Effective August 26, 2014, the clinical laboratory will switch methodologies for the Vitamin B12 assay. The switch will be from the Siemens ADVIA Centaur Chemiluminescent Immunoassay to the Abbott ARCHITECT i1000 Chemiluminescent Microparticle Immunoassay (CMIA).

The comparison studies between the ARCHITECT and the Centaur methods showed some differences, with the ARCHITECT method producing slightly higher values overall. Please note new reference ranges below.

Sample Requirements:

Collect: SST (gold top) or plain red top serum, 4 mL and PROTECT SAMPLES FROM LIGHT.

Patient Preparation: None

Storage/Transport: Deliver at room temperature to the laboratory for processing. If delivery to the lab will be delayed, then centrifuge and separate the serum from the gel or cells ASAP. Continue to protect sample from light, and transport refrigerated at 2-8°C.

Stability: Separated serum - refrigerated 2-8°C for up to 7 days, or frozen at -20°C for longer storage.

Minimum volume: 0.5 mL serum; (absolute minimum – only pipetable once – 0.3 mL serum)

Unacceptable Conditions: samples other than serum or samples not held at correct temperature. It is recommended that hemolyzed samples not be used, since hemolysis has been demonstrated to exhibit negative interference in this assay.

Reference Interval:

<table>
<thead>
<tr>
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<th>213 – 816 pg/mL</th>
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<tbody>
<tr>
<td>Normal</td>
<td></td>
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<tr>
<td>Deficient</td>
<td>&lt;213 pg/mL</td>
</tr>
<tr>
<td>Above Expected</td>
<td>&gt;816 pg/mL</td>
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</tbody>
</table>

Additional Information: Clinical Vitamin B12 deficiency may occur with VB12 values in the normal range. For diagnostic purposes, results should be used in conjunction with other data; e.g., symptoms, results of other tests, clinical impressions, etc. If the B12 results are inconsistent with clinical evidence, additional testing is suggested to confirm the result.

Routine Testing: Weekdays, dayshift in the Special Chemistry section at the Clinical Lab’s STC location.

If you have questions or need additional information please contact Laboratory Client Services at (916) 734-7373 or email pathologyclientservices@ucdmc.ucdavis.edu.