



Still 'Hub'sessed – Empowering Biomedical Scientists to enhance patient care

Jill Caulfield

Education Development Lead, NHSBT

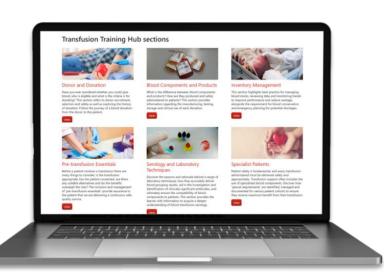
IBMS Congress - September 2025







- Discussing the **Transfusion Training Hub** the 'one stop shop' of resources.
- Why was it developed?
- How can it help Biomedical Scientists?
- How can it help with patient care?

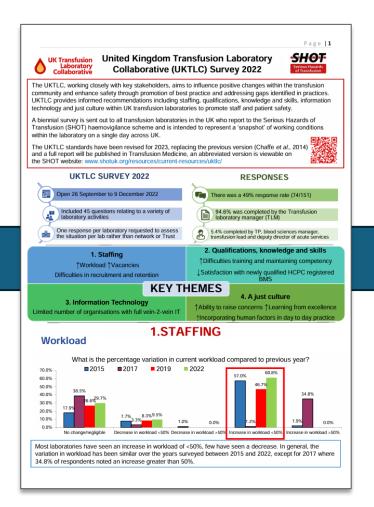


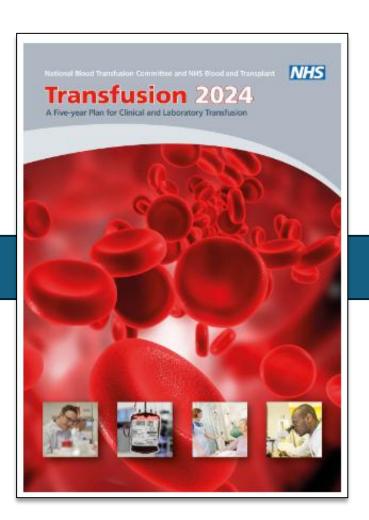


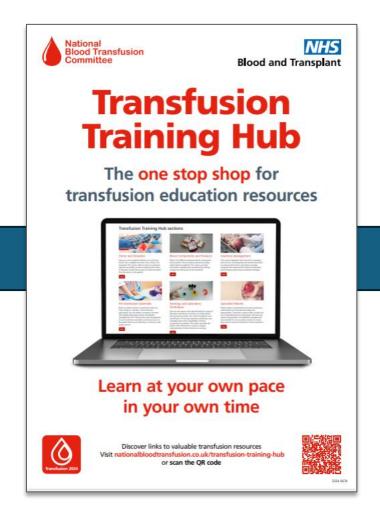
From concept to delivery



















- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:

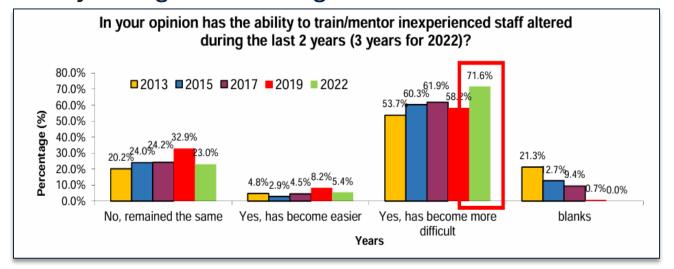








- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:





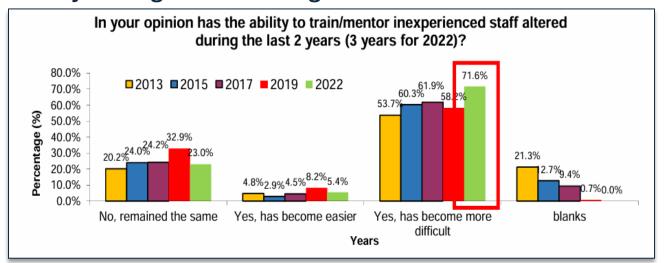






What did it show?

- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:



71.6% of laboratories had stated that within the last 2 years it had become more difficult to train/mentor staff.

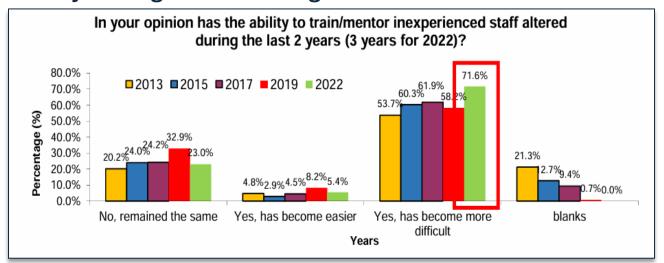








- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:



- 71.6% of laboratories had stated that within the last 2 years it had become more difficult to train/mentor staff.
- Most noted no specific training and development budget for transfusion and challenges with releasing staff for external educational events, both face to face and virtual.

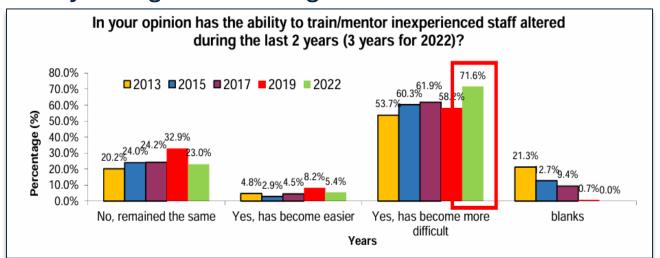








- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:



- 71.6% of laboratories had stated that within the last 2 years it had become more difficult to train/mentor staff.
- Most noted no specific training and development budget for transfusion and challenges with releasing staff for external educational events, both face to face and virtual.
- Respondents keen to have **more access to technology to aid self-directed learning** for staff in training.

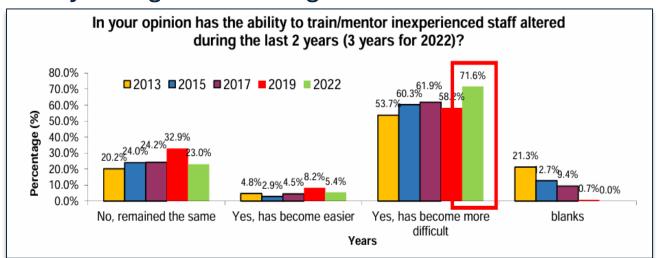








- The UK Transfusion Laboratory Collaborative (UKTLC) Survey was carried out in Dec 2022.
- There were 45 questions relating to various topics including staffing, IT, just culture and qualifications, knowledge and skills.
- Key findings for knowledge and skills:

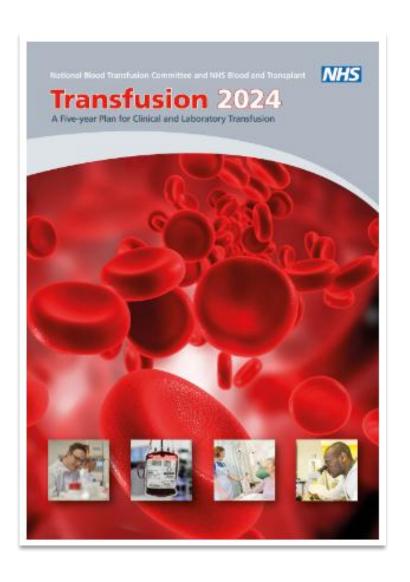


- 71.6% of laboratories had stated that within the last 2 years it had become more difficult to train/mentor staff.
- Most noted no specific training and development budget for transfusion and challenges with releasing staff for external educational events, both face to face and virtual.
- Respondents keen to have more access to technology to aid self-directed learning for staff in training.
- Recommendation: UKTLC in conjunction with other professional organisations should consider providing interactive tools and resources that could be used to support self-directed learning in the workplace.

Collaboration – UKTLC / NHSBT









Stronger Patient Blood Management Collaboration



Increased Transfusion Laboratory Safety



Enhanced Information Technology

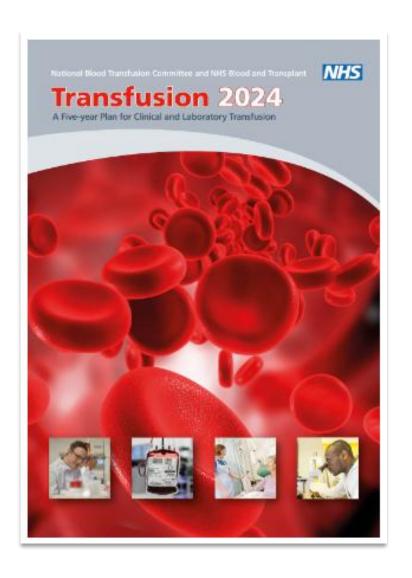


Further Research and Innovation

Collaboration – UKTLC / NHSBT









Stronger Patient Blood Management Collaboration



Increased Transfusion Laboratory Safety



Enhanced Information Technology



Further Research and Innovation





To develop a 'one stop shop' of transfusion education resources





To develop a 'one stop shop' of transfusion education resources





To develop a 'one stop shop' of transfusion education resources

| Spreadsheet of resources | | |
|--------------------------|--|--|
| X | | |





To develop a 'one stop shop' of transfusion education resources

| Spreadsheet of resources | Team of experts from NHSBT, SHOT, NBTC | | |
|--------------------------|--|--|--|
| X | EXPERTS 1 | | |





To develop a 'one stop shop' of transfusion education resources

| Spreadsheet of resources | Team of experts from NHSBT, SHOT, NBTC | Scientific knowledge | |
|--------------------------|--|-------------------------|--|
| X | THE EXPERTS | | |





To develop a 'one stop shop' of transfusion education resources

| Spreadsheet of resources | Team of experts from NHSBT, SHOT, NBTC | Scientific knowledge | Idea of what it could look like | |
|--------------------------|--|-------------------------|------------------------------------|--|
| X | THE EXPERTS | | | |



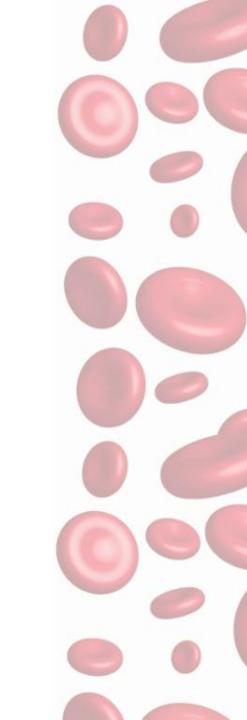


To develop a 'one stop shop' of transfusion education resources

| Spreadsheet of resources | Team of experts from NHSBT, SHOT, NBTC | Scientific knowledge | Idea of what it could look like | Understanding of challenges training in the lab |
|--------------------------|--|-------------------------|------------------------------------|---|
| X | THE EXPERTS | | | |



Aid with the training burden – but how?





Aid with the training burden – but how?



Direct the user to the right resource quickly – easy to navigate





Aid with the training burden – but how?



Direct the user to the right resource quickly – easy to navigate



Have a selection of proven resources (relevant and up to date)





Aid with the training burden – but how?



Direct the user to the right resource quickly – easy to navigate



Have a selection of proven resources (relevant and up to date)



Signpost useful qualifications and courses – maybe show the user the level of each qualification to aid in career progression or CPD





Aid with the training burden – but how?



Direct the user to the right resource quickly – easy to navigate



Have a selection of proven resources (relevant and up to date)



Signpost useful qualifications and courses – maybe show the user the level of each qualification to aid in career progression or CPD



Have a variety of resources to compliment different learning styles





Aid with the training burden – but how?



Direct the user to the right resource quickly – easy to navigate



Have a selection of proven resources (relevant and up to date)



Signpost useful qualifications and courses – maybe show the user the level of each qualification to aid in career progression or CPD



Have a variety of resources to compliment different learning styles



To be inclusive – primarily scientists, but useful to other healthcare practitioners, donors and patients



How can we make it inclusive?











Scientists

Visited colleagues

Piloted the webpage

Gathered feedback

Clinicians

Education working/steering group

Input into the links to include

Approved resources

Practitioners

Input from Transfusion Practitioners

What would be useful?

Applicable resources

Donors

NHSBT website

Key elements

How and why to donate

Patients

Worked with PPI Lead

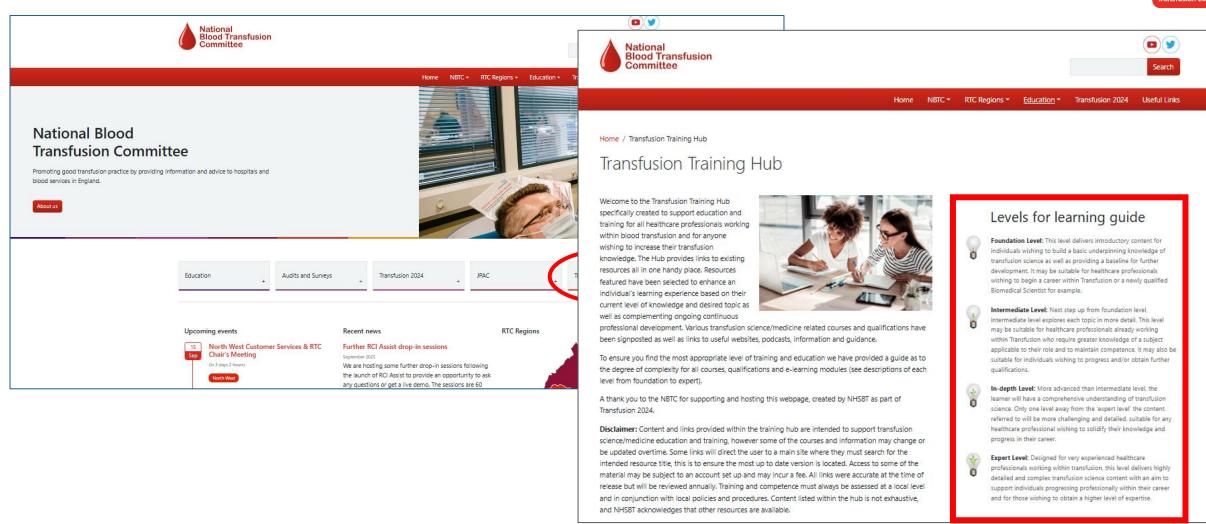
Added more inclusive information

Not just scientific!



Let's look at what the Transfusion Training Hub has to offer.....











FOUNDATION: Introductory content for individuals wishing to build a basic <u>underpinning knowledge</u>

Suitable for a **newly qualified Biomedical Scientist** for example.







FOUNDATION: Introductory content for individuals wishing to build a basic underpinning knowledge.

Suitable for a **newly qualified Biomedical Scientist** for example.



INTERMEDIATE: More detail, suitable for healthcare professionals already working within Transfusion.

Suitable for individuals **wishing to progress** and/or obtain further qualifications.







FOUNDATION: Introductory content for individuals wishing to build a basic underpinning knowledge.

Suitable for a **newly qualified Biomedical Scientist** for example.



INTERMEDIATE: More detail, suitable for healthcare professionals <u>already working within Transfusion.</u>

Suitable for individuals wishing to progress and/or obtain further qualifications.



IN-DEPTH: Comprehensive understanding of transfusion science, more challenging and detailed.

Suitable for any healthcare professional wishing to **solidify their knowledge** and progress in their career.







FOUNDATION: Introductory content for individuals wishing to build a basic underpinning knowledge.

Suitable for a **newly qualified Biomedical Scientist** for example.



INTERMEDIATE: More detail, suitable for healthcare professionals already working within Transfusion.

Suitable for individuals wishing to progress and/or obtain further qualifications.



IN-DEPTH: Comprehensive understanding of transfusion science, more challenging and detailed.

Suitable for any healthcare professional wishing to **solidify their knowledge** and progress in their career.



EXPERT: Very experienced healthcare professionals. Detailed and <u>complex transfusion</u> science content.

Supports individuals progressing professionally and for those wishing to obtain a higher level of expertise.

9 sections



Blood and Transplant





Search

Home NBTC ▼ RTC Regions ▼ Education ▼ Transfusion 2024 Useful Links

Home / Transfusion Training Hub

Transfusion Training Hub

Welcome to the Transfusion Training Hub specifically created to support education and training for all healthcare professionals working within blood transfusion and for anyone wishing to increase their transfusion knowledge. The Hub provides links to existing resources all in one handy place. Resources featured have been selected to enhance an individual's learning experience based on their current level of knowledge and desired topic as well as complementing ongoing continuous



professional development. Various transfusion science/medicine related courses and qualifications have been signposted as well as links to useful websites, podcasts, information and guidance.

To ensure you find the most appropriate level of training and education we have provided a guide as to the degree of complexity for all courses, qualifications and e-learning modules (see descriptions of each level from foundation to expert).

A thank you to the NBTC for supporting and hosting this webpage, created by NHSBT as part of Transfusion 2024.

Disclaimer: Content and links provided within the training hub are intended to support transfusion science/medicine education and training, however some of the courses and information may change or be updated overtime. Some links will direct the user to a main site where they must search for the intended resource title, this is to ensure the most up to date version is located. Access to some of the material may be subject to an account set up and may incur a fee. All links were accurate at the time of release but will be reviewed annually. Training and competence must always be assessed at a local level and in conjunction with local policies and procedures. Content listed within the hub is not exhaustive, and NHSBT acknowledges that other resources are available.

Levels for learning guide





Intermediate Level: Next step up from foundation level, intermediate level explores each topic in more detail. This level may be suitable for healthcare professionals already working within Transfusion who require greater knowledge of a subject applicable to their role and to maintain competence. It may also be suitable for individuals wishing to progress and/or obtain further qualifications.



In-depth Level: More advanced than intermediate level, the learner will have a comprehensive understanding of transfusion science. Only one level away from the 'expert level' the content referred to will be more challenging and detailed, suitable for any healthcare professional withing to solidify their knowledge and progress in their career.



Expert Level: Designed for very experienced healthcare professionals working within transfusion, this level delivers highly detailed and complex transfusion science content with an aim to support individuals progressing professionally within their career and for those wishing to obtain a higher level of expertise.

Transfusion Training Hub sections



Donor and Donation

Have you ever wondered whether you could give blood, who is eligible and what is the criteria is for donating? This section refers to donor recruitment, selection and safety as well as exploring the history of donation. Follow the journey of a blood donation from the donor to the patient.





Pre-transfusion Essentials

Before a patient receives a transfusion there are many things to consider, is the transfusion appropriate, has the patient concented, are there any suitable alternatives and do the benefits outweigh the risks? The inclusion and management of pre-transfusion essentials' provide assurance to the patient that we are delivering a continuous safe, quality service.





Serious Adverse Reactions and Events (Incident Management)

Although blood transtisions save lives and improve clinical outcomes for patients, there is always an associated element of risk involved. Haemovigilance is the systematic surveillance of adverse reactions and events related to transdusion where the aim is to learn from such occurrences to improve transdusion safety. Discover how to avoid or reduce the risks and how to manage a serious adverse reaction or event appropriately.





Blood Components and Products

What is the difference between blood components and products? How are they produced and safely administered to patients? This section provides information regarding the manufacturing, testing, storage and clinical use of each donation:





Serology and Laboratory Techniques

Discover the reasons and rationale behind a range of laboratory techniques, how they accurately deliver blood grouping results, aid in the investigation and identification of clinically significant antibodies, and ultimately ensure the compatibility of blood compenents to patients. This section provides the learner with information to acquire a deeper understanding of blood transitusion seriology.





Governance and Regulation

Blood establishments (translusion contres) and laboratories are overseen by several regulatory agencies and organisations to ensure the continual provision of a safe quality product as well as delivering the highest level of care to patients. Discover more about the requirements imposed upon these services and how they are put into everyday practice. Explore the standards that must be achieved to receive accreditation states as well as maintaining a fully competent veniforce.





Inventory Management

This section highlights best practice for managing blood stocks, reviewing data and monitoring trends to improve performance and reduce wastage, alongside the requirement for blood conservation and emergency planning for potential shortages.





Specialist Patients

Patient safety is fundamental, and every transfusion administrated must be delivered tastely and appropriately. Transfusion support often includes the use of specialised blood components. Discover how special requirements are identified, managed and documented for various patient cohorts to ensure they receive maximum benefit from their transfusion.





Career Progression and Professional Development

This section provides links to academic courses and qualifications as well as further supportive educational tools and training to help individuals develop further skills or obtain qualifications required to progress in their career.









Scenario 1

New band 5 / Trainee / apprentice / AP (band 4)
No/limited hospital lab experience







Scenario 1

What were the challenges?



Lack of time







Scenario 1

What were the challenges?



Lack of time



Lack of budget







Scenario 1

What were the challenges?



Lack of time



Lack of budget



Different learning styles







Scenario 1

What were the challenges?



Lack of time



Lack of budget



Different learning styles



IBMS Institute of Biomedical Science Portfolio to complete







Scenario 1

What were the challenges?



Lack of time



Lack of budget



Different learning styles



Institute of Biomedical Science Portfolio to complete



Lack of knowledge







Scenario 1



Lack of time

- Topics divided into 9 sections
- Search function
- Proven list of resources direct links
- Various media dependant on time available eg: video, document, podcast
- Available 24/7
- Hosted on an open platform web based







Scenario 1



Lack of budget

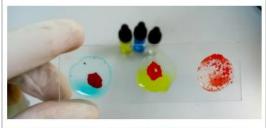
- Some qualifications require payment
- Many free resources signposted
- Reduces requirement to travel / hotel



Free resources signposted

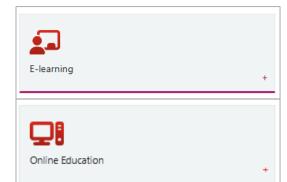






Serology and Laboratory Techniques

Discover the reasons and rationale behind a range of laboratory techniques, how they accurately deliver blood grouping results, aid in the investigation and identification of clinically significant antibodies, and ultimately ensure the compatibility of blood components to patients. This section provides the learner with information to acquire a deeper understanding of blood transfusion serology.



Home / Transfusion Training Hub / Serology and Laboratory Techniques / Transfusion Training Hub

Serology and Laboratory Techniques - Elearning

E-learning

NHS England e-learning for healthcare - Blood Transfusion An introduction to Transfusion laboratory practice

https://www.e-lfh.org.uk/programmes/blood-transfusion/







NHS England e-learning for healthcare - Blood Transfusion **Essential Transfusion Practice**

https://www.e-lfh.org.uk/programmes/blood-transfusion/







NHS Blood and Transplant - Specific requirements for patie essentials

https://learninghub.nhs.uk/catalogue/NHSBT-Learning-Zone?nodeld=4707









Home / Transfusion Training Hub / Serology and Laboratory Techniques / Transfusion Training Hub

Serology and Laboratory Techniques -Online Education

Online Education

London RTC Education Session - Rh variants and tricky transfusion: a case presentation

https://www.youtube.com/watch?v=K1JlvdaDApY&list=PL8lwhkGegrQ6EcNDPYeaVCwED9t0O...

NHS Blood and Transplant - Blood Transfusion Education and Discussion Group - A transfusion laboratory perspective of Autoimmune Haemolytic Anaemia

https://youtu.be/Llgc5lvAqSU?list=PL8lwhkGegrQ7_k5bb6wqgXlMexCNFpBop

NHS Blood and Transplant - Blood Transfusion Education and Discussion Group - Antibody Identification - is it a bunch of hocus pocus?

https://youtu.be/1IXWNKXuj4s?list=PL8lwhkGegrQ7_k5bb6wqgXIMexCNFpBop

NHS Blood and Transplant - Blood Transfusion Education and Discussion Group - Blood that is rare - Who, What and Where?

https://youtu.be/fZUJON8-Cc8?list=PL8lwhkGegrQ7_k5bb6wggXIMexCNFpBop





Scenario 1



- Different methods of learning...
- Visual, auditory, reading, writing, reflective, hands on





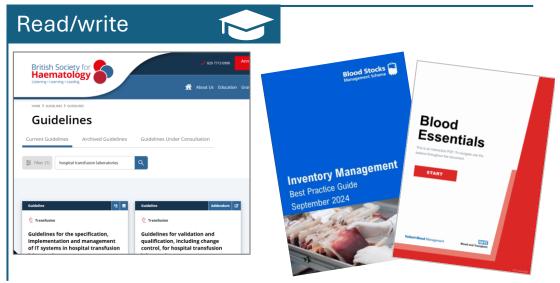






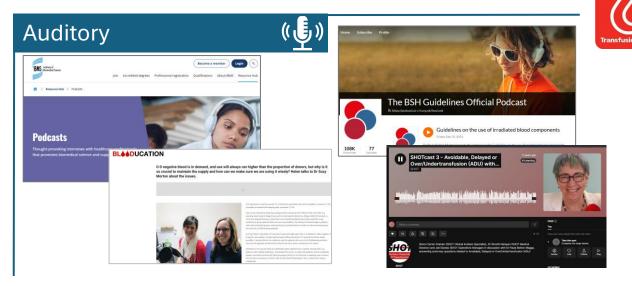


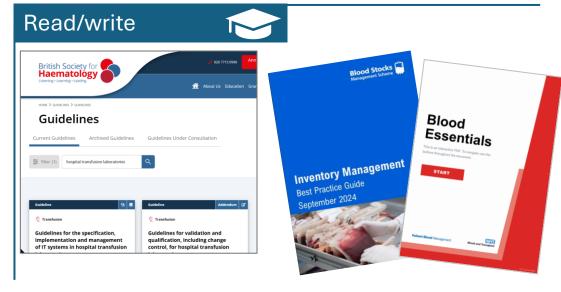






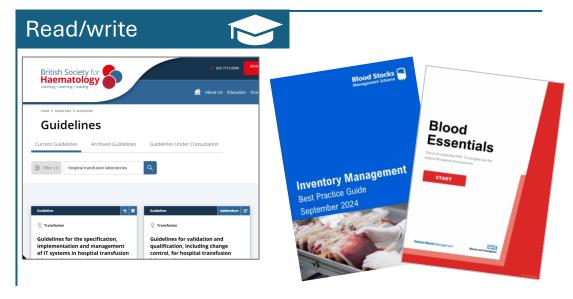


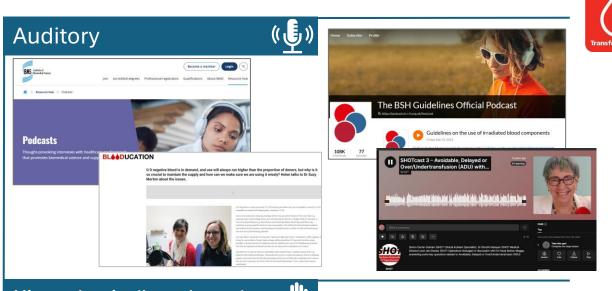


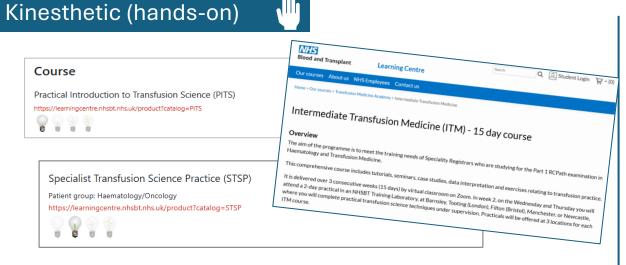
















Scenario 1



IBMS Institute of Biomedical Science Portfolio to complete

Information to help meet portfolio standards



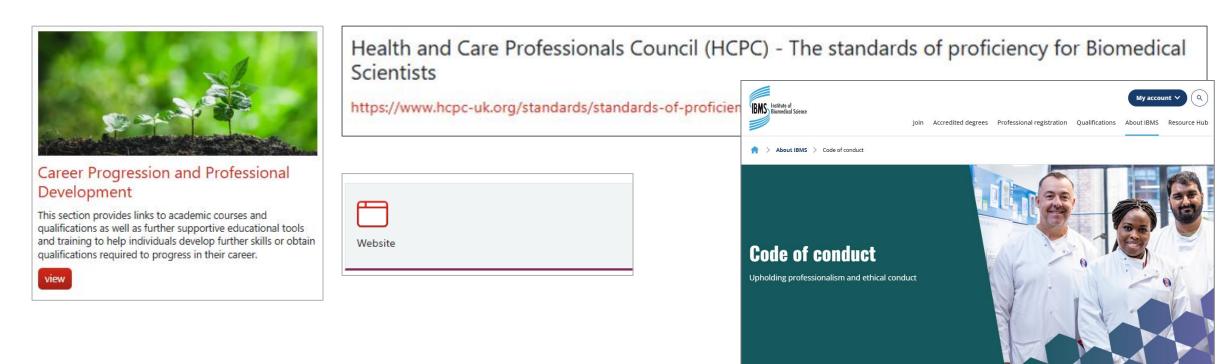
Free resources signposted



0

V5 Portfolio – learning outcomes

- Module 1 personal responsibility and development
 - Understand what is required of them by the Health and Care Professions Council, including their ability to apply legislation, policies and guidance relevant to biomedical scientists within their scope of practice.



Free resources signposted

NHSBlood and Transplant

V5 Portfolio – learning outcomes



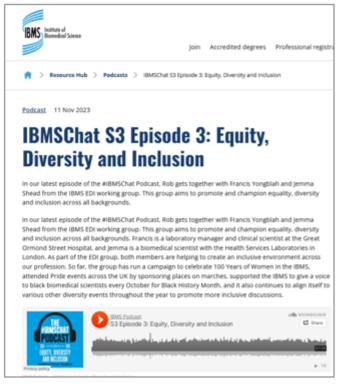
- Module 2 Equality, diversity and inclusion
 - Acknowledge the rights, dignity and values of others and actively challenge barriers to inclusion in their practice.

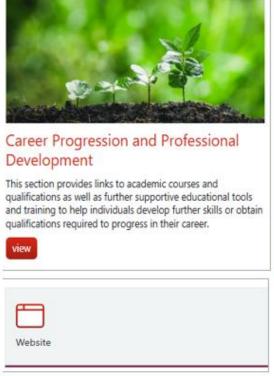


Blood establishments (transfusion centres) and laboratories are overseen by several regulatory agencies and organisations to ensure the continual provision of a safe quality product as well as delivering the highest level of care to patients. Discover more about the requirements imposed upon these services and how they are put into everyday practice. Explore the standards that must be achieved to receive accreditation status as well as maintaining a fully competent workforce.















Scenario 2

Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge

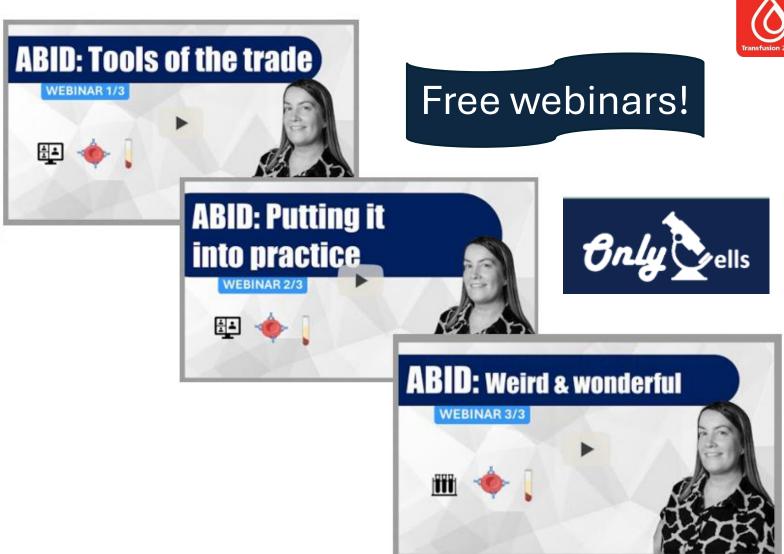




Scenario 2

Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge



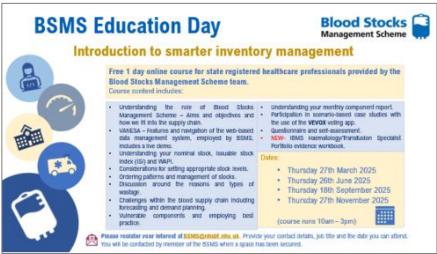


Transfusion 2024

Scenario 2

Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge









Scenario 2

Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge

Higher Specialist Diploma (HSD) Transfusion Science

https://www.ibms.org/education/higher-and-expert-qualifications/highest-special...









Specialist Certificate in Transfusion Science Practice

https://www.bbts.org.uk/education/bbtsqualifications/specialistcerttsp/











University of the West of England - Bristol (UWE) - MSc in Applied Transfusion and Transplantation Science

https://courses.uwe.ac.uk/C99S12/applied-transfusion-and-transplantation-science















Scenario 2

Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge

These cost money; however, they are proven, good quality, recognised qualifications.

Higher Specialist Diploma (HSD) Transfusion Science

https://www.ibms.org/education/higher-and-expert-qualifications/highest-special...









Specialist Certificate in Transfusion Science Practice

https://www.bbts.org.uk/education/bbtsqualifications/specialistcerttsp/











University of the West of England - Bristol (UWE) - MSc in Applied Transfusion and Transplantation Science

https://courses.uwe.ac.uk/C99S12/applied-transfusion-and-transplantation-science











SHOT

of Transfusion

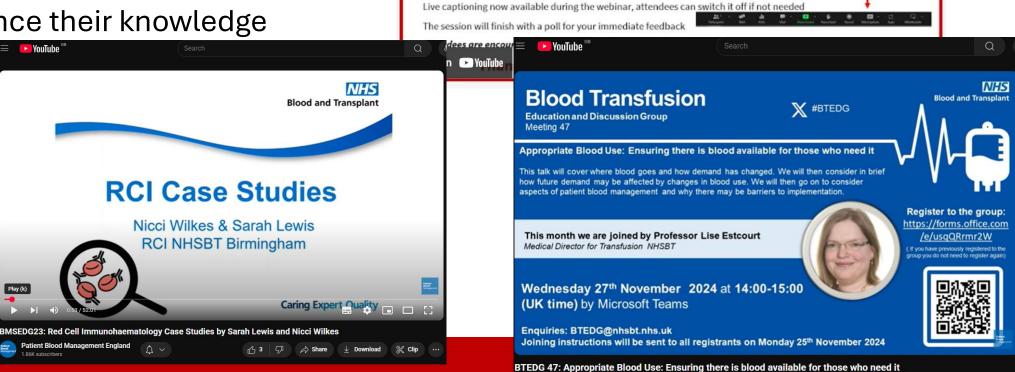
Laboratory Errors

Scenario 2



Experienced band 6

- Specialising
- Qualifications to progress
- Enhance their knowledge



Meet the Experts Laboratory Errors ION MATTERS

Meet the Experts well

Please type any questions into the Q&A box below, do not use the chat facility for questions

Questions will either receive a response through Q&A or will be answered live

Your microphone is muted by the host and will remain





Scenario 3

Experienced band 7 / training officer

- Understand regulation / guidelines
- Qualifications to progress
- Training others / new skills





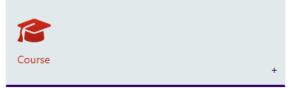


Scenario 3

Experienced band 7 / training officer

Understand regulation / guidelines





| | How to get UKAS accreditation Careers | | Cus | tomer area | Contact us | |
|--|---------------------------------------|-----------|---|---------------------|------------|-----------|
| ₩ UKAS | Search accredited organisations | CertCheck | Accreditation | Training & Advisory | Resources | Abo |
| Home > Training and advisory > Training > Medical Laboratories Awaren | ess – ISO 15189:2022 course | | | | | |
| | | | | | | |
| Medical Laboratories Awa | ıreness – ISO 15 | 189:20 |)22 co | ourse | | |
| Book now Enquire | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | + + |
| | | | | | | + + |
| | | | | | | + + |
| Enhance your understanding of how the organisational processes of medical laboratories can be improved by meeting the requirements of ISO 15189:2022 and its focus on clinical utility, obligations to the patient and risk management in this highly interactive blended course (2 days classroom and approx 1 day coursework). | | | Who is | this course | for? | |
| This course is designed for organisations embarking on the diagnostic examination and testing in the laboratory and the new ISO 15189:2022 standard, relating to the compet Laboratories. | will support delegate understandir | ng of | This course is designed for any individuals responsible for, and involved in, the quality and/or technical support activities relating to medical sample examination and result generation activities within their organisation | | | y g to |





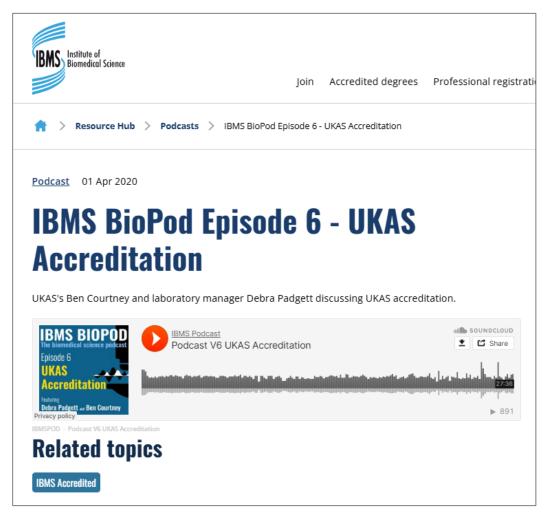
Scenario 3

Experienced band 7 / training officer

Understand regulation / guidelines











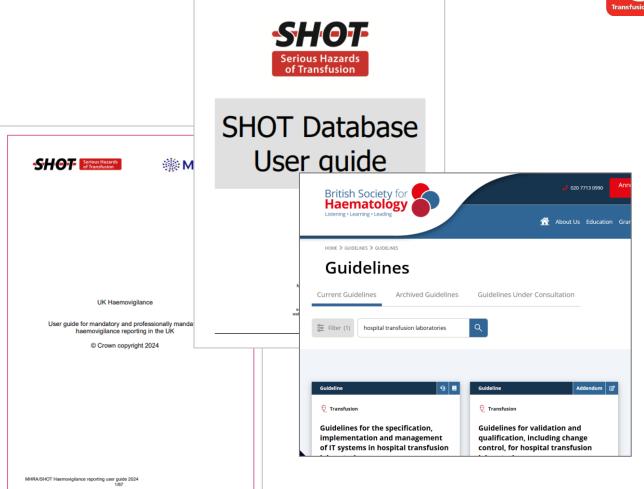
Scenario 3

Experienced band 7 / training officer

Understand regulation / guidelines









Transfusion 2024

Scenario 3

Experienced band 7 / training officer

- Understand regulation / guidelines
- Qualifications to progress

Training qthere / now skills



Career Progression and Professional Development

This section provides links to academic courses and qualifications as well as further supportive educational tools and training to help individuals develop further skills or obtain qualifications required to progress in their career.

view

RCPath - Transfusion Science - Higher Specialist Scientific Training (HSST)



https://www.rcpath.org/trainees/training/training-by-specialty/clinical-and-lab...



Certificate of Expert Practice

For biomedical scientists at Member or Fellow level with at least two years of post-registration experience to specialise and demonstrate their knowledge and skill



Advance your career with an IBMS professional qualification

Overview

Assessment

Applying

The IBMS Certificate of Expert Practice (CEP) Distance Learning courses are online qualifications designed for biomedical scientists at Member (MIBMS) or Fellow (FIBMS) level with at least two years of post-registration experience.

These qualifications allow you to specialise in:

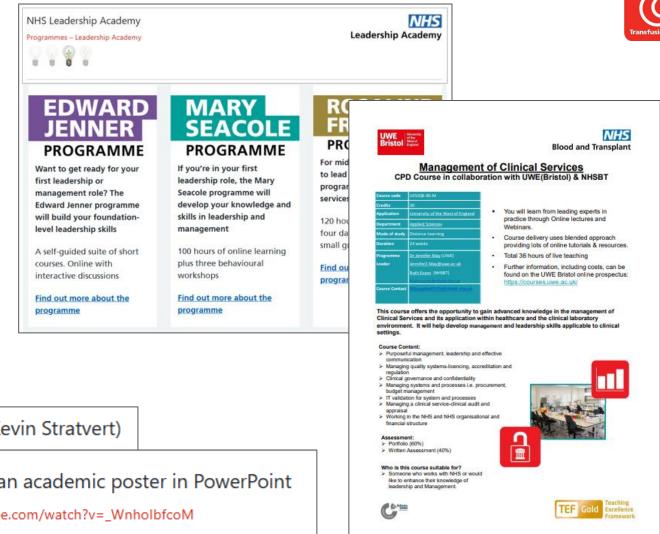
- · Laboratory IT and Clinical Informatics
- · Leadership and Management
- · Point of Care Testing
- · Quality Management
- Training



Scenario 3

Experienced band 7 / training officer

- Understand regulation / guidelines
- Qualifications to progress
- Training others / new skills



Excel tutorial for beginners (Kevin Stratvert)

https://www.youtube.com/watch?v=LgXzzu68j7M

Pivot table Excel - Step by step guide (Kevin Stratvert)

https://www.youtube.com/watch?

How to make an academic poster in PowerPoint

https://www.youtube.com/watch?v= WnholbfcoM

The overall goal....

- **NHS**Blood and Transplant
 - Transfusion 2024

- Help to address knowledge gaps with our BMS workforce
- Help to reduce the training burden
- Centralise proven resources all in one place
- Free / accessible 24/7 self directed
- Aid with career progression
- Confident workforce retain staff



Ultimately....





- Help to address knowledge gaps with our BMS workforce
- Help to reduce the training burden
- Centralise proven resources all in one place
- Free / accessible 24/7 self directed
- Aid with career progression
- Confident workforce retain staff





- To keep our patient safe
- Knowledgeable staff
- Right blood right time
- Quality component/product
- Enhance patient experience



The story so far....





>41,000 views since go live (April 2024)





Transfusion Training Hub

The one stop shop for transfusion education resources



Learn at your own pace in your own time



Discover links to valuable transfusion resources
Visit nationalbloodtransfusion.co.uk/transfusion-training-hub
or scan the QR code







We've gone global!





- 163 out of 195 countries have actively used the Training hub in its first year!
- That's 84% of the world!!

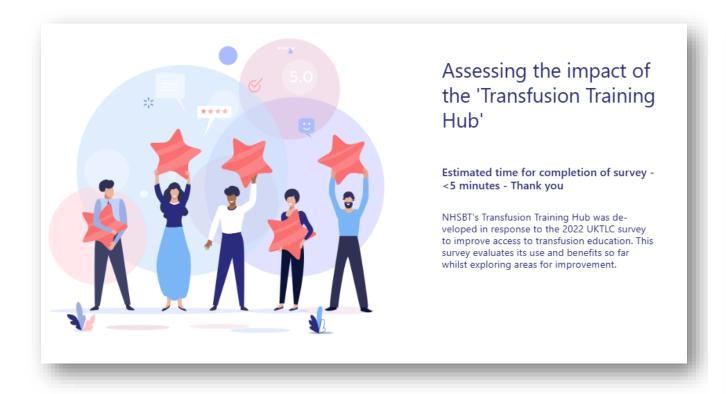




Impact assessment survey













All feedback is welcome!

transfusiontraininghub@nhsbt.nhs.uk





Thank you ©

Any questions?