

Emergency Blood Transfusion in the Emergency Department - Full Clinical Guideline

Reference no.: CG-EMD/2023/011

Introduction

Bleeding, either due to trauma or other causes (e.g. ruptured AAA, GI bleed), is a common presentation to the emergency department (ED). If a patient is haemodynamically unstable secondary to significant blood loss or has ongoing bleeding then they are best resuscitated with blood and blood products rather than other intravenous fluids. Type-specific blood can be available within 15 minutes from the time a crossmatch blood sample is received in the lab; if blood is required sooner, Emergency group O blood can be collected immediately.

Additionally, patients are often pre-alerted to the emergency department by the ambulance service and therefore there is a period of time in which to prepare for their arrival. If the patient is shocked with active bleeding as the likely cause then it is appropriate to have two units of emergency blood waiting on their arrival for immediate transfusion following initial assessment (if required).

Historically O negative blood has been used in all situations for emergency transfusion in the absence of a current crossmatch. Latest guidance advises use of O positive blood in males ≥ 18 and females ≥ 50 . Blood Bank will issue the correct blood given the information available; if age is not known then O negative blood will be issued. If collecting emergency blood from the fridge without Blood Bank input then collect O negative.

Aim and Purpose

This guidance standardises the processes required for the collection of emergency blood for use in the ED. It can be used either in advance of patient arrival in the ED or following patient assessment.

Obtaining emergency blood in advance of patient arrival

The patient should fulfil the following criteria (assessed from the pre-alert information) before emergency blood is brought to the department in advance of their arrival:

- Injury mechanism suggestive of major trauma or history suggestive of uncontrolled bleeding with haemodynamic instability

OR

- Cardiac arrest with suspected haemorrhagic cause

Clinical discretion may be used in applying these parameters.

Emergency blood can be transfused following patient assessment and discussion with a middle grade or consultant.

If obtaining emergency blood IN ADVANCE of patient arrival:

1. Contact the emergency blood phone (**07384 914100**) and provide what patient demographic details are known (e.g. age, gender). Any member of staff can then attend Blood Bank (**NOT** the fridge) and pick up a prepared box of 2 units of emergency blood immediately; this member of staff does not need to be trained to collect blood.
2. If not able to contact the emergency blood phone, a member of staff (who has been trained to collect blood and has electronic access to the fridge room) can obtain two units of O negative blood from the Blood Bank fridge on level 5 at any time. They do not need any patient details to do this; enter "Unknown Unknown" Male or Female and the destination as "ED" on the collection form in the fridge.
3. Assistance can be accessed 24/7 either in the blood bank laboratory or at the specimen reception counter.
4. Blood should be transported in a designated transport box, giving the ED team 2 hours in which to either use it or return it to the Blood Bank laboratory. Packing of the transport box is facilitated by trained Blood Bank laboratory staff.
5. In a dire emergency blood can be carried by hand; in this circumstance it **must** be used or returned to Blood Bank within 30 minutes.
6. Ensure the blue tear off tag is returned to Blood Bank to facilitate traceability of blood components when administration has commenced. Include patient details (once known) on this form.

Considerations

Clinical

- A blood sample for cross match should be taken *prior* to transfusing any blood component unless this is impossible due to patient condition.
- If giving emergency blood, consider whether the Major Haemorrhage Protocol (MHP) should be activated. All suspected AAA emergencies should activate the MHP protocol.
- Consider tranexamic acid, particularly in traumatic haemorrhage - see local guideline.
- Ensure early involvement of senior ED staff in all bleeding patients requiring transfusion.

Process

- **ALL** samples for urgent cross match should be hand delivered to pathology reception – the chute system is unreliable.
- Emergency blood collection sheet is located with the units of blood in level 5 satellite blood fridge and should be completed when removing emergency blood for transfusion.
- Access to the satellite blood fridge on level 5 is by swipe card / security badge access. Ensure person collecting units has access to the blood fridge.
- Always inform Blood Bank at the earliest opportunity if removing emergency blood from the Blood Bank fridge. They need to replenish the stocks immediately. They may also be able to assist in the management of your patient.
- Ensure the patient's hospital number and other demographic details are completed on the blue tear off tag and returned to Blood Bank.

University Hospitals of Derby and Burton NHS Foundation Trust

FLYING SQUAD UNIT

Surname: _____ Forename: _____
Hospital Number: _____ DOB: _____
NHS Number: _____
Location: _____
Unit number: G095623245632Z (2) Group: ONEG
Component: REDCELL

Peel off the label and place in the patients Medical Records

FLYING SQUAD UNIT
Unit Number: G095623245632Z (2) ONEG
REDCELL
Checked By: _____ Date & Time: _____
Transfused by: _____ Date & Time: _____

It is a Legal Requirement that the Section below MUST be returned to Blood Bank once the transfusion is started.

Surname: _____ Forename: _____
DOB: _____
Hosp. No.: _____
Lab. No.: _____
Unit No.: G095623245632Z (2) Group: ONEG
 Component: REDCELL
Date Given: _____ Time Given: _____
I confirm that the above patient received this blood component.
Sign & Print Name: _____

Label to be filled in and attached to Prescription form

Staff to enter the receiving patient details on the blue slip- name or Unknown Male/Female, hospital number and date of birth and return to Blood Bank ASAP.

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