14. NEAR MISS PILOT SCHEME

Definition
Any error which, if undetected, could result in a wrong blood group, or issue of an incorrect or inappropriate component, but which was recognised before transfusion occurred

The types and frequency of errors causing transfusion of the incorrect or inappropriate blood or components are now becoming clearer. Underlying these problems however, are errors, potentially serious if undetected, which are recognised during the checking and validation procedures built into each stage of the transfusion process at various stages.

Awareness and recognition of these detected errors ('near miss' events) could provide useful information to enable modification of procedures and testing protocols, thereby reducing the potential problem areas which contribute to an incorrect transfusion.

A small pilot scheme for 'near miss' events has been trialled by 4 hospitals over an 8 month period, and will be extended during the next year to cover approximately 20 volunteer hospitals. It is intended to run this extended scheme for a period of 6 months to assess the magnitude of problems and obtain a more comprehensive survey of where these arise.

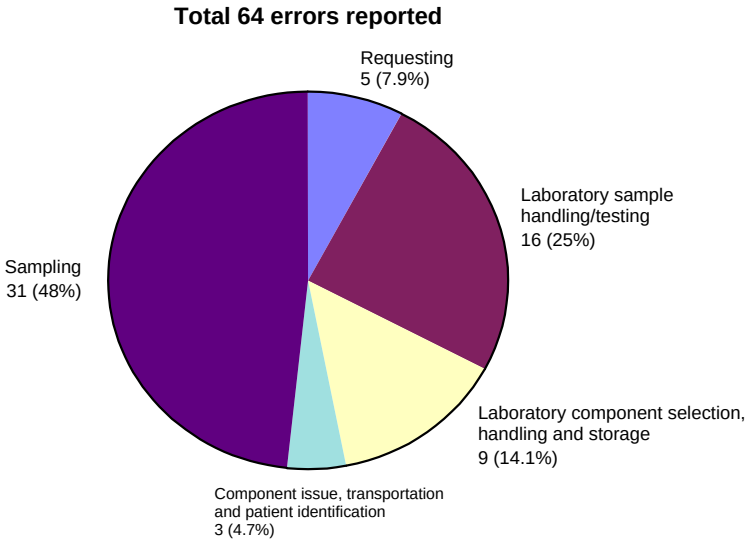
As it was anticipated that the frequency of 'near misses' would be several times higher than the frequency of adverse events reported to SHOT, it was felt that a very brief and straightforward reporting system was essential to encourage compliance. A series of 5 forms (see Appendix 6), has been drawn up, each form covering a particular area of activity. The details are entered by ticking appropriate sections on the relevant form, with minimal text entry required, and the completed form is then returned to the SHOT Office for retrospective collation and analysis. No further documentation is involved.

The 5 activity areas covered on the Near Miss report forms are:

1. Sample errors
2. Request errors
3. Laboratory sample handling/testing errors
4. Laboratory component selection, handling and storage errors
5. Component issue, transportation and patient identification errors

The results from the initial pilot scheme are reported below.

Figure 15
Overview of site of 'near miss' errors.



Sample errors

31 sample errors were reported

- 15 incidents occurred where the sample tube was labelled for the intended patient but where the blood had been taken from someone else.
- On 13 occasions the correct patient was bled but another patient's details put on the sample label. It is not known if addressograph labels were implicated. This question will be included on the form in future.
- 16 phlebotomy errors were stated to involve a doctor, 9 involved nursing staff and 4 involved phlebotomists. The staff involved in the other 2 incidents were not stated.
- 23/31 errors occurred during routine laboratory hours.
- 29/31 errors were detected within the laboratory, usually by comparison with previous computer records of the patient involved.

Sample errors accounted for 31/64 (48%) of total errors notified. These are of serious concern as they are likely to represent the tip of the iceberg, in that incorrect samples from patients with the same blood group, or samples from patients not previously tested, will not be detected.

Request errors

- 3/5 resulted from lack of clarity of telephone requests to the laboratory. One case involved incorrect patient selection from a pick list on the ward terminal of the hospital computerised information system.

Laboratory sample handling/testing errors

- 9/16 reports recorded errors in RhD typing of the patient, both false positive and false negative. Two of these same errors also led to an incorrect ABO group result. The causes of these errors were not clear.
- On 5 occasions an incorrect sample was used for testing.
- In 1 case a unit of blood, found to be incompatible, was incorrectly issued for use
- 11/16 errors occurred during routine working hours.

Laboratory component selection, handling and storage errors

Nine errors were recorded in this group

- In 2/9 reports, selected blood units by the Blood Centre were incorrectly phenotyped. In one instance a K+ unit was supplied in error, and in the other the luggage labels attached to the bags and bearing phenotype information were transposed on 2 units.
- 1 out of date unit of FFP was issued in error but detected by the ward checking procedures.
- 1 error occurred where component labels were attached to the wrong bags.
- On 2 occasions random donations were issued instead of CMV seronegative components.
- On 3 occasions blood was stored incorrectly in a remote refrigerator but the error was recognised before transfusion. The fact that blood had been removed from a remote refrigerator and returned after an excessive period of time was recognised by the MLSO in 2 of the cases, whilst in the other case blood had been stored in a ward refrigerator not suitable for blood storage.
- 6/9 errors occurred during normal laboratory working hours.

Component issue, transportation and patient identification errors

- Only 3 problems were recognised in this area despite this being a significant cause of errors in the 1996-97 SHOT report.
- All errors reported were due to collection of a component for a wrong patient; on one occasion the identical error was repeated with a second unit for the same patient
- Porters were stated to have collected components from a laboratory blood bank on 2 of the occasions.
- All the problems occurred out of routine laboratory hours and involved collections from the main blood bank refrigerator.

Summary

- These reports are from a very small number of selected hospitals and may therefore not be representative of a larger survey.
- A disturbing number of phlebotomy errors were detected. This is a potentially serious problem as it is known that in approximately 50% of cases there will be no historical record to compare, or by coincidence, an identical ABO and RhD grouping result will be obtained.
- A significant proportion of laboratory errors resulted in an incorrect RhD group.
- Only 3 errors of collection from the laboratory were noted, despite this being a significant cause of mis-transfusion in the first SHOT report. It must be appreciated that only 4 hospitals were studied and by chance these sites may have had less opportunity for this type of error.
- A larger selection of hospitals of various sizes and special interests, will be included in the proposed next stage of the ‘near miss’ study, in order to try to obtain a more representative picture.