ETHICAL ISSUES IN MANAGING PROVINCIAL PLATELET SHORTAGES

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Disclosures

- I have no disclosures
The Need for An Ethical Framework with Resource Allocation

The water is rising pleas.
The Need for an Ethical Framework
The Need for Guidance for Resource Allocation
National Plan for the Management of Shortages of Labile Blood Components
National Plan for the Management of Shortages of Labile Blood Components

The blood inventory levels are insufficient to ensure that patients with non-elective indications for transfusion will receive the required transfusion.

The national blood inventory is not sufficient to continue with routine transfusion practices.

This phase includes a range of inventory levels ranging from an ideal inventory to shortages that occur periodically.
Platelet inventory level according to the National Plan

<table>
<thead>
<tr>
<th>Platelet Inventory Level*</th>
<th>% of National Requirement</th>
<th>CBS # of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green</strong> Phase (minimal decrease to optimal)</td>
<td>80-100% of daily national requirement</td>
<td>&gt;259</td>
</tr>
<tr>
<td><strong>Amber</strong> Phase (serious)</td>
<td>25-79% of daily national requirement, recovery NOT expected with 12-24 hours</td>
<td>81-259</td>
</tr>
<tr>
<td><strong>Red</strong> Phase (critical)</td>
<td>&lt;25% of daily national requirement, recovery NOT expected with 12-24 hours</td>
<td>&lt;81</td>
</tr>
</tbody>
</table>

http://www.nacblood.ca/resources/shortages-plan/index.html
## Ontario Plan for the Management of Platelet Shortages

<table>
<thead>
<tr>
<th><strong>Platelet Inventory Level</strong></th>
<th><strong>Indication and Platelet Dose</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Phase</strong></td>
<td>Non immune thrombocytopenia</td>
</tr>
<tr>
<td></td>
<td>Platelet count &lt;10</td>
</tr>
<tr>
<td></td>
<td>1 platelet dose</td>
</tr>
<tr>
<td><strong>Amber and Red Phase</strong></td>
<td>1 platelet dose for patient with bleeding symptoms</td>
</tr>
<tr>
<td></td>
<td>0.5 platelet dose for non-bleeding allogeneic stem cell transplantation and acute leukemia</td>
</tr>
<tr>
<td></td>
<td>Only transfuse platelets on days of bleeding for non-bleeding, autologous stem cell transplant patients (therapeutic platelet transfusion strategy)</td>
</tr>
</tbody>
</table>
Developing a resource allocation plan has 3 requirements

- A triage team with detailed responsibilities for each member
- The indications for platelet transfusion and alternatives to transfusion
  - The Provincial Platelet Guidelines
- An ethical framework
Who Shall Receive the Blood during a Red Phase Shortage?

- 55 year old male ex-smoker with ITP, platelet count of 1 and has an intracranial hemorrhage
- 4 year old requiring surgery following MVA, platelets of 30
- 75 year old politician with multiple medical problems responsible for reforming health care with acute leukemia, platelet count of 9 with gastrointestinal bleeding
Objectives

- Demonstrate the importance of a standardized ethical framework for blood utilization
- Apply provincial platelet guidelines to practice
- Develop an ethical framework for decision-making in times of a blood shortage
Ethical Principles Are to Guide Decisions
Ethical Principles to guide respect of individuals

- Personal autonomy
  - Right-to-know, informed consent
- Beneficence
  - The duty of society is to preserve those values that contribute to the common good of society
- Nonmaleficence
  - The importance of protecting the most vulnerable from exploitation by those with power and influence
- Justice
  - Fairness
Four Categories of Ethical Principles for Resource Allocation

1. Treating people equally
2. Favoring the worst-off: prioritarianism
3. Maximizing total benefits: utilitarianism
4. Promoting and rewarding social usefulness

1. Treating People Equally: Lottery

- Quick, requires little knowledge, resist corruption
- Example: distribution of vaccines
- Random decisions

1. Treating People Equally: First Come First Served

- Ignores differences between individuals
- Example: distribution of beds in the intensive care unit
- Favours people who are well off

Favoring The Worst-Off: Prioritarianism: The Sickest First

- The worse off if left untreated
- Examples: liver, heart transplants/
  emergency triage
- Ignores post treatment prognosis

2. FAVORING THE WORST-OFF: PRIORITARIANISM: YOUNGEST FIRST

- Having the fewest life years
- Examples: dialysis, influenza vaccination, scarce organs
- Ignores prognosis
- Excludes the elderly

3. Maximizing Total Benefits: Utilitarianism: Save the Most Lives

- Always save the most lives
- Avoids comparing lives
- Some lives can be extended more than others

3. Maximizing Total Benefits: Utilitarianism: Prognosis/Life Years Saved

- Save the most life-years
- Example: excluding patients with poor prognosis from transplant
- Does not consider distribution

4. Promoting and Rewarding Social Usefulness: Instrumental value

- To enable or encourage future usefulness
- Example: workers producing influenza vaccination

4. Promoting and Rewarding Social Usefulness: Recipricocity

- Rewarding past usefulness
- Example: rewarding organ donors

Ethical Principles to Guide Resource Allocation for Bleeding Patients

- 55 year old male ex-smoker with ITP, platelet count of 1 with intracranial bleeding
- 4 year old requiring surgery following MVA, platelets of 30
- 75 year old politician with multiple medical problems responsible for reforming health care with acute leukemia, platelets of 9 with gastrointestinal bleeding

1. Treating people equally
2. Favoring the worst-off
3. Maximizing total benefits
4. Promoting and rewarding social usefulness
The Combination of Ethical Principles

- Ethical principles can be combined
  - To allow for the incorporation of the intricacy of moral values
  - To allow for the justification of choices about inclusion, balancing and specification
The Goal of Any Multi-principle Strategy

- To achieve the greatest good for the greatest number of people
- Maintain human dignity of all patients
Ethical Principles for Blood Shortages

- First come/first served
- Maximization of the numbers of life years saved (usually the youngest first)
- Fair: Developed a decision-making process that relied on a fair process (procedural fairness) to establish the ethical legitimacy of any resource allocation decision
Ethical Principles for Blood Shortages: Fair and Just

- All available therapies, including non-transfusion therapies, palliative care where appropriate, and be treated with dignity.
Summary and Conclusion

- Scarce resources require a framework based on established guidelines and ethical principles.
- An allocation system should make clear that all individuals are worth saving, and that no ethical principle to guide resource allocation is sufficient on its own.