**Portfolio of evidence & competency to support the role extension of registered non-medical practitioners in the clinical decision making and appropriate written instruction for safe blood component transfusion**

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| Version | 4 |
| Authors | The Midlands NMA Working Group |
| Implementation date |  |
| Review date |  |

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| --- | --- |
| **Name:** | **Name of Assessor:** |
| **Job title:** | **Job title:** |
| **Ward/Dept:** | **Ward/Dept:** |
| **Signature:** | **Signature:** | **Final sign off date:** |
| **Date:** | **Date:** |

**Introduction:**

After extensive consultation, Pirie and Green (2009) developed a Framework to support nurses and midwives to undertake this role extension. This framework has now been updated and reviewed and has been replaced by ‘Clinical Decision-Making and Authorising Blood Component Transfusion.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

The above framework can be located at <https://www.transfusionguidelines.org/transfusion-practice/clinical-decision-making-and-authorising-blood-component-transfusion>

The following criteria below must be met by Health Care Professionals (HCPs) to undertake the role of NMA:

* Be an HCP, meeting the professional standards of their relevant governing body
* Have the support of their line manager and approval of the lead clinician and organisation, based on an identified service need to improve patient care
* Provide evidence of an appropriate level of knowledge, skills and expertise in a relevant clinical speciality and manage a caseload of patients, or work as part of a clinical team optimising the care of patients who may require a transfusion
* Have an appropriate level of clinical assessment and decision-making skills
* Have a medical supervisor/mentor to support learning in practice, who is approved by the relevant speciality clinical lead and Hospital Transfusion Committee (HTC) or equivalent local governance committee.
* Have at least 3 years post registration experience
* Have at least 1 year working within the relevant clinical speciality
* Be deemed competent by their employer and with the agreement of the Hospital Transfusion Committee (HTC)

*This document and other associated Midlands RTC NMA documents can be downloaded from:*

[*https://www.transfusionguidelines.org/*](https://www.transfusionguidelines.org/)

This portfolio enables HCP’s undertaking the NMA course to collate and record evidence of competency to support them in making the decision to transfuse and to complete the written instruction to authorise a safe and appropriate blood component transfusion. 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- can also include cases where there was a decision not to transfuse

The HCP should have a minimum period of 3 months’ supervision, a locally agreed number of cases (excluding simulation), and assessment of competence using case-based discussion

Once the competency assessment has been successfully completed the Transfusion Practitioner must be notified. The evidence portfolio must be reviewed and signed off by the medical mentor/assessor before submission to the HTC and then via the Trust governance to ratify the HCP as authorised to make the written instruction for blood transfusion.

* Mandatory training requirements prior to the competency assessment being completed:
* Must undertake mandatory updates as per the Trust Mandatory Training requirements
* Completion of competency assessment for pre-transfusion sampling and blood administration, as applicable to their

role

* Completion of the Non-Medical Authorisation training event, provided by the Midlands Regional Transfusion

Committee or NHSBT once application for the above scope of practice has been approved.

* Completion of an appropriate eLearning package, to be decided by individual trusts at local level (e.g. <https://www.e-lfh.org.uk/>

Essential Transfusion Practice, Consent, SHOT Module, Transfusion Reactions, Blood Components.

Items included in this document:

* Evidence Portfolio Framework (evidence to be provided for all standards within this framework)
* Case based discussion/assessment sheet (appendix 2)
* Record of supervised authorisation of blood components (appendix 3)
* Declaration of competence form (appendix 4)
* Notification of ceasing the authorisation of blood components (appendix 5)
* *Appendix 1*

Essential educational requirements of an NMA programme

The educational requirements detailed below are intended to cover the fundamentals of clinical transfusion practice, considering the speciality and clinical setting of the prospective NMA.

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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 1:****Anatomy and physiology of blood** | 1. Explain haematopoiesis and haemostasis
2. Describe the development, structure and function of:
* Red cells
* White cells
* Platelets
* Plasma
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 2:****Anaemia and chronic blood loss** | 1. Explain the different classifications of anaemia
2. Explain the physiological process for iron deficiency anaemia
3. Recognise when to refer patients for further investigation and treatment
4. Advise on how to order appropriate investigations
5. Outline the different types of therapies as alternatives to transfusion for each type of anaemia, e.g. iron
6. Explain the use of other haematinics, and of erythropoiesis stimulating agents
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 3:****Acute blood loss** | 1. Explain the principles of patient assessment in relation to blood loss and how to estimate bleeding risk
2. Explain the appropriate use of universal blood components
3. Explain the risks and complications associated with emergency transfusion
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 4:****Patient assessment and clinical decision making*** **how to take a patient history**
* **accounting for co-morbidity**
* **taking consent or transfusion**
 | 1. Explain the requirement to accurately document all actions and conversations with the patient
2. Make appropriate referral if the patient refuses blood transfusion or has an advance decision to refuse treatment
3. Take a medical history
4. Link the clinical picture with the interpretation of blood results
5. Justify appropriate decision using the best available evidence and local transfusion guidelines
6. Explain the risks and benefits of transfusion and available alternatives
7. Evaluate the appropriateness of alternatives to blood component transfusion
8. Assess the patient’s fitness for a transfusion, i.e., take account of co-morbidities etc
9. Assess for risk factors for transfusion, in particular circulatory overload
10. Explain which concomitant drugs may be required
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 5:****Interpreting blood results** | 1. Recognise normal and abnormal haematology and biochemistry blood values
2. Interpret anomalous results and initiate any appropriate treatment
3. Determine if more tests and/or further evaluation is required
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 6:****Blood components** | 1. Describe the differences between blood component and blood products:
* legal definitions
1. Explain blood donation and component processing:
* Whole blood/component donation
* Donor selection and screening
* Microbiological testing
* Processing of components, including irradiation
1. Describe allogeneic blood components for transfusion:
* Red cell
* Granulocytes (White cells)
* Platelets
* Plasma based components
1. Demonstrate knowledge of:
* Storage- temperature control/cold chain requirements of each type of component
* Recommended transfusion rate for each type of component
* Safe handling
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 7:****Indications for the use of blood components*** **Appropriate use of blood components**
* **Alternatives to blood components**
 | 1. Define the indications for the use of blood components and demonstrate appropriate selection of components, and in which conditions their use is not appropriate.
2. Justify the decision for transfusion, including:
* Risk vs. benefit
* Intended outcomes
* Evidence base for transfusion
* Recognised standards for transfusion
* Use of recognised triggers, thresholds, and targets
1. Explain how to calculate ‘dose’ required to achieve target
2. Explain the importance of reassessment and documentation of outcomes
3. Explain the alternatives to transfusion to consider, and strategies for avoiding/ minimising transfusion where appropriate, including single unit strategies
4. Recognise when to consult with, or defer to, a senior clinician
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 8:****Consent to transfusion** | 1. Explain the principle of consent, and recognise the professional, legal, and ethical requirements for consent to transfusion
2. Describe the patient information resources available to support the consent process, and how to use them
3. Explain the requirement for documented evidence of consent in the patient’s records
4. Demonstrate awareness of the issues to discuss with the patient to facilitated informed decision-making:
* Intended benefits / Risks
* Alternatives
* Possible consequences of not having transfusion
1. Demonstrate effective consent to transfusion:
* Information giving
* Discussion
* Shared decision-making
* Record keeping
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 9:****Specific transfusion requirements** | 1. Specific requirements can encompass both specification of the components and administration requirements
2. Define which patient groups have specific transfusion requirements and explain why
3. Explain why it is important to have a process to ensure that these specific requirements are met
4. 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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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 10:****Writing the instruction to transfuse the blood component** | 1. Explain what written instruction is required:
* Full patient details
* Number of units/volumes
* Duration of transfusion/rate
* Route of administration
* Concomitant drugs that may need to administered
* Any additional information relevant to safety of the transfusion, e.g. blood warmer/special requirements
* Who completed the written instruction
1. Explain specific measures to be taken for certain patient groups/vulnerable patients, e.g. paediatrics doses in mLs.
2. Explain specific measures to manage risk of Transfusion associated circulatory overload
3. Explain the potential interaction of blood components with other IV drugs, infusions, and transfusions

Demonstrate correct completion of written instruction for transfusion |  |  |  |
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 11:****Laboratory testing** | 1. Explain ABO compatibility and alloimmunisation:
* Awareness of different considerations in relation to compatibility of red cells, platelets and plasma components
* Awareness of clinically significant red cell antibodies
1. Demonstrate an understanding of effective communication with the laboratory when ordering blood components
2. Explain the laboratory requirements for:
* Sample labelling/written request form requirements (patient identification/components required/number/volume required/ specific transfusion requirements)
* Transfusion history (i.e. is the patient known to the laboratory)
* When and where the patient is to be transfused
1. Explain the time frames for:
* the validity of samples in storage
* how long pre-transfusion testing takes
* Accessing different components depending on level of urgency

Explain, with regard to human blood group systems, the reasons for different considerations in relation to the compatibility of red cells, platelets and plasma components. |  |  |  |
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 12:****Risks and adverse events associated with transfusion and how to manage them** | 1. Describe the patient monitoring requirements throughout the transfusion process
2. Explain 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
* Pulmonary complications, such as Transfusion Related Acute Lung Injury (TRALI) and Transfusion Associated Dyspnoea (TAD)
* Acute and delayed Haemolytic transfusion reactions
* Over-transfusion/ iron overload
* Transfusion Associated Graft vs Host Disease (TGVHD)
1. Demonstrate an understanding of the complications of long-term transfusion including:
* Iron overload
* Alloimmunisation
* Explain the non-emergency management of the above
1. Explain haemovigilance in the UK and reporting of adverse events/reactions (SABRE/SHOT), and their responsibilities in relation to reporting
2. Explain the duty of candour and professional responsibility and accountability
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 13:****Transfusion legislation, guidelines and protocols** | 1. Discuss relevant national, regional, and local transfusion and blood conservation related programmes, e.g. Patient Blood Management
2. Describe relevant clinical guidelines, e.g. BSH, NICE
3. Demonstrate awareness of the Blood Safety and Quality Regulations (2005), and amendments, including traceability and cold chain requirements
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| **Understanding of** | **Standards:****Knowledge & Competencies** | **Evidence Submitted** | **Signed/Dated** |
| **Practitioner** | **Assessor** |
| **Standard 14:****Regulation and practice** | 1. Explain NMA practice in relation to their professional bodies’ standards of conduct, performance, and ethics
2. Explain the legislative and regulatory background to NMA practice in the UK, and the governance of NMA practice
3. Explain what should be recorded in the patient records in relation to the decision to transfuse, and why
4. Recognise the shift in professional boundaries manifest in NMA practice, and the challenges this can present
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***Appendix 2***

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| **Case Based Discussion/ Assessment Sheet** |  |
| **Non-medical practitioner** |  |
| **Medical Supervisor Name:** |  |
| **Date of Discussion** |  |
| **Describe the decision-making scenario?**  |  |
| **What did you learn?**  |  |
| **How will you apply this learning in your future work?**  |  |
| **Medical Supervisor’s signature** |  |
| ***Appendix 3*** |
| **Non-medical practitioner** | **Record of supervised authorisation of Blood Components** |
| **Date**  | **Patient Hospital Number** | **Component** | **Rationale for transfusion** | **Comments on review of transfusion episode** | **Assessor signature if transfusion was satisfactory** |
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(To be photocopied for specified number of supervised authorisations defined locally)

***Appendix 4***

**DECLARATION OF COMPETENCE FORM**

I have met the knowledge and competency criteria and I am proficient to undertake the authorisation and written instructions for blood component authorisation.

Name (print and sign)………………………………………………………………………………………………………………………………

Clinical area/Speciality……………………………………………………………………………………………………………………………..

Date …………………………………………………………………………………………………………………………………………………

**Please send a copy of this form to: - Your clinical manager and Transfusion Practitioner. Keep the original for your own records**

I have assessed the above practitioner and deemed them proficient to undertake the authorisation and written instructions for blood component authorisation.

Name (print and sign)………………………………………………………………………………………………………………………………

Clinical area/Speciality………………………………………………………………………………………………………………………………

Date……………………………………………………………………………………………………………………………………………………

It has been agreed by the Hospital Transfusion Committee that the above practitioner can undertake the authorisation and written instructions for blood component authorisation and this document has been sent to clinical governance for ratification.

Name (print and sign)………………………………………………………………………………………………………………………………

Chair of HTC …………………………………………………………………………………………………………………………………………

Date……………………………………………………………………………………………………………………………………………………………

***Appendix 5***

**NOTIFICATION OF CEASING THE AUTHORISATION OF BLOOD COMPONENTS**

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| To be completed by non-medical practitionerName: …………………………………………………………………………………I will no longer be authorising blood components within this trust as I am leaving the trust/moving department/failed to maintain competence (delete as appropriate)Signature: …………………………………………………………………………….Clinical Area / Speciality: …………………………………………………………......Date: …………………………………………………………………………………… |

**Please send a copy of this form to: - Your clinical manager and Transfusion Practitioner.**

**Keep the original for your own records**

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.

*Acknowledgement to Yorkshire & The Humber RTC*