Health professionals need to be aware of the importance of patient identification when taking blood samples to reduce adverse events

Patient identification in blood sampling

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Abstract
Davidson A, Bolton-Maggs P (2014) Patient identification in blood sampling. Nursing Times; 110; 11: 16-17. The majority of adverse reports relating to blood transfusions result from human error, including misidentification of patients and incorrect labelling of samples. This article outlines best practice in blood sampling for transfusion (but is recommended for all pathology samples) and the role of patient empowerment in improving safety.

Although blood and blood component transfusion is a safe procedure in the UK, the potential consequences of error include death and major morbidity. Both the Serious Hazards of Transfusion (SHOT) haemovigilance scheme and the Medicines and Healthcare products Regulatory Agency (MHRA) state that the majority of adverse events reported to them result from human error, with over 7,000 reported incidents classified as preventable and approximately 1,400 possibly or probably preventable, compared with approximately 3,000 considered to be pathological reactions that may not have been preventable (Bolton-Maggs et al, 2013; Langham, 2013).

Patient identification and blood sampling

National guidelines
Positive patient identification is essential in all aspects of care, but failure to accurately identify patients during blood sampling can lead to a fatal ABO-incompatible transfusion (Bolton-Maggs et al, 2013; British Committee for Standards in Haematology, 2009). The Department of Health (2012) classifies death or severe harm as a result of an ABO-incompatible transfusion as a “never event”. For example, if a patient with blood group O received group A red cells, the patient’s immune system (with anti-A antibodies) would attack the group A red cells, which could result in haemolysis. This, in turn, could lead to shock, disseminated intravascular coagulation, renal failure or death – even if only a few millilitres were transfused (Tinegate et al, 2012).

“Wrong blood in tube” is used to describe a sample labelled with the wrong patient’s details. However, the misspelling of patients’ names or illegible writing on the sample tube or request form can also lead to patients receiving incompatible blood.

The severity of this risk led the National Patient Safety Agency (2006) and NHS Quality Improvement Scotland (2006) to stipulate that pre-transfusion blood sampling must only be undertaken by staff who have been trained and competency assessed against specified standards. SHOT – the UK’s haemovigilance scheme – also recommends that laboratories adopt a zero-tolerance approach to all samples that do not meet minimum labelling requirements (Bolton-Maggs et al, 2013), which include the patient core identifiers outlined in Box 1.

It is also recommended that the date and time of sampling and the identity of the person taking the sample should be included on the tube and request form. Pre-printed (addressograph) labels are not acceptable on tubes; tube labels should be completed by hand in ballpoint pen, unless “on demand” labels are available and printed only at the bedside (BCSH, 2009).

In this article...

Guidance on patient identification before transfusion sampling
Best practice in taking blood samples
Empowering patients to ensure they are correctly identified

5 key points

1. The Department of Health classifies death or severe harm as a result of an ABO-incompatible transfusion as a “never event”.
2. Pre-transfusion blood sampling must be undertaken by staff who are appropriately trained and competent.
3. Laboratories should have a zero-tolerance policy to samples that do not meet minimum labelling requirements.
4. Health professionals should use open questions when asking patients to state their identity.
5. Patients should be encouraged to ask health professionals “Do you know who I am?”

Many errors occur as a result of incorrect labelling of blood samples.
Patient identification

Before a blood sample is obtained, the patient’s identity must be positively checked and confirmed to ensure patient safety. Box 2 highlights the key steps in positive patient identification.

All inpatients must wear a patient identification band (or risk-assessed equivalent), which the NPSA (2007) has stipulated should display only the patient core identifiers. It is recommended these bands are printed directly from the organisation’s patient administration system.

Health professionals must ensure that, when asking patients to state their identity, they use open questions and require patients to state their full name without prompting. Patients are often keen to be helpful and answer “yes” without paying full attention, may not be aware of another patient with the same or similar name or may be hard of hearing.

Bedside electronic identification systems using barcode or radiofrequency identification are available in some healthcare facilities, offering improved security and safety by removing elements of potential human error from the process.

In outpatient departments or in the community, patients may not be wearing an identification band. In such cases, patients (or parents/carers) must be asked to state their full name and date of birth, and the details compared with the request form.

The sampling process

The process of collecting and labelling the blood sample must be a continuous uninterrupted event at the patient’s bed(see), with samples labelled immediately by the individual who took the sample.

In response to the potential risk of “wrong blood in tube” events, it is now recommended that a second sample is obtained to confirm the patient’s blood group (BCSH, 2013). These samples must be taken on two separate occasions; if there are discrepancies between these results, further samples will be required. Once the patient’s blood group has been recorded on the pathology system, only one sample will be required for future transfusions.

Samples used for compatibility testing need to represent the patient’s current immune status and are therefore valid for seven days only. Patients who have been transfused or pregnant within the previous three months have a higher risk of developing antibodies, so their samples are only valid for up to three days in advance of the actual transfusion (Box 3).

Patient empowerment

Patient involvement and empowerment are powerful tools in promoting patient safety. As such, NHS Blood and Transplant and SHOT promote a back-to-basics approach, in which patients are encouraged to ask health professionals “Do you know who I am?” Resources for the campaign are available at: tinyurl.com/transfusion-patient.

Patients (or their parents/carers) should also understand what the blood samples are being taken for and, as with all interventions, their consent should be obtained. Valid consent can be defined as: “an ongoing agreement by a person to receive treatment, undergo procedures or participate in research after the risks, benefits and alternatives have been adequately explained to them” (DH, 2009).

The Nursing and Midwifery Council (2010) states that nurses have a responsibility “to make the care of people their first concern and ensure they gain consent before they begin any treatment or care”.

Summary

Staff involved in any stage of the transfusion process must accept responsibility and accountability for the care of the patient, even if they are not actually authorising or administering the transfusion. To ensure the safety of their patients, health professionals should adhere to the key points in Box 3 when taking blood samples for transfusion.

Although the guidelines to which we have referred focus on blood sampling for blood transfusion, the recommendations for practice are transferable to all types of blood sampling. The National Institute for Health and Care Excellence is developing further guidance on all aspects of transfusion.

References


