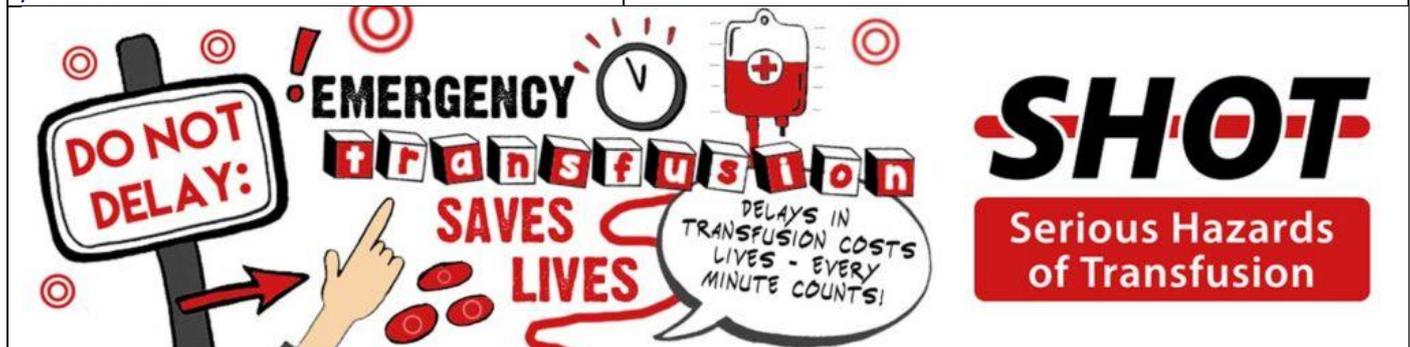


Major haemorrhage Simulation Toolkit

Supporting compliance with the SHOT Transfusion Safety Standards and improving patient safety

The **SHOT Major Haemorrhage (MH) Simulation Toolkit** supports healthcare teams in improving readiness, teamwork, and system reliability during major haemorrhage. It also helps organisations demonstrate compliance with key **SHOT Transfusion Safety Standards**.

Standard 1: Transfusion Safety	
<p><u>Requirement/criterion 1.5.4 Risk controls and safety measures:</u> Ensuring timely provision of blood components and optimising transfusion support for patients with major haemorrhage or severe, symptomatic anaemia according to national guidelines.</p>	<p>How the toolkit helps:</p> <ul style="list-style-type: none"> • Provides realistic MH simulation scenarios that test rapid blood component provision workflows • Identifies delays, communication barriers, or workflow gaps affecting transfusion turnaround • Supports teams in practising national guideline-aligned MH processes • Strengthens coordination between clinical teams and the transfusion laboratory staff
<p><u>Requirement/criterion 1.5.5 Risk controls and safety measures:</u> Ensuring a massive haemorrhage protocol is in place, which should be regularly reviewed and practiced. Staff must receive appropriate training to follow this protocol.</p>	<p>How the toolkit helps:</p> <ul style="list-style-type: none"> • Offers guidance on planning, delivering, and debriefing MH simulations • Enables routine testing of Massive Haemorrhage Protocols (MHPs) in real clinical environments • Helps demonstrate evidence of regular practice, protocol testing, and staff competence • Encourages multidisciplinary participation (clinical, laboratory, support staff)
<p><u>Requirement/criterion 1.5.6 Risk controls and safety measures:</u> Establishing clearly documented procedures for concessionary release especially in urgent clinical situations where transfusion specific requirements cannot be met. This ensures timely provision of the most suitable ABO-compatible blood components, particularly for patients with clinically significant red cell alloantibodies or other specific requirements. Laboratory staff are trained and competency-assessed in these procedures.</p>	<p>How the toolkit helps:</p> <ul style="list-style-type: none"> • Simulation exercises include urgent transfusion scenarios that require consideration of concessionary release • Supports competency assessment for laboratory staff in urgent decision-making • Helps teams practise communication pathways for patients with alloantibodies or specific requirements • Identifies system or documentation gaps before real-world emergencies occur



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Requirement/criterion 1.5.7 Risk controls and safety measures:

Ensure policies and **procedures** are in place and **staff adequately trained for timely provision of prothrombin complex concentrate (PCC) (or equivalent)**, which is critical for rapid anticoagulant reversal in life-, limb-, or sight-threatening bleeds.

How the toolkit helps:

- Includes MH scenario template that can be used to cover a scenario involving a bleeding patient requiring urgent anticoagulant reversal which will support:
 - Testing systems for requesting, approving, preparing, and delivering PCC rapidly
 - Allows clinicians, pharmacy, and laboratory teams to practise time-critical coordination.
 - Helps ensure policies, staffing, and storage arrangements are fit for purpose

Standard 4: Staff education and training

Requirement/criterion 4.2 Induction and ongoing training:

Induction and ongoing training must be provided, regularly reviewed, and aligned with current national recommendations. Training must cover both technical and non-technical skills.

How the toolkit helps:

- Provides structured MH simulation templates for induction and ongoing training
- Reinforces technical skills (sample handling, communication with transfusion lab, packaging and transport of blood components)
- Helps develop critical non-technical skills: teamwork, situational awareness, escalation, human factors
- Supports compliance with CPD, competency assessment, and workforce development frameworks
- Ensures training aligns with national patient safety recommendations



The SHOT MH Simulation Toolkit helps organisations to:

- Strengthen clinical-laboratory teamwork
- Test whole-system MH response
- Identify safety risks before they cause harm
- Provide evidence of compliance with some of the SHOT Transfusion Safety Standards
- Improve patient outcomes through better preparedness