

EDINBURGH CANCER CENTRE @ EAST Lothian COMMUNITY HOSPITAL (ECC@ELCH) BLOOD TRANSFUSION STANDARD OPERATING PROCEDURE (SOP)

Scope: To describe the transfusion process for the nurse-led outpatient transfusion service at the Edinburgh Cancer Centre at East Lothian Community Hospital (ECC@ELCH), NHS Lothian.

Review Date: Annually

1. This procedure relates to the outpatient transfusion of red blood cells for adult haematology patients, who live in East Lothian or for whom it is more convenient to travel to ELCH than WGH, who are established on a red cell transfusion programme.
2. Suitable patients should be self-caring and independently mobile but patients who require minimal assistance can be accommodated. A small number of patients will also require ambulance transport to attend.
3. The initial transfusion must be provided at Ward 7 (haematology), WGH.
4. All staff involved in the transfusion process at ECC@ELCH must have documented evidence of current (at least within last two years) eLearning module education:
 - a. Learn Blood Transfusion (LBT) Safe Transfusion Practice
 - b. LBT Blood Components and Indications for Use
 - c. LBT Acute Transfusion Reactions
 - d. LBT Safe Sampling for Blood Transfusion Video
 - e. NEWS2 and SBAR
 - f. Anaphylaxis
 - g. Basic Life Support
5. This SOP should be read in conjunction with the following policies:
 - a. NHS Lothian Transfusion Policy:
https://policyonline.nhsllothian.scot/policy_page/blood-transfusion-policy/
 - b. NHS Lothian Haematology Transfusion Policy (HAEM/CLIN/005.19)
6. Some procedures will be different to those referred to in section 5 due to the different facilities available at ELCH. The aspects of transfusion practice which are different are detailed in this SOP.
7. Referrals
 - a. Haematology patients who require blood transfusion support are referred to the scheduling team at Ward 7, WGH.
 - b. Those patients who live in relevant postcode areas will be identified and assessed for suitability to receive their care at ELCH.
 - c. Assessment for suitability is conducted by a senior member of the nursing team in consultation with the patient's consultant.
8. Patient Groups
 - a. Haematology patients on a transfusion programme:
 - i. These patients will often have bone marrow failure from cancers such as leukaemia or myelodysplasia.
 - ii. The approach to transfusion is guided by symptoms but an up-to-date full blood count (FBC) is also required.

9. Decision to Transfuse

- a. The decision to transfuse is based on the patient's underlying clinical condition, pre-agreed transfusion thresholds, frequency of attendance and current full blood count result.

10. Pre-Transfusion Blood Sampling and Completion of Request Form

- a. All pre-transfusion samples for patients at ECC@ELCH must be taken at least 24 hours prior to the planned transfusion and sent to the WGH transfusion laboratory.
- b. The pre-transfusion sample may be taken by a member of the primary care team in the community or at WGH. Rejected samples that need to be repeated can be taken at ELCH if there is sufficient turnaround time to process the sample. If there is not sufficient turnaround time, the repeat sample will also need to be taken at WGH.

11. Transfusion Laboratory Liaison

- a. All red cells for transfusion at ECC@ELCH are supplied by the WGH transfusion laboratory. This laboratory must be contacted for information and advice (ext 31912).

12. Requesting Blood Components

- a. The written authorisation for the transfusion will be completed on the Transfusion Record 24 hours prior to the planned transfusion by a Ward 7 nurse blood authoriser or doctor.
- b. Ward 7 staff order crossmatches for the following day at ELCH. Red cells must be requested 24 hours in advance of the planned transfusion. When blood is requested from the transfusion laboratory by telephone, the staff member making the request must provide the patient's forename, surname, date of birth, CHI number and sex and ask that the details are repeated back to ensure safe patient identification.
- c. The completed Transfusion Record will be delivered to the WGH transfusion laboratory for transport with the red cells on the planned transfusion day.

13. Delivery and Receipt of Blood Components

- a. Red cells for transfusion at ECC@ELCH are delivered directly to the clinical area in validated transit boxes from the WGH transfusion laboratory.
- b. WGH transfusion laboratory package the red cell concentrate (RCC) for transport at approximately 07:00 on day of transfusion.
- c. 1 RCC is packaged per box using TRANS Control transport system - the RCC is placed in the TRANS Control element which is placed within an insulated neopor box (Mono box), the insulated box is placed in an outer cardboard box ready for transport.
- d. Each box is sealed with security strapping to ensure the box cannot be opened or tampered with. If the security strapping remains intact and the box unopened the RCC is kept at a suitable temperature for 20 hours.
- e. The outer cardboard box will have the patient's CHI and initials to allow identification of the contents inside.
- f. A plastic sleeve on the top of the cardboard box contains documentation of when the RCC was packaged at WGH transfusion laboratory.
- g. NHS driver collects the boxes at approximately 07:30. NHS driver is trained in the principles of Good Distribution Practice (GDP). If an NHS trained driver is unavailable

- a taxi may be used and the taxi driver will complete a GDP checklist prior to collection.
- h. Dispatch form signed by transfusion laboratory staff and NHS driver.
 - i. TRANS Control boxes, dispatch form and Transfusion Record will be delivered direct to ELCH arriving before 09:00.
 - j. Dispatch form signed by ELCH staff on arrival.
 - k. TRANS Control boxes stored in secure location only accessible to ELCH staff.
 - l. Immediately prior to transfusion cut security strap on outer box. Document time box opened and condition of TRANS Control box on the accompanying form contained within the plastic sleeve on top of the outer cardboard box.
 - m. Ensure transfusion of RCC is complete within 4 hours of opening the TRANS Control box.
 - n. Complete traceability tag (blue tag attached to the RCC) once transfusion has started.
 - o. Place all blue tags, dispatch form and documentation for opening boxes in one envelope and place in an empty TRANS Control box for return to WGH transfusion laboratory.
 - p. NHS driver will collect empty boxes at approximately 16:00 and return direct to WGH transfusion laboratory.
 - q. If RCC is no longer required, e.g. patient does not turn up for transfusion, then the RCC can be returned with the NHS driver at 16:00. Ensure the security tag is intact and inform WGH transfusion laboratory of the RCC being returned.
 - r. If RCC is no longer required, e.g. patient becomes unwell but the box has been opened, then the RCC must be marked as unsuitable for transfusion and returned to WGH transfusion laboratory with the NHS driver at 16:00.
 - s. Contact WGH transfusion laboratory on 0131 537 1912 with any queries relating to transport of RCC.

14. Practical Aspects of Transfusion

- a. As main NHS Lothian Transfusion Policy (see point 5a)

15. Component Administration

- a. Blood and blood components should only be administered by a registered practitioner as listed:
 - A Registered Medical Practitioner (this also includes provisionally registered FY1s)
 - A Registered Nurse of band 5 or higher
 - A Registered Operating Department Practitioner
- b. At ECC@ELCH the pre-administration checking procedure prior to transfusion must be conducted by two registered practitioners.
- c. Blood components should not be administered without a signed authorisation.
- d. The notes should contain:
 - i. A chart of the patient observations (NEWS chart).
 - ii. The transfusion plan, specifying clinical information and any need for special requirements, that will be documented in the patient's TRAK and/or Chemocare record.

16. Patient Monitoring and Follow Up

- a. As main NHS Lothian Transfusion Policy (see point 5a).
- b. The patient will be provided with a leaflet which includes the haematology triage number to be used in the event of the patient developing symptoms of a transfusion reaction following discharge from ECC@ELCH.

17. Adverse Reactions (including reporting)

- a. Whilst management of suspected blood transfusion reactions is outwith the scope of this procedure, staff are directed to the NHS Lothian Blood Transfusion Policy and Procedures (see point 5a). Additional materials include the Handbook of Transfusion Medicine, Learnbloodtransfusion (LBT) modules and the British Society for Haematology guideline on investigation and management of acute transfusion reactions.
- b. An important difference between the acute NHS Lothian sites and ECC@ELCH is that this is a nurse-led service with NO routine medical cover.
- c. **In any suspected transfusion reaction, the RCC should be stopped immediately** and the case escalated to the nurse in charge, patient observations should be taken and a NEWS score calculated.
- d. Escalation should be according to the escalation plan (see Appendix). The Medical Emergency Team can be contacted on extension **2222** if necessary, using clinical judgment.
- e. With the exception of febrile non-haemolytic transfusion reactions (NHFTTR) and mild allergic transfusion reactions (itch/rash only that resolves swiftly with treatment) all other events should be recorded in line with the NHS Lothian Adverse Event Policy by completing a Datix report. This will allow wider discussion at the WGH transfusion incident meeting, the NHS Lothian Transfusion Committee (as required) and the WGH Haematology Management Meeting.

Medical emergency

- Stop transfusion
- In the event of a medical emergency (e.g. anaphylaxis, cardiac arrest) staff at ECC@ELCH will put out a 2222 call and medical staff based at ELCH will respond

Simple non-haemolytic febrile transfusion reaction

- Stop transfusion
- Initial clinical assessment by nurse
- Patient Group Direction (PGD) (paracetamol for NHFTTR)
- If patient is clinically stable then wait 30 minutes from stopping transfusion and giving paracetamol. If patient remains febrile then contact WGH Ward 7 haematology specialty doctor (ext 31867 or 31886) or Ward 7 senior nurse (ext 33802) to determine whether to restart transfusion or discontinue (NB if Ward 7 doctor or senior nurse cannot be contacted, contact haematology registrar for advice (bleep 8226))

Mild allergic reaction

- Stop transfusion
- Initial clinical assessment by nurse
- PGD (chlorphenamine for mild allergic reaction)
- If patient is clinically stable then wait 30 minutes from stopping transfusion and giving chlorphenamine. If patient remains symptomatic then contact WGH Ward 7 haematology specialty doctor (ext 31867 or 31886) or Ward 7 senior nurse (ext 33802) to determine whether to restart transfusion or discontinue (NB if Ward 7 doctor or senior nurse cannot be contacted, contact haematology registrar for advice (bleep 8226))

NEWS >3 or a temperature increase of $\geq 2^{\circ}\text{C}$ from baseline

- Stop transfusion
- Initial clinical assessment by nurse
- Contact WGH Ward 7 haematology specialty doctor (ext 31867 or 31886) or Ward 7 senior nurse (ext 33802) (NB if Ward 7 doctor or senior nurse cannot be contacted, contact haematology registrar for advice (bleep 8226)) for further advice – support from ELCH medical staff may be requested pending transfer to Cancer Assessment Unit (CAU) at WGH
- Transfer to CAU

Appendix

Escalation of clinical concern (including serious transfusion reactions) regarding patients attending ECC@ELCH

Nurse at ELCH is concerned about patient  **EMERGENCY CALL 2222**



Contact **ELCH Advanced Nurse Practitioner (ANP)** on **BLEEP 7452**. If no answer and urgent review required then contact **ELCH Specialty Doctor** on **BLEEP 7032**

If ELCH ANP or Specialty Doctor requires further advice once patient has been reviewed



Contact **WGH Ward 7 Haematology Specialty Doctor** on extension 31867 or 31886

If unable to contact Specialty Doctor, bleep **Haematology Registrar at WGH BLEEP 8226**



Ward 7 Specialty Doctor/Haematology Registrar advise over phone:

Potential Outcomes:

- a) Patient can be managed locally at ELCH
- b) Non - emergency but patient requires hospital intervention: transfer to WGH
- c) Emergency: transfer to RIE Emergency Department (ED)