Example Guidelines for Transfusion and Anemia Management during Blood Product Shortages

These examples are provided to assist hospital transfusion services and medical directors when communicating strategies for conserving blood during inventory shortages.
## Example: Suggestions for Outpatient Transfusions During Blood Product Shortages

<table>
<thead>
<tr>
<th>Hematology/Oncology patient</th>
<th>Non Oncology patient (Symptomatic with Hgb &lt;6.5g/dL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptomatic** or Hgb ≤6.5g/dL: 1 unit red cell transfusion if at all possible</td>
<td>Symptomatic** or Hgb ≤6.5g/dL: transfuse 1 unit red cells</td>
</tr>
<tr>
<td>Platelet transfusion for platelet count 10K or less</td>
<td>▪ All 2 unit orders are reviewed by medical director</td>
</tr>
<tr>
<td>All 2 unit orders for RBCs or platelets¹ may be reviewed by medical director</td>
<td>Asymptomatic, Hgb &gt; 7g/dL:</td>
</tr>
<tr>
<td></td>
<td>▪ Consider ordering iron studies for GI, OB and GYN patients</td>
</tr>
<tr>
<td></td>
<td>▪ Treat any iron deficiency per institution protocol</td>
</tr>
</tbody>
</table>

**Symptoms = Hypotension, tachycardia, shortness of breath, NOT fatigue alone.

1. Gehrie EA. Vox Sang 2019; 114:517-522

2. Adapted from Kathrine Frey M.D. Patient Readiness Institute
Example: Suggested Thresholds for Inpatient RBC Transfusions During Blood Product Shortages

- **Active bleeding**
  - Transfuse RBC

- **Hgb ≤ 6.5**
  - Transfuse 1 unit RBC
  - Reassess symptoms and Hgb for symptomatic patients
  - Iron studies and ferritin for all patients
  - Treat iron deficiency anemia with IV iron**

- **Symptomatic OR asymptomatic**

- **Hgb ≥ 6.5 and symptomatic**
  - Transfuse 1 unit RBC, reassess for symptoms, 2nd unit if symptomatic
  - Iron studies and ferritin for all patients (not applicable to BMT patients)
  - Treat iron deficiency anemia with IV iron** (even transfused pts)

- **Hgb ≥ 7 and asymptomatic**
  - Do not transfuse!
  - Iron studies and ferritin
  - **Iron deficiency= % saturation ≤ 20 and ferritin ≤ 50 (or 51-300 if inflammatory condition)**
  - Hgb < 8: Consider IV iron (Do not use IV iron if active infection)
  - Hgb > 8: Consider oral iron if ferritin < 100; IV iron if > 100 (oral iron not absorbed in inflammatory condition)

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*Based on inventory levels, may need to consider Hgb < 6g/dL

Adapted from Kathrine Frey M.D. Patient Readiness Institution

Each institution should review the suggestions and medications with pharmacy and providers who manage patients with chronic anemia. Consider hematology consult for anemia management or use of EPO.