Direct Cost to Transfuse

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## Direct Costs to Transfuse

### TABLE 2.1

<table>
<thead>
<tr>
<th>Author, Year</th>
<th>Facilities</th>
<th>Study Technique</th>
<th>Acquisition Cost (%)</th>
<th>Patient Sample</th>
<th>Cost/Unit (2003 $)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forbes, 1991</td>
<td>19 Teaching hospitals with level I or II trauma</td>
<td>Survey of blood related charges</td>
<td>37%</td>
<td>Mixed population</td>
<td>$386</td>
</tr>
<tr>
<td>Mohandas, 1995</td>
<td>Outpatient cancer center</td>
<td>Review of blood related charges for 219 patients</td>
<td>26%</td>
<td>Solid tumors</td>
<td>$629</td>
</tr>
<tr>
<td>Cantor, 1998</td>
<td>Outpatient cancer center</td>
<td>Survey of blood related cost activities</td>
<td>15%</td>
<td>Hematologic tumors</td>
<td>$678</td>
</tr>
<tr>
<td>Crémieux, 2000</td>
<td>Outpatient cancer center</td>
<td>Cost activities recorded for 517 patients</td>
<td>19%</td>
<td>Solid tumors</td>
<td>$478</td>
</tr>
</tbody>
</table>

Direct Cost of Blood

• Forbes Study of Direct Cost to transfuse a patient - 1991
• 19 teaching hospitals with Level 1 or Level 2 trauma
• Study of blood related charges – Included handling charges, lab charges and blood administration charges
• Medicare cost-to-charge discount ratio used to estimate actual hospital cost from the patient charges
  – **Acquisition cost** - 37%
Direct Cost of Blood

- Mohandas Study 1995
- Review of blood related charges for 219 patients
- Outpatient cancer center. Review included charges for blood administration and for transfusion aberrations such as transfusion reactions and special lab studies
  - Acquisition cost – 26%
Direct Cost of Blood

• Cremieux Study 2000
• Cost activities recorded for 517 patients, Outpatient cancer center. Review included direct material, variable direct labor, fixed direct labor and overhead
  – Solid tumors - $646 per unit transfused (2003$)
  – Complex patients - $717 per unit transfused (2003$)
  – Acquisition Cost – 19%
Direct Cost of Blood

- Cantor Study 1998
- Outpatient cancer center
- Survey of blood related activities; based on process flow analysis
The price of blood

Blood is free when it leaves a donor’s arm. But by the time it reaches a hospital there is a price tag attached. Added costs at the hospital push the price of a transfusion to at least $500, studies say. This is how the process works at the Red Cross in Cleveland.

Donation and testing

1. Blood is drawn from donor.
2. Bag is quarantined at Red Cross headquarters.
3. Sample is sent to lab in Detroit for testing. Results are ready in 24 hours.
4. If tests find problems, the quarantined blood is destroyed. Donor is notified. If blood is OK’d, it is processed and stored.
5. Hospitals start phoning in orders for blood about 5:30 a.m.
6. Courier delivers blood to hospital.

Cost so far to hospital: About $190 to $250 per bag of blood.

Getting the blood to the patient

7. Hospital runs its own tests on the blood. Cost: About $170
8. Blood is stored in hospital blood bank. Cost: About $100
9. Nurse devotes about 2 hours to transfusion. Cost: About $50
10. IV tubing, saline solution, blood-bag disposal. Cost: About $10

Total cost to hospital: At least $500.

Blood Center Collection, Testing, Processing Costs: $190 - $250/unit

Hospital’s Transfusion Costs:
$170 to run own tests
$100 to store blood
$50 for 2 hrs transfuse
$10 for disposables
Total = At least $500

For Specific Requests, Expect 2 – 3 Times the Normal Costs

Medicare does NOT Reimburse Until You Give 3 Units of Blood in Any Calendar Year.