Anemia Cascade Update

Effective May 22, 2023, there will be updates to our Anemia Cascade testing (LAB9895). One of the changes includes the replacement of the Reticulocyte Count with the Reticulocyte Battery. The Reticulocyte Battery includes the Immature Reticulocyte Fraction and the Reticulocyte Hemoglobin (Ret-He) in addition to the Reticulocyte Count. Ret-He provides a measurement of the hemoglobin content of reticulocytes and is useful in diagnosing and monitoring iron deficiency anemia.

A serum separator tube (SST) hold is required for any reflex testing that is indicated based on the CBC with diff and Reticulocyte Battery results.

### Anemia Cascade (LAB9895) Initial Orders

<table>
<thead>
<tr>
<th>Current Orders Included</th>
<th>Orders Included w/Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBC and Differential</td>
<td>CBC and Differential</td>
</tr>
<tr>
<td>Reticulocyte Count</td>
<td>Reticulocyte Battery</td>
</tr>
<tr>
<td>SST Hold</td>
<td>SST Hold</td>
</tr>
</tbody>
</table>

### Microcytic

If Reticulocyte Hemoglobin is not decreased: Creatinine will be reflexed.

If Reticulocyte Hemoglobin is decreased: Iron Saturation and Ferritin will be reflexed.

If Ferritin is not decreased: Creatinine will be reflexed.

### Normocytic

If reticulocyte count is not increased and the Reticulocyte Hemoglobin is not decreased: Creatinine will be reflexed.

If reticulocyte count is not increased and the Reticulocyte Hemoglobin is decreased: Iron Saturation and Ferritin will be reflexed.

If reticulocyte count is increased: LDH and haptoglobin will be reflexed.

If LDH is increased and the haptoglobin is decreased: DAT will reflex.

### Macrocytic

If reticulocyte count is not elevated: Vitamin B12 will be reflexed.

If B12 is not decreased: TSH, ALT, AST will be reflexed.

If reticulocyte count is increased: LDH and haptoglobin will be reflexed.

If LDH is increased and the haptoglobin is decreased: DAT will reflex.

If anemia is not present, the summary will state, “The complete blood counts indicate the absence of anemia. No further reflex testing is necessary.” If reflex testing is performed, the summary will be populated with a statement based on the findings of all testing. Please see the example below.

---

Anemia Summary

These findings suggest iron deficiency (see individual reflex testing results). However, the anemia is normocytic; please note that liver disease and other nutritional deficiencies (e.g. B12 and folate) have not been evaluated and may be considered clinically indicated.
Anemia Cascade Update

The flow chart overview for the Anemia Cascade is below:

For questions or concerns about these changes, please contact the UVMMC Medical Director of Hematology, Dr. Joanna Conant, at Joanna.Conant@uvmhealth.org.