Obstetric Societies’ Transfusion Guidelines for Post Partum Hemorrhage: One Size Fits All?
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Postpartum hemorrhage (PPH) is a leading cause of maternal mortality.

National obstetric societies published guidelines to manage PPH for optimal maternal outcomes.

Despite important advances in transfusion practice for major hemorrhage, PPH guidelines are non-uniform nor contemporary.(1)
Methods

• We reviewed 5 National Obstetric society PPH guidelines: United Kingdom (RCOG), United States (ACOG), Australia and New Zealand (RANZCOG), Canada (SOGC), the combined guidelines from Germany, Austria, and Switzerland (DACH) in addition to the recently published U.S. national partnership for maternal safety guidelines.

• For each guideline, we specifically reviewed recommendations for transfusion, and pharmacological adjuncts to manage coagulopathy.
## Table: Summary of Transfusion Recommendations by National Obstetric Societies for PPH

<table>
<thead>
<tr>
<th>Transfusion Indications</th>
<th>ACOG-USA</th>
<th>SOGC - Canada</th>
<th>RCOG - UK</th>
<th>RANZCOG - Australia, New Zealand</th>
<th>DACH - Germany, Austria, Switzerland</th>
<th>National Partnership for Maternal Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant and ongoing bleeding ± unstable vital signs</td>
<td>Not discussed</td>
<td>Transfuse according to clinical picture. Blood loss is often underestimated.</td>
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<td>Not discussed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Treatment Approach</th>
<th>ACOG-USA</th>
<th>SOGC - Canada</th>
<th>RCOG - UK</th>
<th>RANZCOG - Australia, New Zealand</th>
<th>DACH - Germany, Austria, Switzerland</th>
<th>National Partnership for Maternal Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment recommendations for specific problems</td>
<td>Step wise approach to specific problems</td>
<td>EBL 500-100ml: basic measures EBL &gt;100ml: full protocol; Pharmacological treatment followed by surgical interventions</td>
<td>Treat according to etiology</td>
<td>4 steps combining surgical, pharmaceutical and transfusion recommendations</td>
<td>Readiness; recognition and prevention; response; reporting and systems learning</td>
<td></td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Component specific recommendations</th>
<th>ACOG-USA</th>
<th>SOGC - Canada</th>
<th>RCOG - UK</th>
<th>RANZCOG - Australia, New Zealand</th>
<th>DACH - Germany, Austria, Switzerland</th>
<th>National Partnership for Maternal Safety</th>
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</thead>
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<tr>
<td>Prothrombotic Agents</td>
<td>Yes</td>
<td>Not discussed</td>
<td>FFP, platelets and cryoprecipitate only</td>
<td>Fibrinolytic inhibitors not indicated</td>
<td>Yes</td>
<td>FFP and cryoprecipitate only</td>
</tr>
<tr>
<td>Recombinant FVIIa</td>
<td>Not discussed</td>
<td>Not discussed</td>
<td>Trxanexamic acid 1g over 10 minutes then 1g over 8 hours if massive transfusion protocol activated</td>
<td>As a last resort</td>
<td>Not discussed</td>
<td></td>
</tr>
<tr>
<td>Pharmacological and Surgical Recommendations Integrated</td>
<td>No</td>
<td>No</td>
<td>In consultation with a haematologist if life threatening hemorrhage. As a last resort</td>
<td>No</td>
<td>Yes</td>
<td>Stage based recommended, but each unit should institute individualized plan</td>
</tr>
</tbody>
</table>

EBL = estimated blood loss, FFP = fresh frozen plasma
Results

• Key elements of the societies’ recommendations are presented in the Table.
• Only three societies (SOGC, RCOG, DACH) provide transfusion recommendations, and only two societies (RANZCOG, NMPS) advocate a massive transfusion protocol.
• The transfusion recommendations are relatively non-specific and heterogeneous.
• There is no consensus in fixed ratios for blood product administration.
• Only three societies (RCOG, RANZCOG, DACH) recommend monitoring or treating hypofibrinogenemia for women with severe PPH.
Conclusions

• Based on our review, National obstetric societies’ transfusion recommendations are inconsistent and poorly described.
• In addition, these recommendations are not in keeping with contemporary hematologic and transfusion strategies for hemorrhage management such as the use of massive transfusion protocols and point of care testing. (2-3)
• PPH guidelines of National obstetric societies should be updated to reflect expert recommendations for obstetric hemorrhage and transfusion management.
• More consensus is needed across societies to endorse more standardized approaches to PPH management.

References:
1. Arch Gynecol Obstet 2014;289:555-67
3. Transfusion 2011;51:2540-8