Participation in United Kingdom (UK) Haemovigilance

2

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Introduction

Following a substantial rise in the number of reports received in 2023, the level of reporting appears to have evened out. The total number of reports submitted to SHOT in 2024 was 5033, similar to the number of reports submitted in 2023 (n=4972).

Figure 2.1: Haemovigilance reports submitted by year with reports per 1,000 blood components issued 2010-2024

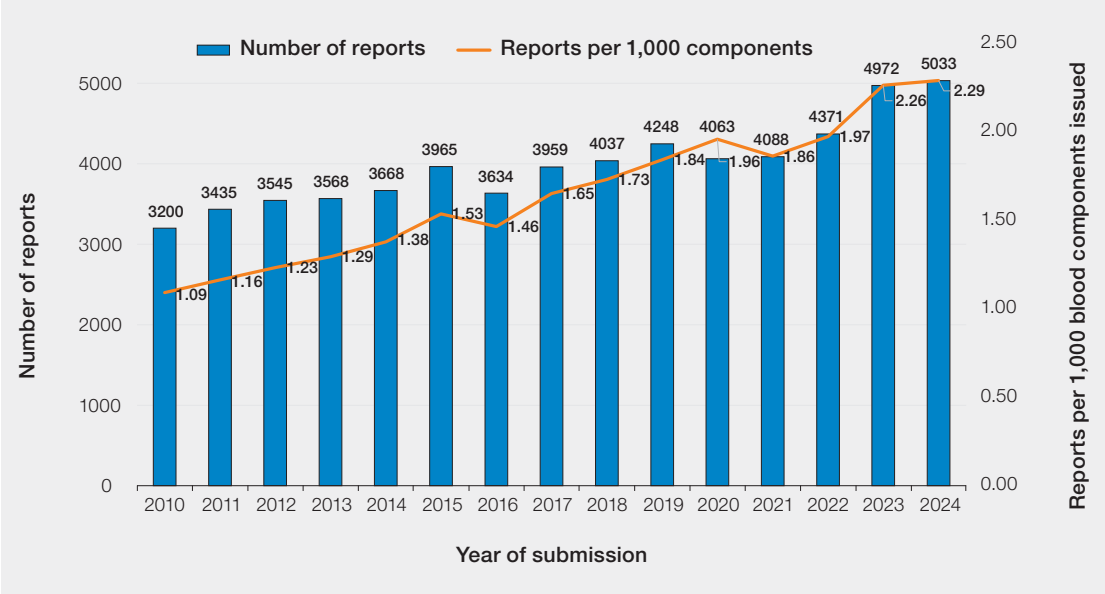
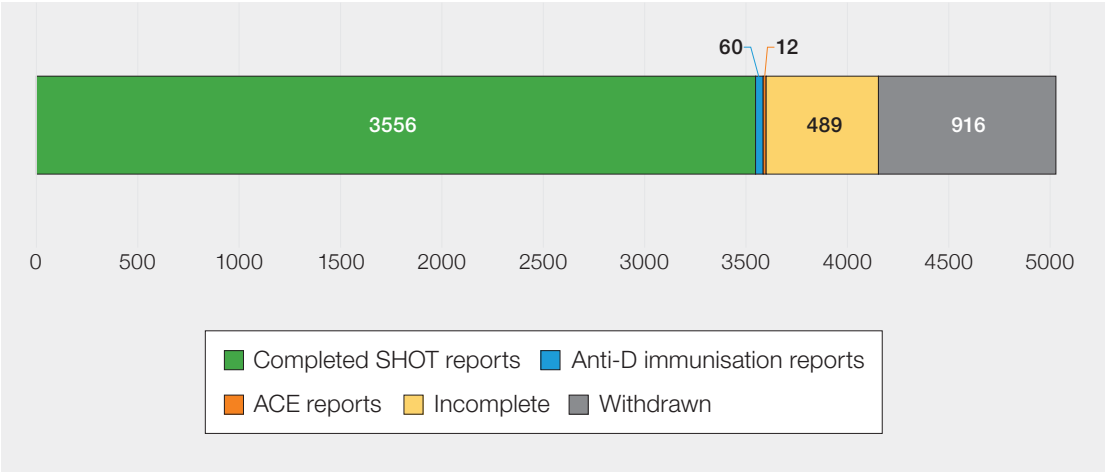


Figure 2.2 shows that 3628/5033 (72.1%) were completed by the reporter and have been included in the Annual SHOT Report. This total includes 3556 SHOT reports, 60 anti-D immunisation reports, and 12 acknowledging continuing excellence (ACE) reports. There were 916 withdrawn reports (main reasons for withdrawal were Medicines and Healthcare products Regulatory Agency (MHRA)-reportable only, mild reactions, or reactions determined to be unrelated to transfusion, and not fitting SHOT definitions), and 489 that were incomplete at the cut-off date for inclusion in this year's Annual SHOT Report.

Figure 2.2: The status of reports submitted to SHOT in 2024 (n=5033)



ACE=acknowledging continuing excellence

Note: One case submitted and completed in 2024 was a possible transfusion-transmitted infection (TTI) from 2023. This has not been included in this year's Annual SHOT Report numbers, but was discussed in the 2023 Annual SHOT Report (Narayan, et al., 2024)

Cases included in the 2024 Annual SHOT Report n=3998

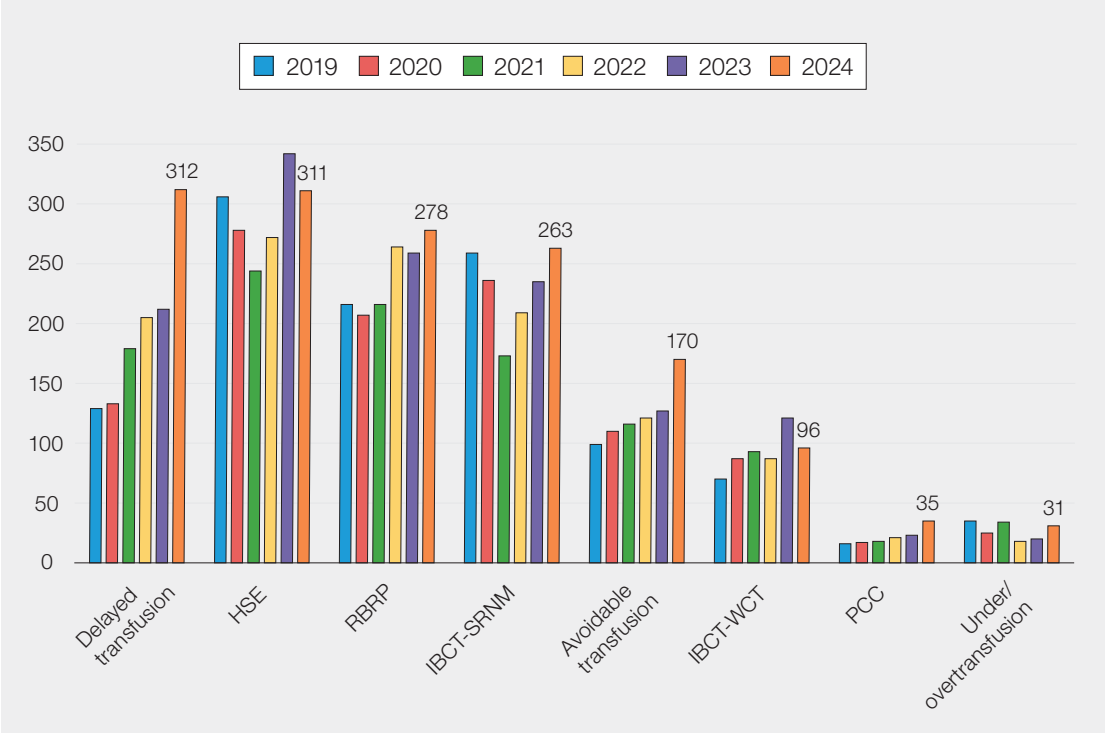
The total number of reports analysed and included in the 2024 Annual SHOT Report was 3998. This total comprises 3555 reports submitted and completed in 2024 (see Figure 2.2), plus 443 that were submitted in earlier years, but not finalised until 2024. This is a small increase of 165 from the 3833 reports included in the 2023 Annual SHOT Report (Narayan, et al., 2024).

In addition to these 3998 reports, there were 68 reports of immunisation against the D-antigen. These are counted separately as part of a stand-alone study. There were also 12 reports included in the ACE category, as examples of good practice. These included 5 cases of excellent practice and 7 cases where there was good learning from everyday events.

The number of reports with potential for patient harm (excluding 'near miss' and 'right blood right patient') was 2312, an increase of 158 from 2023 (n=2154).

Most reporting categories contained comparable numbers to previous years, but there were a couple of notable exceptions. Delayed and avoidable transfusions have both seen a steady increase year-on-year, followed by a striking increase in 2024. Figure 2.3 shows reports by year in each of the error categories where a component was transfused from 2019 to 2024. Delays increased by 47.2%, from 212 in 2023 to 312 in 2024, and avoidable transfusions increased by 33.9%, from 127 in 2023 to 170 in 2024.

Figure 2.3: Number of reports by SHOT error category, 2019 to 2024



HSE=handling and storage errors; RBRP=right blood right patient; IBCT-SRNM=incorrect blood component transfused-specific requirements not met; IBCT-WCT=IBCT-wrong component transfused; PCC=prothrombin complex concentrates

Blood component issue data 2024

Table 2.1 lists the total number of blood components issued from the UK Blood Services in 2024, and the number of solvent detergent-treated fresh frozen plasma (SD-FFP) (Octaplas®) units issued in each country.

Table 2.1: Blood components and SD-FFP issue data for the calendar year 2024 in the UK

	Red cells	Platelets	FFP	SD-FFP	Cryoprecipitate	Totals
NHS Blood and Transplant	1,348,369	252,784	171,535	55,715	42,078	**1,870,481**
Northern Ireland Blood Transfusion Service	41,823	8,547	4,078	2,136	761	**57,345**
Scottish National Blood Transfusion Service	137,614	23,184	13,284	2,109	2,578	**178,769**
Welsh Blood Service	73,677	9,540	7,573	1,595	422	**92,807**
Totals	**1,601,483**	**294,055**	**196,470**	**61,555**	**45,839**	**2,199,402**

SD=solvent-detergent; FFP=fresh frozen plasma

Cryoprecipitate numbers are expressed as pools and single donations as issued; all other components are adult equivalent doses

SD-FFP data is supplied by Octapharma for England and Scotland; in England, hospitals order directly from Octapharma and in other countries, the process is via the Blood Services

SHOT reporting by UK country

Full tables containing the breakdown of data from 2024 by UK country and previous years can be found in the supplementary information on the SHOT website (https://www.shotuk.org/shot-reports/annual-shot-report-2024/).

Reporting organisations in 2024

To calculate participation data by reporting organisations, SHOT combines data from individual hospitals into their parent National Health Service (NHS) Trust or Health Board. This is because there are varying reporting arrangements between different organisations. Some NHS Trusts/Health Boards submit from only one reporting account, whereas others may have one reporting account per hospital.

In 2024, there was only 1 NHS organisation that did not submit any report. This was a very low blood user (issued with less than 500 components).

There were 27 non-NHS organisations that submitted 56 reports in 2024 which is a slight decrease from 2023 (65 reports from 26 non-NHS organisations). This includes healthcare organisations situated in the Channel Islands who are not considered to be a part of the UK and therefore are not regulated by the MHRA.

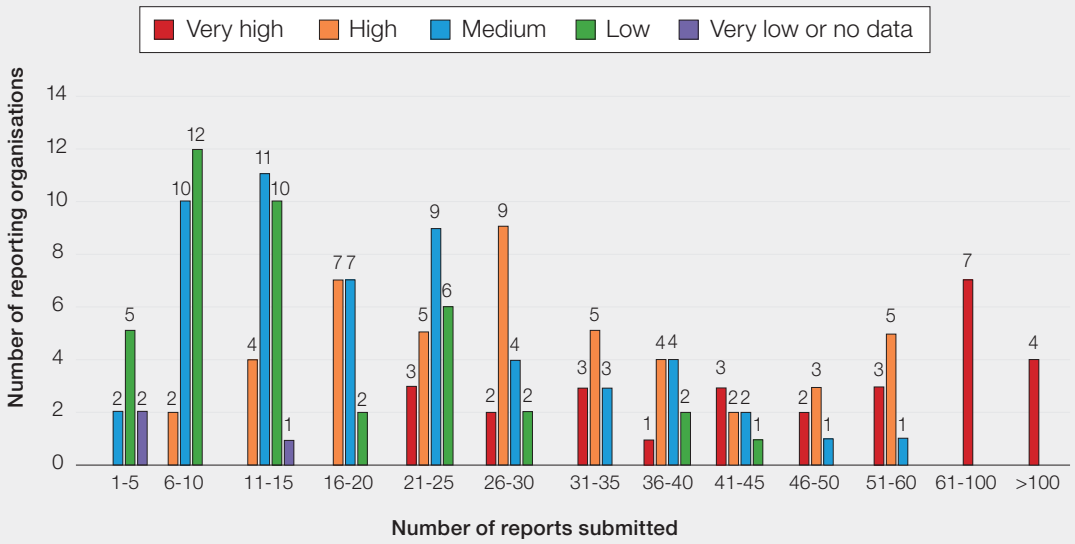
In 2022, analysis was carried out on reporting levels between different sized organisations, based on blood component issue data (Narayan, et al., 2023). The same analysis has been performed for 2024, and this has seen a marginal shift in the number of reports submitted by very large blood users. In 2022, there were 4 very large users with less than 20 reports, while in 2024, the lowest number of reports in the very large user category was 21. This suggests a move towards more balanced reporting proportionate to blood usage. However, Figure 2.4 still demonstrates variation in reporting levels, with many low and medium users submitting more reports than high or very high users. While there isn't a single 'optimal' incident reporting level for every organisation, high-performing, safe healthcare systems typically have high levels of reporting with the majority of incidents being no-harm to low-harm events. This aligns with a strong safety culture where staff feel confident reporting incidents, including near misses, to learn from them and prevent future harm. If severe harm incidents dominate, it may suggest poor early intervention and learning. Too few incidents reported including no-harm or near miss reports may indicate under-reporting and the safety culture would need to be addressed.

The characteristics of an organisation with optimal reporting should ideally include:

- High volume reporting of minor incidents and near misses signalling a strong reporting culture
- Proportionally fewer severe harm incidents suggesting effective risk mitigation
- Actionable learning from reports; reporting should lead to changes, not just data collection
- Feedback to staff encouraging continued engagement and learning
- Integration with excellence reporting, balancing learning from failures and successes

For haemovigilance reporting, it would be logical to expect that the number of reports submitted would correlate to the amount of blood components used in an organisation. Other factors influencing reporting levels include staffing levels, experience and knowledge, safety culture and local practices. A higher level of reporting indicates a willingness to participate and learn from transfusion events to improve patient safety.

Figure 2.4: Number of reports by NHS reporting organisation and component usage level in 2024

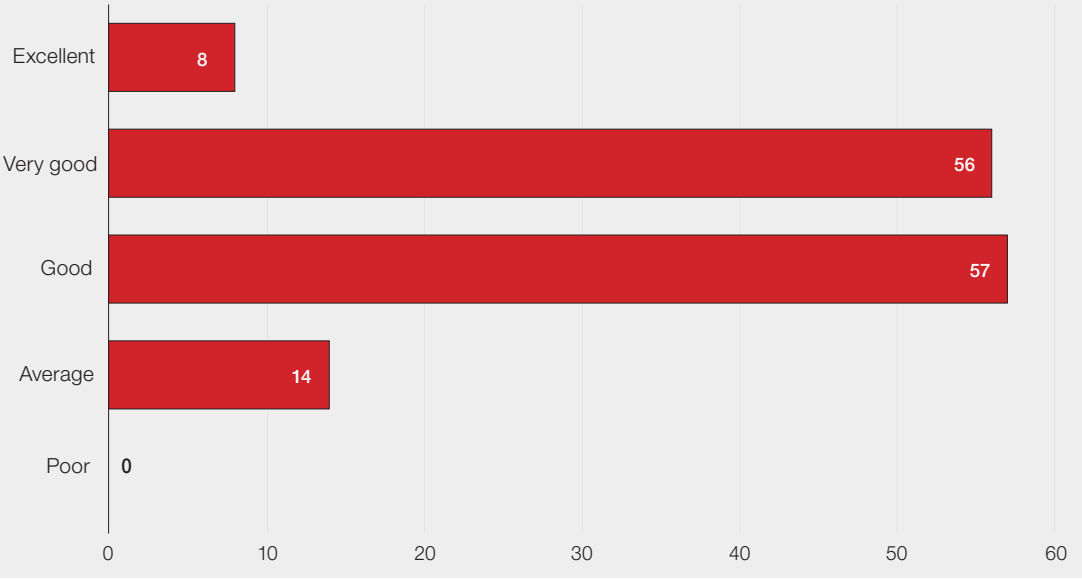


SHOT reporting database developments (Dendrite)

The SHOT database was given an upgrade in January 2024, which brought the look of the database more in line with SHOT branding and colours. It was also intended to be more easily readable, with a larger font size and user-friendly. The other main changes were to introduce colour coding for questions: red for an unanswered question, and green for answered. There was also a change to the mechanism for changing the questionnaire type if the report had been submitted inadvertently in an incorrect category.

A survey was sent to all SHOT reporters in July 2024 to ask for their feedback on the new changes, which had been in effect for more than 6 months. In total, 135 responses were received from reporters who had used the revised database. Most users, 121/135 (89.6%) rated the ease of use to be good, very good or excellent.

Figure 2.5: Survey responses for ease of use of the new SHOT database user interface in July 2024



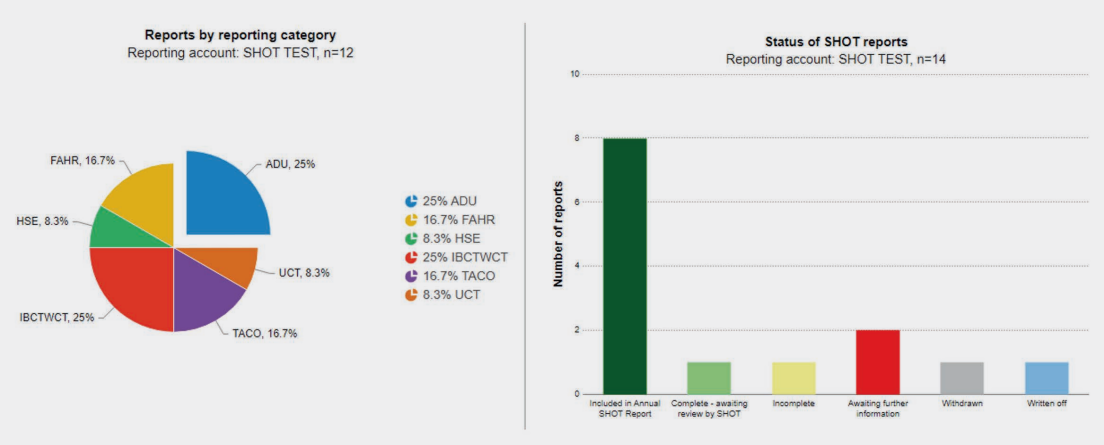
SHOT database dashboards

SHOT has developed a dashboard with a series of graphs displaying useful real-time data for reporters. This was implemented in July 2025 and includes the following data:

1. Number of reports submitted
2. Reports by reporting category
3. Status of SHOT reports
4. Average time taken to complete submitted reports
5. Incomplete reports
6. Reports by age and gender
7. Reports by location

These graphs and tables are interactive and are configurable by localisation, i.e., reporting account, NHS organisation, region/devolved country, and for the whole UK. They can also be filtered by SHOT reporting category.

Figure 2.6: Example graphs from the SHOT dashboard



More information about the new dashboards can be found at https://www.shotuk.org/reporting/incident/user-guides/.

Blood Services reporting to SHOT

A project has been underway since late 2023 to extend SHOT reporting for Blood Service errors that have an impact on patients. Previously, SHOT reports have only been submitted from hospitals. This will initially cover three new categories: incorrect blood component issued for wrong components, specific requirements not met, and errors related to incorrect issue of anti-D immunoglobulin (Ig). ACE reporting has been extended to include reports from Blood Services.

This will be implemented later in 2025 and will be discussed in more detail in the 2025 Annual SHOT Report next year.

SHOT participation benchmarking data and the 'Model Hospital'

SHOT continues to publish both monthly and annual participation data on the SHOT website. A collaborative project is being planned to incorporate the annual data into the 'Model Hospital', which is part of NHS England's Model Health System. This workstream is part of the wider implementation action plan for the Infected Blood Inquiry report recommendations.

The Model Hospital is a data-driven improvement tool that contains a wide range of benchmarking metrics that NHS providers can use to assess their performance against their peers. At present, this is only available to NHS Trusts in England (NHSE, 2025b).

Conclusion

Haemovigilance would not be possible without the valuable contribution made by our dedicated hospital reporters, and SHOT is extremely grateful for their continued engagement. This is evidenced by the continuing high levels of participation being maintained, despite the ongoing challenges faced across the healthcare sector. Ensuring timely haemovigilance reporting and effective benchmarking for transfusion incident reporting enables continuous improvement and helps enhance transfusion safety.

Every report matters. Taking the time to report an event, whether it's an error, a near miss, a reaction or an example of excellence shows a commitment to learning and improving care. SHOT acknowledges and deeply values each report as a vital contribution to safety, transparency, and better outcomes for patients and staff.

Recommended resources

Definitions of current SHOT reporting categories & what to report
https://www.shotuk.org/reporting/incident/

SHOT Participation Benchmarking Data
https://www.shotuk.org/reporting/participation-benchmarking/

SHOT Monthly Participation Data
https://www.shotuk.org/reporting/participation-data/

SHOT
Serious Hazards of Transfusion