Where do platelets go?

Janet Birchall
Consultant Haematologist NHSBT
and North Bristol NHS Trust
Where do platelets go?

• Represent clinical team
• Final part of the platelet journey
• Challenge - limiting use to approved indications
2010 NCA of Platelets use in Haematology

Why was this audit necessary?

- Previous audits showed significant amount of use outside of recommended guidelines
- Up to 57% of all platelet transfusions are given to haematology patients
- Risks associated with use and cost
Facts and Figures

• This is the largest audit of platelet use in haematology patients ever reported

• A platelet transfusion was audited on average every 40 minutes for 3 months, a total of 3,296

• So what did we learn…….?
Why is this audit important?

- **28%** of the platelet transfusions audited were considered inappropriate
  - This was despite taking into consideration factors which altered transfusion thresholds

- Recommends key areas that could be changed to improve practice
## Summary of appropriateness of prophylactic, pre-procedure and therapeutic transfusions

<table>
<thead>
<tr>
<th>Reason for Transfusion</th>
<th>Audited episodes in each category</th>
<th>Appropriate</th>
<th>Indeterminate</th>
<th>Outside guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prophylactic</td>
<td>69%</td>
<td>60%</td>
<td>6%</td>
<td>34%</td>
</tr>
<tr>
<td>Pre-procedure</td>
<td>15%</td>
<td>64%</td>
<td>13%</td>
<td>23%</td>
</tr>
<tr>
<td>Therapeutic</td>
<td>13%</td>
<td>84%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>Unclear</td>
<td>3%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Key results

- **Organisational survey**
  - 36% - prophylactic platelets to stable patients with chronic bone marrow failure
  - 23% routinely give platelets prior to bone marrow trephine. 12% routinely give platelets prior to a bone marrow aspirate.

- **Prophylactic transfusion**
  - 69% of all transfusions episodes
  - 34% were considered inappropriate
    - 26% Transfused above algorithm thresholds
    - 8% To patients with MDS who had no additional risk factors for bleeding
  - 10% were double dose
Appropriateness of prophylactic transfusions

2010 Re-audit of the use of Platelets in Haematology

- National
- Regional
- Bishop Auckland Hospital
- City Hospitals Sunderland NHS Foundation Trust
- Darlington Memorial Hospital
- Gateshead Health NHS Foundation Trust
- North Tees and Hartlepool NHS Foundation Trust
- South Tees Hospitals NHS Foundation Trust
- University Hospital of North Durham

- Appropriate
- Indeterminate
- Outside guidelines

National Comparative Audit of Blood Transfusion
Key recommendations for hospitals

• Local guidelines should be based on BCSH guidelines and should specify that platelets are not routinely required:
  – Prior to bone marrow aspiration & biopsy
  – In stable patients with long term bone marrow failure

• Double dose prophylactic transfusions should not be used routinely
Other initiatives developed to help you to improve appropriate use

- Audit key facts document
- One page platelet summary fact sheet
- National Blood Transfusion Committee, Indication Codes for Transfusion – poster
- “Don’t use two when one will do” – poster
- Platelet educational workshops