

## **Tag and label system for bedside checking of blood transfusion**

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One of the critical points in the transfusion process is the bedside check prior to administration. If done properly the checks should be completely safe. Despite this errors continue to occur as documented by SHOT. We and others have observed errors occurring as a result of checking between documentation and the blood pack carried out away from the patients bedside. In addition the vital check, between the patient identity and the blood compatibility *label*, may be carried out sloppily or not at all if it is thought that other checks have already been done. Increasing the rigour and complexity of the checks is one way to try and prevent this. We believe this is likely to be counter-productive and have opted for the opposite, simplification.

The compatibility *form* carries no information that is not already present on the compatibility *label*. We have simplified the procedure by dispensing with the compatibility form. This concentrates attention on the bedside check, between labelled blood and the patient. To ensure documentation of the transfusion of the notes we introduced a new style of compatibility *label*, now known as the *Tracesafe*<sup>™</sup> *tag*. This *tag* is attached to the blood bag and includes a peel off label for documentation of that transfusion within the patient's notes.

We have shown a high level of acceptance by nursing staff who prefer this to the previous procedure. In addition we have shown a high level of documentation of transfusion within the notes, which is better than our own historical evidence and of other published evidence within the UK<sup>1</sup>. We have transfused >200,000 units of blood components using this system without a recognised ABO mismatched transfusion occurring. The system or a variation of it is now in use in 12 trusts in the UK.

### **'Tag & Label' with barcodes**

We have further developed the Tags to allow barcode checking of transfusion at the bedside. Requirements are:

- 1) Bar coded wristband on the patient
- 2) Bar code of the blood donation number and of the patient hospital number on the '*Trace safe*' blood tag.
- 3) 'TransCheck' combined barcode reader and label printer.

A *single* nurse takes the blood component to the patient's bedside. They insert the *Trace safe*<sup>™</sup> tag into the bar code checker. They are prompted, in order, to read the bar codes on 1) their identity badge, 2) the patient wristband and 3) the *Trace safe*<sup>™</sup> tag.

If the hospital number on the patient wrist band and the hospital number on the tag agree, the peel off label which is pre-printed with the donation number is further printed with:

- Staff identity number
- Date and time
- Patient hospital number
- 'Test passed' message

A verbal/visual check is then made with the patient. Transfusion is commenced and the peel off label is removed from the tag and adhered in the notes according to hospital protocol.

Additional safety features:

- 1) Bar coded hospital numbers are printed with a prefix 'W' on wristbands and 'B' on compatibility labels. The barcode reader will only accept labels with these prefixes

- during the specified test so preventing use of other barcodes that might exist for the patient.
- 2) A similar device is used in the laboratory to verify and document that the donation number on the blood bag and compatibility label are the same.

#### Advantages of this system

- 1) Lightweight and portable
- 2) Only one trained person is required. This saves nursing time.
- 3) Full documentation in the paper notes
- 4) The device is independent of other systems or networks

The device has undergone preliminary trials on a haematology day ward and has proved easy to use and very acceptable to the nurses.

**1. 'Tag and Label' System for checking and recording of Blood Transfusions,**  
*Transfusion Medicine*: 2003, Vol 13, P197-204. S Whitehead, S Kenny-Siddique, Y Scott, PI Parker, J Hardy and JP Wallis