Risk assessment document for National Patient Safety Agency
Safer Practice Notice 14
Recommendations of York Hospital Transfusion Committee
April 2007

The following risk assessments reflect the assessment of hazards which represent a significant risk to the staff and patients receiving a blood or blood products transfusion within the York Hospital NHS Trust.

The risk assessments have been completed using guidance from the HSE Leaflet ‘Five Steps to Risk Assessment’ (INDG163) and in accordance with the management of Health and Safety at Work regulations (1999) and in line with the workplace risk assessment form guidelines for the York Hospital NHS Trust version 2 Jan 2006.

The risk assessment details the following factors when considering each factor associated with the transfusion process.

**Hazard**
A brief summary of the hazard the risk assessment for blood transfusion refers to.

**Who might be harmed?**
All of the people who could be harmed by the hazard need to be considered–In this incident it will usually be the receiver of the transfusion, the patient.

**Potential problem**
If a hazard presents no problem and the control measures in place are sufficient, then the details have still been recorded.

**Severity**
Each hazard has been assessed against the risk matrix shown below in table 1 for the severity rating. The severity rating is calculated using the matrix shown in table 2.

**Probability**
Each hazard has been assessed against the risk matrix shown below in table 1 for the probability rating.

**Control measures**
The control measures for each hazard have been identified and recorded. Further assessment is detailed if existing measures are not adequate to control the risk with action plan of how to reduce or eliminate the risk as appendices on the document.
Calculate the risk
On the risk matrix in table 1, severity is the horizontal axis, and Probability the vertical axis:
the risks are rated as:
Green = Low, Yellow = Medium, Red = High

Risk register
The risks will be placed on the Trust/directorate risk register;
Red “high” risks should be actioned/escalated as soon as is reasonably practicable. Inform Risk & Legal Services if any red risks fall outside your directorate’s financial/organisational capability or if it is a Trust-wide issue that needs to be placed on the Corporate Risk Register.

Record the risk
The risks once completed will be sent to the Quality Manager of the Laboratory Medicine for his review and also to the Trust Risk and Legal department for their opinion. A copy will then be kept on Q pulse, the Laboratory Quality Manual.

Assessments will be reviewed on a regular basis by the Hospital Transfusion Committee

<table>
<thead>
<tr>
<th>Probability</th>
<th>Negligible - 1</th>
<th>Minor - 2</th>
<th>Moderate - 3</th>
<th>Serious - 4</th>
<th>Catastrophic - 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost certain - 5</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Likely - 4</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Possible - 3</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Unlikely - 2</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Rare - 1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 1 Risk Matrix
<table>
<thead>
<tr>
<th>Severity of incident</th>
<th>Injury / Illness</th>
<th>Patient Experience</th>
<th>Systems / project / targets / objectives</th>
<th>Complaints / Claims</th>
<th>Financial Loss</th>
<th>Adverse Publicity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Catastrophic</strong></td>
<td>Death or major and permanent incapacity or disability</td>
<td>Totally unsatisfactory patient outcome.</td>
<td>Failure of critical system / project / targets / objectives</td>
<td>Multiple claims or a single major claim</td>
<td>Over £1,000,000</td>
<td>Nationwide multi media coverage</td>
</tr>
<tr>
<td><strong>Serious</strong></td>
<td>Major injuries, or long term incapacity or disability</td>
<td>Patient outcome or experience significantly below reasonable expectation across the board</td>
<td>Partial failure of critical systems, projects, objectives or target achievement.</td>
<td>Above excess claim, multiple justified complaints</td>
<td>£50,000 - £1,000,000</td>
<td>Extensive local coverage and widespread NHS coverage.</td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>Significant injury or ill health – medical intervention necessary – some temporary incapacity.</td>
<td>Patient outcome or experience below reasonable expectation in one or more areas.</td>
<td>Resolvable problem with critical system, project, target or objectives achievement.</td>
<td>Justified complaint involving the lack of appropriate care, or below the excess claim.</td>
<td>£5,000 - £50,000</td>
<td>Coverage throughout the organisation and / or some public coverage</td>
</tr>
<tr>
<td><strong>Minor</strong></td>
<td>Minor injury or ill health – first aid or self treatment – no incapacity</td>
<td>Patient experience temporarily unsatisfactory – rapidly resolved.</td>
<td>Resolvable problem with important system, project, target or objective achievement.</td>
<td>Justified complaint peripheral to clinical care (e.g. Car parking / access)</td>
<td>£500 - £5,000</td>
<td>Coverage limited to elements within the organisation (e.g. trade unions and / or some external stakeholders)</td>
</tr>
<tr>
<td><strong>Negligible</strong></td>
<td>Injury or illness not requiring intervention</td>
<td>Single resolvable problem in patient experience.</td>
<td>Resolvable problem with peripheral system, objective or project.</td>
<td>Low value claim handled by an ex gratia payment</td>
<td>£0 - £500</td>
<td>Awareness limited to individuals within the organisation</td>
</tr>
<tr>
<td></td>
<td>Activity Description</td>
<td>Overall Risk Level</td>
<td>Reviewed dates:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Correct Patient Request identified</td>
<td>Yellow</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinician requests blood x-matching / transfusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Sampling Record / check patient ID</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sampling Labels generated using CPD data – request form</td>
<td>Yellow</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Sampling Sample taken labelled and transported to laboratory</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Laboratory Sample checks by lab staff</td>
<td>Green</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Laboratory Production (selection) of blood components</td>
<td>Yellow</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Blood Issue Blood issued from blood bank</td>
<td>Green</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Blood issue Clinician prescribes blood</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Administration Collection of blood from blood fridge</td>
<td>Green</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Administration Record blood unit arrival</td>
<td>Green</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Administration Bedside patient check with blood components</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Administration Administration and completion of transfusion</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Administration Record made of transfusion given</td>
<td>Green</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Traceability of Blood components</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Diagnosis and management of transfusion reactions</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Use of emergency O Negative blood</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Use of blood warmers</td>
<td>Red</td>
<td>March 2007</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## RISK ASSESSMENT
### BLOOD TRANSFUSION

**York Hospitals NHS Trust**

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Failure to request special requirements of blood (e.g. irradiation)</strong></td>
<td>Mainly Haematology patients, but can include renal transplant patients, paediatrics, maternity, special care baby unit patients</td>
<td>1. Area to indicate special requirement on request form 2. New patients via clinic letter/telephone call from Haematology/Renal specialist nurses 3. Fludarabine, Caldrabine, Pentostatin, Clofarabine prescribing update from pharmacy but has weekly lag. 4. Special interest flag set of Laboratory Data Management (LDM).</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td><strong>Inappropriate request</strong></td>
<td>All patients</td>
<td>1. Maximum Blood Order Schedule 2. BMS review 3. Clinical review and training</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Insufficient / inaccurate data on request</strong></td>
<td>All patients</td>
<td>1. Transfusion Policy 2. Lab SOP and review 3. Phlebotomy policy</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Request not communicated to others</strong></td>
<td>All patients</td>
<td>1. Clinical checks and feedback in place. 2. Transfusion process requires written requests to back up verbal requests.</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

**Activity Assessed:** Correct Patient Request identified - Clinician requests blood x-matching / transfusion

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

**P** – Probability of Hazard Occurring  
**S** - severity if hazard occurred (minor injury – death)  
**R** - risk rating (low to high)  
Green, yellow, red
| **Mis-matching of haematology data to patient** | All patients | 1. Repeat requested for grossly abnormal haematology  
2. Protocol requests pre transfusion Hb to be recorded prior to transfusion  
3. 2 samples required for Electronic issuing of blood so wherever possible historical sample available | 2 | 3 | 6 |
| **Request made on wrong patient** | All patients | As above | 2 | 3 | 6 |
| **Lack of appropriate training** | All patients  
All staff groups | 1. Transfusion Policy  
2. BMS staff training records reviewed annually  
3. Nurse and Medical training patchy  
See Failure to request special requirements of blood | 3 | 3 | 9 |
| **Special request not explicate** | Haematology patients | See failure to request special requirements of blood |  |
| **Patients requiring transfusion have similar names** | Patients with similar names | 1. Warning stickers available in clinical area but not in Laboratory | 1 | 1 | 1 |
| **Inappropriate patient details in patient notes** | All Patients | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory checks/SOP’s | 1 | 1 | 1 |
| **Wrong patient notes.** | All Patients | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory checks/SOP’s | 1 | 1 | 1 |

### Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)

All staff undertaking venepuncture will need to have 3 yearly competency assessments undertaken as per National Patient Safety Agency safer practice notice 14 Nov 2006. Annual update on Transfusion awareness available for all staff.

Electronic ordering of blood components in line with electronic bar coding/tracking.

**Review Date:** April 2008
## RISK ASSESSMENT

### BLOOD TRANSFUSION

**P** – Probability of Hazard Occurring  
**S** – severity if hazard occurred (minor injury - death)  
**R** – risk rating (low to high)  
Green, yellow, red

**Activity Assessed:** Sampling - Record / check patient ID  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Staff use of incorrect patient identification / information to check                 | All patients   | 1. Trust Positive Patient Identification policy.  
2. Blood Transfusion Policy  
3. Quality checks in Laboratory Training                                               | 1 | 4 | 4 |
| Identification of wrong patient                                                    | All patients   | As Above                                                                           | 1 | 5 | 5 |
| No wristband / identification worn by patient                                       | All Patients   | As Above                                                                           | 2 | 5 | 10|
| Patient details incorrect / insufficient                                             | All Patients   | As Above                                                                           | 1 | 5 | 5 |
| Patient identification / wristband not checked by staff                              | All Patients   | As Above                                                                           |    |   |    |
| Patient unable to verify identification                                              | All Patients   | As Above  
4. Unconscious unknown patients issued with unique emergency number                   | 1 | 5 | 5 |
| Differing hospital / NHS / A+E numbers                                               | All Patients   | 1. LDM merge routine  
2. CPD control measures                                                                | 1 | 4 | 4 |
| Wrong notes                                                                          | All Patients   | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory checks/SOP’s                                                             | 1 | 4 | 4 |
| Patient gives false identity                                                         | All Patients   | None                                                                               | 1 | 1 | 1 |
| Patient details illegible                                                            | All Patients   | 1. Laboratory SOP’s                                                                | 1 | 1 | 1 |
Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)

Alteration of policy and procedures in line with competency based training for transfusion process

Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use.

Review Date: March 2008
# RISK ASSESSMENT

## BLOOD TRANSFUSION

**P** – Probability of Hazard Occurring  
**S** - severity if hazard occurred (minor injury - death)  
**R** - risk rating (low to high)  
Green, yellow, red

### Activity Assessed: Sampling - Labels generated using CPD data - request form

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flaws in CPD system (allows changes to be made)</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Incorrect data entered on to system</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>No labels available / allowed</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Writing not legible on request form</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Identification not checked against request form</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Incomplete information on form and / or sample</td>
<td>All Patients</td>
<td>1. Data Quality Control</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wrong labels in notes</td>
<td>All Patients</td>
<td>As Above</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Patients have similar names</td>
<td>All Patients</td>
<td>As Above</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
| Patient not asked – told name                                                      | All Patients   | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Unique numbering system                                                         |  1 | 5 | 5 |

### Significant Hazards

1. Flaws in CPD system (allows changes to be made)
2. Incorrect data entered on to system
3. No labels available / allowed
4. Writing not legible on request form
5. Identification not checked against request form
6. Incomplete information on form and / or sample
7. Wrong labels in notes
8. Patients have similar names
9. Patient not asked – told name

### Groups at Risk

All Patients

### Existing Controls

1. Data Quality Control
2. Bedside checks
3. Quality checks in Laboratory
4. Not tested in Laboratory
5. Multiple checks throughout process, contained in Transfusion policy, phlebotomy policy, Laboratory SOP’s
6. As Above
7. Quality checks against historic records on LDM
8. Sample handwritten
9. Unique numbering system
10. Transfusion Policy
11. Phlebotomy Policy
Action Plan for Further Reduction of Risks (Docs / SWPS / Policies / PPE)
Electronic system for labelling of transfusion samples at bedside, only possible in line with complete electronic positive patient identification.
**Review Date:** March 2008
### RISK ASSESSMENT
#### BLOOD TRANSFUSION

**York Hospitals NHS**

<table>
<thead>
<tr>
<th>P – Probability of Hazard Occurring</th>
<th>Activity Assessed: Sampling - Sample taken labelled and transported to laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>S - severity if hazard occurred (minor injury - death)</td>
<td>Assessor(s): Hospital Transfusion Team</td>
</tr>
<tr>
<td>R - risk rating (low to high)</td>
<td><strong>Date</strong>: March 2008</td>
</tr>
<tr>
<td>Green, yellow, red</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Pre-labelling of sample | All Patients | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory SOP's | 1 | 4 | 4 |
| Sample labelled with wrong / insufficient data | All Patients | As Above | 1 | 4 | 4 |
| Staff identification not recorded on form / sample | All Patients | As Above | 1 | 1 | 1 |
| Samples taken at same time by same person | All Patients | 1. Laboratory checks, one of samples will not be tested and repeat sample requested  
2. Electronic Issue operational requirements for Laboratories  
3. Blood transfusion Policy | 1 | 4 | 4 |
| Wrong laboratory number on request card and sample (interface issue) | All Patients | 1. Automated systems in Laboratory  
2. Laboratory checks and SOP's | 1 | 1 | 1 |
| Sample / label becomes loose, broken or lost | All Patients | 1. Sample not processed | 1 | 1 | 1 |
| Sample labelled away from the bedside – error | All Patients | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory SOP's | 1 | 4 | 4 |
| Splitting of sample and form | All Patients | 1. Sample not processed | 1 | 1 | 1 |
| Labelling delegated to someone else | All Patients | 1. Transfusion Policy  
2. Phlebotomy Policy  
3. Laboratory SOP's | 1 | 4 | 4 |
| Handwritten label – poor / illegible | All Patients | 1. Sample not processed | 1 | 1 | 1 |
| Size of label incompatible with sample size | All Patients | 1. Sample not processed | 1 | 1 | 1 |

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

Electronic system for labelling of transfusion samples at bedside, only possible in line with complete electronic positive patient identification.

**Review Date**: March 2008
### RISK ASSESSMENT

#### BLOOD TRANSFUSION

---

**Activity Assessed:** Laboratory - Sample checks by lab staff

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

---

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Inherent laboratory problems (transposition etc) | All Patients | 1. Laboratory SOP’s  
2. Primary sampling | 1 | 1 | 1 |
| Errors in identification – are not cross –checked with CPD | All Patients | 1. Bedside checks | 1 | 1 | 1 |
| Patient details incorrectly registered | All Patients | 1. Bedside checks | 1 | 1 | 1 |
| Failure to identify errors in sampling | All Patients | 1. Automated System requiring 2 separate samples | 1 | 1 | 1 |
| Failure to find historical records compounds error | All Patients | No controls | 1 | 1 | 1 |
| Multiple records on lab computer | All Patients | 1. Daily merge lists  
2. Historic check on request | 1 | 1 | 1 |
| No historical record available | All Patients | 1. Two sample policy | 1 | 1 | 1 |

---

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

Introduction of annual training scenarios for laboratory staff from July 2007 in line with MHRA compliance report April 2007

**Review Date:** March 2008
### RISK ASSESSMENT
**BLOOD TRANSFUSION**

York Hospitals NHS

**Activity Assessed:** Laboratory - Production (selection) of blood components

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of wrong blood</td>
<td>All Patients</td>
<td>1. Serological checks and LDM checks 2. Bedside checks 3. Training</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Unit of blood labelled incorrectly / with insufficient data</td>
<td>All Patients</td>
<td>As above</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Staff identification not recorded</td>
<td>All Patients</td>
<td>1. Automated password system</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Special requirements not met</td>
<td>All Patients</td>
<td>1. Serological checks and LDM checks 2. Bedside checks 3. Training</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Technical failure in production of identification labels (eg missing last digit)</td>
<td>All Patients</td>
<td>1. Serological checks and LDM checks 2. Bedside checks 3. Training</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Label falls off</td>
<td>All Patients</td>
<td>1. Unit will not be transfused</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>National Blood Service has mis-grouped unit</td>
<td>All Patients</td>
<td>1. No control measure for Electronic issued blood but would be detected if serological cross match performed</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Blood not available.

| All Patients | 1. Clinical override in emergencies | 2. Contingency plans | 1 | 1 | 1 |

**Action Plan for Further Reduction of Risks (Docs / SWPS / Policies / PPE)**

Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use.

**Review Date**: March 2008
**RISK ASSESSMENT**  
**BLOOD TRANSFUSION**

- **P** – Probability of Hazard Occurring  
- **S** – severity if hazard occurred (minor injury - death)  
- **R** - risk rating (low to high)  
  - Green, yellow, red

**Activity Assessed:** Blood Issue - Blood issued from blood bank  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Blood not in fridge                             | All patients   | 1. Lab SOPs  
2. Electronic Tracking as far as blood issue fridge | 1 | 1 | 1 |
| No register of blood in fridge                  | All patients   | 1. Lab SOPs  
2. Electronic Tracking as far as blood issue fridge | 1 | 1 | 1 |
| Staff identification not recorded               | All patients   | 1. Blood Transfusion Policy  
2. Electronic Tracking as far as blood issue fridge | 1 | 1 | 1 |
| Wrong blood, with similar name in fridge        | All patients   | 1. Training  
2. Lab SOP’s  
3. Blood Transfusion Policy  
4. Electronic Tracking as far as blood issue fridge | 1 | 2 | 2 |
| Blood in wrong place in fridge                  | All patients   | 1. Lab SOPs  
2. Blood Transfusion Policy  
3. Training | 1 | 1 | 1 |

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**  
The recent introduction of the electronic tracking as far as the issue blood fridge in theatre reception has the potential to improve the hazards involved in removing blood from the blood fridge. Competancy based training packages to be introduced to continue to reduce risk.

**Review Date:** March 2008
**RISK ASSESSMENT**

**BLOOD TRANSFUSION**

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| 1. Clinician prescribes blood for wrong patient | All patients | 1. Blood Transfusion policy  
2. Safe identification of Patients Policy  
3. Training | 1 | 1 | 1 |
| 2. Details poorly written / illegible | All patients | 1. Medicines Code Nursing Care Policy (section 1)  
2. Trust Standards for Documentation | 1 | 5 | 5 |
| 3. Prescription does not meet requirements of patient | All patients | 3. Blood Transfusion Policy | 2 | 4 | 8 |

**Activity Assessed:** Blood issue - Clinician prescribes blood

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

Monitor incident reports and review risk assessment annually

**Review Date:** March 2008
## RISK ASSESSMENT
### BLOOD TRANSFUSION

### York Hospitals NHS

**P** – Probability of Hazard Occurring  
**S** – Severity if hazard occurred (minor injury - death)  
**R** – Risk rating (low to high)  
- Green, yellow, red

Activity Assessed: Administration - Collection of blood from blood fridge  
Assessor(s): Hospital Transfusion Team  
Date: March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Blood taken to wrong ward | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |
| Collection form has incorrect / insufficient details | All patients | As Above | 1 | 1 | 1 |
| Wrong unit of blood taken from fridge | All patients | As Above  
3. Electronic kiosk with increased security | 1 | 1 | 1 |
| Multiple collection made by staff at same time | All patients | As Above | 1 | 1 | 1 |
| Unauthorised staff collect blood | All patients | As Above  
3. Electronic kiosk with increased security | 1 | 1 | 1 |
<table>
<thead>
<tr>
<th>Issue</th>
<th>Target</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unauthorised access to electronic kiosk/blood fridge</td>
<td>All Patients</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical staff take blood when ‘red box’ appears</td>
<td>All Patients</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laboratory staff unavailability to correct error codes</td>
<td>All patients</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer links down so kiosk unavailable</td>
<td>All patients</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

Continue to complete weekly compliance report for traceability tags  
Monitor incident reports and review risk assessment annually  
**Review Date:** March 2008
**RISK ASSESSMENT**
**BLOOD TRANSFUSION**

**Activity Assessed:** Administration - Record blood unit arrival  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| 1. Blood unit not recorded | All patients | 1. Blood Transfusion policy  
2. Training  
3. Traceability procedure | 1 | 1 | 1 |
| 2. Different blood collections arrive on ward at same time | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |
| 3. Failure to complete protocol | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |
| 4. Blood not expected – patient may not be on ward | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |
| 5. Unwanted blood | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |
| 6. Blood taken to wrong place | All patients | 1. Blood Transfusion policy  
2. Training | 1 | 1 | 1 |

**Action Plan for Further Reduction of Risks (Docs / SWPS / Policies / PPE)**

- Training and assessment of competency
- Update transfusion policy and protocol in line with traceability issues
- Monitor incident reports and review risk assessment annually

Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use

**Review Date:** March 2008
## RISK ASSESSMENT
### BLOOD TRANSFUSION

**Activity Assessed:** Administration - Bedside patient check with blood components

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No wristband / wrong wristband</td>
<td>All patients</td>
<td>1. Blood Transfusion Policy – no wristband no transfusion</td>
<td>2</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safe identification of patients policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safe identification of patients policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Details on unit not checked against patient identity</td>
<td>All patients</td>
<td>1. Blood Transfusion Policy – no wristband no transfusion</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safe identification of patients policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Details on unit not completed</td>
<td>All patients</td>
<td>1. Blood Transfusion Policy – no wristband no transfusion</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safe identification of patients policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. No identity check at all</td>
<td>All patients</td>
<td>1. Blood Transfusion Policy – no wristband no transfusion</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Safe identification of patients policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| 6. Staff identity not recorded on transfusion form | All patients | 1. Blood Transfusion Policy  
2. Standards for record keeping  
3. Professional codes of conduct  
4. Training | 1 | 5 | 5 |
| 7. Details on wristband not complete | All patients | 1. Safe identification of patients policy | 1 | 5 | 5 |
| 8. Check not performed at bedside | All patients | 1. Blood Transfusion Policy – no wristband no transfusion  
2. Training | 1 | 5 | 5 |
| 9. Baby has changed names | Babies | 1. Unique numeric identifier | 1 | 5 | 5 |

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

- Training and assessment of competency
- Monitor incident reports and review risk assessment annually
- Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use

**Review Date:** March 2008
### RISK ASSESSMENT
#### BLOOD TRANSFUSION

**P** – Probability of Hazard Occurring  
**S** - severity if hazard occurred (minor injury - death)  
**R** - risk rating (low to high)  
*Green, yellow, red*

---

**Activity Assessed:** Administration - Administration and completion of transfusion  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Observations not done                                    | All patients   | 1. Blood Transfusion Policy  
2. Protocol as reminder  
3. Training                                                  | 1  | 4 | 4 |
| Reaction of blood product                                | All patients   | 1. Lab SOPs re x-matching of blood  
2. Blood Transfusion Policy  
3. Protocol as reminder  
4. Training                                                  | 1  | 4 | 4 |
| Inadequate staff and / or training of staff to monitor information | All patients   | 1. Workload analysis to advise on staffing levels.  
2. Training schedule                                          | 2  | 4 | 8 |

---

**Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)**

Training already in place, though no assessment of competence.  
Training and assessment of competency to be developed  
Annual workload analysis to inform staffing levels  
Monitor incident reports and review risk assessment annually

---

**Review Date:** March 2008
# Risk Assessment

## Blood Transfusion

**P** – Probability of Hazard Occurring  
**S** - severity if hazard occurred (minor injury - death)  
**R** - risk rating (low to high)  
*Green*, *yellow*, *red*

### Activity Assessed: Administration - Record made of transfusion given

**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>RR</th>
</tr>
</thead>
</table>
2. Medical Records Strategy / SOPS /  
3. Training | 1 | 1 | 1 |
2. Medical Records Strategy / SOPS /  
3. Training | 1 | 1 | 1 |
| Traceability tags not returned | Patients | 1. Daily collection by MLA of tags used  
2. Follow up on non returned tags  
3. Weekly compliance report completed | 1 | 1 | 1 |

### Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)

- Continue to complete weekly compliance report for traceability tags
- Monitor incident reports and review risk assessment annually
- Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use

**Review Date:** March 2008
### RISK ASSESSMENT
#### BLOOD TRANSFUSION

**P** – Probability of Hazard Occurring

**S** – Severity if hazard occurred (minor injury - death)

**R** – Risk Rating (low to high)

- Green, yellow, red

---

**Activity Assessed:** Traceability of blood components  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

---

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tags attached to blood bags not collected and reconciliation not possible</td>
<td>All patients</td>
<td>1. Daily collection of Tags from clinical area by MLA</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Tags not signed by clinical staff</td>
<td>All patients</td>
<td>1. Daily collection by MLA allows retrospective signing of transfusion taking place.</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Loss of tags</td>
<td>All patients</td>
<td>1. Daily collection of tags by MLA allows for rapid detection of non compliance with return of tags. Secondary evidence sought and transfusion confirmed.</td>
<td>3</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

---

**Action Plan for Further Reduction of Risks (Docs / SWPS / Policies / PPE)**

- Continue to complete weekly compliance report for traceability tags
- Monitor incident reports and review risk assessment annually
- Potential reduction in risk score through introduction of electronic bar code / electronic tracking system complementing other systems in place for checking of patient identity and blood use

---

**Review Date:** March 2008
## RISK ASSESSMENT
### BLOOD TRANSFUSION

### York Hospitals NHS

**P** – Probability of Hazard Occurring

**S** – severity if hazard occurred (minor injury - death)

**R** – risk rating (low to high)

**Green, yellow, red**

### Activity Assessed: Diagnosis and management of suspected transfusion reactions

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

**Table: Significant Hazards, Groups at Risk, Existing Controls, P, S, R**

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not reported</td>
<td>All patients</td>
<td>1. Blood transfusion policy&lt;br&gt;2. Training&lt;br&gt;3. Lab SOP’s&lt;br&gt;4. Adverse incident reporting system</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Transfusion aborted outside recognised trigger points</td>
<td>All patients</td>
<td>1. Blood transfusion policy&lt;br&gt;2. Training&lt;br&gt;3. Lab SOP’s&lt;br&gt;4. SABRE/MHRA guidance documents</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

### Action Plan for Further Reduction of Risks (Docs / SWPS / Policies / PPE)

Monitor incident reports and review risk assessment annually

**Review Date**: March 2008
## RISK ASSESSMENT
### BLOOD TRANSFUSION

**Activity Assessed:** Use of emergency O negative blood  
**Assessor(s):** Hospital Transfusion Team  
**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
</table>
| Not reported as being taken | All patients | 1. Blood transfusion policy  
2. Training  
3. Lab SOP's  
4. Adverse incident reporting system  
5. Electronic kiosk at blood fridge | 1 | 4 | 4 |
| Unable to trace recipient | All patients | 1. Blood transfusion policy  
2. Training  
3. Lab SOP's  
4. Traceability procedure using tag and label | 2 | 4 | 8 |
| Transfusion reaction due to uncross matched blood | All patients | 1. Blood transfusion policy  
2. Training  
3. Lab SOP's  
4. Adverse incident reporting system | 1 | 1 | 1 |

### Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)

Monitor incident reports and review risk assessment annually

**Review Date** March 2008
### RISK ASSESSMENT
#### BLOOD TRANSFUSION

**Activity Assessed:** Use of Blood warmers

**Assessor(s):** Hospital Transfusion Team

**Date:** March 2007

<table>
<thead>
<tr>
<th>Significant Hazards</th>
<th>Groups at Risk</th>
<th>Existing Controls</th>
<th>P</th>
<th>S</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>No training documents available</td>
<td>All patients/staff</td>
<td>1. Use limited wherever possible to selected areas, theatres and MES who have received verbal training</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Limited knowledge of use in clinical areas other than theatres and Haematology areas.</td>
<td>All patients/staff</td>
<td>1. All warmers kept in acute areas, theatres, A&amp;E, ICU where staff have received verbal training. 2. If required in other areas advised to seek assistance 3. Request lab to inform transfusion practitioner if blood warmer required for patient</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Giving set on Fenwal set contains 3 way tap</td>
<td>All patients/staff</td>
<td>1. Advise staff to remove 3 way tap in general ward areas prior to priming of set.</td>
<td>3</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

### Action Plan for Further Reduction of Risks (Docs / SWPS/ Policies / PPE)

Phase out of Fenwal Blood warmers and sets which are of significant risk. Competency based training packages to be introduced for recently acquired blood warmers.

**Review Date:** March 2008
Summary

It is noted in the areas where the risk score is red the recommendations are;

- Changes to the transfusion policy and protocol to incorporate the changes required by the NPSA safer practice notice
- The introduction of competency based training in certain areas of the transfusion process as previously recommended by the NPSA safer practice notice 14.
- The introduction of an electronic bar code/ tracking system which would incorporate patient identification, electronic labelling for samples, electronic ordering of blood components, electronic traceability and electronic checking of bedside administration. This would have the additional benefit of improving compliance with the Blood Safety and Quality Regulations (BSQR 2005) as used by the Medicines and Healthcare Regulatory Authority when inspection of the transfusion process occurs.

As yet there is no Trust in the UK that has a full electronic system that meets all the NPSA/BSQR requirements, as identified by the NPSA in 2006. However, work towards acquisition of an appropriate system must be commenced as soon as an NPSA and Connecting for Health specification is available.

The NPSA also asked Trusts to look at the feasibility of using:-

1. **Photo ID cards**, these are to be trialled in the Renal Unit in the short term, with a view to extending the use to frequently transfused patients in the medical setting. They would not reduce risk of wrong blood being administered but would complement the current system as the patient would be more engaged in the checking process. The system is still reliant on human actions to ensure card is carried when required or checked by staff members.

2. **A labelling system of matching blood to patient**, The Hospital Transfusion Team felt this system would complicate the method of blood transfusion samples taken in the Trust and as such do not recommend the change in practice.