The Principles of General Stock Management & Appropriate use of Group O D Negative RBC

Camilla Conway
TLM – Ipswich Hospital
Why Manage our Stock?

• Precious donated resource
• Not infinite
• Reduce wastage
• Enable sufficient units to be available to patients when they need it
So how do we do it?

• BSMS
• Audits/Reports
• MBOS (MSBOS)
• Routine tasks in the lab by all staff
  – MLA/MLSO
  – BMS
  – Seniors/TLM
Blood Stocks Management Scheme

• Run by NHSBT
• Since 2001
• Understand and improve blood inventory across supply chain
• Data management system – VANESA
VANESA

• Collect data of usage and wastage
• Real time data and charts
• Produce an annual report
• Hospitals upload their daily stock holding figures and monthly wastage figures
• Quarterly reports
• Enables donor units to be used effectively and appropriately and minimise wastage
### Red Cells Stock Entry - Ipswich Hospital

Select the date you wish to enter data for: 20-04-2018

<table>
<thead>
<tr>
<th>Blood Group</th>
<th>Ideal stock</th>
<th>Issuable stock</th>
<th>Nominal stock</th>
<th>Issuable Stock Index</th>
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<tbody>
<tr>
<td>O Pos</td>
<td>60</td>
<td>43</td>
<td>8.51</td>
<td>5.05</td>
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<tr>
<td>O Neg</td>
<td>15</td>
<td>22</td>
<td>2.32</td>
<td>9.47</td>
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<tr>
<td>A Pos</td>
<td>60</td>
<td>42</td>
<td>8.42</td>
<td>4.99</td>
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<tr>
<td>A Neg</td>
<td>15</td>
<td>10</td>
<td>1.97</td>
<td>5.07</td>
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<td>B Pos</td>
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<td>10</td>
<td>1.61</td>
<td>6.22</td>
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<tr>
<td>B Neg</td>
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<td>5</td>
<td>0.42</td>
<td>11.88</td>
</tr>
<tr>
<td>AB Pos</td>
<td>6</td>
<td>4</td>
<td>0.46</td>
<td>8.71</td>
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<tr>
<td>AB Neg</td>
<td>4</td>
<td>4</td>
<td>0.27</td>
<td>14.64</td>
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</tbody>
</table>

Enter a comment:

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Last updated on 20 Apr 2018 15:52:49 by bms0078. Most recent update was on 20 Apr 2018 15:52:49 by bms0078
NHSBT PBM Team

• PBM – Patient Blood Management
• Monthly data – Hospital Highlight report
• WAPI – Wastage as a Percentage of Issues
• RBC O D Negative wastage
MBOS

• Maximum Blood Ordering Schedule
• Recommendation for number of RBC units routinely Xmatched for certain surgical procedures
• List may not exhaustive
• Developed following review and audit of blood usage
## General Surgery

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>REQUEST</th>
<th>PROCEDURE</th>
<th>REQUEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anterior Resection</td>
<td>2</td>
<td>Gastrectomy – Partial</td>
<td>GSS</td>
</tr>
<tr>
<td>Aortic Aneurysm – Ruptured</td>
<td>5</td>
<td>Gastrectomy – Total</td>
<td>2</td>
</tr>
<tr>
<td>Aortic Aneurysm – Cold</td>
<td>5</td>
<td>Liver Biopsy</td>
<td>GSS</td>
</tr>
<tr>
<td>A.P. Resection</td>
<td>2</td>
<td>Mastectomy – Radical</td>
<td>GSS</td>
</tr>
<tr>
<td>Block Dissection of Neck</td>
<td>2</td>
<td>Mastectomy – Simple</td>
<td>GSS</td>
</tr>
<tr>
<td>Bowel Resection</td>
<td>GSS</td>
<td>Nephrectomy</td>
<td>GSS</td>
</tr>
<tr>
<td>Bypass Surgery</td>
<td>2</td>
<td>Radical Retropubic Prostatectomy</td>
<td>2</td>
</tr>
<tr>
<td>Cholecystectomy</td>
<td>GSS</td>
<td>Splenectomy</td>
<td>2</td>
</tr>
<tr>
<td>Colectomy/Hemicolecotomy</td>
<td>GSS</td>
<td>Thyroidectomy</td>
<td>GSS</td>
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<tr>
<td>Cystectomy</td>
<td>2</td>
<td>TURBT</td>
<td>GSS</td>
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<td>ERCP</td>
<td>GSS</td>
<td>TURP</td>
<td>GSS</td>
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## Obstetrics and Gynaecology

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>REQUEST</th>
<th>PROCEDURE</th>
<th>REQUEST</th>
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</thead>
<tbody>
<tr>
<td>Anaemic in Labour</td>
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<td>PET in Labour</td>
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<tr>
<td>APH</td>
<td>GSS</td>
<td>Placenta Praevia</td>
<td>2</td>
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<tr>
<td>Breach in Labour</td>
<td>GSS</td>
<td>Radical Vulvectomy</td>
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<tr>
<td>Ectopic</td>
<td>2</td>
<td>Retained Placenta</td>
<td>GSS</td>
</tr>
<tr>
<td>Elective LSCS</td>
<td>GSS</td>
<td>TAH</td>
<td>GSS</td>
</tr>
<tr>
<td>Emergency LSCS</td>
<td>GSS</td>
<td>TAH &amp; BSO</td>
<td>GSS</td>
</tr>
<tr>
<td>Laparoscopy &amp; Proceed</td>
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<td>Trial of Labour</td>
<td>GSS</td>
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<tr>
<td>Laparotomy</td>
<td>GSS</td>
<td>Trial of Scar</td>
<td>GSS</td>
</tr>
<tr>
<td>Miscarriage</td>
<td>GSS</td>
<td>Vaginal Hysterectomy</td>
<td>GSS</td>
</tr>
<tr>
<td>Multiple Births</td>
<td>GSS</td>
<td>Wertheim’s</td>
<td>GSS</td>
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<tr>
<td>Myomectomy</td>
<td>GSS</td>
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<td></td>
</tr>
<tr>
<td>Oophorectomy</td>
<td>GSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ovarian Cystectomy</td>
<td>GSS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Orthopaedics

<table>
<thead>
<tr>
<th>PROCEDURE</th>
<th>REQUEST</th>
<th>PROCEDURE</th>
<th>REQUEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amputation</td>
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<tr>
<td>Bilateral THR</td>
<td>3</td>
<td>THR</td>
<td>GSS</td>
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<tr>
<td>Bilateral TKR</td>
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<td>TKR</td>
<td>GSS</td>
</tr>
<tr>
<td>Discectomy</td>
<td>GSS</td>
<td># Femur</td>
<td>GSS</td>
</tr>
<tr>
<td>Revision THR</td>
<td>4</td>
<td># NOP</td>
<td>GSS</td>
</tr>
<tr>
<td>Hemiarthroplasty</td>
<td>GSS</td>
<td>Dynamic Hip Screw</td>
<td>GSS</td>
</tr>
</tbody>
</table>
Routine Laboratory Tasks

• Short dated stock list
• Maximum stock levels
• Stock check
• Stock rotation
• Use of Electronic Issue
• Understanding of the cold chain
• Communication
• Incident investigation
Other Initiatives

- Stock Ambassadors
- Sending short dated stock to other hospitals
- Cross charging clinical areas for wastage
- Collection of peer data to show how much different doctors are administering.

Does your hospital do something in particular to help with management of stock?
Why is Group O D Negative so important?

- Precious donated resource
- Not infinite
- Universal group
- 7% UK population O D Neg
- 11% Donors O D Neg
- 12% Hospital demand for O D Neg
- NHSBT aim to maintain 6 days stock
- Monday 16th April – 4 days O D Neg stock
- Total blood usage decreasing but O D Neg usage remains constant
Appropriate use of O D Negative

O D Negative should be used for:

• O D Negative patients
• O D Negative patients with anti-D
• Emergency
  – Women of child bearing age
  – Males <16yrs
WHEN TO USE O D NEG

Use O D NEG in emergency situations when patient’s blood group is unknown.
WHEN TO USE O D NEG
WITH ANTI D ANTIBODIES

O D NEG

Always transfuse O D NEG red cells to O D NEG patients with anti-D antibodies.
WHEN TO USE O D NEG

A female under 50 years of age

In emergencies transfuse O D NEG to females under 50 years of age with unknown blood type.
Appropriate use of O D Negative

Consider O D Positive for:

• Situations when more than 8 units of O D Neg are requested for women over childbearing age and adult men

• Unknown adult males
CONSIDER USING O D POS

If you will require more than 8 units of O D NEG consider using O D POS for the patients below

A female who is more than 50 years old

A male with no Anti-D Antibodies

In these situations use O D POS instead
CONSIDER USING O D POS

Transfusing O D POS to unknown male patients can conserve use of O D NEG for patients who have no alternative.
Manage O D Negative stock

• Set an appropriate stock level to reflect local usage (stated target is 10.5% of total stock)
• Minimise wastage
• Rotation of unused emergency O D Neg — Weekly?
• Empower lab staff to query inappropriate requests
• Move to group specific units ASAP
• Audit use of O D Neg emergency stock
• Stock sharing
Campaign

• “Save one O D Neg a week”
  – “O D Neg Toolkit”
Thank you for listening

Any Questions?