

From the Chief Medical Officer
Dr Michael McBride

HSS(MD) 17/2011



Department of
**Health, Social Services
and Public Safety**

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For action:

Chief Executive of HSC Trusts for distribution to:

- Medical Directors
- Directors of Nursing
- Chairs of Transfusion Committees
- Hospital Blood Banks
- Consultant Haematologists
- Haemovigilance Practitioners

Chief Executive, RQIA for distribution to:

- Independent Hospitals, Hospices and agencies providing blood transfusions

Chief Executive, HSC Board for distribution to:

- Director of Performance Management and Service Improvement

Chief Executive, Public Health Agency for distribution to:

- DPH/Medical Director,
- Director of Nursing

Chief Executive of the NI Blood Transfusion Service

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Our Ref: HSS(MD) 17/2011

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Chief Executive, Northern Ireland Practice & Education Council

Dear Colleague

BETTER BLOOD TRANSFUSION 3 NORTHERN IRELAND (BBT3 NI)

Introduction

This Circular and the attached Action Plan (see Annex) replace and build on the requirements of HSS(MD) 6/03 Better Blood Transfusion, and aim to promote safe and appropriate provision and transfusion of blood components and blood products. They take into account the requirements of the Blood Safety and Quality Regulations 2005 - Statutory Instrument 2005/50 and Blood Safety and Quality Amendment 2005 no. 2 (BSQR 2005), HSC (SQSD) 30/2007 which endorsed the NPSA Safer Practice Notice 14: Right Patient, Right Blood 2007 (NPSA SPN 14) and the recommendations in the RQIA Report of Blood Safety Review (2010).

Outline of Contents of this Circular and Action Plan

Promotion of the safe and appropriate use of blood components and products is advocated under the following key headings:

1. Availability of blood components
2. Blood safety and appropriate use of blood components and blood products
3. Reduction in patient requirement for components or products from donated blood
4. Pregnancy, neonates and children
5. Patient participation in transfusion practice
6. Clinical governance and support in transfusion practice
7. Implementation of BBT3 NI (2011)

Annex - Action Plan For HSC Trusts and Independent Healthcare Organisations Providing Patient Transfusions

Please see the Annex for definitions and references.

1. Availability of Blood Components

Blood obtained from donors (allogeneic blood) is available in limited supply for the provision of blood components and blood products. The supply may become more limited if additional screening of donated blood is introduced (e.g. for variant Creutzfeldt Jakob Disease (vCJD)) or if further restrictions on donor eligibility are indicated.

Temporary shortages of red cells have occurred in NI and further shortages of blood components may result from surges in demand or when donation rates fall, e.g. during an influenza epidemic. Blood establishments, HSC Trusts and Independent Healthcare Organisations must have contingency plans in place in the event of blood component shortages. Wastage of blood components and blood products can result from inappropriate ordering, storage or transportation.

The NIBTS will be taking the lead in updating the 2006 *Integrated Plan for the Management of Blood (Red Cell Component) Shortages*.

2. Blood Safety and Appropriate use of Blood Components and Blood Products

Appropriate transfusion of red cells and other blood components or blood products can be life saving and reduce serious morbidity. However there are many known hazards associated with the transfusion of allogeneic blood, including life-threatening incompatible transfusion reactions, transfusion associated acute lung injury (TRALI), transfusion associated circulatory overload (TACO) and transmission of infection. Annual reports of Serious Hazards of Transfusion are published by SHOT for the United Kingdom.

The risk of transfusion of the wrong patient or of the wrong blood component can be reduced by adhering to the requirements set in BSQR 2005 and NPSA SPN 14, using correct patient identification and education and competency based assessment in pre transfusion sampling, organising a request, collection and preparation and administration of a blood component or blood product. Some patients have special requirements for the transfusion of blood components, either because of pre-existing disease or antibody status (e.g.

washed, warm red cells to avoid agglutination of cold antibodies) or because of immunosuppressant therapy or status (e.g. irradiated red cells following treatment with fludarabine chemotherapy (BCSH Guidelines on the use of irradiated of blood components, 2010).

Staff education and training, supplemented by regular updates in transfusion practice, are essential for safe and appropriate transfusion of blood components and blood products.

3. Reduction in Patient Requirement for Components or Products from Donated Blood

Transfusion of red cells is only necessary when a patient's haemoglobin has fallen below his/her transfusion threshold or he/she has developed recognised symptoms or signs of anaemia (GAIN Better Use of Blood in Northern Ireland – Guidelines for Blood Transfusion Practice 2009.)

Iron deficiency anaemia can occur as a result of chronic or acute blood loss (eg chronic inflammatory bowel disease, peptic ulceration or menorrhagia), poor nutritional status or pregnancy. Prompt detection, appropriate investigation and corrective therapy can obviate the need for red cell transfusion. Patient pre-assessment provides an opportunity to correct anaemia and optimise haemostatic function prior to scheduled surgery or other invasive procedures, so reducing the risks of peri procedure transfusion.

Cell salvage can be used to reduce the requirement for transfusion of allogeneic red cells, but not platelets or coagulation factors, during surgical procedures associated with major blood loss.

4. Pregnancy, Neonates and Children

Major haemorrhage with or without coagulopathy, occurs in 1% of pregnancies (e.g. secondary to premature separation of the placenta, abnormal placentation or uterine atony) and can be life threatening if not promptly and appropriately treated. In most instances of antenatal or postpartum iron deficiency anaemia, red cell transfusion can be avoided by timely oral or parenteral iron therapy.

Haemolytic disease of the newborn (HDN) is a life threatening condition for the fetus or neonate, secondary to rhesus antibody production in the mother. HDN is usually avoidable by screening and appropriate administration of anti-D immunoglobulin to rhesus negative women (See BCSH and NICE guidelines for the use of prophylactic anti-D immunoglobulin).

Neonates who require transfusion of blood components must have Cytomegalovirus (CMV) negative allogeneic blood components. Neonates who have had intra uterine transfusions must only be transfused with irradiated blood components until 6 months after the expected date of delivery (40 weeks gestation).

Healthcare staff who prescribe or transfuse blood components or blood products to neonates, infants or children must be familiar with calculation of safe intravenous fluid and/or blood administration rates, based on body weight. They must also be trained in the use of infusion devices approved for transfusion of blood components and blood products, to avoid TACO.

5. Patient Participation in Transfusion Practice

In planned circumstances patients and parents or guardians should be provided with advance information and opportunity to ask questions about the risks and benefits of transfusion of blood components or blood products. They should also be informed about any suitable and available transfusion alternatives. When it is not possible to provide this information prior to transfusion, e.g. during resuscitation of the unconscious patient with haemorrhagic shock, a patient or parent or guardian should be informed retrospectively of the clinical indications and potential hazards of the transfusion (RQIA Report of Blood Safety Review 2010).

Consideration should be given to informing a patient's general medical practitioner when blood components have been transfused during hospital admission, especially if a transfusion reaction has occurred or if atypical antibodies have been detected, since these factors may affect future transfusions. Patients who have been transfused with multiple blood components or blood products, equivalent to a total of 80 or more donor exposures have an increased risk of contracting variant Creutzfeldt-Jakob disease (vCJD) (Department of Health *The Risk of Secondary vCJD Infection of Patients receiving a high number of Transfusions*. 2009).

A patient may decline blood components or blood products for religious or other reasons and his/her wishes must be respected. It is important to identify in advance which blood components, products and transfusion alternatives a patient will accept or decline. This information should be recorded in an advance directive (NI Pathway and associated guidance for the Management of Adult and Obstetric Patients who decline specified Blood Components/Products 2011

Competent adult patients must be involved in the patient identity procedure prior to pre transfusion sampling, organising a request for and preparing a blood component for administration, in order to reduce the risk of incompatible or inappropriate transfusion.

6. Clinical Governance and Support in Transfusion Practice

SHOT reports have highlighted the serious adverse events which can occur as a result of transfusing the wrong patient, administering the wrong blood component or inappropriate transfusion. Such serious adverse incidents can be avoided by careful attention to the NPSA SPN 14 directive, determination of full blood picture and/or coagulation status within 24 hours of transfusion and appropriate prescription of blood components and blood products, including special requirements, eg irradiated blood components. In order to promptly

detect a transfusion reaction or circulatory overload, vital signs and fluid balance status must be closely monitored prior to, during and after a transfusion.

Meticulous record keeping of all procedures in transfusion practice is essential for patient safety and appropriateness of transfusion. Consideration should be given to the development of a transfusion checklist to ensure that all critical steps in transfusion practice are completed (see SHOT 2009)

Serious adverse events (SAEs) and serious adverse reactions (SARs) associated with transfusion of blood components, blood products or cell salvage must be promptly investigated and reported to the appropriate body (i.e. SHOT, MHRA), a requirement of the EU Blood Safety Directive 2005/61/EC. All SAEs, SARs and other critical incidents pertaining to transfusion practice must be documented and investigated within a Trust's critical incident reporting system. It is vital that lessons learned from such incidents are made known to all healthcare staff involved in transfusion practice, in an anonymous and constructive manner, to reduce the likelihood of recurrence.

Clear and transparent communication between patients and healthcare staff, between blood bank biomedical scientists and healthcare staff and between one healthcare professional and another is a requisite for safe, timely and appropriate use of blood components and blood products (NPSA SPN 14).

7. Implementation of BBT3 - for action

Chief Executives of HSC Trusts have a responsibility to ensure that transfusion practice is provided safely, timely and appropriately for patients and to ensure that the action plan laid out in this document is fully implemented. This responsibility also applies to Chief Executives of independent healthcare organisations and they should ensure that their organisation implements the sections of the action plan which are relevant to the services they provide. They should establish links with the local Trust Transfusion Committee.

Transfusion Committees, Transfusion Teams and Blood Banks must have the necessary resources and support from Trust Senior Management and Clinical Governance groups to coordinate and facilitate implementation.

Multi-professional membership of Transfusion Committees and Transfusion Teams must reflect the clinical and blood laboratory specialities involved in transfusion practice. There must be a clear line of accountability, with evidence of participation in annual accountability reviews, for Transfusion Committees and Transfusion Teams.

The Health and Social Care Board, Public Health Agency, NI Blood Transfusion Service (NIBTS) and the NI Regional Transfusion Committee (NIRTC) will provide appropriate support and advice to facilitate Trusts in the implementation of BBT3 NI (2011).

HSC Trusts, independent healthcare organisations and the NIRTC must undertake a self assessment process to provide evidence of progress in the

implementation of the action plan in this document by December 2011 and aim to fully implement the action plan by September 2012. The NIRTC will coordinate audits of progress.

Yours sincerely



MICHAEL McBRIDE
CHIEF MEDICAL OFFICER

This letter is available at www.dhsspsni.gov.uk

ACTION PLAN FOR HSC TRUSTS AND INDEPENDENT HEALTHCARE ORGANISATIONS PROVIDING PATIENT TRANSFUSIONS

1. Availability of Blood Components

- 1.1 HSC Trusts (hereafter abbreviated to “Trusts”) must provide and maintain staff training and electronic or manual support systems for the tracking of blood components from the time of Blood Bank issue until transfusion or return to a Blood Bank. They must aim for 100% compliance in blood component traceability and have a procedure in place to investigate episodes of non compliance (BSQR 2005).
- 1.2 Trusts must ensure that all allogeneic blood product issues, such as Immunoglobulin G and human derived fibrin sealants are fully traceable.
- 1.3 Trusts must have contingency plans in place in the event of red or amber phase shortages of red cells or platelets. Compliance with blood component usage during red and amber phases must be monitored.
- 1.4 NIBTS must liaise with Trusts in contingency planning for red cell and platelet shortages and keep trust blood banks updated during red cell or platelet shortages. The NIBTS will be taking the lead in updating the 2006 ***Integrated Plan for the Management of Blood (Red Cell Component) Shortages***.
- 1.5 Trusts should review maximum surgical blood ordering schedules (MSBOS) for planned surgical procedures every 2 years.
- 1.6 Trusts must develop and maintain local guidance and standard operating procedures, based on regional guidance, for cold chain maintenance during the transfer of red cells within and between hospital sites.
- 1.7 Trusts must participate in the Blood Stocks Management Scheme (BSMS) to optimise use of allogeneic blood components and minimise wastage.

2. Safe and Appropriate use of Blood

Action points relating to staff training and competency based assessment as recommended in NPSA SPN 14 and BSQR Good Manufacturing Practice:

- 2.1 Trusts must provide education for all staff involved in transfusion practice. They must also undertake relevant competency based assessment of Healthcare Staff who participate in pre transfusion sampling, requests for, collection of and preparation and administration of blood components or blood products (RQIA Report of Blood Safety Review 2010). Trusts must review selection and skills retention of NPSA SPN 14 assessors every 2 - 3 years.

- 2.2 Healthcare Staff who participate in transfusion practice, including the prescription of blood components or blood products must update their knowledge in transfusion practice (by e-learning, face to face training or an alternative Trust validated method) every 18 months. Healthcare Staff who undertake pre transfusion sampling, requests for, collection of or preparation and administration of blood components or blood products must hold a valid certificate of appropriate competency based training in NPSA SPN 14, renewed every 3 years. Medical Staff who undertake pre transfusion sampling or preparation and administration of a blood component or blood product must be deemed competent in NPSA SPN 14 competencies 1 and 4.
- 2.3 Trusts must audit staff compliance in NPSA SPN 14 requirements every six months and hold a record of relevant competency status of all permanent Healthcare Staff.
- 2.4 Trusts must use the standardised NI Hospital Transfusion Request Form for blood bank samples, which includes obligatory “opt in” declarations of NPSA SPN 14 competency of Healthcare Staff who participate in pre transfusion sampling. Trusts should consider the inclusion of similar “opt in” declaration clauses in transfusion records.
- 2.5 Trusts must audit completion of the NI Hospital Transfusion Request Form (in 2.4) and blood sampling bottle labels, at least annually, for full and accurate provision of information.
- 2.6 Trusts must ensure that Laboratory and Healthcare Staff involved in transfusion practice have up to date training in BSQR 2005 and Good Manufacturing Practice (GMP).
- 2.7 Hospital Staff involved in the collection and delivery of blood components and blood products between blood banks and clinical areas must have annual training and 3-yearly competency based assessment in these processes, as per BSQR 2005 and NPSA SPN 14.
- 2.8 Biomedical Scientists who work in Blood Banks must have a documented record of satisfactory initial competency assessment prior to working unsupervised. They must have competencies re-assessed annually.
- 2.9 Trusts must risk assess Biomedical Scientist staffing levels and skill mix against workload in Blood Banks during normal working hours and out of hours. Staffing levels and skill mix must be revised when deficiencies are identified.
- 2.10 Blood Banks should participate in national and regional benchmarking exercises to identify adequate staffing levels of Biomedical Scientists.
- 2.11 Trusts must ensure good and safe transfusion laboratory practice, including participation in national laboratory accreditation schemes.

Clinical policies / procedures and record keeping in transfusion practice

- 2.12 Trusts must have a robust policy and system in place for accurate patient identification in all procedures pertaining to transfusion practice, in keeping with NPSA SPN 14 recommendations. Minimum data for identification must include patient first name and last name, hospital or Health and Care number (HCN) and date of birth. Such systems must be risk assessed and monitored.
- 2.13 Trusts must have a local policy for the clinical management of patients with unknown or uncertain identity, to facilitate rapid and safe transfusion of blood components and blood products when appropriate.
- 2.14 Trusts must ensure that the following minimum data set is documented in a transfusion record or elsewhere in the clinical notes, for all patients who are *electively* transfused with blood components or blood products:
- a. the clinical indication for transfusion
 - b. a note that the risks, benefits and alternatives have been explained to the patient or parent / guardian
 - c. recent full blood picture or coagulation test on which the decision to transfuse is based
 - d. prescription for the blood component(s) or blood product(s) to be transfused
 - e. vital signs as per BCSH 2009 Guideline on the administration of blood components
 - f. post transfusion clinical note or repeat blood test to indicate the response to transfusion.

In situations where multiple blood components and /or blood products have been transfused during *emergency treatment or during a surgical procedure* it may not be possible to provide a contemporaneous record of the above minimum data set. In such cases every effort must be made to monitor vital signs during the transfusions and to record a list of the blood components and blood products transfused.

- 2.15 Trusts must audit patient clinical notes annually for compliance with the minimum data set entry (in point 2.14).
- 2.16 The NIRTC and Trusts should consider the development of a transfusion checklist / record for transfusion practice procedures, including patient consent, patient identification, blood sampling and component requests, bedside checking prior to transfusion and minimum data set in clinical notes (SHOT 2009).
- 2.17 Trusts must develop, update and monitor implementation of evidence based local policies for the appropriate use of red cells, fresh frozen plasma, cryoprecipitate and platelets, based on regional and national guidance (see BCSH guidance).
- 2.18 Trusts should have a local policy for the off licence use of Recombinant Factor VIIa, based on HSC approved regional (CCaNNI) guidance.

- 2.19 Trusts must have local policies and procedures in place for the management of sudden or major blood loss, which comply with NPSA Rapid Response Reports (RRR) 3 and 17. They must ensure that relevant Healthcare Staff, Biomedical Scientists and Dispatch Staff are conversant with these. Implementation of these policies and procedures must be monitored by Trust Transfusion Committees. Any delay or other problem in the provision of blood components or blood products during an emergency treatment episode must be investigated locally and reported to the NI DHSSPS and SHOT reporting scheme.
- 2.20 Trusts must ensure that Healthcare Staff are trained in the assessment and management of patients with major haemorrhage. Management of major blood loss drills with debriefing sessions should be undertaken every 6 -12 months in clinical units where major blood loss is a possible event.
- 2.21 The NIRTC must develop guidance for Healthcare Staff, patient information leaflets and a care pathway for the management of Jehovah's Witnesses and other patients who decline blood components or blood products.
- 2.22 Trusts must ensure those Healthcare Staff who could be involved in the care of Jehovah's Witnesses or other patients who decline blood products or blood components during planned or emergency medical treatment, are appropriately trained and familiarised with local and regional guidance and documentation.
- 2.23 Trusts should ensure that Blood Bank Biomedical Scientists and Healthcare Staff who request, prescribe or administer blood components are familiar with the indications for special requirements (SHOT 2009). Evidence based local guidance on the indications for the provision of irradiated (see BCSH guidance on irradiated blood components 2010) or CMV negative blood components must be available.
- 2.24 Trusts must ensure that Healthcare Staff who provide nursing or medical care for patients being transfused with blood components or blood products are trained in the recognition and management of anaphylaxis and that emergency drugs and resuscitation equipment are readily available (Resuscitation Council (UK) Advanced Life Support guidelines 2011).
- 2.25 Trusts should have a procedure to empower Blood Bank Biomedical Scientists to challenge incomplete, inaccurate or potentially inappropriate requests for blood components or blood products.
- 2.26 Trusts should have a local policy for the safe and efficient transportation of blood components when they are transferred with a patient to another hospital site (SHOT 2009).
- 2.27 Trusts should participate in national comparative / regional and local audits in the appropriate use of blood components and blood products.

3. Reduction in Patient Requirement for Components or Products from Donated Blood

- 3.1 Trusts should promote early detection of anaemia. They should develop and implement local policies and procedures for the identification, investigation and treatment of anaemia (See GAIN guidance 2010, Management of Anaemia and Avoidance of Transfusion).
- 3.2 The NIRTC must develop regional guidance for the detection and management of anaemia, including the process of optimisation of haemoglobin prior to scheduled surgery.
- 3.3 Healthcare Staff who work in pre-assessment clinics should liaise with Healthcare Professionals in primary care and hospitals to correct iron deficiency anaemia and optimise haemoglobin and haemostasis prior to scheduled surgical or other invasive procedures.
- 3.4 Trusts which undertake major surgical procedures associated with a significant risk of major haemorrhage (including obstetrics) should appraise the risks and benefits of the provision of a cell salvage service.
- 3.5 Cell salvage systems must only be operated by Healthcare Staff who have had relevant up to date competency based assessment. They must have knowledge of the principles of cell salvage and be skilled in the use of the dedicated apparatus.
- 3.6 Local policies and procedures for cell salvage should be based on regional and national evidence based guidance.
- 3.7 Adverse events or near miss events involving cell salvage or the re-infusion of salvaged blood must be reported to SHOT and be investigated and acted upon in line with a Trust's clinical governance procedures. Serious adverse events must also be reported to MHRA through SABRE.
- 3.8 Trusts should work towards the development of a blood conservation strategy to reduce the use of allogeneic blood components.

4. Pregnancy, Neonates and Children

Concerning Healthcare Trusts with Obstetric and / or Midwifery Led Units:

- 4.1 Trusts must ensure that policies and procedures for the prescription and administration of anti-D immunoglobulin are up to date and that implementation in hospitals and primary care is monitored (SHOT report 2009).
- 4.2 Trusts must ensure that Clinicians and Midwives are trained to undertake testing and prescribe prophylactic anti-D immunoglobulin appropriately in the antenatal and postnatal periods.

- 4.3 Trusts must ensure that Biomedical Scientists who work in Hospital Blood Banks have annual competency based assessments in the prevention and laboratory management of haemolytic disease of the newborn (HDN).
- 4.4 Trusts must ensure that up to date BCSH guidance on the use of prophylactic anti-D is implemented and audited.
- 4.5 Trusts must ensure the use of anti-D immunoglobulin is fully traceable by following the same patient identification and electronic or manual processes used for all other blood components and blood products.
- 4.6 Cases of late administration, omission or inappropriate administration of anti-D immunoglobulin must be investigated within the Trust Clinical Governance system and reported to SHOT (SHOT 2009).
- 4.7 Trusts must provide education and promote Healthcare Staff awareness in maternal anaemia and appropriate investigation and treatment.
- 4.8 Trusts should develop and monitor implementation of policies and procedures for the identification and management of maternal anaemia.
- 4.9 Trusts should develop and monitor a protocol for the administration of parenteral iron when oral iron therapy is ineffective or unlikely to correct the deficiency before the estimated date of delivery.
- 4.10 Trusts should develop and monitor a protocol for the referral of pregnant women to a senior haematologist when they present with an increased risk of peripartum haemorrhage due to coagulation or platelet disorders.
- 4.11 Trusts must have a local policy for the management of major haemorrhage in obstetrics. The policy should include guidance on the transfusion of allogeneic blood components and blood products and appropriate use of pharmacological and surgical / radiological interventions. Implementation of this policy should be audited at least annually.
- 4.12 Trusts must ensure that all Healthcare Staff caring for pregnant women are trained in the management of major haemorrhage in obstetrics and are familiar with local policies and protocols for appropriate management. Senior Clinicians, experienced in the management of major blood loss in obstetrics must be readily available for clinical decision making and to support less experienced staff (CEMACH Report Saving Mother's Lives 2007).

Concerning neonates, infants and children:

- 4.13 Trusts must raise relevant Healthcare Staff awareness of the indications for CMV negative and irradiated blood components for neonates and infants.
- 4.14 Trusts must ensure that Healthcare Staff working with neonates, infants or children are familiar with appropriate intravenous fluid prescribing regimens

(based on body weight) and are competent in the use of electronic infusion devices for transfusion of blood components or blood products (SHOT 2009). Volumes transfused must be closely monitored and recorded to avoid TACO.

5. Patient Participation in Transfusion

- 5.1 Trusts should ensure that patients and parents or guardians of children are provided with advance information about the associated risks and benefits of transfusion.
- 5.2 Trusts should provide patient information leaflets on transfusion for adult and paediatric patients, in outpatient and inpatient clinical departments (RQIA Blood Safety Review 2010).
- 5.3 In circumstances where emergency transfusion of blood components or blood products has precluded giving a patient (or parent / guardian) advance information, Trusts must check that the indication for and the associated risks and benefits thereof are discussed retrospectively with the patient, parent or guardian (RQIA Blood Safety Review 2010).
- 5.4 Trusts should consider adopting a policy which advocates that a patient's General Medical Practitioner is informed about the transfusion of multiple blood components and / or blood products during hospital admission, or if a transfusion reaction has occurred.
- 5.5A Medical Practitioner should inform a patient of the increased risk of contracting vCJD through transfusion when he/she is aware that the patient in question has been exposed to blood components or blood products, equivalent to a life total of 80 or more donors. (TSEs: Safe Working and the Prevention of Infection [Part 4 Annex J](#): Assessment to be carried out before surgery and/or endoscopy to identify patients with, or at increased risk, of CJD or vCJD. 2011)
http://www.dh.gov.uk/ab/ACDP/TSEguidance/DH_098253
- 5.6 Trusts must ensure that competent adult patients are involved in the correct identification procedure for pre transfusion sampling and bedside checking prior to transfusion.
- 5.7 Trusts must ensure that patients are informed of the requirement to wear at least one identity band during inpatient care.
- 5.8 Trusts must ensure that Jehovah's Witnesses or other patients who wish to decline blood components or blood products during scheduled surgical or medical management are given advance information about the risks and benefits of transfusion. Available transfusion alternatives must also be discussed with these patients before they are asked to complete an advance directive. (The NIRTC is currently developing a pathway and

associated guidance for the Management of Adult and Obstetric Patients who decline specified Blood Components / Products).

5.9 Trusts should participate in regional and national audits / projects in patient / public awareness initiatives concerning transfusion practice, including the issue of consent for transfusion.

6. Clinical Governance and Support in Transfusion Practice

6.1 Trusts must have Transfusion Teams, which include a Clinical Haematologist, Haemovigilance Practitioner and Blood Bank Biomedical Scientist. Trusts must ensure that Transfusion Teams are provided with adequate administrative support, including access to computer / electronic facilities and suitable office accommodation to undertake their work effectively and efficiently.

6.2 Transfusion Teams must have clearly defined annual work plans to include staff education and training, auditing transfusion practice and investigation of adverse events and near misses.

6.3 Trusts must have a Transfusion Committee, membership of which should be reviewed annually, to reflect changes in transfusion practice. Membership should include a Haemovigilance Practitioner, Clinical Haematologist, Blood Bank Biomedical Scientist, Clinicians and Nursing and Midwifery Staff from hospital and community based healthcare specialities which regularly transfuse blood components or blood products.

6.4 Trusts must have well defined communication pathways between Healthcare Staff, Transfusion Teams, Transfusion Committees and Senior Management and Governance Teams, to promote safe and appropriate use of blood components and blood products.

6.5 Trusts must facilitate the participation of key Healthcare Staff representation at NIRTC meetings and working groups.

6.6 Trusts must liaise with NIBTS, NIRTC and the NI Regional Haemovigilance Team in the provision of safe and appropriate transfusion practice. There should be clear lines of communication between these bodies.

6.7 NIBTS must support the work of the NIRTC to promote safe and appropriate transfusion practice, including facilitation of local NIRTC meetings and sponsoring attendance of NIRTC officers at national transfusion meetings, such as Better Blood Transfusion Network meetings.

6.8 Progressive educational opportunities and training programmes in transfusion practice should be provided for Medical, Nursing and Midwifery Undergraduate and Postgraduate Students. Trusts should liaise with Queen's

University Belfast, University of Ulster, NI Medical and Dental Training Agency (NIMDTA) and NIRTC to coordinate and monitor such programmes.

- 6.9 Trusts must have a procedure for reporting and investigating adverse events and near misses concerning transfusion practice. This procedure must be integral to a trust's critical incident reporting and clinical governance systems.
- 6.10 Trusts must have a mechanism in place to ensure that users are given timely feedback on lessons learned from adverse events and near misses. Preventive measures must be introduced promptly.
- 6.11 Adverse events and near misses must be reported to the SHOT reporting system and all serious adverse events must be reported to MHRA via SABRE.

7. Implementation of BBT 3 NI (2011)

This document must be implemented by all HSC Trusts, Independent Healthcare Clinics, NIBTS and NIRTC.

- 7.1 Trusts and Independent Healthcare Clinics must work with NIBTS and the NIRTC to ensure that transfusion of blood components and blood products is safe, appropriate and timely.
- 7.2 Trusts and Independent Healthcare Clinics should investigate the cause of and correct anaemia, to reduce the need for allogeneic red cell transfusion.
- 7.3 The HSC Board and PHA will support the activities of Trusts and the NIRTC to implement the recommendations in this document.
- 7.4 NIBTS and NIRTC must work together to promote the implementation of BBT 3 NI (2011).

Definitions Referred to in this Document

Blood component: a therapeutic constituent of human blood; i.e. red cells, white cells (granulocytes), platelets, fresh frozen plasma (FFP) and cryoprecipitate (BSQR 2005).

Blood product: any therapeutic substance derived from human plasma, i.e. albumin solution, clotting factor concentrates, fibrinogen concentrate, anti-D immunoglobulin and other therapeutic immunoglobulins (BSQR 2005).

Transfusion practice concerns the processes of pre transfusion sampling, prescribing, organising a request, collection, storage and preparation and administration of a blood component or blood product.

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