



Serious Hazards of Transfusion

Serious Hazards of Transfusion Information Technology (IT) Survey

SHOT recognises that IT systems in hospital transfusion practice improve patient safety and wishes to continue to promote their implementation and use of these systems to their full functionality. SHOT also recognises that there is room for improvement and wishes to encourage transfusion experts to work with IT experts and the manufacturers of these systems to ensure we have the best possible outcomes for our patients. This will include the specification and implementation of IT systems as well promoting interoperability and could also include training transfusion experts in IT and IT experts in transfusion. Please complete this questionnaire so that we can understand how to focus and prioritise this work – we will keep you informed of our plans.

We request that a single response is submitted per transfusion laboratory, on behalf of all the hospitals/facilities that they supply blood to, following discussion of the questions with members of the hospital transfusion team and committee (HTT and HTC) and IT department, to ensure the impacts of transfusion IT throughout the hospital are represented.

Respondents may wish to gather information about the manufacturers and version numbers of their IT systems prior to completing this survey, to enable easy completion. The survey should take approximately 30 minutes to complete once all information is gathered.

*** 1. What is the role/job title of the person completing this survey?**

- | | |
|--|--|
| <input type="radio"/> Transfusion Laboratory Manager | <input type="radio"/> Transfusion Practitioner |
| <input type="radio"/> Transfusion and Haematology Lead | <input type="radio"/> Pathology IT Manager |
| <input type="radio"/> Pathology Quality Manager | <input type="radio"/> Senior BMS |
| <input type="radio"/> Other (please specify) | |

*** 2. From this years MHRA blood bank or blood establishment compliance report, please tell us how many:**

Group and screen samples
were processed

RBC units were issued

* 3. Please provide the following information about your Laboratory Information Management System (LIMS) – your blood bank computer:

Software Manufacturer

Name of the system

Version of LIMS system

Year of implementation of
the current version



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* 4. Do your clinical areas use 'ordercomms' for blood transfusion tests and requests linked to an electronic patient record?

☐ Yes

☐ No



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* 5. Please provide the following information about your 'ordercomms' for blood transfusion tests and requests:

Software manufacturer

Name of the system

Version number you are currently running

Year of implementation of the current version



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* 6. Does your hospital use a electronic blood tracking system? (For example Blood Track or Blood 360)

☐ Yes

☐ No



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* 7. Please provide the following information about your electronic blood tracking system:

Software manufacturer

Name of the system

* 8. What modules does your electronic blood tracking system have?

☐ Full vein to vein functionality

☐ Remote electronic issue

☐ Sample taking and labelling

☐ Patient identification and administration

☐ Blood refrigerator control

☐ Other (please specify)



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* 9. Were all modules implemented at the same time?

☐ Yes

☐ No



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* 10. If yes, please provide the following information about your electronic blood tracking system

Version number you are
currently running

Year of implementation



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* 11. If different modules were added at different times, please list version numbers and year module each was implemented below:

| |
|--|
| |
|--|



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* 12. Does your hospital use an electronic temperature monitoring system (for blood refrigerators)?

☐ Yes

☐ No



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* 13. Please provide the following information about your blood fridge electronic temperature monitoring system:

Software manufacturer

Name of the system

Version number you are
currently running

Year of implementation of
the current version



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* 14. Does your transfusion service cover multiple transfusion laboratories in a network supplying blood to multiple sites, or does it cover a single site/transfusion laboratory?

☐ Single-site

☐ Network



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* 15. Do you have a single LIMS across the transfusion laboratories within your network?

☐ Yes

☐ No



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* 16. If multiple LIMS are used across the transfusion laboratories within the network:

Are the LIMS accessible by
other transfusion
laboratories within the
network?

If they are accessible, how
is this achieved?



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* 17. How many upgrades are you offered per year for:

| | None | 1-2 | More than 2 | We don't have this system |
|---|-----------------------|-----------------------|-----------------------|---------------------------|
| EPR/Order Comms | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| LIMS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Blood tracking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronic fridge temperature monitoring | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bedside electronic patient identification | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify)

* 18. Do you take all the upgrades offered for:

| | Yes | No | Not offered | We don't have this system |
|---|-----------------------|-----------------------|-----------------------|---------------------------|
| EPR/Order Comms | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| LIMS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Blood tracking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Electronic fridge temperature monitoring | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bedside electronic patient identification | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify)

* 19. Are you given release notes in advance of the upgrade for:

| | Yes | No | Sometimes | We don't have this system |
|---|-----------------------|-----------------------|-----------------------|---------------------------|
| EPR/Order Comms | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| LIMS | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Blood tracking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Fridge temperature monitoring | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Bedside electronic patient identification | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify)



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* 20. Are clinical observations recorded electronically?

- ☐ Yes
- ☐ No
- ☐ Don't know

If yes, what system is used?

* 21. Are medications prescribed electronically?

- ☐ Yes
- ☐ No
- ☐ Don't know

If yes, what system is used?

* 22. Is chemotherapy prescribed electronically?

- ☐ Yes
- ☐ No
- ☐ Don't know

If yes, what system is used? Is this system different to the electronic prescribing system used for general prescribing?

* 23. Are blood components authorised (prescribed) electronically?

- ☐ Yes
- ☐ No
- ☐ Don't know

If yes, what system is used?

* 24. Do you rely on pagers or do you have a unified communications platform?

- ☐ Pagers
- ☐ Unified communications platform
- ☐ Don't know

If unified communications platform, what system/provider is used?

* 25. Does your unified communications platform communicate alerts from clinical equipment? (For example: blood fridge monitoring alarm coming through switchboard to bleep or another system)

- ☐ Yes
- ☐ No
- ☐ Don't know
- ☐ We don't have a unified communications platform
- ☐ Other (please specify)

* 26. Can data from these clinical electronic systems be used to create alerts/flags in other electronic clinical systems?

| | Yes | No | Don't know | We don't have this system |
|----------------------------------|-----------------------|-----------------------|-----------------------|---------------------------|
| Clinical observations system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Prescription system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Chemotherapy prescription system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Blood authorisation system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Communications system | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other comments (please specify)



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* 27. Which aspects of the management of electronic transfusion systems do you find challenging?

- | | |
|--|--|
| <input type="checkbox"/> Agreement on extent of validation/re-validation | <input type="checkbox"/> Communication with supplier |
| <input type="checkbox"/> Comprehension of, or access to release notes | <input type="checkbox"/> Understanding of responsibilities for validation/revalidation |
| <input type="checkbox"/> Capacity to perform validation/revalidation | <input type="checkbox"/> Communication of bugs/failures identified in other sites with the same system |
| <input type="checkbox"/> Creating a URS for new systems | <input type="checkbox"/> System interfaces |
| <input type="checkbox"/> Other (please specify) | |

* 28. What are the top 10 functions you would like you LIMS system to perform that it does not currently?

Please rank 1 -10 with 1 being the most pressing

| | |
|----|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |

* 29. Have IT systems used within your Trust/Health board created any adverse issues within transfusion practice? If so please list top 5 below (1 most problematic, 5 least problematic)

1

2

3

4

5

* 30. Do your IT systems have any functionality which you think is excellent? If so please list top 5 below (1 being the best)

1

2

3

4

5

* 31. Have you wished to/attempted to implement any IT systems for transfusion, but have been unable to complete this process?

☐ Yes

☐ No



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* 32. If yes, please describe the barriers you encountered which prevented full implementation



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* 33. Do you have an IT expert for transfusion?

☐ Yes

☐ No



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* 34. What are the roles/job titles of your transfusion IT experts?

* 35. Are they:

- ☐ Part of the transfusion department
- ☐ Part of the pathology department
- ☐ External to pathology
- ☐ Other (please specify)

* 36. For the experts you have listed above, is there specific time allocation for transfusion IT?

- ☐ Yes
- ☐ No



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* 37. For those specific time allocated:

What is the time allocated
per month?

Is this sufficient?



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* 38. In regards to training of transfusion IT experts:

- ☐ There has been no training provided
- ☐ There has been limited training provided
- ☐ There has been adequate training provided
- ☐ Other (please specify)



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* 39. Who makes/ at what level are decisions regarding transfusion IT made?

- ☐ Transfusion laboratory manager
- ☐ HTT/HTC
- ☐ Pathology directorate
- ☐ IT department
- ☐ Other (please specify)

* 40. What barriers have you experienced in regards to introducing improved IT systems?

* 41. What ideas do you have for overcoming these barriers/ what solutions have been found within your Trust/ Health board?

* 42. Do you have anyone in your organisation who would be interested in contributing to the training of others in transfusion IT?

- ☐ Yes
- ☐ No

If yes, please state their role/job title below



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* 43. The SHOT IT WEG is planning to work with the IT suppliers to improve patient safety, what would you most like to see as outcomes from this collaboration?



Templates for validation/re-validation requirements, URS



Agreement for transparency in IT short falls from the suppliers (plain English field safety notices)



Agreement for transparency in the functional aspects of the system prior to purchase



Industry standards for transfusion IT suppliers to ensure compliance with national standards



Plain English release notes for upgrades

44. Are there any other outcomes you would like to see?

45. What else could the SHOT IT WEG do to help your department ensure transfusion IT systems are safe?

* 46. Would you like to be involved in the SHOT UK Collaborative Reviewing and reforming IT Processes in Transfusion (SCRIPT) workshop?

- ☐ Yes
- ☐ No
- ☐ Maybe

47. Any other comments?

48. If you are happy to be contacted by the SHOT team in regards to your responses, please enter a contact email address below

N.B. The email will be used for no other purposes except that specified above. If you change your mind, please contact the SHOT team to delete your details (shot@nhsbt.nhs.uk):

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