NOTICE OF NEW SERVICE

DATE: May 16, 2010

TO: Housestaff and PCN Physicians, Faculty, and Nursing Personnel

FROM: Sridevi Devaraj, Ph.D., DABCC, FACB
Director of Toxicology and Special Chemistry

RE: METHYLMALONIC ACID

Effective June 1, 2010, Methylmalonic Acid will be performed in-house by the UCDHS Clinical Laboratory, Toxicology using a LC/MS/MS methodology.

Serum Methylmalonic Acid (MMA) is helpful in the diagnosis of B12 deficiency. Because B12 deficiency may result in serious and often irreversible neurological disorders, early detection of impaired cobalamin status is important. Methylmalonic acid is specific for B12 deficiency; there are few other conditions that cause increased methylmalonic acid levels other than B12 deficiency and renal insufficiency. Because it is a functional test, MMA may better reflect tissue cobalamin status than measurement of serum B12.

Reference Interval: <0.40 µmol/L

Interpretive Data:

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<th>Slight elevation 0.41-0.99 µmol/L</th>
<th>Consistent with mild vitamin B12 deficiency, or intravascular volume contraction</th>
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<tr>
<td>Moderate elevation 1.00-9.99 µmol/L</td>
<td>Consistent with mild vitamin B12 deficiency</td>
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<tr>
<td>Massive elevation ≥ 10 µmol/L</td>
<td>Consistent with significant vitamin B12 deficiency or with inborn errors of metabolism</td>
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Sample Requirement: one full 5-mL Serum Separator (gold) or Serum (red) tube.

Routine Testing: Performed once per week on Tuesday

If you have any questions, please contact Dr. Sridevi Devaraj 916-734-6594 or John Tsushima 916-734-2741.

APPROVED BY: Lydia P. Howell, MD
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