
8. Commence infusion by opening the roller clamp just enough to ensure a drip rate enough to infuse each unit over half an hour.
9. If patient on single needle dialysis, open the clamp when the arterial pump is going to allow blood into the circuit periodically over 30 minutes.
10. If patient is bleeding or hypotensive, it may be necessary to give the blood at a faster rate.
11. Throughout the transfusion, observe the patient for signs of transfusion reaction as well as the usual symptomatic episodes. Also check and record the patients temperature, blood pressure and pulse before and after each unit on the Haemodialysis Patient Transfusion Record and Audit Form.
12. Dialysis to continue for at least 20 minutes after completion of blood transfusion or after an acceptable potassium check on VBG sample.
13. Blood can only be sent back to the blood fridge if it has been out for less than 30 mins. If for any reason a unit of blood has not been given it must be returned to the blood bank with the reason why. (This should not happen if the policy is followed correctly)
14. Used blood bags are kept in a clear plastic bag for 24 hours in the sluice in case of any later reaction from the patient before being disposed of in a yellow bag.

5.0 AUDIT

All staff to have completed their Blood Transfusion & Consent competency training. This will be audited annually by renal training sister.
S/ATO's to have completed and be up to date with blood courier training.

6.0 REFERENCES

- Safe Transfusion of Blood and Blood components Tx001
- Safe Transfusion Education Policy Tx 006
- Haemodialysis Blood Transfusion & Audit Form
- Photo Identification for Renal out patients attending for Dialysis Protocol

Haemodialysis Patient Blood Transfusion Record & Audit Form

Please Affix Patient Label

Transfusion Date: _____

Transfusion Time: _____

Please Note

1. Red blood cell transfusion is given 30 minutes into dialysis
2. Each unit of blood can be given over 30 minutes
3. If you are transfusing 3 units of blood, only 2 units to be delivered to renal unit and the 3rd unit delivered to theatre fridge and collected only when you are ready to transfuse
4. Blood transfusion is based on current Haemoglobin laboratory results and not to rely on venous blood gas results

Patient's current Haemoglobin on FBC _____

How many units needed? _____

Has it been cross-matched?

Yes

☐

No

☐

Has it been prescribed?

Yes

☐

No

☐

Does this patient need blood products with special requirements (irradiated/CMV/washed cells)?

Yes

☐

No

☐

Is the patient on the Transplant List?

No

☐
☐

If Yes, please inform the Transplant Nurse ASAP via telephone/e-mail

Reasons for Blood Transfusion:

☐
☐
☐

Loss of circuit

Recent bleeding/Surgery

Infection

☐
☐
☐

Inadequate EPO dose

Low ferritin

Other _____

Current Anaemia Management:

EPO dose _____

dose _____

Iron

Sucrose

Before obtaining blood for Transfusion:

Has the transfusion information leaflet been given/explained to patient?

Yes ☐

No ☐

Has informed verbal consent been obtained?

Yes ☐

No ☐

Does the patient have photo ID or wrist band?

Yes ☐

No ☐

If No, Obtain wrist band or photo ID prior to obtaining units of blood

Is patient apyrexial and suitable for blood transfusion?

Yes ☐

No ☐

If Yes, obtain unit of blood from Blood Bank

If No, discuss observation with Doctor before obtaining blood from Blood Bank

Signature of nurse completing this form: _____ Print Name: _____

During Blood Transfusion Bed side checks:

Has the unit of blood been AutoFated for traceability upon arrival?	Unit 1		Unit 2		Unit 3	
	Yes	No	Yes	No	Yes	No

Unit of blood matches the prescription & patient ID?	1 st Signature	2 nd Signature
Unit 1		
Unit 2		
Unit 3		

Observation Records during Blood Transfusion:

	Time	BP	Pulse Rate	Temp	O ₂ Sats
Obs before 1st Unit of Blood					
Obs after 15mins					
Obs before 2nd Unit of Blood					
Obs after 15mins					
Obs before 3rd Unit of Blood					
Obs after 15mins					

Have all the blood transfusion peel off labels been affixed into patient notes (if in-patient) or blood transfusion record in dialysis folder (if out-patient)?

Yes ☐ No ☐

Have all the Transfused units of blood been used?

Yes ☐ No ☐

If No, Why? _____

Have the used blood bags been kept in a clear bag with details?
No

Yes ☐ ☐

Has the blood been AutoFated after transfusion?

Yes ☐ No ☐

If No, Why? _____

Were there any **adverse incidents** during or after blood transfusion?

Yes ☐ No ☐

If Yes

Was this documented in the patient's notes and on Renal Database?

Yes ☐ No ☐

Has the incident been reported on SaTH DATIX?

Yes ☐ No ☐

Additional comments/notes

Signature of nurse completing this form: _____ Print Name: _____

When form is completed please file in the Blood Transfusion Audit folder then later to be filed in Patient Dialysis folder