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| **Document Title** | A Template for a portfolio of evidence and competency to support non-medical staff clinical decision making and providing written instruction for blood component transfusion.  |
| **Version** | 6 |
| **Author(s)** | North East & Yorkshire Regional Transfusion Practitioner Non-Medical Authorisation Working Group |
| **Trust Committee** | North East & Yorkshire Regional Transfusion Committee |
| **Date ratified** | May 2012 |
| **Reviewed**  | March 2023 |
| **Review date** | March 2025 |

**This evidence portfolio was based on the following documents:**

“*A Framework to Support Nurses and Midwives Making the Clinical Decision and Providing the Written Instruction for Blood Component Transfusion,” September 2009.*

*“Clinical Decision-Making and Authorising Blood Component Transfusion – A Framework to Support Non-Medical Healthcare Professionals – United Kingdom & Ireland Blood Transfusion Network Education Working Group 2022*

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| **Name** |  |
| **Job title** |  |
| **Ward / Department** |  |

**Introduction:**

This portfolio enables non-medical practitioners to insert relevant evidence to support them in making the decision to transfuse, and to complete the written instruction to authorise a blood component transfusion. It is intended the practitioner updates the portfolio to demonstrate on going learning and development, including audits and declaration of competence through Trust review process.

This evidence may take the form of:

* Training records
* Evidence of previous study covering the knowledge requirements in the attached framework
* Examples of clinical case reports and reflective practice

The evidence should be reviewed and signed off by the practitioner’s medical mentor before submission via Trust governance procedures to ratify the practitioner as authorised to make the written instruction for blood component transfusion

Required Training prior to the competency assessment being completed:

* Must undertake updates on transfusion as per Trust Required Training.
* If applicable to role, completion of transfusion competency assessment(s).
* Completion of Transfusion Authorisation Training once application for the above scope of practice has been approved.

This document is intended as a guide and can be adapted for local Trust use.

Name of Practitioner: (Print Name ) ……………………………………………………………………………………………………………………...

Name of Assessor: (Print Name) ………………………………………………………………………………………………………………………….

Date of Assessment: ………………………………………………………………………………………………………………………………………..

**Guidance notes for assessors**

The assessment process consists of three elements:

1. Theoretical Competence using lectures/Study Days and clinical supervision by a senior member of staff (i.e. Consultant).
2. The practical assessment should follow a period of clinical supervision in which the authoriser should gain experience and practice assessing all patients for transfusion and authorising blood components. The assessment should be undertaken after the authoriser has undertaken the regional non-medical authorisation training programme (or equivalent) and is competent in all aspects of transfusion practice, e.g. safe requesting, pre transfusion venous sampling and safe bedside transfusion, where applicable.
3. The competence should be assessed by a consultant who is compliant with Transfusion Trust Training requirements.

This competence portfolio is linked to the following dimensions and levels within the Knowledge and Skills Framework (KSF) October 2004:

• Core Dimension 1: Communication – level 3

• Core Dimension 2: Personal and people development – level 3

• Core Dimension 3: Health and Safety – level 3

• Core Dimension 5: Quality – level 2

• Dimension HWB2: Assessment and care planning to meet health and wellbeing needs – level 4

• Dimension HWB6: Assessment and treatment planning – level 4

• Dimension HWB7: Interventions and treatments – level 4

• Dimension HWB10: Products to Meet Health and Well-being Needs – level 1

• NMC Part 1: Standards framework for nursing and midwifery education 2019

• NMC Standards for prescribing programmes 2019

• Royal Pharmaceutical Society’s Competency Framework for All Prescribers 2019

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| Understanding of | Knowledge & Competencies | Evidence Submitted(Questioning, Observation, clinical supervision) | Signed |
| Practitioner | Mentor |
| Anatomy and the physiology of blood | Explain haematopoiesis and haemostasisDescribe the development, structure, and function of:* Red Cells
* White Cells
* Platelets
* Plasma
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| Anaemia and chronic blood loss | * Explain the different classifications of anaemia.
* Explain the physiological processes for iron deficiency anaemia.
* Recognise when to refer patients for further investigation and treatment.
* Advise how to order appropriate investigations.
* Outline the different types of iron therapies.
* Explain the use of other haematinics, and of erythropoiesis stimulating agents.
* Understands why red cell transfusion is not always appropriate for patients with chronic anaemia.
* Be aware of what services your Trust has to offer for alternatives.
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| Interpreting blood results | * Recognise normal and abnormal haematology and biochemistry blood values.
* Interpret anomalous results and initiate any appropriate treatment.
* Determine if more tests and/or further evaluation is required.
* Understands the significance of atypical antibodies
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| Patient Assessment and clinical decision makingHow to take a patient history | * Explain the requirement to accurately document all actions and conversations with the patient.
* Make appropriate referral if the patient refuses blood transfusion or has an advance decision to refuse treatment.
* Take a medical history
* Link the clinical picture with the interpretation of blood results
* Explain how to calculate ‘dose’ required to achieve target
* Justify appropriate decision using the best available evidence and local transfusion guidelines including:
* Risk and Benefits

- Intended outcomes- Evidence base for transfusion- Recognised standards for  Transfusion* Use of recognised triggers, thresholds, targets
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| Patient Assessment and clinical decision making continuedConsent issues | * Explain the principles of consent, and recognise the professional, legal, and ethical requirements for consent to transfusion
* Explain the requirement for documented evidence of consent in the patient’s records
* Long term Transfusion Consent (if applicable)
* Know to provide patient information leaflets on transfusion
* Explain the risks and benefits of transfusion and available alternatives
* Retrospective Consent
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| Patient Assessment and clinical decision making continuedAccounting for co-morbidity | * Assess for risk factors for transfusion, in particular circulatory overload.
* Assess the patient’s fitness for a transfusion, i.e., take account of co-morbidities, day case or inpatient
* Evaluate the appropriateness of alternatives to blood component transfusion, e.g., intravenous iron
* Explain which concomitant drugs may be required and why.
* Considers single unit red cell transfusion
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| Patient Assessment and clinical decision making continuedNeed for concomitant drugs | * Recognise when to consult with, or defer to, a senior clinician
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| Writing the instruction to transfuse the blood component | Explain what is required in the written instruction:* Patient’s full name
* Date of birth
* Unique numeric identifier
* Any special requirements
* Number of units/volume required
* Duration of transfusion / rate
* Route of administration
* Concomitant drugs that may need to be administered
* Any additional information relevant to safety of the transfusion, e.g., blood warmer required
* Who completed the written instruction

Explain specific measures to be taken for certain patient groups / vulnerable patients, e.g., paediatrics dose in mLsExplain specific measures to manage risk of transfusion associated circulatory overloadExplain the potential interaction blood component with other IV drugs, infusions and transfusionsDemonstrate correct completion of written instruction for transfusion. |  |  |  |
| Blood components | Describe the difference between blood component and blood products:* Legal definition

Explain blood donation and component processing:* Whole blood/component donation
* Donor selection and screening
* Microbiological testing
* Processing of components, including irradiation

Describe allogeneic blood components for transfusion:* Red cells
* Granulocytes
* Platelets
* Plasma based components

Demonstrate knowledge of:* Storage – temperature control/cold chain requirements of each type of component
* Recommend transfusion rates for each type of component
* Safe handling
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| Neonatal and paediatric dosages (where applicable) | Calculates the correct dosage for:* Red cells/FFP
* Platelets/Cryoprecipitate
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| Laboratory testing(Combines the blood grouping and pre transfusion process) | * Explain ABO compatibility and alloimmunisation
* Has knowledge of the RhD system
* Demonstrate awareness of clinically significant red cell antibodies and has some understanding of the reason for delay of blood provision in patients with antibodies.
* Describe the importance of Histocompatibility
* Explain the principles of sample validity and historic/reference groups
* Describe the laboratory processes for pre- transfusion testing including how long testing can take.
* Can demonstrate an understanding of sample labelling requirements.
* Can demonstrate an understanding of BSH guidelines for pre transfusion testing
* Knows the location of the Transfusion Laboratory and issue fridge (if appropriate) at their place of work.
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| Patients on anticoagulants and anti-platelet medications | * Knowledge of drugs that can affect blood coagulation or platelet function and action to take
* Spend time with pharmacist for specialist area to understand the mechanisms and interactions of medicines with blood transfusion
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| Coagulation  | * Has knowledge of the coagulation process
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| Acute / Massive Blood Loss | * Explain the principles of patient assessment in relation to blood loss and how to estimate bleeding risk.
* Explain the appropriate use of universal blood components.
* Explain the risks and complications associated with emergency transfusion.
* Has knowledge of the massive blood loss process for their organisation for adults/children (as appropriate) and who has the authority to activate it.
* Understands the importance of informing the Transfusion Laboratory if the patient is on any anticoagulants and how this affects the treatment pathway.
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| Specific Transfusion Requirements | Specific requirements can encompass both specification of the component and administration requirements* Define which patient groups have specific transfusion requirement and explain why
* Explain why it is important to have a process to ensure that these specific requirements are met.
* Explain the issues when specific requirements are requested, but:
* Are not, or cannot, be met, e.g., emergency situations
* Are not actually required.
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| Administration process(If applicable to role) | * Has current transfusion competency assessment pertinent to their role
* Can describe the principles of positive patient identification
* Knows the process for collection of blood components for transfusion
* Can describe the process for checking blood component and patient compatibility
* Can describe the procedure for monitoring the transfused patient
* Understands the legal requirements for documentation and traceability
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| Requesting Blood componentsTransfusion request form | Explain the laboratory requirements for:* Full patient identification details
* Test required (Group and save/screen, cross match) and what the differences are.
* Number of units/volume of components required and any specific transfusion requirements
* Transfusion history and the significance of this
* When and where the patient is to be transfused.
* Diagnosis/reason for transfusion
* National Indication codes
* Name and signature of the person requesting the blood component and contact details
* Patient’s sex at birth and relevance of this

Explain the potential time frames for accessing different blood components from the laboratory:* Which components to request / expect depending on the level of urgency and whether the patient is known to the lab
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| Post Transfusion | * Understands the importance in checking the transfusion had the desired effect i.e. post transfusion increment in Hb or improvement in the patients symptoms and where this is documented
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| Human Factors | * Understands the influence of Human Factors on the safe provision of Blood components
* Watch [Human factors | Health Education England](https://www.hee.nhs.uk/our-work/human-factors) and provide a reflection /statement of their knowledge regarding Human Factors in the authorisation process for blood components.
* Has accessed [SHOT bite(s) on Human Factors](https://www.shotuk.org/wp-content/uploads/myimages/SHOT-Bite-12-Cognitive-Bias-1.pdf)
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| At discharge | * Understands why we need to advise patient they have had a transfusion (if not already aware)
* Records the information about the transfusion in the discharge summary, also stating the patient has been informed
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| Transfusion guidelines and protocols | * Discuss relevant national, regional, and local transfusion and blood conversation related programmes
* Describe relevant clinical guidelines, e.g., BSH / NICE
* Describe the role of SABRE / SHOT
* Demonstrate awareness of the Blood Safety and Quality Regulations (2005), and amendments, including traceability and cold chain requirements.
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| Legislation, regulation, and practice | * Explain NMA practice in relation to their professional bodies’ standards of conduct, performance, and ethics
* Explain the legislative and regulatory background to NMA practice in the UK, and the governance of NMA practice
* Explain what should recorded in the patients records in relation to the decision to transfuse, and why
* Recognise the shift in professional boundaries manifest in NMA practice, and the challenges this can present.
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| Risks and adverse events associated with transfusion and how to manage them | Describe the patient monitoring requirements throughout the transfusion processExplain the risks of transfusion and what to do in an emergency situation (where necessary) for:* Transfusion Associated Circulatory Overload (TACO)
* Febrile, allergic and hypotensive reaction, including anaphylaxis
* Wrong blood to wrong patient
* Transfusion-transmitted bacterial and viral infections
* Transfusion Related Acute Lung Injury (TRALI) and other pulmonary complications
* Haemolytic transfusions reaction – acute and delayed
* Over-transfusion / iron overload

Demonstrate an understanding of the complications of long-term transfusion including:* Iron overload
* Alloimmunisation

Explain the non-emergency management of the aboveExplain haemovigilance in the UK and the reporting of adverse event/reaction, and their responsibilities in relation to reportingExplain duty of candour and professional responsibility and accountability.Knows when to escalate to consultant with responsibility for the patient |  |  |  |

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|  | Patient assessment and clinical decision making | Correct indication for transfusion?Yes / No | Correct component authorised?Yes / No | Correct dose? Yes / No | Comments and feedback | Date | Signed |
| Practitioner | Supervisor |
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When the assessment is complete, please delete and sign as indicated

A copy of the completed document must be placed in the authoriser’s personal file.

Date ………………………………………… **PASS / REFER**

If ‘referred’, has a review date been set **Yes / No** Date of review:

**Declaration of medical mentor:**

I have observed the registered practitioner undertake clinical assessment and the written instruction for blood components on a minimum of 5 patients to a satisfactory standard. I am also satisfied they meet the necessary knowledge and understanding requirements to authorise blood components in their field of practice.

Signature of assessor …………………………………………………… Print Name (Assessor)………………………………………….

Signature of candidate ………………………………………………….. Print Name (candidate) …………………………………………

Professional registration Number………………………………………. Year of registration

Update required: …………………………………………………………

**A copy of this assessment must be forwarded to the Transfusion Practitioner for monitoring and record purposes**

**Disclaimer**

The package is designed for use and deemed fit for purpose in its current format.

Any local modifications cannot be made without notice to the Hospital Transfusion Team (HTT)

It is responsibility of the assessor to ensure all documents and training material used are current and in date.

The HTT/RTC is not responsible for use of the training package or related assessments by unauthorised persons.

On successful completion of this assessment the candidate will be deemed competent to undertake the procedure appropriate to each competency successfully completed.

The record of competency relates to performance at time of assessment and does not guarantee future performance.