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Basildon and Thurrock University Hospitals NHS Foundation Trust
Mid Essex Hospital Services NHS Trust
Southend University Hospital NHS Foundation Trust
**Consulted With:**

| Dr Niven Akotia | MEHT Consultant Anaesthetist and HTG Lead | 4th February 2019 |
| Dr Shereen Elshazly | MEHT Consultant Haematologist with responsibility for Transfusion |
| Mr Nick Sheppard | MEHT Blood Bank Manager |
| Jodie Nightingill | CNS Haematology |
| Deborah Lepley | Warner Library | 21st March 2019 |

**Related Trust Policies** (to be read in conjunction with)

- 04184 Manual of Blood Transfusion Policies and Procedures
- 04080 Consent to examination or treatment policy
- 09100 Incident Policy

**Document Review History:**

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1. **Purpose**

1.1 The Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals.

1.2 The purpose of this document is to ensure that staff are aware of the patients who have special requirements for transfusion, and therefore ensure their requirements are met.

1.3 To provide information to staff as to which patients may have special requirements.

1.4 To ensure staff know how to inform the laboratory when patients have special requirements.

2. **Aims**

2.1 To ensure patients special transfusion requirements are passed on to laboratory staff in order that the laboratory system is updated to ensure a ‘flag’ and special requirement is placed on the patient’s record. This flag will prompt staff so that when any products are issued to that patient they are alerted to the special requirement.

2.2 By ensuring patients who have special requirements receive them, patient safety can be maintained.

3. **Scope**

3.1 This policy covers all patients, adults and children with special blood transfusion requirements to provide products suitable for their medical condition, health status or drug treatment. All components, except granulocytes, are leucodepleted by methods which are demonstrated to leave a residual WBC of less than $5 \times 10^6$ leucocytes/unit in more than 99% of units and less than $1 \times 10^6$ leucocytes/unit in more than 90% of units both with 95% statistical confidence.

3.2 Components that can be provided for patients:

- Irradiated;
- IgA deficient;
- CMV negative;
- Washed red cells.
3.3 All UK donations are tested for:

- ABO, Rh D and K blood group antigens;
- Atypical red cell antibodies;
- HBs antigen;
- antibodies to HIV1&2, HCV, syphilis and HTLV I/II;
- HCV and HIV genome;
- HIV/HBV prior to issue;
- HEV.

4. Overview of the Process

4.1 A blood transfusion special requirement means that an additional process needs to be undertaken by NHSBT on the blood component to make it safe for a specific patient.

4.2 When a patient has been newly recognised as having special transfusion requirements or potentially requiring these components, it is the responsibility of the Clinician caring for the patient to ensure the laboratory is informed of these requirements.

4.3 The Special Requirements Request Form (appendix 1) must be completed and sent to the laboratory. The clinician must phone the laboratory when the decision is made, to ensure the ‘flag’ is placed on the patients records in the interim, so that any products issued before the form is received, will be suitable for the patient.

4.4 When patients are admitted to the hospital and require a transfusion, it is the responsibility of the prescribing/authorising clinician to ensure that they confirm if the patient has any special requirements.

4.5 The Blood Transfusion request form has a section for special requirements to be documented, but there must also be verbal communication with the laboratory if there is a potential that the patient may have special requirements. It is important not to assume that the laboratory staff know that the patient has this requirement as they may not have been in this hospital since a procedure e.g. Stem Cell Transplant or been given new medication e.g. Fludarabine.

4.6 If a patient is being treated at another Trust and may be admitted to MEHT it is the responsibility of the clinical team caring for the patient, to ensure that the shared care documentation is sent to the laboratory so that confirmation of which special transfusion requirement is needed is documented in the patients laboratory records.

4.7 When a verbal request for a special requirement is received, laboratory staff will temporarily place a ‘flag’ on the patient’s record. This will ensure that the
warning is present immediately, so that in the event the patient requires blood components this warning is present for the staff issuing blood.

4.8 Once the written request has been received, senior laboratory staff will update the patients’ laboratory records. This special requirement warning will remain on the patient’s records until a removal of special requirement request form is received.

(Refer to appendix 2)

4.9 Laboratory staff can be informed in a variety of ways; however the Doctor caring for the patient takes overall responsibility for ensuring laboratory staff are informed of the special requirement.

5. Irradiated Components

5.1 Graft versus Host Disease: This rare and almost always fatal complication occurs when viable lymphocytes in a blood donation engraft in the patient and mount an immune response against the recipient’s cells of a different HLA type. At-risk patients usually have impaired cell-mediated immunity and are unable to reject the foreign cells.

5.1.1 At Risk Populations are:

Patients receiving transfusions from a first degree relative (parent, child or sibling) or second degree relative (grandparent, grandchild, uncle, aunt, nephew, niece or half sibling).

5.2 Patients receiving a granulocyte transfusion.

5.3 Patients receiving Human Leucocyte Antigen (HLA) – selected components.

5.4 Patients receiving or who have received purine analogues (e.g. fludarabine, cladribine, deoxycoformicin, bendamustine), for life. For newer purine analogues and related drugs, irradiated components should be given until further data are available. This is not an exhaustive list and can be updated at any time.

5.5 All intrauterine transfusions (IUT). Other neonates receiving red cell or platelet transfusions – where there has been a previous IUT (irradiated components should be given until six months after the expected delivery date) or if the donation is from a first or second degree relative.

5.6 Neonatal exchange transfusions (ET) if there has been a previous IUT or if the donation comes from a first or second degree relative. For other neonatal exchange transfusions, irradiation is recommended providing that irradiation does not unduly delay transfusion.

5.7 Patients with Hodgkin Lymphoma, at any stage of the disease (for life).
5.8 Patients receiving allogeneic haemopoietic stem cell (HSC) grafts, from the start of conditioning therapy and while the patient remains on Graft-versus-Host Disease (GvHD) prophylaxis (usually six month post-transplant). If chronic GvHD is present or the patient is taking immuno-suppressants, continue irradiated blood components indefinitely.

5.9 Allogeneic HSC donors being transfused seven days prior to or during the Harvest of their HSC.

5.10 Patients who have autologous HSC graft:
- Any transfusion seven days prior to and during the one marrow-stem cell harvest;
- Any transfusion from the start of conditioning chemo-radiotherapy until three months post-transplant (six months if total body irradiation was used).

5.11 Patients with aplastic anaemia receiving immuno suppressive therapy with anti-thymocyte globulin (ATG) and/or alemtuzumab (anti-CD52).

5.12 Patients with known or suspected T-cell immunodeficiency, such as Di-George syndrome, the blood should be transfused within 24 hours of irradiation.

5.13 Patients receiving alemtuzumab for solid organ transplantation.

5.14 If patients are on a drug trial, clinical staff need to check what the drug regime for those Trials includes, to determine if irradiated components are required.

5.15 It is not necessary to irradiate Fresh Frozen Plasma, Cryoprecipitate or fractionated plasma products.

5.16 When the decision is made that the patient needs irradiated components, inform the patient, provide the NHSBT leaflet “Information for patients needing irradiated blood”. This leaflet contains a card for the patient to carry stating they are at risk of transfusion-associated graft-versus-host disease.

5.17 Place the sticker from the leaflet inside the front page of the patient’s notes. This will alert staff when a patient is admitted that they require irradiated components.

5.18 When transfusing a patient with the requirement for irradiated blood products check the pack for the RadTag irradiation indicator label. A blue dot indicates that the component is irradiated if the dot is white it is not irradiated.
6. **Cytomegalovirus (CMV)**

6.1 Cytomegalovirus is a common herpes virus that causes asymptomatic infection or a mild glandular fever-like illness in most healthy individuals. Despite an antibody response (seroconversion), the virus persists in blood monocytes and 50–60% of adults in the UK, including blood donors, are lifelong carriers of the virus. It can be transmitted by transfusion of cellular blood components although this may be difficult to distinguish from reactivation of previous infection. CMV can cause severe, sometimes fatal, infection in foetuses, neonates and immunocompromised adults.

6.2 CMV seronegative red cells and platelets should be provided for intrauterine transfusions, neonates (up to 28 days after expected date of delivery) or if the patient has had an IUT.

6.3 CMV seronegative granulocytes should be provided for CMV seronegative recipients.

6.4 CMV seronegative red cells and platelets should be provided, where possible, for pregnant women. In an emergency, such as major haemorrhage, standard leucocyte-depleted components should be given to avoid delay.

6.5 Standard pre-storage leucocyte-depleted components are suitable for all other transfusion recipients, including haemopoietic stem cell transplant patients, organ transplant patients and immune deficient patients, including those with HIV.

6.6 When transfusing a patient who has the CMV negative requirement, ensure the pack states this requirement on it.

7. **Washed Red Cells**

7.1 Indicated for patients with recurrent or severe allergic or febrile reactions to red cells, and severely IgA-deficient patients with anti-IgA antibodies for whom red cells from an IgA deficient donor are not available.

7.2 The decision to provide a specific patient with washed red cells must be made by a Consultant Haematologist. Refer any patients with recurrent or severe allergic reactions to the Consultant Haematologist for advice.
7.3 Washed red cells can be used for IgA deficient patients with anti-IgA antibodies if red cells from IgA deficient donors are not available.

7.4 The shelf life for both irradiated and non-irradiated automated washed cells is set at 14 days post washing and irradiation. However, production of these, in extenuating circumstances, may be manual with suspension in saline not SAGM. This will result in a 24 hour shelf life component.

8. Red Cell Antibodies

8.1 Whilst not specifically a ‘special requirement’, it is important to determine if there are any present. Patients known to have red cell antibodies will require blood which is specifically selected for them. When a group and save or cross match request is received in the laboratory it is processed via an analyser. If there are no red cell antibodies present, and the patient has not had a transfusion or been pregnant since the sample was taken, then blood can be issued.

8.2 If a red cell antibody is found on analysing, then it is dependent on which antibody the patient has, as to whether blood components can be issued at MEHT.

8.3 If the patient has a red cell antibody that cannot be cross matched on site, then samples will be sent to Colindale for cross matching. This can cause a delay in blood being available for the patient. However, in an emergency the most suitable unit available at MEHT would be issued for the patient.

9. Human Leucocyte Antigen (HLA) and Human Platelet Antigen Selected Platelets (HPA)

9.1 These can be selected from platelets in stock or donors may be asked to donate platelets for an individual case following discussion with a H&I consultant in NHSBT. HPA platelets are stocked in Filton, Tooting, Sheffield and Manchester. 24 hours’ notice is required where possible.

9.2 For prophylaxis or treatment of bleeding in thrombocytopenic patients who are refractory to random platelets due to HLA or HPA alloimmunisation.

10 Autologous Blood

10.1 The collection of autologous blood prior to elective surgery should only be considered in exceptional circumstances, e.g. patients with rare red cell antibodies. Any requests should be discussed with a MEHT Consultant Haematologist and NHSBT Consultant.
11. **Ceasing of Special Requirement**

11.1 Once the decision that the patient no longer has a ‘special requirement’ is made, it is the responsibility of the Consultant caring for the patient, to ensure the laboratory is informed.

11.2 Complete the ‘Request for the Removal of Special Requirements - Blood Products’ form (refer to appendix 2) and ensure this is sent to the laboratory.

12. **Incident reporting**

12.1 If patients have special transfusion requirements, and receive a blood component that did not meet that need, this puts the patient at risk. The outcome could be anything from a mild transfusion reaction, to blindness of a foetus, or death from Transfusion Associated Graft versus Host Disease (TAGvHD) in the case of patients needing irradiated components.

12.2 Completing the information on the special requirements form, and ensuring that laboratory staff are informed as soon as possible, will reduce risks of incidents occurring.

12.3 If a patient receives a component that did not meet their specific needs this needs to be reported to the clinician caring for the patient, and the Consultant Haematologist (if this is not the same person) as soon as possible.

12.4 The Consultant Haematologist will need to review the patient, and determine the consequences of the patient receiving this product.

12.5 The patient and/or family will need to be informed of the incident by the responsible Consultant.

12.6 Complete a Datixweb incident, documenting the incident details. Ensure the laboratory staff are informed of the incident.

12.7 If the event is due to a laboratory staff error, this will be escalated to the Executive Review Group (ERG) for review, and reported to the CCG as appropriate.

12.8 If the event reported is due to the Doctor caring for the patient (e.g. not informing the laboratory correctly of the special requirement), then this needs to be escalated by the clinical team caring for the patient to the Trust’s Incident review team.

12.9 Incidents of SPRNM – ‘Special Requirements Not Met’, are also SHOT reportable: Serious Hazards of Transfusion. If the error originated from the laboratory then it is also SABRE reportable (the Serious Blood Reactions and Events body). Ensure the Blood Transfusion Department is informed so that the
correct person is notified so they can report incidents to these external organisations.

13  Audit and Monitoring

13.1 The Blood Transfusion Department will take part in all appropriate NHSBT audits to monitor and assess the trusts performance nationally against the procedures in the transfusion policy. Findings from all National Audits organised by the NHSBT will be reported to the HTT and HTG meetings.

13.2 Annual audits of compliance of the transfusion request forms against the Special Requirement for Blood Transfusion policy will be undertaken by the Blood Bank manager.

13.3 The findings will be reported to the HTG and this group will monitor implementation of any organisational actions developed to address any deficiencies. The Chair of the HTG will be responsible for ensuring actions are progressed.

13.4 Audit findings will also be reported to appropriate divisional / directorate governance meetings and clinical leads will be responsible for developing local actions to address any non-compliance.

14.  Equality Impact Assessment

14.1 Mid Essex Hospital Services NHS Trust is committed to the provision of a service that is fair, accessible and meets the needs of all individuals. (Refer to Appendix 6)

14. References

http://www.transfusionguidelines.org.uk/transfusion-handbook

https://nhsbtdbe.blob.core.windows.net/umbraco-assets/hosp/1447/spn223.pdf -

NHSBT (2018) FACTSHEET Cytomegalovirus (CMV) Negative Blood Components
Information for Healthcare Professionals
https://nhsbtdbe.blob.core.windows.net/umbraco-assets-corp/14652/blc7071.pdf
SHOT / MHRA (2017) UK Haemovigilance: user guide for mandatory and professionally mandated haemovigilance reporting in the UK
### Request for Special Requirements - Blood Products

| Date: .................................................. | NHS Number: .................................................. |
| Patient Surname: ......................... | Hospital Number: .................................................. |
| First Name: .......................................... | Date of Birth: .................................................. |
| Address: .................................................. | Male / Female (circle/delete) |
| .................................................. | Consultant: .................................................. |
| Blood Group: .................................................. | Known antibodies: .................................................. |

Name of Doctor requesting special requirement:

Print: .................................................. Sign: .................................................. Contact details: (bleep/ext no) ........

Rationale for special requirement:

- Relevant drug therapy e.g. Bendamustine, Fludarabine, Cladribine, Deoxycoformicin, Anti-thymocyte globulin (ATG) or Alemtuzumab (anti-CD52) (circle/delete)
- Relevant condition e.g. Hodgkin’s Lymphoma ..................................................

Please ensure you ☑:

- Give the patient the NHSBT leaflet on irradiated blood components ☐
- Put the sticker from the NHSBT leaflet in the patient's notes ☐
- Place alert sticker on the inside of the front cover of notes ☐
- Send this form to the transfusion laboratory ☐
- Place copy of this form in patient medical notes ☐

Stem Cell Transplant/Bone Marrow Transplant: Yes / No

Original Group: .................................................. Donor Group: ..................................................

Name of Transplanting Centre – please supply the laboratory with a copy of the transfer documentation

Special requirements:

- Irradiated ☐ PTO for guidance
- HLA matched ☐
- IgA deficiency ☐
- CMV negative ☐
- Other ☐ (Please document) .................................................. Rationale: ..................................................

Blood Bank Staff: Entered onto Computer: Y / N (if N document rationale):

Date: ............ By Print: ....................... Date: ............ Checked By Print: .......................

Signed: .................................................. Signed: ..................................................

* Who needs to receive irradiated blood components?
Special Requirements For Blood Transfusion / 16015 / 2.0

- Patients receiving transfusions from a first degree relative (parent, child or sibling) or second degree relative (grandparent, grandchild, uncle, aunt, nephew, niece or half sibling).

- Patients receiving a granulocyte transfusion.

- Patients receiving Human Leucocyte Antigen (HLA) – selected components.

- Patients receiving purine analogues (e.g. fludarabine, cladribine, deoxycoformicin): for life. For newer purine analogues and related drugs, such as bendamustine, irradiated components should be given until further data are available.

- All intrauterine transfusions (IUT). Other neonates receiving red cell or platelet transfusions – where there has been a previous IUT (irradiated components should be given until six months after the expected delivery date) or if the donation is from a first or second degree relative.

- Neonatal exchange transfusions (ET) if there has been a previous IUT or if the donation comes from a first or second degree relative. For other neonatal ET, irradiation is recommended providing that irradiation does not unduly delay transfusion.

- Patients with Hodgkin Lymphoma, at any stage of the disease (for life).

- Patients receiving allogeneic haemopoietic stem cell (HSC) grafts, from the start of conditioning therapy and while the patient remains on Graft-versus-Host Disease (GvHD) prophylaxis (usually six month post-transplant). If chronic GvHD is present or the patient is taking immunosuppressant’s, continue irradiated blood components indefinitely.

- Allogeneic HSC donors being transfused seven days prior to or during the harvest of their HSC.

- Patients who have autologous HSC graft:
  1. Any transfusion seven days prior to and during the one marrow-stem cell harvest.
  2. Any transfusion from the start of conditioning chemo-radiotherapy until three months post-transplant (six months if total body irradiation was used).

- Patients with aplastic anaemia receiving immuno suppressive therapy with anti-thymocyte globulin (ATG) and/or alemtuzumab (anti-CD52).

- Patients with known or suspected T-cell immunodeficiency, such as Di-George syndrome, the blood should be transfused within 24 hours of irradiation.

- Patients receiving alemtuzumab for solid organ transplantation.

Who should you inform if your patient requires irradiated blood components?

- In order to prevent the risk of TA-GvHD, please inform the transfusion laboratory, the shared care hospital (if appropriate), nursing staff and most importantly of all, the patient of the need for irradiated blood components. A patient information leaflet ‘Information for patients needing irradiated blood’ is available from the blood transfusion department.

Why is it important these patients receive irradiated blood components?

- Irradiating blood components prevents the donor white cells replicating and mounting an immune response against a vulnerable patient causing transfusion-associated graft-versus-host disease (TA-GvHD).

Which components need to be irradiated?

- Only cellular blood components (red cells, platelets and granulocytes) need to be irradiated.
- Fresh Frozen Plasma (FFP), cryoprecipitate, frozen washed red cells and fractionated plasma products do not need to be irradiated as the lymphocytes will not, or are extremely unlikely to, survive the freezing/washing/fractionation process.

*For further information see current version of "Irradiated Blood Components Information for Healthcare Professionals Factsheet"
Appendix 2

Request for the Removal of Special Requirements - Blood Products

Date: ............................................. NHS Number: ..........................................  

Patient Surname: .............................. Hospital Number: ..........................................  

First Name: ................................. Date of Birth: ..........................................  

Address: ............................................. Male / Female (circle/delete)  

............................................. Consultant: ..........................................  

Details of Doctor requesting the removal of the special requirement:

Print: ............................................. Grade/Job Role: ..........................................  

Sign: ............................................. Contact details: (bleep/ext no) ..........................................  

Confirm which special requirement is to be removed:

➢ Irradiated  □  

➢ HLA matched  □  

➢ IgA deficiency  □  

➢ CMV negative  □  

➢ Other  □  (Please document) ..........................................  

Rationale for the special requirement being removed: ..........................................  

.............................................  

Blood Bank Staff: Requirement removed from the laboratory records: Y / N  
(if N document rationale):

Date: ............................................. Date: ..........................................  

By Print: ............................................. Checked By Print: ..........................................  

Signed: ............................................. Signed: ..........................................  

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Appendix 3 Pre-Assessment clinic proforma for the pre-assessment of Blood Transfusion

Special Requirements

Mandatory proforma for the pre-assessment of Blood Transfusion Special Requirements

Patients Full Name: ........................................
Or affix demographic sticker here
Hospital Number: ............................................
DOB: ...........................................................
NHS Number: ...................................................

This form must be completed prior to Group and Save/Crossmatch requests for pre-assessment and filed in the notes. The form is valid for the patient’s current admission. If the form has been completed pre-admission or if the patient is readmitted, it must be revalidated. If there have been no changes, simply complete the information below, however if there are changes a new form MUST be completed and the original form clearly marked as no longer valid.

Irradiated Blood (applies to red blood cells and platelets), does the patient:

- Receive Human Leucocyte Antigen (HLA) selected components
- Have or had a haematological malignancy? (may have received purine analogues: fludarabine, cladribine, deoxycorticin, bendamustine)
- Have Hodgkin’s Lymphoma, at any stage of the disease (for life)
- Have aplastic anaemia receiving immune-suppressive therapy with anti-thymocyte globulin (ATG) and/or alemtuzumab (anti-CD52)
- Have known or suspected T-cell immunodeficiency, such as DiGeorge syndrome

Transplant patients

- Patients receiving allogeneic haemopoietic stem cell (HSC) grafts
- Allogeneic HSC donors being transfused seven days prior to or during the harvest of their HSC
- Patients who will have autologous HSC graft
- Patients receiving alemtuzumab for Solid Organ Transplantation (for life)

N.B. If the patient answers yes to any of the above, discuss with the blood transfusion department to check if this patient is known to the lab. If the patient is not known, then please discuss with the Consultant Haematologist.

Discussion with Consultant/Consultant Haematologist:

Cytomegalovirus (CMV) negative Blood, applies to red blood cells and platelets

If you answer NO to questions 1 and 2 your patient will NOT require CMV negative blood products

1) Is the patient pregnant? Y/N 2. Is the patient a Neonate? Y/N

Previous Transfusion:

If the patient has had a Blood Transfusion in the last 3 months ensure this is documented on the request form

I hereby declare that I am competent to make this assessment and have answered the above questions to the best of my knowledge.

Name: .................................................. Signature: ........................................ Date: ........................................
Job Title: ............................................ Patients Name: .............................................
Patients Name: ............................................. Date: ........................................

Mandatory Proforma for the assessment of Blood Transfusion Special Requirements September 2018 v. 3
Appendix 4 Poster – Special Requirements for Blood Transfusion

**What is a Special Requirement?**

A special requirement for transfusion means that the blood component has had extra testing or undergone an extra process to make it safe for certain patients and their medical condition.

**Irradiated Components**

- Irradiating blood components prevents the donor white cells replicating and mounting an immune response against a vulnerable patient causing transfection-associated graft-versus-host disease (TA-GvHD).

Who needs to receive irradiated blood components?

- Patients receiving transfusions from a first degree relative
- Patients receiving a granulocyte transfusion
- Patients receiving Human Leucocyte Antigen (HLA) selected components
- Patients receiving purine analogues (e.g. fludarabine, cladribine, deoxycoformycin).

For newer purine analogues and related drugs, such as bendamustine, irradiated components should be given until further data is available.

- All irradiated components (UT). Other neutrophils receiving red cell or platelet transfusions where there has been a previous IUT (irradiated components should be given until six months after the expected delivery date.
- Neonatal exchange transfusions (ET) if there has been a previous IUT. For other neonatal ET, irradiation is recommended providing that irradiation does not unduly delay transfusion.
- Patients with Hodgkin Lymphoma, at any stage of the disease (for life).
- Patients receiving allogeneic haemopoietic stem cell (HSC) grafts, from the start of conditioning therapy and whilst the patient remains on Graft-versus-host Disease (GvHD) prophylaxis (usually six months post transplant). If chronic GvHD is present or the patient is taking immunosuppressants, continue irradiated blood components (HSC graft).
- Allogeneic HSC donors being transfused seven days prior to or during the harvest of their HSC graft.
- Any transfusion seven days prior to and during the bone marrow stem cell harvest.
- Any transfusion from the start of conditioning chemoradiotherapy until three months post-transplant (six months if total body irradiation was used).
- Patients with aplastic anaemia receiving immune suppressive therapy with anti-thymocyte globulin (ATG) and/or alemtuzumab (anti-CD52).
- Patients with known or suspected T-cell Immunodeficiency syndrome, such as DiGeorge syndrome, the blood should be transfused within 24 hours of irradiation.
- Patients receiving alemtuzumab for solid organ Transplantation.

**Hepatitis E Virus (HEV) negative blood components**

- HEV may pose a risk of harm to immunocompromised patients; they may be unable to clear the infection, which may then become persistent, potentially leading to chronic inflammation of the liver and cirrhosis.
- From April 2017, NHSBT test all blood components for HEV, therefore, there is no need to inform the laboratory of this requirement.

**CMV negative blood components**

What is Cytomegalovirus (CMV)

Cytomegalovirus (CMV) is a type of herpes virus. Primary infection is usually asymptomatic but may cause a flu or glandular fever like illness, leading to a lifelong infection in all age groups.

Which patients need to receive CMV negative blood components?

- Intra-uterine transfusions.
- Neonates up to 25 days post expected date of delivery.
- Pregnancy.
- Elective transfusions during pregnancy (not during labour or delivery). If in an emergency situation, it is not possible to provide CMV negative blood components, leucocyte depleted products may be used.

**HLA/HLA matched platelets**

These are only issued following referral to a Consultant Haematologist and discussion with the HLA laboratory at NHSBT.

**IgA deficient products**

NHSBT stocks a small number of red cells, FFP and platelets from IgA deficient donors.

These are only issued following referral to a Consultant Haematologist and discussion with a Consultant Haematologist at the NHSBT.

When there is history of recurrent and/or severe allergic reactions or febrile reactions to transfusion washed red cells can be used for IgA deficient patients with anti-IgA antibodies if red cells from IgA deficient donors are not available.

**From 1st Sept 2018 Irradiation indicator labels are changing:**

Old

New

**Final RadTag Labels**

References:

- NHSBT FACTSHEET Irradiated Blood Components information for Healthcare Professionals Factsheet 1, Version 4 issued January 2014
- NHSBT FACTSHEET Cytomegalovirus (CMV) Negative Blood Components Information for Healthcare Professionals BL0707 1419049
- NHS Trust policy ref 16015

To inform the laboratory of a special requirement please contact the blood transfusion department on extension 4140
**Appendix 5 Shared Care Document**

**SHARED CARE FORM: IRRADIATED/ SPECIALIST BLOOD COMPONENTS & SPECIALIST TREATMENT COMMUNICATIONS DOCUMENT**

**Section A:** To be completed by a member of the Clinical Team and then sent to the Transfusion Laboratory for completion of the form.

<table>
<thead>
<tr>
<th>Affix Addressograph here or complete the following details:</th>
<th>Referring hospital:</th>
<th>ABO and RhD Group Details (Transplant Centres only):</th>
<th>Specialist Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient First and Family Name:</td>
<td>Specialist Treatment Hospital:</td>
<td>Donor Group:</td>
<td>Irradiated: Yes/No</td>
</tr>
<tr>
<td>Date of Birth:</td>
<td>Diagnosis:</td>
<td>CMV Neg: Yes/No</td>
<td>Alert added to HCR?: Yes/No</td>
</tr>
<tr>
<td>NHS / Hospital Number:</td>
<td>Specialist Treatment required or received (if applicable):</td>
<td>Phenotype determined prior to treatment?: Yes/No</td>
<td>Patient Informed of Specialist Requirements?: Yes/No</td>
</tr>
<tr>
<td>Address</td>
<td>Signed:</td>
<td>Print Name:</td>
<td></td>
</tr>
<tr>
<td>Date / /</td>
<td>Contact number / Bleep:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section B & C are ONLY to be completed by the Transfusion Laboratories**

**Section B:** Please document below the ABO and D (where applicable) group of the blood components that the patient currently requires

<table>
<thead>
<tr>
<th>Red cells:</th>
<th>Platelets:</th>
<th>FFP:</th>
</tr>
</thead>
</table>

**RBC Antibodies**

<table>
<thead>
<tr>
<th>Historical Antibodies:</th>
<th>Specificity:</th>
<th>RBC Phenotype:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Antibodies:</td>
<td>specificity:</td>
<td>Washed RBCs: Yes/No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D.A.T.</th>
<th>Washed Platelets: Yes/No</th>
</tr>
</thead>
</table>

**Section C:** Please document below the audit trail for receipt & transfer of data

I confirm all special requirements requested in section A have been input to the LIMS as requested

Copy of completed form to be sent by Secure Fax or scanned copy emailed by Laboratory of identifying hospital to Shared Care Hospital Laboratory

**Confirmation of receipt by Shared Care Hospital Laboratory. To confirm receipt & action of this form please sign, print name, and date below and fax back after entering information into shared Care Hospital LIMS computer**

Date entered to LIMS: / /  
Signed: ............................................  
Print Name: ............................................

Date Fax/email sent: / /  
Signed: ............................................  
Print Name: ............................................

Date specialist requirements input into Shared Care Hospital LIMS: / /  
Signed: ............................................  
Print Name: ............................................

Ratified by the East of England RTC 18/10/12 V6 12/07/18

East of England Regional Transfusion Committee
### Irradiated Blood Components

<table>
<thead>
<tr>
<th>Indication</th>
<th>Duration of Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients receiving transfusions from a first or second degree relative</td>
<td>At each transfusion episode</td>
</tr>
<tr>
<td>All intravenous transfusions (IUT) Other neonates / infants receiving REIC or platelet transfusions – where there has been a previous IUT</td>
<td>6 months post expected delivery date</td>
</tr>
<tr>
<td>Neonatal exchange transfusions (ET) if there has been a previous IUT For other neonatal ET, irradiation is recommended unless it causes a clinically significant delay in transfusion</td>
<td>6 months post expected delivery date</td>
</tr>
<tr>
<td>Patients receiving purine analogues (e.g. fludarabine, cladribine, cladribine)</td>
<td>Indefinitely</td>
</tr>
<tr>
<td>For newer purine analogues and related drugs, such as bendamustine</td>
<td>Until further data becomes available</td>
</tr>
<tr>
<td>Patients receiving allogeneic haemopoietic stem cell (HSC) grafts.</td>
<td>From the start of conditioning therapy &amp; while on Graft-versus-Host Disease (GVHD) prophylaxis (usually 6 months post transplant)</td>
</tr>
<tr>
<td>If chronic GVHD is present or the patient is taking immunosuppressants.</td>
<td></td>
</tr>
<tr>
<td>Allogeneic HSC donors</td>
<td>Transfusions 7 days prior to or during the harvest of their HSC</td>
</tr>
<tr>
<td>Patients who will have autologous HSC graft:</td>
<td>Any transfusion 7 days prior to and during the bone marrow/stem cell harvest.</td>
</tr>
<tr>
<td>Any transfusion from the start of conditioning chemo-radiotherapy until 3 months post transplant (6 months if total body irradiation was used)</td>
<td>Indefinitely</td>
</tr>
</tbody>
</table>

### Cytomegalovirus (CMV) Negative Blood Components

<table>
<thead>
<tr>
<th>Indication</th>
<th>Duration of Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients with known or suspected T-cell immunodeficiency, such as DiGeorge syndrome, the blood should be transfused within 24 hours of irradiation</td>
<td>Indefinitely Once a diagnosis of immunodeficiency has been suspected, irradiated components should be given while further diagnostic tests are done</td>
</tr>
<tr>
<td>Patients with Hodgkin Lymphoma, at any stage of the disease</td>
<td>For life</td>
</tr>
<tr>
<td>IUT and neonates</td>
<td>Up to 28 days post expected delivery date</td>
</tr>
<tr>
<td>Elective transfusions during pregnancy</td>
<td>Where possible for duration of pregnancy</td>
</tr>
</tbody>
</table>

**Notes on completion of form overlay:**
- Under "Specialist treatment required or received" please give details of treatment resulting in need for special requirements.
- Under "Specialist requirements" please circle yes or no.
- If a patient's requirements change, please fill out another form.

Information on irradiated products derived from NHSBT Information leaflets. Information on CMV negative components from SaBTO.

*Monoclonal antibody therapy:
Patients with relapsed or refractory multiple myeloma (MM), relapsed or refractory acute myeloid leukaemia (AML) or myelodysplastic syndrome (MDS) may be treated with monoclonal antibody therapies, currently Daratumumab (Darzalex), Isatuximab and anti-CD47. However, these therapies have the potential to interfere with serological investigations and compatibility testing in blood banks. Where possible, the patient’s phenotype should be tested prior to the commencement of therapy and transfusion laboratories must be notified of patients receiving these treatments, including finish dates, as interference can last for up to 6 months after the last infusion.
## Appendix 6: Preliminary Equality Analysis

This assessment relates to: (please tick all that apply)

<table>
<thead>
<tr>
<th>A change in a service to patients</th>
<th>A change to an existing policy</th>
<th>X</th>
<th>A change to the way staff work</th>
</tr>
</thead>
<tbody>
<tr>
<td>A new policy</td>
<td>Something else (please give details)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Questions

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  What are you proposing to change?</td>
<td>Full Review</td>
</tr>
<tr>
<td>2.  Why are you making this change? (What will the change achieve?)</td>
<td>3 year review</td>
</tr>
<tr>
<td>3.  Who benefits from this change and how?</td>
<td>Patients and clinicians</td>
</tr>
<tr>
<td>4.  Is anyone likely to suffer any negative impact as a result of this change? If no, please record reasons here and sign and date this assessment. If yes, please complete a full EIA.</td>
<td>No</td>
</tr>
<tr>
<td>5.  a) Will you be undertaking any consultation as part of this change?</td>
<td>Refer to pages 1 and 2</td>
</tr>
<tr>
<td>b) If so, with whom?</td>
<td></td>
</tr>
</tbody>
</table>

Preliminary analysis completed by:

<table>
<thead>
<tr>
<th>Name</th>
<th>Job Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tina Parker</td>
<td>Transfusion Nurse</td>
<td>February 2019</td>
</tr>
</tbody>
</table>