NHS
National Patient Safety Agency

Rapid Response Report

NPSA/2010/RRR017

From reporting to learning

21 October 2010

The transfusion of blood and blood components in an emergency

Issue

The urgent provision of blood for life threatening haemorrhages requires a rapid, focused approach as excessive blood loss can jeopardise the survival of patients. Early recognition of major blood loss and immediate effective interventions are vital to avoid hypovolaemic shock and its consequences. One such action is the rapid provision of blood and blood components, for which effective communication between all personnel involved in the provision and transportation of blood is key.

Evidence of harm

During the period October 2006 to September 2010, the National Patient Safety Agency (NPSA) received reports of 11 deaths and 83 incidents in which a patient was harmed as a result of delays in the provision of blood in an acute situation.

Reducing the risk of harm

This Rapid Response Report (RRR) is intended to focus the attention of hospitals on the systems in place and the human factors that impact on the efficient provision of blood in emergencies. Other guidance available that should be considered alongside this RRR includes guidance issued by the British Committee for Standards in Haematology (2006); the recommendations of the Confidential Enquiries into Maternal and Child Health (CEMACH) (2007) for a protocol for the management of massive obstetric haemorrhage; and the Royal College of Obstetricians and Gynaecologists guidance *Blood transfusion in obstetrics* (2008).

For IMMEDIATE ACTION by the NHS and independent (acute) sector. Actions should be led by an executive director nominated by the Chief Executive, working with the Chair of the Hospital Transfusion Committee. Deadline for ACTION COMPLETE is 26 April 2011.

Local organisations should ensure that:

1. The hospital transfusion committee reviews the local protocols and practices for requesting and obtaining blood in an emergency (including out of hours), ensuring that they include all the actions required by clinical teams, laboratories and support services, e.g. portering and transport staff/drivers and any specific actions pertinent to sites without an on-site transfusion laboratory.
2. Local protocols enable the release of blood and blood components without the initial approval of a haematologist although they should be advised of the situation at the earliest opportunity.
3. Staff (clinical, laboratory and support staff) know where to find the massive blood loss protocol in all relevant clinical and laboratory areas and are familiar with it, supported by training and regular drills.
4. The blood transfusion laboratory staff are informed of patients with a massive haemorrhage at the earliest opportunity.
5. Clinical teams dealing with patients with massive haemorrhage nominate a specific member of the team to co-ordinate communication with the laboratory staff and support services for the duration of the incident.
6. There is a clear and well understood trigger phrase to activate the massive blood loss protocol, for example *"I want to trigger the massive blood loss protocol [*and state location e.g. *delivery suite]"* and all subsequent communications between clinical areas and laboratory staff should be preceded by the use of a locally agreed trigger phrase such as *"This call relates to the massive blood loss protocol [and location]".*
7. All incidents where there are delays or problems in the provision of blood in an emergency are reported and investigated locally, and reported to the NPSA and the Serious Hazards of Transfusion (SHOT) scheme (www.shotuk.org).
8. Each event triggering the massive blood loss protocol is recorded and reviewed by the hospital transfusion committee to ensure local protocols are applied appropriately and effectively.

Supporting information on this RRR is available at www.nrls.npsa.nhs.uk/alerts. Further queries should be directed to rrr@npsa.nhs.uk; telephone 020 7927 9890.

The NPSA has informed NHS organisations, the independent sector, commissioners, regulators and relevant professional bodies in England and Wales.

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