

learnbloodtransfusion

e-learning for safe, effective and appropriate transfusion practice



Learnbloodtransfusion the essential guide

Produced by the UK Blood Services

v3.6 May 2012

- Introduction
- About the content
- Safe Transfusion Practice
- Safe Transfusion Practice in the Laboratory
- Safe Transfusion Practice (Paediatrics)
- Blood Components and Indications for Use
- Good Manufacturing Practice for Transfusion Laboratory Staff
- Anti-D Clinical
- Anti-D Laboratory
- Learn Cell Salvage
- Academic accreditation
- How to access the e-learning
- More about the learning management systems
- Your questions



Blood transfusion, if used safely and appropriately, will improve the quality of life or be a life saving treatment for many patients.

Learnbloodtransfusion has been developed to ensure that all healthcare workers can participate safely in the transfusion process, in line with the Health Service Circular [Better Blood Transfusion – Safe and Appropriate Use of Blood \(2007\)](#).

The e-learning has been developed by the UK Blood Services and is reviewed annually by a UK-wide editorial board and supported by:

- 🔴 UK Blood Services
- 🔴 The Serious Hazards of Transfusion (SHOT) scheme
- 🔴 The National Patient Safety Agency (courses 1 and 2 only)
- 🔴 Chief Medical Officer's National Blood Transfusion Committee England and the respective committees in Northern Ireland, Scotland and Wales



Learnbloodtransfusion is offered in seven courses:

- ◆ Safe Transfusion Practice - 7 units/sessions (including in the Laboratory - 1 unit/session)
- ◆ Safe Transfusion Practice (Paediatrics) - 7 units/sessions
- ◆ Blood Components and Indications for Use - 8 units/sessions
- ◆ Good Manufacturing Practice for Transfusion Laboratory Staff - 9 units/sessions
- ◆ Anti-D Clinical – 6 units/sessions
- ◆ Anti-D Laboratory - 5 units/sessions
- ◆ Learn Cell Salvage – 4 units within 1 session

Topics include:

- ◆ ABO blood group system and serology
- ◆ The correct procedures for each step in the transfusion process
- ◆ Blood component and derivatives and their indications for use
- ◆ The management of massive transfusion
- ◆ Recognising and managing a transfusion reaction
- ◆ Good manufacturing practice
- ◆ Anti-D and Haemolytic disease of the Foetus and Newborn (HDN)
- ◆ Blood Conservation
- ◆ Cell Salvage



The sessions:

1. Haemovigilance in the UK and ROI
2. Blood Group Serology
3. Requesting Procedures
4. Sampling Procedures
5. Collection Procedures
6. Administration Procedures
7. Management of Transfused Patient

Designed for:

- Doctors
- Nurses
- Midwives
- Operating department practitioners
- Clinical support workers
- Phlebotomists
- Porters
- Biomedical scientists
- Medical laboratory assistants

Learning outcomes:

- ✓ Identify the most common errors in the transfusion process
- ✓ Describe basic ABO serology
- ✓ Describe the correct procedures for all the steps in the transfusion process
- ✓ Explain the initial action required to manage an adverse event

The sessions:

1. Laboratory unit

Designed for:

- Hospital transfusion laboratory staff

Learning outcomes:

- ✓ Describe the role of the hospital transfusion laboratory in supporting safe and appropriate transfusion

The sessions:

1. Haemovigilance in the UK and ROI
2. Blood Group Serology
3. Requesting Procedures
4. Sampling Procedures
5. Collection Procedures
6. Administration Procedures
7. Management of Transfused Patient

Designed for:

NHS staff in a paediatric setting who are involved in the transfusion process:

- Doctors
- Nurses
- Midwives
- Operating department practitioners
- Clinical support workers
- Phlebotomists
- Porters
- Biomedical scientists
- Medical laboratory assistants

Learning outcomes:

- ✓ Demonstrate an understanding of basic ABO serology
- ✓ Correctly take a blood sample for pre-transfusion testing
- ✓ Store blood components correctly
- ✓ Collect blood components safely
- ✓ Administer a blood transfusion safely
- ✓ Take initial action to manage a transfusion adverse event

The sessions:

1. Safe and Appropriate Transfusion Practice
2. Blood Group Serology
3. Red Blood Cells
4. Platelets
5. Plasma Components
6. Massive Transfusion
7. Plasma Derivatives
8. Adverse Effects of Transfusion

Designed for:

People who have completed course 1:
Safe Transfusion Practice

- Doctors
- Nurses
- Midwives
- Operating department practitioners
- Blood transfusion trainers

Learning outcomes:

- ✓ Demonstrate an understanding of the ABO blood group system
- ✓ Summarise the pre-transfusion testing process and selection of compatible blood components
- ✓ Describe the different blood components/derivatives that are available and the indications for their use
- ✓ Describe the common signs and symptoms of a transfusion reaction and outline how to take appropriate action
- ✓ Illustrate how you are professionally accountable in relation to the transfusion process

The sessions:

1. Quality Management System
2. Personnel
3. Documentation
4. Premises and Equipment
5. Quality Control
6. Service Provision
7. Contracts and Analyses
8. Complaints and Blood Component Recall
9. Audit

Designed for:

- Hospital transfusion laboratory staff

Learning outcomes:

- ✓ Describe the basic principles of good manufacturing practice and how they relate to your role in the transfusion process
- ✓ Explain the requirements of the UK Blood Safety and Quality Regulations (BSQR 2005) in relation to your practice
- ✓ Demonstrate an understanding of the roles and responsibilities of the hospital transfusion laboratory staff in complying with and maintaining good manufacturing practice

The sessions:

1. Understanding Maternal Sensitisation
2. Anti-D Prophylaxis
3. Management of Pregnancies at Increased Risk
4. Anti-D – Routine Use
5. Anti-D – Informed Decision Making
6. Anti-D – Safe Storage and Administration

Designed for:

- Obstetricians
- General Practitioners
- Midwives
- Nurses

Learning outcomes:

- ✓ Explain the significance of RhD during pregnancy, antibody formation following fetomaternal haemorrhage and how anti-D immunoglobulin prevents sensitisation
- ✓ Describe the impact that anti-D prophylaxis has had on outcomes
- ✓ Discuss the management of potentially sensitising events during pregnancy and the care of women already sensitised to the RhD antigen
- ✓ Recognise the need to facilitate informed decision making in relation to anti-D
- ✓ Describe the safe storage and administration of anti-D immunoglobulin

The sessions:

1. Understanding Maternal Sensitisation
2. Anti-D Prophylaxis
3. Routine Laboratory Testing in Pregnancy
4. The Role of the Laboratory in Anti-D Prophylaxis
5. The Role of the Laboratory in Anti-D Sensitised Pregnancies

Designed for:

- Hospital transfusion laboratory staff
- Obstetricians
- General Practitioners
- Midwives
- Nurses

Learning outcomes:

- ✓ Explain the significance of RhD during pregnancy, antibody formation following fetomaternal haemorrhage and how anti-D immunoglobulin prevents sensitisation
- ✓ Describe the impact that anti-D prophylaxis has had outcomes
- ✓ Discuss the role of the routine blood transfusion and haematology laboratories in pregnancy, role of the laboratory in anti-D prophylaxis and the role of routine laboratory and reference laboratories in the management of sensitised pregnancies

The units:

1. Basic Blood Facts
2. Blood Conservation
3. Intraoperative Cell Salvage
4. Postoperative Cell Salvage

Designed for:

- Doctors
- Nurses
- Operating department practitioners
- Cell salvage operators
- Clinical perfusionists
- Clinical support worker

Learning outcomes:

- ✓ Describe the basic composition and physiology of blood
- ✓ List the donor blood components that are currently available for clinical use in the UK
- ✓ Understand the importance of planning a blood conservation strategy for a surgical patient
- ✓ Explain the indications and limitations of the various blood conservation techniques available

Learnbloodtransfusion has received academic accreditation from Napier University, Edinburgh:

Safe Transfusion Practice

- ✓ **2 CAT credits at Level 4 in England, Wales, and NI**
- ✓ **2 credits at Level 7 SCQF**

Blood Components and Indications for Use

- ✓ **4 CAT credits at Level 6 in England, Wales, and NI**
- ✓ **4 credits at Level 9 SCQF**

Good Manufacturing Practice for Transfusion Laboratory Staff

- ✓ **4 CAT credits at Level 6 in England, Wales, and NI**
- ✓ **4 credits at Level 9 SCQF**

Each e-learning session includes a self-assessment exercise and a downloadable certificate if a score of 80% or more is achieved.

CAT credits are transferable – contact your academic institution for advice on how you obtain your credits upon successful completion of these courses.



If you have a NHSmail address...

You can access the **Learnbloodtransfusion** project on the e-LfH LMS; anyone with a NHSmail address can now register with e-Learning for Healthcare.

Do you work in an NHS organisation?

Learnbloodtransfusion (LBT) is also available through:

- **England:** National Learning Management System (part of the ESR); or LearnProNHS www.learnbloodtransfusion.org.uk
- **Scotland:** LearnProNHS www.learnbloodtransfusion.org.uk
- **N. Ireland:** LearnProNHS www.learnbloodtransfusion.org.uk
- **Rep. of Ireland:** LearnProNHS www.learnbloodtransfusion.org.uk
- **Wales:** Learning@NHSWales www.mle.wales.nhs.uk

Are you studying a healthcare course at a Higher Education Institution?

Access via LearnPro by registering at www.learnbloodtransfusion.org.uk; contact your Education Lead for further information.

Do you work in an independent hospital in England?

Access via LearnPro by registering at www.learnbloodtransfusion.org.uk; contact your Transfusion Lead/Link for further information.



The **National Learning Management System** (NLMS) is a single point of access for all NHS staff with an Electronic Staff Record (ESR). Staff can access national and local NHS e-learning courses flexibly and free of charge.

To access **Learnbloodtransfusion** on the NLMS contact your Learning and Development department to see if your organisation has implemented NLMS.

- They will provide you with a username and password to access NLMS
- If your organisation does not have access to NLMS, contact your transfusion practitioner or hospital transfusion team to discuss options
- Transfusion leads - if NLMS has not been implemented discuss with your Learning and Development department and/or contact the National ESR team to discuss implementation

The National ESR team is working with organisations to help implement NLMS; further information can be found on the ESR website www.electronicstaffrecord.nhs.uk/esr-projects/national-learning-management-system-project/ .



Learnbloodtransfusion is available free of charge via the LearnProNHS Learning Management System.

If you work for the NHS, a hospice or an independent hospital in England or North Wales, or are studying a healthcare course at University in England, you can access **Learnbloodtransfusion** via LearnProNHS.

Once your organisation has registered to use **Learnbloodtransfusion** via LearnProNHS, you simply need to register at www.learnbloodtransfusion.org.uk to access the e-learning.

If you need support to register and implement **Learnbloodtransfusion** in your organisation please contact the NHSBT Customer Service Team by email: NHSBT.CustomerService@nhsbt.nhs.uk or by telephone: 01865 381043.



Learnbloodtransfusion is just one of the quality assured e-learning products provided by DH **e-Learning for Healthcare** (e-LfH).

e-LfH is a Department of Health programme working in partnership with the NHS and professional bodies to provide high quality e-learning content for the training of the healthcare workforce across the UK.

Anyone with a NHSmail address can now register with e-LfH; NHSmail is available to all NHS staff in England and Scotland, to register go to: www.connectingforhealth.nhs.uk/systemsandservices/nhsmail/using

From **anaesthetics** to **audiology** to, **dentistry** to **dermatology**, **pathology** to **pharmacology**, e-LfH's e-learning products are contributing to the revolution of medical and healthcare training in the UK.

Find out more about our products at www.e-lfh.org.uk/



If you have questions about **Learnbloodtransfusion** you can:

- 🔴 Visit the **Learnbloodtransfusion** website for more information
- 🔴 Contact the NHSBT Customer Service Team on 01865 381043 or email NHSBT.CustomerService@nhsbt.nhs.uk
- 🔴 Contact e-Learning for Healthcare at support@e-lfh.org.uk
- 🔴 Contact your trust Learning and Development department (for NLMS)
- 🔴 Contact your local ESR Account Manager (for NLMS) – contact details can be found on www.electronicstaffrecord.nhs.uk/esr-projects/national-learning-management-system-project/

