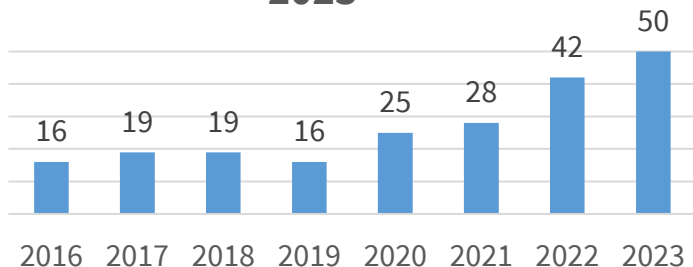


The number of reports of transfusion delays with patient harm, including in major haemorrhage (MH), are increasing every year (Figure 1). Common themes include poor communication, gaps in knowledge and failure to activate or follow the major haemorrhage protocol (MHP) correctly.

Figure 1: MHP Delays 2016-2023



215 MHP related delays reported from 2016-2023. Of these, 22 resulted in patient death and 20 in major morbidity

Between 2016-2023, delays were reported in 52 obstetric and 12 paediatric cases

Poor communication is a leading cause of transfusion delays

Contributing factors



Recognition and unfamiliarity

Difficulty in detecting MH, particularly in gastrointestinal bleeding or leaking abdominal aortic aneurysms. Staff experience in managing MH may be limited where it occurs only rarely. Anticoagulants exacerbate the severity of bleeding. Obstetric haemorrhage can be rapid and massive



MHP activation

Delays in activation, incorrect activation and lack of knowledge of MHP activation are all contributing factors to delays



Patient movement and location

Patients transferring between clinical areas can result in delays when there is poor communication between staff about the patient's location. This impacts on delivery of samples to and components from the laboratory



Laboratory delays

Correctly labelled samples ensure that laboratory staff can release group-specific or crossmatched components for delivery to the clinical area - mislabelled samples will slow this process



Venous access

Blood transfusion can be delayed by poor or inadequate venous access



Stand down

Poor communication between clinical area and laboratory teams during stand down can delay other laboratory work which might have been put on hold

Further information can be found by accessing:

[Avoidable, Delay and Under or Overtransfusion \(ADU\) Cumulative Data](#)
[Preventing transfusion delays in bleeding and critically anaemic patients](#)

Key factors to prevent transfusion delays in MHP

Clear, effective and timely communication

Good communication between clinical and laboratory staff is essential. A haematologist should be contacted at the earliest opportunity for advice about patients with irregular antibodies

Laboratories must have processes for concessionary release

MHP need to be simple, accessible and easy to follow

Review MHP regularly. Staff should be familiar with local protocols and escalation procedures

Drills and debriefs

Perform regular drills to ensure staff are familiar with local procedures: these should be multidisciplinary and include equipment testing. Perform a debrief after every MHP activation

Transfusion support

MH packs contain red cells and FFP. Red cells should be quickly available; FFP and cryoprecipitate take time to thaw. Platelets may have to be sourced off site. While investigations will help inform the transfusion support, transfusions must not be delayed while waiting for blood results

Use of Group O red cells in emergencies

Group O red cells are available immediate emergency use – ensure staff know location and how to access. Group O D-positive red cells may be used in adult males and women >50 years old who are D-negative or whose D status is unknown

Transfusion support: red cells

Crossmatched blood may take 30-40 mins and group-specific red cells 15 mins. When clinical circumstances do not allow time for determination of the patient's ABO group give emergency group O red cells. As soon as the patient's ABO/D is established, supply and administer group-specific or crossmatched red cells

Transfusion support in the presence of red cell antibodies – concessionary release

ABO/D, Rh & K matched red cells may be given to patients with irregular antibodies. Consider with haematologist advice the need for steroids +/- IVIg and monitoring (including urine output) for delayed haemolytic transfusion reactions

Transfusion support- platelets and plasma components

Platelets of a different ABO group, negative for high titre (HT) agglutinins may be given. D-negative platelets should be used for females <50 years of age with unknown blood group. Change from group AB FFP to HT negative group A FFP in unknown patients with MH. Seek advice from a haematologist to avoid delays

Accurate documentation and traceability – legal requirement

Full traceability requires accurate documentation of the reason for all transfused blood components

Correct patient identification is essential

Extra care must be taken to avoid patient identification errors when patients are unconscious, confused or cannot communicate

[Further information can be found by accessing:](#)

[Avoidable, Delayed or Under/ Overtransfusion webinar \(ADU\)](#)

[Delayed transfusions in major haemorrhage](#)