Right Blood Right Patient (RBRP) n=264 13

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Definition:

Incidents where a patient was transfused correctly despite one or more serious errors that in other circumstances might have led to an incorrect blood component transfused (IBCT).

Abbreviations used in this chapter

BSH	British Society for Haematology	**IT**	Information technology
CAS	Central alerting system	**LIMS**	Laboratory information management systems
DOB	Date of birth	**NHS**	National Health Service
HSE	Handling and storage error	**RBRP**	Right blood right patient
IBCT	Incorrect blood component transfused	**PID**	Patient identification

Key SHOT messages

- Most RBRP transfused errors originated in the clinical area, 193/264 (73.1%)
- Conversely, most near miss RBRP errors were laboratory errors, 94/118 (79.7%)
- More than half the RBRP errors involved incorrect patient demographic details being used, 143/264 (54.2%)
- Data suggests that pre-administration checks are not always being carried out effectively, as 172/264 (65.2%) of transfused RBRP cases stated that a checklist had been used but the error was not identified
- Of the 118 near miss cases, 98/118 (83.1%) were detected during collection of the blood component, or at the pre-administration checks
- Almost all the laboratory errors could have been prevented by using a laboratory exit check, 70/71 (98.6%), highlighting the importance of safety checks at critical steps in the transfusion pathway

Recommendation

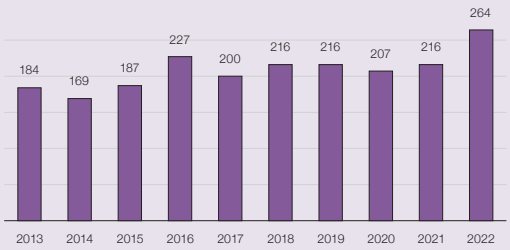
- The key SHOT recommendations from 2021 remain pertinent: importance of PID, laboratory exit checks, collection checks and pre-administration checklist (Narayan et al. 2022)

Action: All staff in transfusion

Headline data 2022

Number of reports n=264
Deaths n=0
Major morbidity n=0

RBRP reports by year



Demographic data

Male n=131
Female n=123
Unknown n=10

Adults n=228
Paediatric n=20
Unknown n=16

Blood component data

Red cells n=203
Platelets n=20
Plasma n=15
Multiple components n=25
Other n=1

Introduction

There were 264 cases reported in 2022, an increase of 48 cases from 2021 (n=216). Clinical errors accounted for 193/264 (73.1%), laboratory errors for 71/264 (26.9%). Clinical errors decreased from 76.3% in 2021 and laboratory errors increased from 23.7%.

Deaths related to transfusion n=0

There were no deaths related to the transfusion as a result of RBRP errors.

Major morbidity n=0

No patient suffered major morbidity as a result of RBRP errors.

Overview of RBRP errors

The majority of laboratory reports were due to component labelling (37/71) and errors with patient demographic details (30/71). Of these labelling errors 25/37 were due to transposed labels between units. Sample receipt and registration errors accounted for 25/71 laboratory reports, with 11 demographic data entry errors and 10 cases where available information was not heeded. Review of all laboratory errors found that most, 70/71 (98.6%), could have been detected by using a laboratory exit check such as PAUSE, which was introduced in the 2021 Annual SHOT Report (Narayan et al. 2022).

The majority of clinical RBRP reports were due to PID errors at sample taking, 69/193 (35.8%), with 40/193 errors at administration including 14 patients who were transfused without a wristband. In 41/193 cases the primary error was in the prescription.

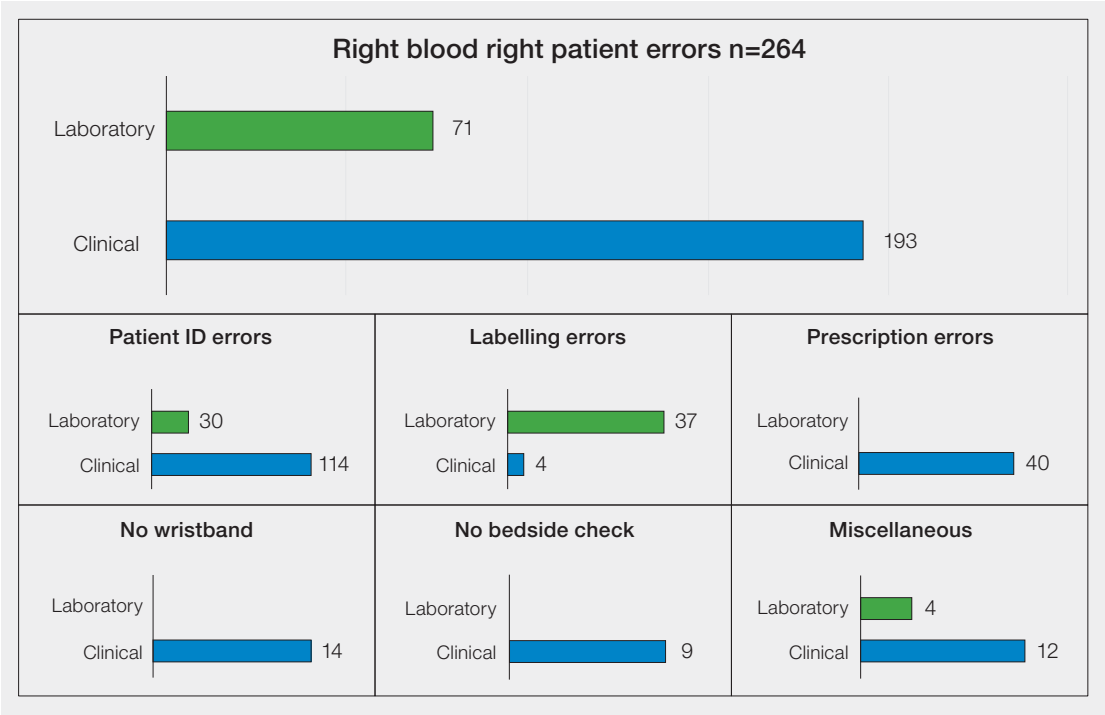


Figure 13.1: Breakdown of 2022 RBRP reports (n=264)

Most errors occurred at sampling 69/264 (26.1%) followed by component labelling, availability and HSE 43/264 (16.3%) with administration errors accounting for 40/264 (15.2%) (Figure 13.2).

Errors where the primary error was related to prescription, have increased from 20/216 (9.3%) in 2021 to 41/264 (15.5%) in 2022. Of the 40 cases with administration errors, 3 involved cases where blood components were not administered in the order in which they were prescribed for the patient.

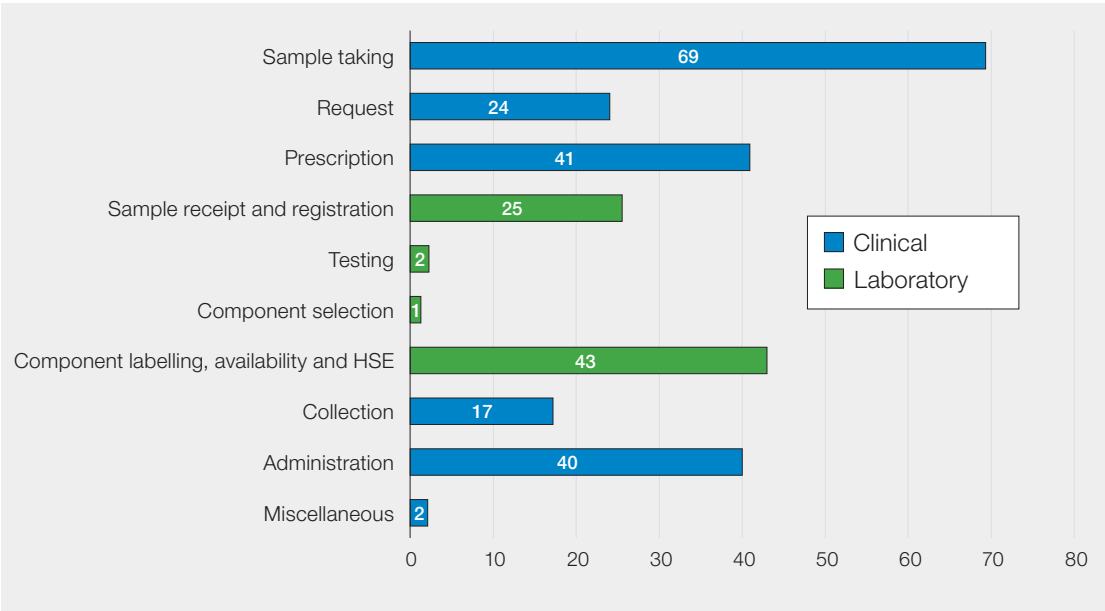


Figure 13.2: RBRP classified by the stage when the primary error occurred in 2022 (n=264)

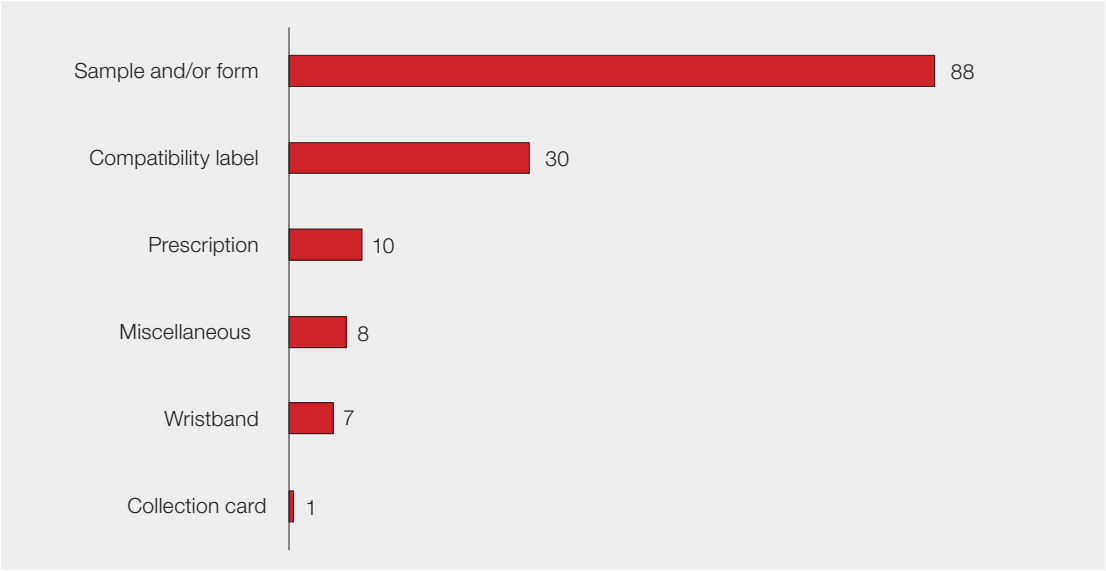
HSE=handling and storage errors

PID errors n=144

PID errors accounted for 144/264 (54.5%) of all RBRP errors, these are errors with patient demographic details either at the clinical or laboratory end. PID errors occurred throughout all stages of the transfusion process, with 88/144 (61.1%) due to errors with sample tubes and request forms. These included both clinical errors where patient details were wrongly transcribed onto samples and request forms, and laboratory errors where laboratory staff entered data incorrectly into LIMS. Most of these were due to

transposed numbers, misspelt names and DOB being inaccurately recorded. In PID errors sample tube and request form errors show similar trends to previous years (from 86/134 (64.2%) in 2021 to 88/144 (61.1%)).

Figure 13.3: Details of patient identification errors (n=144)



Data demonstrates RBRP errors most frequently occur at the sample taking step or at request 93/264 (35.2%).

Case 13.1: No patient identifiers on the blood prescription form

A female in her 70s was receiving a unit of red cells prior to revision of her hip. Red cells were administered with staff checking the patient details on the drug chart rather than the blood prescription. The right component was transfused, and the error was only identified when the transfusion practitioners were carrying out a periodic spot check audit. The staff reflected on the incident and noted that the shift was a busy stressful shift and substantive staff were having to take on extra tasks that agency staff were unable to do.

During a routine audit of transfusion practices, this incident was picked up and the blood prescription form was found to contain no patient identifiers. There was no addressograph or handwritten patient details. This was against the hospital transfusion policy as the prescription had to be fully completed, and the patient identifiers were to be checked against the blood component and patient ID band prior to the transfusion.

Case 13.2: Blood components administered in the wrong order

A female in her 80s was prescribed platelets and red cells (in that order) following treatment for myeloma. The HCA was asked by the medical staff to collect the blood component/s without the right authorisation sheet. The prescription chart had also not been completed and the red cells were transfused first after checking patient identification details. When the paperwork was completed, the nurse noted that the doctor had prescribed platelets to be administered first followed by red cells. All the necessary blood components were transfused with no adverse impact.

This is an example where correct procedures were not followed, and staff felt 'pressurised' to action without the correct paperwork in place. All steps should comply with the BSH guidelines on administration of blood components (BSH Robinson et al. 2018).

Learning point

- All staff working in transfusion should always follow their correct local procedure/policy including during emergencies and demanding periods as this is when errors are more likely to occur

Prescription errors

Of the 193 clinical errors, 41 (21.2%) were related to prescription errors, 5 errors had incorrect patient details on the prescription. A pre-administration checklist had been used in 18/41 errors. A pre-administration checklist should include checking the patient's identity against the prescription and that the blood component about to be given is the prescribed component. The pre-administration checklist from SHOT (see 'Recommended resources') covers all the key checks that need to be carried out to ensure safe transfusions.

Pre-administration checklists

In 2017 the CAS alert: 'Safe Transfusion Practice: Use a bedside checklist' (Department of Health 2017) was issued in response to SHOT recommendations. A pre-administration checklist was used in 172/264 (65.2%) RBRP cases and stated as 'not used' or 'not available' in 54/264 (20.5%). In 38 cases no information was provided.

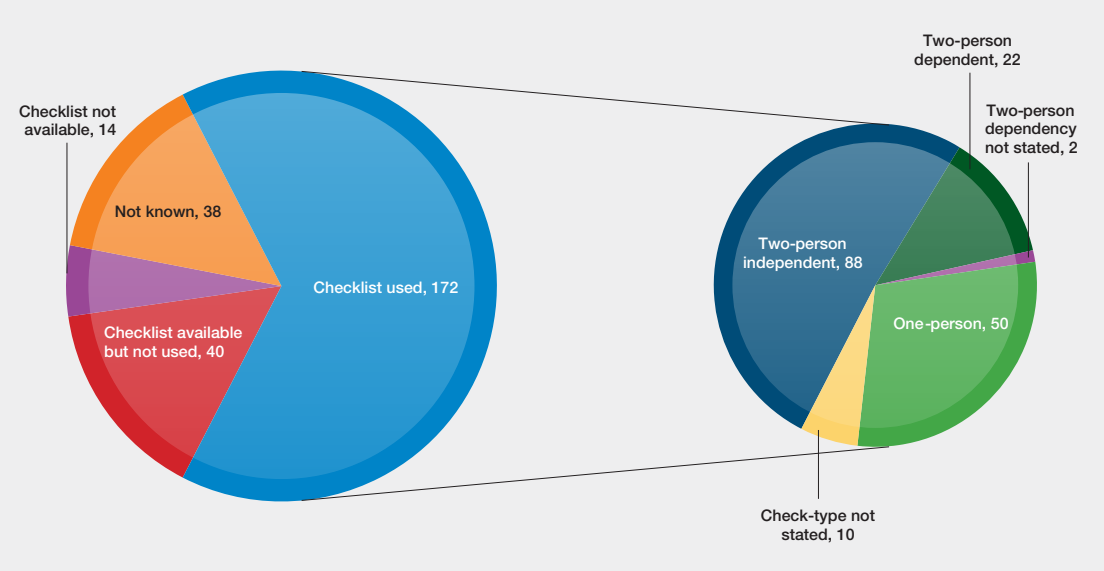


Figure 13.4: The presence and types of pre-administration check in RBRP errors (n=264)

In the 172 reports which stated a pre-administration checklist was used, most 112/172 (65.1%) had a two-person check, and the majority of these, 88/112 (78.6%) used a two-person independent check. Data regarding dependency of checks was not consistently reported. SHOT recommends that local blood transfusion policies are aligned with national guidelines and if local policy requires a two-person checking procedure, each person should complete all the checks independently (double independent checking) (BSH Robinson et al. 2018). See 'Recommended resources' at the end of this chapter for an educational video produced by SHOT and NHS Blood and Transplant patient blood management team.

Near miss RBRP cases n=118

There were 118 near miss RBRP incidents, 24/118 (20.3%) originated in the clinical area and 94/118 (79.7%) originated in the laboratory.

Most cases, 98/118 (83.1%), were detected when collecting the blood component or at the pre-administration checks, with 72/118 (61.0%) using a formal pre-administration checklist.

Conclusion

Pre-administration patient side safety checks can pick up RBRP errors, but these have to be carried out correctly to be effective. Transfusion errors can potentially result in patient harm; these incidents were where a patient was transfused correctly despite one or more serious errors that in other circumstances might have led to an incorrect blood component transfused. As in previous years, some of the incident investigations and questionnaires do not find or state the main causal and contributory factors. There

are still reports mentioning clerking errors due to misinformation provided by patients themselves or from ambulance teams or completely new entries on Trust/Health Board systems. Sampling and labelling errors continue to be reported. Lack of appropriate checks at collection of blood components meant that there were missed opportunities to pick up some of the RBRP errors. While the collection process may differ between establishments, there are essential checks that must made at this point which could reduce the number of RBRP (and IBCT) incidents. This has been discussed in previous Annual SHOT Reports and collection checks should follow BSH guidelines (BSH Robinson et al. 2018).

Many RBRP errors could be avoided by careful checking of the documentation on the prescription during the pre-administration checking process.

Recommended resources

SHOT Video: The Pre-administration Blood Component Transfusion Bedside Check 2020
https://www.shotuk.org/resources/current-resources/videos/

SHOT Safe Transfusion Practice: Transfusion Checklist
https://www.shotuk.org/resources/current-resources/

References

BSH Robinson S, Harris A, Atkinson S, et al. The administration of blood components: a British Society for Haematology Guideline. *Transfus Med* 2018;**28(1)**:3-21. http://onlinelibrary.wiley.com/doi/10.1111/tme.12481/full [accessed 28 April 2023].

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Narayan S (Ed), Poles D, et al. on behalf of the Serious Hazards of Transfusion (SHOT) Steering Group. The 2021 Annual SHOT Report (2022). https://www.shotuk.org/shot-reports/ [accessed 27 April 2023].