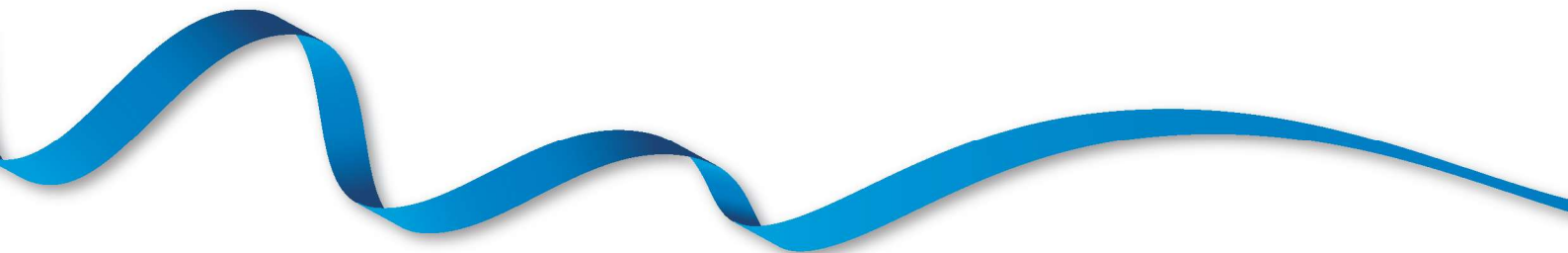


2021 Survey of Patient Blood Management



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KEY FINDINGS

- Although the response rate to this survey was lower than the three previous surveys, conducted in 2013, 2015 and 2018, the high response rate provides a good reflection of the national picture of the achievements of the Hospital Transfusion Teams (HTTs) and the challenges they face.
- The priorities for HTTs remain largely the same: staff education to ensure safe and appropriate transfusion; management of anaemia including optimisation of patient's haemoglobin concentration prior to surgery to reduce the need for transfusion; emphasis on the need to reduce wastage of blood components in clinical areas; and good stock management in transfusion laboratories.
- Comparison of the findings from this survey with previous surveys indicates little or no improvement in the human resources available to Hospital Transfusion Teams to drive implementation of Patient Blood Management (PBM)
- The provision of Transfusion Practitioners has remained stable in the last 6 years, but the workload demands have undoubtedly increased, and this may have led to an emphasis on maintaining the service rather than facilitating service improvements.
- The survey indicates that Consultant Haematologists continue to have little time to support PBM.
- Few HTTs indicate they are able to submit successful business cases for improvements in PBM activities, and cite lack of interest from senior management, lack of funding and their inexperience in assembling business cases as the main reasons.

FURTHER WORK REQUIRED

- Further analyses are required to understand the workforce and allied resources required to fully implement national transfusion guidelines and PBM recommendations.
- Once these analyses are completed, the National Blood Transfusion Committee and NHSBT should consider what specific actions are needed to support hospitals to better deliver PBM in hospitals.

NEXT STEPS FOR HOSPITALS

- Ensure the findings of this report and your individual Trust report are discussed at transfusion meetings in your Trust and with senior management.
- Write an action plan and gap analysis based on the results and incorporate these into your objectives for this year. An important consideration is to understand what resources my Trust needs to implement better transfusion practice, for example to achieve compliance with the NICE Quality Standards for Blood Transfusion.
- Use the data in the survey to promote your objectives within your organisation and explore the possibility of using the benchmark data to support business cases for further resources for PBM.
- Continue efforts to engage with your Regional Transfusion Committee and discuss the potential of forming small working groups to support the development of key PBM objectives.

Introduction

Patient Blood Management (PBM) is an evidence-based, multidisciplinary approach to optimising the care of patients who might need transfusion (Mueller et al, 2019). It was launched in England as a collaborative initiative in 2012 between NHSBT, NHS England and the National Blood Transfusion Committee (NBTC). PBM improves patient care by reducing unnecessary transfusion and promoting the use of appropriate alternatives to transfusion. This helps to ensure the availability of blood components for those patients where there are no suitable alternatives to transfusion.

An effective PBM programme needs leadership and support from national and regional leaders, hospital management, and health professionals, active education and training of the many staff involved in transfusion procedures in hospitals, and a robust programme of monitoring its implementation.

This is the fourth survey of PBM since 2013. The aim of the survey is to provide an overview of current PBM activity in hospitals, including the structure and resources in place to support the delivery of key objectives.

Participation in the survey enables hospitals to benchmark their practice nationally and against hospitals of a similar size and level of activity, enabling the production of a gap analysis for future business planning.

Methods

In September 2021, all NHS Trusts were asked to complete a survey about their PBM activity including delivery framework and governance arrangements. It was a companion activity to the national comparative audit of the implementation of the NICE QS138 Quality Standard (2016); the results of this audit are available at [2021 National Comparative Audit of NICE Quality Standard QS138 - Hospitals and Science - NHSBT \(blood.co.uk\)](https://www.blood.co.uk/2021-national-comparative-audit-of-nice-quality-standard-qs138-hospitals-and-science)

Recent mergers of Trusts resulted in some Trusts submitting more than one response, since there were fundamental differences in the PBM arrangements of different sites within the Trust. This report therefore contains data from 132 responses from 114 Trusts, some from Trusts as a whole and some from individual hospitals. The report also compares findings, where the data are comparable, with the 2018 and 2015 surveys. For ease of reading, responses in this report are referred to as sites.

1. Survey Response

Trust response rate

- 2021 Survey 114/149 (76%)
- 2018 Survey 114/147 (78%)
- 2015 Survey 136/149 (91%)
- 2013 Survey 144/149 (97%)

- Data from the questions in the survey have been analysed proportionately (n, %).
- The response rate of 76% continues to be high, although there has been a decline in the response to the PBM surveys since 2013. However, it was pleasing to see a similar response rate to the 2018 survey, acknowledging that Trusts have faced considerable challenges as a result of the Covid-19 pandemic.
- Data have also been analysed in some cases by red cell blood use categories per Trust as defined by the Blood Stocks Management Scheme (BSMS) criteria of Red Blood Cells Issues Per Annum (p.a.):
 Very Low Use: less than 650 red cells p.a.
 Low Use: greater than 651 and less than 3,500 red cells p.a.
 Moderate Use: greater than 3,501 and less than 6,000 red cells p.a.
 High Use: 6,001 and less than 9,300 red cells p.a.
 Very High User: greater than 9,301 red cells p.a.

Table 1: Overall response rates by red cell BSMS user category

Respondents	Total	Very High	High	Moderate	Low	Very Low
2021 survey*	126	30	34	49	12	1
	100%	23.8%	27.0%	38.9%	9.5%	0.8%
2018 survey**	114	29	37	36	11	1
	100%	25.0%	32.5%	31.6%	9.6%	0.9%
2015 survey	136	52	38	33	12	1
	100%	38.0%	28.0%	24.0%	9.0%	0.7%

* In 2021, 6/132 responses came from sites that do not participate in the BSMS scheme

**New 2018 BSMS categories

A further breakdown of the response rate per Regional Transfusion Committee (RTC) region is provided in Table E in the appendix.

2. Resources to support trust transfusion teams and transfusion committees

- On the whole TP numbers have remained stable during the period 2015 to 2021
- 17% of sites have no Consultant Haematologists assigned to transfusion medicine, and a further 36% do not have any programmed activities (PAs) designated to transfusion.
- There is huge variation in the frequency of meetings of Hospital Transfusion Teams. The majority do not meet formally more than once a month. These data make it difficult to assess the effectiveness of the team in providing education and training and promoting safe transfusion practice and PBM.

Transfusion Practitioners (TPs)

Number of TPs

- The number of TPs in each site, together with their whole-time equivalents, is shown in Table 2. The survey showed that overall, there are 241 TPs in employment in 132 sites, 151 are full time and a further 90 TPs are in part time employment, this equates to an average of 1.16 full time and 0.69 part-time TPs per site (number of hours part time is an unknown)

Table 2 – TPs per site

Number of TPs per site	2021	2018	2015
1	60 (45.5%)	44 (38.6%)	71 (52.2%)
2	41 (31.1%)	38 (33.3%)	33 (24.3%)
3	20 (15.2%)	19 (16.7%)	19 (14%)
4	6 (4.5%)	8 (7%)	7 (5.1%)
5	3 (2.3%)	2 (1.8%)	2 (1.5%)
NO RESPONSE	2 (1.5%)	3 (2.6%)	4 (2.9%)

- Two thirds of sites report having only 1 or 2 TPs. This remains largely unchanged.

Table 2a – Number of whole time & part time TPs in sites responding to the survey

	2021	2018	2015
Whole time	151	132	134
Part time	90	87	98
TOTAL	241	219	232

Table 2b – Average number of whole and part time TPs per site

	2021	2018	2015
Whole time	1.16	1.19	1.02
Part time	0.69	0.78	0.74

Agenda for Change Pay Band:

- Of the 241 TPs, 55 (22%) are Band 6, 153 (63%) Band 7, 24 (10%) Band 8a and 7 (3%) are Band 8b. Unknown for 2 TPs. *These data were not collected for the 2018 and 2015 surveys.*

TP activity:

- TPs were asked which aspects of their day-to-day activity they experience as taking up the bulk of their workload ranked on a scale of 1-7 (Table 3)

Table 3 - % of TP time spent on different activities

	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	60+%
Education & Training (n = 238)	26	63	65	41	27	12	4
Traceability (n = 237)	125	69	17	12	9	1	4
Giving clinical advice (n = 239)	126	66	28	12	6	0	1
Competency assessment (n = 109)	44	27	15	12	4	5	2
Audit (n = 239)	88	79	37	20	10	1	4
Incident investigation (n = 239)	59	93	51	18	11	2	5
Process improvement/service redevelopment (n = 236)	61	79	43	35	12	4	2
Policy development (n = 239)	110	67	27	22	9	2	2
Other activities (n = 237)	108	64	34	14	6	6	5

Note that there is no direct comparison between these data and the 2018 and 2015 surveys. In those surveys, TPs were asked to rank (in order of which took up the bulk of time) slightly different workload priorities and were not asked to assess the amount of time spent on each.

* Further work is needed to understand what constitutes other activities and the value of these in the TP's role

Activity by agenda for change pay band

- The 9 domains of activity audited are carried out as follows: Band 6 (22%); Band 7 (65%); Band 8a (10%) and Band 8b (3%). (Note that there were small amounts of data missing and so figures do not always total accurately).
- Band 6 and Band 7 staff spend most of their time on education and training; Band 8a also report spending time on education and training but also spend equal time on incident investigation, process improvement and policy development. 8b report clinical advice and process improvement as their 2 main activities.

Table 4 – Average % of time spent on activities in 2021 by Pay Band.
Where time spent is > 20% this is indicated as **red text**.

	Overall	Band 6	Band 7	Band 8a	Band 8b
Education & Training	21-30%	21-30%	21-30%	21-30%	11-20%
Traceability	11-20%	11-20%	11-20%	11-20%	0-10%
Clinical Advice	11-20%	11-20%	11-20%	11-20%	21-30%
Competency assessment	11-20%	21-30%	11-20%	11-20%	11-20%
Audit	11-20%	11-20%	11-20%	11-20%	11-20%
Incident investigation	21-30%	11-20%	21-30%	21-30%	11-20%
Process Improvement / Service redevelopment	11-20%	11-20%	11-20%	21-30%	21-30%
Policy development	11-20%	0-10%	11-20%	21-30%	11-20%
Other activities	11-20%	11-20%	11-20%	11-20%	11-20%

- In 2021, education is ranked highest in terms of workload prioritisation followed by incident investigations.
- It is concerning that so much TP time is spent on traceability of blood as this could be largely managed by electronic systems.

Associate TPs (or equivalent)

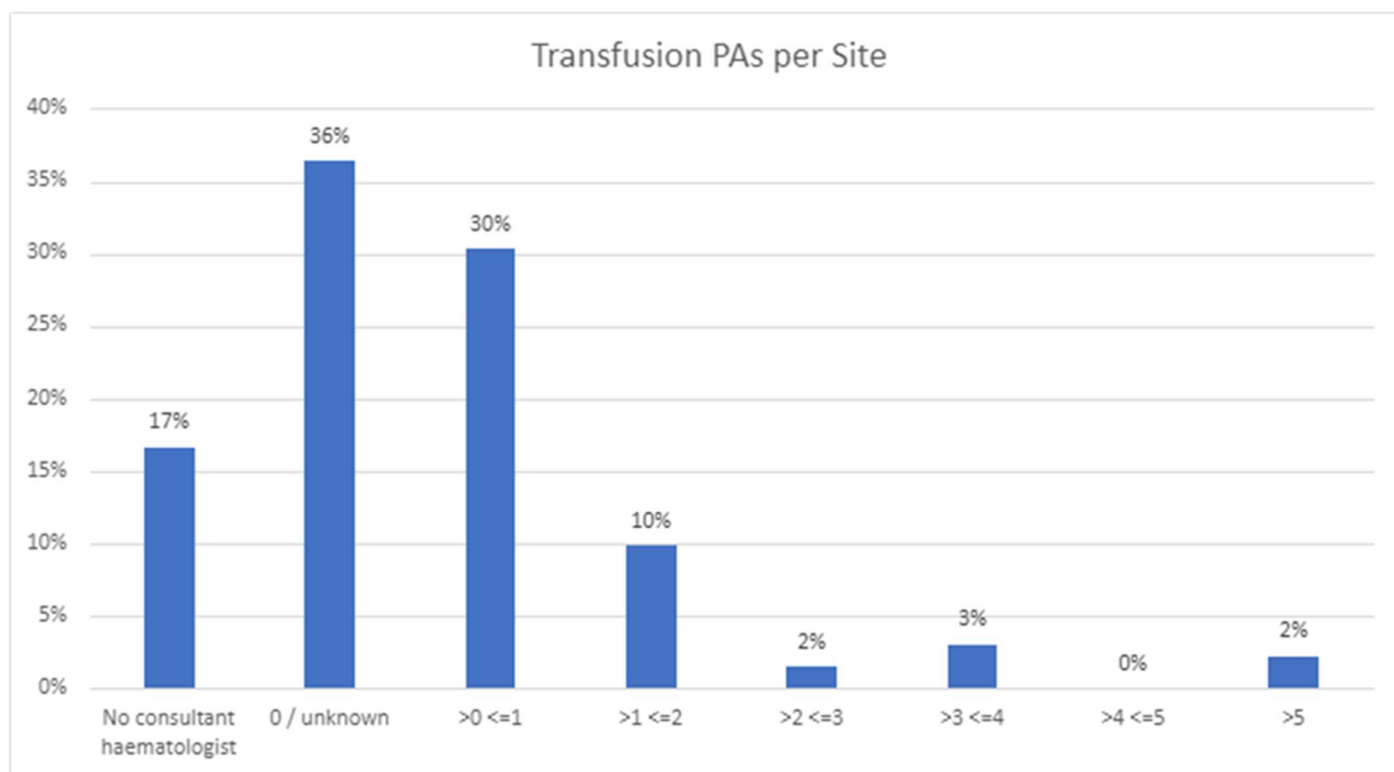
There is no nationally agreed job description for 'assistant' or 'associate' TP, so there is not a clear understanding of the difference in use of the two job titles. Reviews of job descriptions in adverts would suggest that the post of 'assistant' is being used to describe a role that is contributing mainly administrative work and is unqualified, whereas 'associate' is being used to describe a person assisting with more aspects of TP work but not yet competent to be autonomous in the TP role.

- 20/132 (15%) sites have associate TPs or equivalent. Overall there are 22 Associate TPs
- The 2018 survey indicated that there were overall 25 Transfusion Practitioner Assistants employed
- Note that Table 5 does not include the activities carried out by Associate TPs

Consultant Haematologists

- 110/132 (83%) sites state they have 1 or more Consultant Haematologists (total 133) assigned to transfusion medicine. (2018 total = 92 consultants, 2015 total = 134 consultants).
- Figure 1 shows how many 'transfusion medicine' PAs are allocated to each Trust.
- 17% of sites have no Consultant Haematologists assigned to transfusion medicine, and a further 36% do not have any PAs designated to transfusion.
- Overall, only 17% of sites had one or more Consultant Haematologist with accountability for transfusion and more than 1 PA for transfusion medicine.

Figure 1 - Consultant haematologist programmed activities (PAs) in 2021



Staff supporting transfusion teams

Table 5 – Number of Staff supporting transfusion teams (2015 to 2021)

2021	<0.5 WTE	0.5 to 0.99 WTE	1 WTE	Unknown	Total staff
Transfusion Team Administrator	16	19	2	0	37
Transfusion Data Analyst	4	5	7	0	16
Blood Transfusion Quality Manager	22	8	35	0	65
Pathology IT Support	34	5	33	0	72
Central IT Support	27	1	17	0	45
Other staff	2	2	17	0	21
2018	<0.5 WTE	0.5 to 0.99 WTE	1 WTE	Unknown	Total staff
Transfusion Team Administrator	12	6	4	10	32
Transfusion Data Analyst	3	2	1	4	10
Transfusion Practitioner Assistant	2	10	9	4	25
Other staff	4	0	3	12	19
2015	<0.5 WTE	0.5 to 0.99 WTE	1 WTE	Unknown	Total staff
Transfusion Team Administrator	18	14	6	7	45
Transfusion Data Analyst	5	0	3	2	10
Blood Transfusion Quality Manager	24	9	16	20	69
Pathology IT Support	20	0	12	34	66
Central IT Support	8	0	7	40	55

Details of 'other' staff are found in Table A in the appendix and include

- Traceability support band 3 or 4, 4 x WTE
- Blood Track support WTE- 2.0
- The 2015 survey suggested an overall figure of less than 50% of sites had support staff in place. In 2018, this has risen slightly to 54%. In 2021, this figure had risen to 83% (109/132), with 19/132 (14%) sites having no form of support. 4/132 (3%) sites did not respond.

Transfusion meetings

Trusts were asked about governance arrangements for transfusion

Table 6 - How often HTTs hold formal and Informal meetings

Frequency	N	
	Formal Meetings	Informal Meetings
Daily	0	5
More than once per week	0	13
Weekly	4	35
More than once per month	10	4
Once per month	74	14
Six weekly	4	1
2 monthly	3	1
Quarterly	10	2
4 monthly	2	0
Ad Hoc	0	20
Never	0	19

- 92/132 (70%) sites have PBM as a standing agenda item at their formal meetings
- This was the first survey where information was sought on informal meetings. The purpose was to examine any possible connection between the cohesiveness within teams and impact on PBM activity

3. Providing information on blood usage

- 82% of sites are able to provide data to clinical teams on blood usage. This compares to 25% in 2018 and 60% in 2015
- 74% of sites use data to help drive KPIs and/or PBM initiatives. This compares with 25% in 2018 and 40% in 2015

Do Trusts, on a regular basis, provide data collected by manual audits or electronic systems for where and why blood is being used, to inform clinical users about their blood usage?

- 108/132 (82%) of sites are able to provide these data. This compares to 28/114 (25%) in 2018 and 78/130 (60%) in 2015

Table 7 – Methods of providing data

System	N
Electronic	46
Manual	5
Both	57
Total	108

Table 8 - Electronic systems used to provide these data

System in use	N
Cerner	11
Epic	2
LIMS	94
Other	36

See Table C in the appendix for details of "Other"

Are data on component usage and costs presented to users to help drive KPIs and/or PBM initiatives?

- 98/132 (74%) present these data. This compares with 28 (25%) in 2018 and 52 (40%) in 2015

Table 9 - Frequency of blood usage reports

Frequency	N
Annually	4 (4%)
Daily	2 (2%)
Monthly	51 (51%)
Other	39 (39%)
Weekly	1 (1.5%)
(blank)	1 (1.5%)
Total	98 (100%)

Table 10 - Who is responsible for producing these blood usage reports

Job Title	N
Lab Manager	49
Transfusion Practitioner	41
Other	12
Data Analyst	11
Finance	3
HTC Chair	2

Table 11 - Who these blood usage reports are sent to

Job Title	n
Individual clinical teams e.g. Haematology/ ICU	37
Division Director(s)	15
Department Director(s)	13
Individual clinicians	10
Medical Director	9
Other	58

Table 12 - Providing information to clinicians

- 63/132 (48%) sites provide information, as follows:

	n	%
Costs and cross-charging		
Costs of blood usage	63/132	48%
Cross-charging blood components	36/132	27%
Recent changes in contracting have affected the way in which Trusts are able to cross-charge	7/36	19%
NICE guidelines on Blood Transfusion (QS138)		
Feedback on management of patients with iron deficiency anaemia	47/132	36%
Feedback on the use of tranexamic acid	38/132	29%
Feedback to how many patients having one unit of red blood cells are clinically reassessed and have their haemoglobin concentration checked	42/132	32%
Feedback on how many patients who have had a transfusion had documented evidence that they were given verbal and written information about blood transfusion	42/132	32%
Feedback on the proportion of patients who have a documented consent for transfusion	44/132	33%

Reasons why Trusts cannot provide information on blood usage can be found in Table D in the appendix.

4. Key aspects of Patient Blood Management (PBM)

- Broadly speaking, Trusts have remained focused since 2015 on reducing wastage, optimising the patient's Hb as a means of avoiding transfusion and education to ensure appropriate use of blood components
- Given the analysis of how TPs are spending their time, and the lack of allocation of time to support transfusion medicine activities for consultant haematologists, there may be little improvement in PBM activities unless more resources are available or PBM assumes a higher priority.

Trust top 3 PBM priorities in the coming year

- 122/132 (92%) of respondents provided 280 responses giving details of the Patient Blood Management activities that they intend to focus on in the coming year. The top ten priorities are shown in light green.

Table 13

PBM priority	N (%)
Don't transfuse 2 without review	43 (15.4%)
Pre-operative optimisation	34 (12.1%)
Patient information & consent	27 (9.6%)
Wastage	27 (9.6%)
Cell salvage use and training	20 (7.1%)
IDA screening & treatment	17 (6.1%)
Education & Training	15 (5.4%)
IV iron use	13 (4.6%)
Use of O neg	11 (3.9%)
Use of O pos	11 (3.9%)
Appropriate use	7 (2.5%)
Blood ordering schedules	6 (2.1%)
Electronic tracking	6 (2.1%)
Audit	5 (1.8%)
IT systems to support transfusion	5 (1.8%)
Platelet use & testing	4 (1.4%)
Tranexamic acid use	4 (1.4%)
Electronic prescribing	3 (1.1%)
Near patient testing	3 (1.1%)
Traceability	3 (1.1%)
Cross-charging	2 (0.7%)
Out of temperature control	2 (0.7%)
Recruit more staff	2 (0.7%)
Remote issue	2 (0.7%)
Update LIMS	2 (0.7%)
Bone marrow support thresholds	1 (0.4%)
Data use and sharing	1 (0.4%)
Donor exposure in neonates	1 (0.4%)
Incident investigation	1 (0.4%)
Transfusion delays	1 (0.4%)
Stock levels	1 (0.4%)

Trusts with a PBM action plan for the coming year

- 45/132 (34%) sites have a PBM action plan

Business Cases:

Trusts were asked if they had submitted business cases to support the PBM initiative

- 32/132 (24%) sites had put forward a business case. 4 were put forward in 2018, 7 in 2019, 1 in 2020 and 10 in 2021. In 2018 47/136 (35.5%) of Trusts put forward business cases compared with 39/104 (37.5%) in 2015. The success rate was 14/32 (44%).

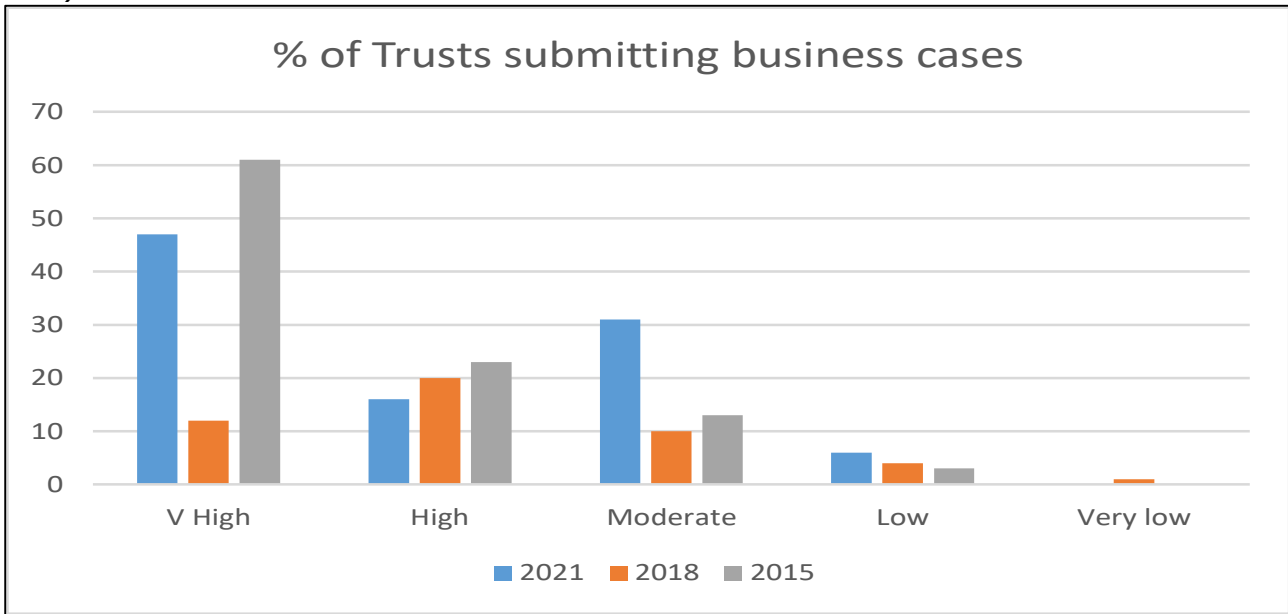
Table 14 - What was it, for how much and was it successful?

Business case topic	n	Successful?		
		No	Yes	Not known
Additional Staff	9		4	5
BloodTrack	7	3	3	1
Remote issue fridge	4	1	2	1
Cell Salvage	3		2	1
Anaemia service	2	2		
Traceability system	2	1		1
Cell Salvage & TEG	1			1
Closed loop system	1		1	
Iron deficiency initiative	1		1	
IV iron clinic	1		1	
New LIMS	1			1
Total	32	7	14	11

Table 15 - Why a business case was not put forward

No funds available	6
Not a priority	5
COVID	3
Did not consider it	3
Lack of time	2
Collaborative effort needed	1
Lack of ownership	1
No Trust buy-in	1
Not discussed at HTC	1
Not possible in Trust	1
PBM action plan needed	1
Previous attempts rejected	1
Staff shortage	1

Figure 2 - Percentage of Trusts submitting a business case in each BSMS user category (2015 to 2021)



Discussion

The results of this survey provide a snapshot of resources and infrastructure to support transfusion in NHS Trusts, and where possible data has been benchmarked to provide an overview of change over the last 10 years.

Over the last ten years, there has been a growing evidence base to allow the development of guidelines for transfusion practice. These have been supported by quality improvement programmes and initiatives such as the NICE guidelines for transfusion (2015) and their associated Quality Standard (2016), the National Comparative Audits of Transfusion and the 'Choosing Wisely' initiative (2015). The Transfusion 2024 symposium held in 2019 described the ongoing challenges to driving better transfusion practice; its subsequent strategy (Allard et al, 2021) provided priorities to support this objective but unfortunately its implementation has been delayed in part due to re-prioritisation in the NHS during the COVID pandemic

This survey has found that the workforce responsible for driving PBM within hospitals has not increased. It is therefore not surprising that the need for further improvement in hospital transfusion practice was clearly demonstrated by the results of the recent national comparative audit of the implementation of the NICE Quality Standards (2021 National Comparative Audit of NICE Quality Standard QS138). The number of TPs, Consultant Haematologists' time for transfusion, and the number of support staff involved in PBM activity has not improved since 2015. These data along with the variation in the frequency of meetings of Hospital Transfusion Teams (HTTs) raise major concerns about the ability of hospitals to provide effective education and training to the many staff involved in transfusion procedures in hospitals and to promote safe transfusion practice and PBM. The findings of this report allied to those of the NICE QS138 audit are intended to encourage NHS Trusts to review the resources available to support good transfusion practice and increase them if necessary.

The SHOT report of 2000 was the first formal advocacy of the TP role to improve the safety of patients being transfused and recommended that it could be achieved through better education and training of the many hospital staff involved in transfusion. The TP role plus the hospital transfusion team was also later advocated by a Health Service Circular (DoH HSC 2002/009). Twenty years on, educational activity remains a major part of the TP role. However, it is disappointing that Trusts have not supported TP engagement and support for PBM activities has not become a major activity for Transfusion Practitioners. The Transfusion 2024 strategy recommends the development and implementation of a national competency framework for Transfusion Practitioners. This work is being progressed and will support the focus of the role in conjunction with the providing a framework for career progression. (Allard et al, 2021).

The promotion of PBM requires teamworking and the involvement of the whole HTT including senior medical staff such as consultant haematologists and anaesthetists. It is not surprising that the needs of hospitals to meet regulatory requirements shape the proportion of TPs' time being spent on traceability, and it is unfortunate that this is being absorbed by senior staff in band 6 to 8a roles. The wider implementation of IT systems for traceability would relieve much of this burden, and it is disappointing that the use of IT for transfusion in hospitals is taking so long to roll out (Murphy et al, 2019) (SHOT SCRIPT survey 2021)

It is apparent that leadership for transfusion is required in NHS Trusts, not only on a day to day operational level but also to raise the profile of transfusion and provide strategic direction and engagement for the Trust. The survey found that only 32/149 sites put forward business cases for PBM and only 44% were successful. Lack of progression of business cases to support improvements remains a problem and highlights the difficulty that transfusion and PBM activities have in engaging and influencing hospital/Trust senior management to provide the necessary resources. Implementation of a career framework for TPs including senior leadership roles would enable TPs to develop skills for service development, and work alongside consultant haematologists but repeated surveys indicate they have very little allocated time for transfusion activities including PBM.

There is currently a lack of understanding about the resource needed to ensure safe transfusion and PBM with the aims of improving patient care and clinical outcomes. There have been long standing recommendations about the number and type of staff, team development, data assistance and consultant leadership, but there has never been a workforce analysis of what it takes to improve Better Blood

Transfusion and PBM recommendations in terms of skills and manpower. The SHOT reports and NCA audits show a huge amount of work by relatively few people to ensure good transfusion practice in hospitals.

Areas of progress in this survey include a shift towards using data to influence change, with more hospitals providing clinicians with information about blood use and costs. Further work is needed to understand how best to collect, analyse and present data on transfusion practice and blood usage to clinicians.. In this respect, it is encouraging that NHSBT and the National Institute for Health Research (NIHR) have funded a Blood Transfusion Research Unit (BTRU) on Data-Driven Transfusion Practice (2022). This BTRU will look at data-driven approaches to improve transfusion practice.

In summary, successive NCA and SHOT surveys, including this survey, indicate that many hospitals have inadequate workforce and resources such as IT capability to provide optimal management for patients who may require transfusion, including ensuring that patients are only transfused when it is appropriate to do so, the avoidance of errors, and minimisation of transfusion complications. Further work is needed so that firm recommendations can be made to NHS Trusts to encourage them to provide what is needed so that patients receive safe and effective transfusion practice.

Next Steps

Ensure the findings of this report and your individual Trust report are discussed at transfusion meetings in your Trust.

Write an action plan and gap analysis based on the results and incorporate this into your objectives for this year. What resources does my Trust need to implement better transfusion practice, for example to achieve compliance with the NICE Quality Standards for Blood Transfusion?

Use the data in the survey to promote your objectives to a senior management level within your organisation and explore the possibility of using the benchmark data to support business cases for further resources for PBM.

Continued efforts to engage with your Regional Transfusion Committees and discuss the potential of forming small working groups to support the development of key PBM objectives.

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NHSBT and NIHR Blood Transfusion Research Units (2022) <https://www.nhsbt.nhs.uk/research-and-development/current-research/btrus/>

Serious Hazards of Transfusion (SHOT) **SHOT UK Collaborative Reviewing and reforming IT Processes in Transfusion (SCRIPT) survey 2021** <https://www.shotuk.org/wp-content/uploads/myimages/SHOT-IT-Survey-2020-copyright.pdf>

2021 National Comparative Audit of NICE Quality Standard QS138

[2021 National Comparative Audit of NICE Quality Standard QS138 - Hospitals and Science - NHSBT \(blood.co.uk\)](#)

Table A

Other support staff details	
1 WTE Band 4 Associate Practitioner for blood transfusion	
4 x WTE traceability support band 3 or 4	
Anaemia Service Administrator - 6 WTEs	
Blood Conservation Co-ordinator. WTE 1.0	
Blood Track support WTE- 2.0	
Cell salvage coordinator full time	
Clinical services quality manager (for whole clinical services directorate) x 1.6 WTE.	
Compliance manager 0.5	
Eastern Pathology Alliance Network Transfusion Laboratory Lead. 1 WTE across 3 Trusts; so 0.3 WTE here	
Patient Blood Manager - 1.0	
Patient Blood Manager 1 WTE Pathology Quality Manager 1 WTE	
Quality Co-ordinator Band 6 BMS 0.6 WTE	
Speciality Doctor in Transfusion (counted as a TP above as fulfil many of these roles)	
The Trust does not have dedicated transfusion PA's in job plans; our Consultant's work as Haematology/Transfusion and as such PA's for governance; clinical safety; HTC meetings are combined into the overall job plan supporting clinical care.	

Table B – Tasks that sites cannot undertake because of lack of resources

Administration	Administration	1
All activities	All activities	4
Clinical Support	Blood tracking	1
	Clinic assistance	1
	Correction of anaemia	1
	live actions	1
	Preoperative optimisation	2
	Single unit transfusions	1
	Use of IV iron	1
Improvement & Development	Audit	10
	Implementation of new initiatives	5
	Service improvement	1
Regular Monitoring	Data analysis	4
	Data collection	6
	Daily monitoring	1
	Usage/wastage reporting	3

Table C - Other systems in use

Other system in use	N
Blood 360	2
BloodTrack	17
Cognos	2
Electronic Patient Record – Allscripts	1
Evolve	1
Haemonetics Meditech	1
Hospital PAS systems	1
Hypercube	1
ICCA patient electronic records (clinical) as well as paper documentation	1
ICE	2
Intellispace critical care and anaesthesia	1
Internal data warehouse	1
LIMS	3
Meditech	1
ODBC	1
Winpath	1
Winpath Blood Track Cyberlab- Trust blood results system	1

TABLE D - Reasons why Trusts are unable to provide any of the data on blood usage, in order of frequency

Insufficient staffing and time
Difficult to gather data using current software
Don't collect data per specialty.
Limited by manual collection of data
Data is not shared with the TP
Doctors don't record it
Data are based on consultant under whom patient is registered at the time of sampling which is different to consultant at time of transfusion.

Table E - Transfusion Committee Region - PBM Survey Response by BSMS User Category – percentages from 2015 to 2021

2021										
BSMS category	EofE	EM	L	NE	NW	SC	SEC	SW	WM	YTH
Very High	2/3 67%	2/3 67%	9/10 90%	2/2 100%	4/5 80%	3/3 100%	0/1 0%	3/3 100%	3/3 100%	2/4 50%
High	5/7 71%	2/4 50%	4/8 50%	1/4 25%	4/6 67%	2/2 100%	1/1 100%	5/5 100%	5/7 71%	5/5 100%
Moderate	5/7 71%	3/4 75%	10/15 67%	2/3 67%	8/11 73%	1/3 33%	12/15 80%	5/6 83%	3/4 75%	3/7 43%
Low	1/1 100%	0/2 0%	1/10 10%	1/1 100%	3/11 27%	1/5 20%	0/1 0%	2/4 50%	1/10 10%	1/5 20%
Very Low	0/4 0%	0/2 0%	0/6 0%	0/2 0%	1/8 13%	0/4 0%	0/6 0%	0/6 0%	0/3 0%	0/5 0%

2018										
BSMS category	EofE	EM	L	NE	NW	SC	SEC	SW	WM	YH
Very High	66%	33%	64%	100%	83%	50%	100%	100%	33%	100%
High	86%	100%	66%	75%	80%	33%	67%	100%	66%	50%
Moderate	100%	66%	50%	100%	50%	100%	22%	80%	100%	50%
Low	0%	0%	29%	0%	30%	0%	0%	60%	17%	50%
Very Low	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%

2015										
BSMS category	EofE	EM	L	NE	NW	SC	SEC	SW	WM	YTH
Very High	100%	67%	100%	100%	100%	100%	100%	50%	100%	100%
High	57%	50%	50%	75%	100%	100%	100%	100%	14%	100%
Moderate	86%	75%	7%	33%	73%	33%	7%	67%	75%	71%
Low	100%	0%	10%	100%	18%	20%	0%	25%	30%	40%
Very Low	0%	0%	0%	0%	13%	0%	0%	0%	0%	0%

Participating Sites

Addenbrooke's Hospital	Oxford University Hospitals NHS Foundation Trust
Aintree University Hospital	Pilgrim Hospital
Airedale NHS Foundation Trust	Poole Hospital NHS Foundation Trust
Alder Hey Children's NHS Foundation Trust	Portsmouth Hospitals NHS Trust
Ashford and St Peters Hospitals NHS Foundation Trust	Prince Philip Hospital
Barking Havering and Redbridge University Hospitals NHS Trust	Princess Royal University Hospital Farnborough
Bedford Hospital NHS Trust	Queen Elizabeth Hospital Greenwich
Birmingham Heartlands Hospital	Queen Elizabeth The Queen Mother Hospital
Birmingham Women's and Children's NHS Foundation Trust	Queen's Medical Centre
Blackpool Teaching Hospitals NHS Foundation Trust	Royal Berkshire NHS Foundation Trust
Bolton NHS Foundation Trust	Royal Brompton Hospital
Bradford Teaching Hospitals NHS Foundation Trust	Royal Cornwall Hospitals NHS Trust
Bristol Royal Infirmary	Royal Derby Hospital
Broomfield Hospital	Royal Devon and Exeter NHS Foundation Trust
Buckinghamshire Healthcare NHS Trust	Royal Free Hospital
Calderdale and Huddersfield NHS Foundation Trust	Royal National Orthopaedic Hospital NHS Trust
Charing Cross Hospital	Royal Surrey County Hospital NHS Foundation Trust
Chelsea & Westminster Hospital	Royal United Hospitals Bath NHS Foundation Trust
Chesterfield Royal Hospital NHS Foundation Trust	Salford Royal NHS Foundation Trust
Colchester Hospital	Sandwell and West Birmingham Hospitals NHS Trust
Conquest Hospital	Scunthorpe General Hospital
Countess of Chester Hospital NHS Foundation Trust	Sheffield Teaching Hospitals NHS Foundation Trust
County Durham and Darlington NHS Foundation Trust	Somerset NHS Foundation Trust
Croydon Health Services NHS Trust	Southend University Hospital
Dartford and Gravesham NHS Trust	South Tees Hospitals NHS Foundation Trust
Diana Princess of Wales Hospital	South Tyneside and Sunderland NHS Foundation Trust
Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust	South Warwickshire NHS Foundation Trust
East and North Hertfordshire NHS Trust	St. Bartholomew's Hospital
East Cheshire NHS Trust	St. George's University Hospitals NHS Foundation Trust
East Lancashire Hospitals NHS Trust	St. Mary's Hospital Paddington
Epsom and St. Helier University Hospitals NHS Trust	St. Richard's Hospital
Fairfield General Hospital	Surrey and Sussex Healthcare NHS Trust
Furness General Hospital	Tameside and Glossop Integrated Care NHS Foundation Trust
Gateshead Health NHS Foundation Trust	The Christie NHS Foundation Trust
George Eliot Hospital NHS Trust	The Grange University Hospital
Glangwili General Hospital	The Leeds Teaching Hospitals NHS Trust
Gloucestershire Hospitals NHS Foundation Trust	The Mid Yorkshire Hospitals NHS Trust
Great Ormond Street Hospital For Children NHS Foundation Trust	The Newcastle upon Tyne Hospitals NHS Foundation Trust
Great Western Hospitals NHS Foundation Trust	The Pennine Acute Hospitals NHS Trust
Guy's and St Thomas' NHS Foundation Trust	The Queen Elizabeth Hospital Kings Lynn NHS Foundation Trust
Hammersmith Hospital	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
Harefield Hospital	The Royal Marsden NHS Foundation Trust
Harrogate and District NHS Foundation Trust	The Royal Wolverhampton NHS Trust
Ipswich Hospital	The Shrewsbury and Telford Hospital NHS Trust
Isle of Wight Healthcare NHS Trust	Torbay and South Devon NHS Foundation Trust
James Paget University Hospitals NHS Foundation Trust	University College London Hospitals NHS Foundation Trust
Kettering General Hospital NHS Foundation Trust	University Hospital of Wales
King's College Hospital	University Hospital Southampton NHS Foundation Trust
Liverpool Heart and Chest Hospital NHS Foundation Trust	University Hospitals Birmingham NHS Foundation Trust
Liverpool Women's NHS Foundation Trust	University Hospitals Coventry and Warwickshire NHS Trust
London North West University Healthcare NHS Trust	University Hospitals of Leicester NHS Trust
Luton and Dunstable University Hospital NHS Foundation Trust	University Hospitals of North Midlands NHS Trust
Maidstone and Tunbridge Wells NHS Trust	University Hospitals Plymouth NHS Trust
Manchester Royal Infirmary	Walsall Healthcare NHS Trust
Medway NHS Foundation Trust	West Middlesex University Hospital
Mid Cheshire Hospitals NHS Foundation Trust	West Suffolk NHS Foundation Trust
Milton Keynes University Hospital NHS Foundation Trust	Weston General Hospital
Norfolk and Norwich University Hospitals NHS Foundation Trust	Whittington Health NHS Trust
North Bristol NHS Trust	Wirral University Teaching Hospital NHS Foundation Trust
North Cumbria Integrated Care NHS Foundation Trust	Withybush General Hospital
North Manchester General Hospital	Worcestershire Acute Hospitals NHS Trust
North Middlesex University Hospital NHS Trust	Worthing Hospital
North Tees and Hartlepool NHS Foundation Trust	Wye Valley NHS Trust
North West Anglia NHS Foundation Trust	Wythenshawe Hospital
Northampton General Hospital NHS Trust	Yeovil District Hospital NHS Foundation Trust
Northern Devon Healthcare NHS Trust	York Teaching Hospital NHS Foundation Trust