The Cost of Transfusion

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Why Look at the Cost of Transfusion

- In the past, blood products were ordered and used without knowing costs
- BloodNet shows the individual product prices
- So how much does transfusion actually cost?
# Prices of Commonly Used Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Unit Price $</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC's</td>
<td>365.34</td>
</tr>
<tr>
<td>FFP</td>
<td>329.01</td>
</tr>
<tr>
<td>Cryoprecipitate</td>
<td>39.88</td>
</tr>
<tr>
<td>Plts Pooled</td>
<td>391.22</td>
</tr>
<tr>
<td>Plts Apheresis</td>
<td>547.44</td>
</tr>
<tr>
<td>Biostate 250IU</td>
<td>207.55</td>
</tr>
<tr>
<td>Prothrombinex</td>
<td>264.62</td>
</tr>
<tr>
<td>20% Albumin</td>
<td>64.34</td>
</tr>
<tr>
<td>RhD Ig 250IU</td>
<td>28.34</td>
</tr>
<tr>
<td>RhD Ig 625IU</td>
<td>70.84</td>
</tr>
</tbody>
</table>

Source: NBA Australia BloodNet website 2012
Group Selection

Originally going to look at Massive Transfusion

1. In the last 2 months who used more than 10 RC’s in 48 hours
2. In the last 12 months, who were the ‘Top 10’ users
3. Patients with FVIII inhibitor
4. Westmead inventory and the cost associated with it
In the last 2 months who used more than 10 RC’s in 48 hours

- 14 patients made this group
- No one procedure / event was common in the top three

1) Whipples procedure ($25,118)
2) Post-delivery emergency hysterectomy ($20,513)
3) Upper GI bleed ($13,496)
In the last 2 months who used more than 10 RC’s in 48 hours

Other events were:

- An aortic dissection
- Post-CABG bleeds were common (5 pat’s)
- GI bleeds
- Pedestrian Vs train trauma

Average cost of all products for above events: $10,000
In the last 2 months who used more than 10 RC’s in 48 hours

- Biggest consumable was RC’s ($10,000 - $4,000)
- Next was FFP ($6,500 - $2,600)
- Four pat’s used factor concentrates (Biostate, Prothrombinex, NovoSeven) ($6,500 - $3,500)
- Cryoprecipitate and platelets were lower in costs ($1,100 - $160)
Total Product Cost for Group 1

- $25,118
- $18,826
- $13,496
- $12,858
- $12,605
- $12,344
- $10,321
- $9,590
- $8,958
- $8,968
- $8,593
- $7,425
- $6,988
- $6,968
- $9,042
- $9,546
- $12,344
- $12,605
- $12,658
- $12,858
- $13,496
- $18,826
- $25,118
The ‘Top 10’ of the Last 12 Months

Majority were Haematology patients

1) $122,856 – Intragam user
2) $94,948 – Kiovig user
3) $59,124 – Plts (mostly HLA-matched)
The ‘Top 10’ of the Last 12 Months

<table>
<thead>
<tr>
<th>Cost</th>
<th>Total Product Cost</th>
<th>Highest Individual Product Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20,000</td>
<td>IVg</td>
<td>IVg</td>
</tr>
<tr>
<td>$40,000</td>
<td>IVg</td>
<td>IVg</td>
</tr>
<tr>
<td>$60,000</td>
<td>Plts</td>
<td>Plts</td>
</tr>
<tr>
<td>$80,000</td>
<td>Plts</td>
<td>Plts</td>
</tr>
<tr>
<td>$100,000</td>
<td>IVg</td>
<td>IVg</td>
</tr>
<tr>
<td>$120,000</td>
<td>RC's</td>
<td>RC's</td>
</tr>
<tr>
<td>$140,000</td>
<td>Plts</td>
<td>Plts</td>
</tr>
</tbody>
</table>

Cost categories include IVg, Plts, RC's, and 4% Alb.
Factor VIII Inhibitor

Patient 1

- Overseas visitor
- Presented with bruising and swelling to limbs
- Length of stay: 8 days
- Total cost of NovoSeven: $408,664
Patient 2

- 11 weeks post-delivery (uncomplicated)
- Presented with bruising, pain and swelling in right arm
- Length of stay: 9 days so far
- Total cost of NovoSeven: $162,993
10 Months of Inventory Costs

Disclaimer:
The following is a personal opinion only and does not represent the views or position of Pathology West.

The inadequacy of our computer system to reliably report transfusion data means the following costs are reflective only.
10 Months of Inventory Costs

Stock Received

- RC’s: $3.8m (the biggest blood product consumable)
- Platelets: $1m
- Frozen products: $0.8m
- Factor concentrates: $1m
- IVIg: $2.2m
- RhD Ig: $70,000

Total: $8,870,000
10 Months of Inventory Costs

RC’s

- $30,000 of stock
- Up to $8,000 crossmatched
- 95% transfused
- 5% destroyed
  - Returned from Op Suite
  - Transport temperature out of range
  - Few due to expired product
10 Months of Inventory Costs

Transfusion rate for all products: 90-95%

Up to 10% platelets destroyed

- Over-ordering of HLA-matched plts by M.O.’s
- Expired
Stock Division at Westmead

Values are calculated from figures supplied by the NBA
Summary

Average cost of products to:

- Bleeding pat’s in 48hrs - $12,000
- Pat’s using products throughout the year - $62,000

NovoSeven for patients with FVIII inhibitors:

- Minimum $150,000
Summary

These costs are of blood products alone.

Add this to the cost of the patient’s hospital stay, medications, other treatments and the doctor’s bills........

Result: VERY expensive health care.

Here are our taxes at work.