Two samples for Cross-Match

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Why?
NPSA competency training numbers over time

- 185 Cancer Services Directorate
- 185 Critical Care
- 185 Medical Directorate
- 185 Surgery I Directorate
- 185 Specialist Surgery Directorate
- 185 Women & Child Health Directorate
- Total
Does training prevent ‘wrong blood in tube’ events?

- Trained: 3
- Untrained: 2
- No record: 1
NPSA status of staff completing transfusion forms

- **Doctors**: Assessed - 20, Not Assessed - 5, Unable to read signature - 5
- **Nurses**: Assessed - 22, Not Assessed - 2, Unable to read signature - 3
- **Phlebotomists**: Assessed - 3, Not Assessed - 1, Unable to read signature - 1
- **Unable to read signature**: Assessed - 1, Not Assessed - 1, Unable to read signature - 45
What solutions are available?

- No further action – accept risk
- More training
- Lab rejection of all samples from untrained staff
- IT solution eg Ordercomms
- 2 sample policy?
Availability of historical groups
Summary

- ABO mismatched transfusion frequently fatal
- Events are rare but considered unacceptable by the public and the DoH
- ‘Wrong blood in tube events’ occur roughly every two months at RDE
- Training does not prevent near misses
- 95% of patients being transfused have had their blood group checked at least twice
How?
Request blood by phone or form:

Lab checks to see if historical group exists:

Historical sample exists

Group Specific blood issued
Request blood by phone or form:

Lab checks to see if historical group exists:

- No historical

Lab requests second sample be sent

2nd sample sent

Group Specific blood issued
Request blood by phone or form:

Lab checks to see if historical group exists:

Lab requests second sample be sent

2nd sample not available and blood required

Group O blood issued
Emergencies

- Engagement of staff involved in emergency care
- Group O always available
- Need for separate samples
- Highlighting of need to incident report issues
- If no 2nd sample after 10 units, use original
- Pragmatic response if antibodies on first sample
What?
Incident reports

Blood Transfusion Line Graph Reports - Sub Category

- Adverse Reaction
- Bedside Errors
- Blood component
- Delay in Provision
- Laboratory Errors
- Miscellaneous
- Request error

Incident date (Month and Year)
O neg increase
Effect on workload

BT Workload figures

Number of group and save requests

Date

2010-2011

2011-12

2012-13

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

Q1
Cheating

- Anecdotal evidence of taking one sample and splitting into two tubes
- Lab will reject these; care with labelling samples
- Quick audit suggested practice not rife
Consider a situation where you are unable to take a second cross-match sample, for example during an urgent case where you are busy resuscitating an acutely unwell patient; what action should you take if the laboratory request a second sample prior to providing cross matched blood?

Urgent situation

- Ask the laboratory to issue group O blood as the case is urgent and send a second sample when practical.
- Stop resuscitating the patient until you have taken the second sample.
- Always split the first sample into two tubes and keep one tube in your pocket for just such an occasion.
- Persuade the laboratory staff member to over-ride the policy.
Where was the sample labelled?

- **At Bedside**
- **Away from Bedside**

![Bar Chart]

- **Count**
- **Medic**
- **Non Medics**
Conclusions

• Two sample policy introduced:
  – No increase in O neg usage
  – No increase in lab workload
  – No increase in incidents/delay in blood
• Good communication needed
• Adherence to RPRB poor when medics take blood
• (Wrong blood in tube events appear to have fallen)
Consider a situation where you are able to take a second cross-match sample; what action should you take if the laboratory request a second sample prior to providing cross matched blood?

Non-urgent situation

- Send a second sample
- Always split the first sample into two tubes and keep one tube in your pocket for just such an occasion
- Persuade the laboratory staff member to over-ride the policy
Are you aware that there is a 2 sample policy for transfusion samples at RDE?
Was the member of staff trained?

<table>
<thead>
<tr>
<th>Count</th>
<th>Medic</th>
<th>Non Medic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trained</td>
<td>0</td>
<td>150</td>
</tr>
<tr>
<td>Not Trained</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>
8. You want to find out whether a patient has ever had their blood group tested in the past. How can you find this information? (NB you can tick all that you feel apply)

<table>
<thead>
<tr>
<th>Response</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone the transfusion laboratory</td>
<td>83.1%</td>
<td>59</td>
</tr>
<tr>
<td>Look in the results section of the notes</td>
<td>52.1%</td>
<td>37</td>
</tr>
<tr>
<td>Look up the result on the Ordercomms system</td>
<td>31.0%</td>
<td>22</td>
</tr>
<tr>
<td>Look up the result on the Pathology system</td>
<td>93.0%</td>
<td>66</td>
</tr>
</tbody>
</table>

answered question 71
skipped question 1
Were medical staff more likely to be interrupted?

![Graph showing the comparison between interrupted and not interrupted counts for 'Medic' and 'Non Medic'.]