Audit of Blood Transfusion in Community Hospitals

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Reason for Audit

- Concern over quality of GP prescribing from Transfusion Practitioner working in community
- Concerns within our Hospital Transfusion Team over lack of GP training
- 1 report of TACO in the last 2 years
Transfusion within our Community Hospitals

- RD&E supplies blood to 6 Community Hospitals in Mid and East Devon
- Over 1000 units per year are transfused; all prescribed by General Practitioners
- Valued by patients
Audit of Blood Transfusion in Community

- Details of Community Transfusion over 3rd Quarter (Oct to Dec) 2014 collected from LIMS
  - Reason for Transfusion/ Diagnosis
  - Pre transfusion Haemoglobin
  - Numbers of units Transfused
  - Post Transfusion Haemoglobin
Results

- Number of units transfused: 182
- Number of transfusions: 70
- Number of patients transfused: 50
## Reason for transfusion

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of Patients (n=50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>20</td>
</tr>
<tr>
<td>Normochromic/normocytic anaemia of chronic disease</td>
<td>12</td>
</tr>
<tr>
<td>Haematological Diagnosis (MDS, myeloma)</td>
<td>6</td>
</tr>
<tr>
<td>Iron deficient picture</td>
<td>5 (2 had also received iv iron)</td>
</tr>
<tr>
<td>Acute Sepsis or recovering from sepsis</td>
<td>4</td>
</tr>
<tr>
<td>General Debility, chronic GI bleed, uncertain</td>
<td>3</td>
</tr>
<tr>
<td>Drug induced (sulphasalazine)</td>
<td>1</td>
</tr>
</tbody>
</table>
# Pre Transfusion Haemoglobin levels

## Pre Transfusion haemoglobin levels (n=70)

<table>
<thead>
<tr>
<th>No Hb found</th>
<th>less than 60g/l</th>
<th>60 – 70 g/l</th>
<th>71- 80 g/l</th>
<th>81- 90 g/l</th>
<th>91- 100 g/l</th>
<th>Over 101 g/l</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>16</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>
# How many units per transfusion?

<table>
<thead>
<tr>
<th>1 unit</th>
<th>2 units</th>
<th>3 units</th>
<th>4 units</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>35</td>
<td>26</td>
<td>4</td>
</tr>
</tbody>
</table>
Transfusions outside National Guidelines: 10 patients

- 88 yr old with malabsorption, weight loss and debility with a pre transfusion level of 92g/l transfused 3 units
- 99 yr old with normochromic normocytic anaemia pre transfusion Hb of 79 g/l transfused 3 units
- Patient with chronic iron deficiency, had monofer in past, pre transfusion Hb 83g/l transfused 3 units
- Patient on sulphasalazine, Hb 83g/l transfused 3 units
- Microcytic anaemia, short of breath, Hb 84g/l transfused 2 units
- Normochromic normocytic anaemia of 70g/l in 96 yr old lady declining investigations transfused 3 units
Palliative care or cancer diagnosis

• Elderly patient with carcinoma of bowel with pre transfusion level of 102g/l transfused 3 units, post transfusion Hb 147g/l
• Carcinoma of bladder, pre transfusion Hb 90g/l transfused 3 units
• Palliative care carcinoma of stomach, pre transfusion Hb 87g/l transfused 4 units
• Heart failure, anaemia, cancer with pre transfusion Hb of 99g/l was transfused 2 units
Results

- In 50% of transfusions the haemoglobin trigger was over 80g/l
- In 37% of transfusions 3 or more units of blood were transfused
- Very few patients have a post transfusion Haemoglobin recorded
- The transfusions most likely to be outside national guidance are spread between the 6 community hospitals
General Observations

- Patients transfused in the community are often frail and very elderly.
- Cancer is the most common diagnosis and reason given for transfusion.
- 16 out of the 50 patients transfused died within the 3 months of the audit.
Conclusions

• This is but a snapshot of community prescribing, done without looking at the patient notes and purely from the LIMS
• It is often difficult for these elderly frail patients to get to the hospitals, one can understand the rationale for making the most of having the patient in hospital
• Community transfusion is highly valued by patients and should be supported
• However there is evidence of GP prescribing that has moved away at times from National Guidance
What do we intend to do?

- Move to a maximum 2 unit transfusion policy
- We have contacted the CCG and GP employers in Community and told them of mandatory training and provided them with a GP update PowerPoint presentation
- We are considering introducing a GP proforma or community transfusion form with prompts re indication codes etc
- Hospice Care consultant shown results and will support GP decisions
- Re audit next year
Safe and appropriate transfusion in the Community

Mission impossible?