Effective December 3, 2013, the clinical laboratory will switch methodologies for the Gentamicin assay. The switch will be from the Siemens ADVIA Centaur Chemiluminescent Immunoassay to the Abbott i1000 Chemiluminescent Microparticle Immunoassay.

The new Abbott method agreed well with the previous Centaur method. Deming regression statistics for the two inhouse studies (n=37 for each) were:

- Study 1: Abbott Gentamicin = 1.03 x Siemens Gentamicin – 0.05 with r = 0.98
- Study 2: Abbott Gentamicin = 1.11 x Siemens Gentamicin – 0.10 with r = 0.98

Sample Requirements:

Collect: plain red top serum, 4 mL (no additives) or purple top EDTA blood, 4 mL. It is not recommended that serum samples and EDTA samples from the same patient be used interchangeably.

Patient Preparation: Samples for trough levels should be drawn immediately before subsequent dosing. Please refer to pharmacy for specific treatment regimens and draw times.

Storage/Transport: Samples from within the hospital can be delivered at room temperature to the laboratory for processing. Samples should be processed and the serum or plasma separated as soon as possible; store separated serum or plasma at 2-8°C; if testing cannot be performed within 8 hours, then freeze sample at -20°C.

Samples from outside the hospital should be transported refrigerated at 2-8°C; if the sample cannot be delivered for testing to the laboratory within 8 hours of collection, centrifuge sample and transport separated serum or plasma frozen at -20°C.

Stability: Separated serum/plasma; Refrigerated 2-8°C for 8 hours prior to testing or frozen at -20°C for longer storage.

Unacceptable Conditions: Serum Separator tubes (SST), plasma separator tubes (PST), citrated plasma, grossly hemolyzed, or heat inactivated samples.

Therapeutic Intervals: the new therapeutic trough range is slightly different from the previous range. Actual recommended therapeutic levels depend upon the treatment regimen for the patient.

<table>
<thead>
<tr>
<th></th>
<th>Previous (Siemens Centaur)</th>
<th>New (Abbott i1000)</th>
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</thead>
<tbody>
<tr>
<td>Peak</td>
<td>5.0 – 10.0 ug/mL</td>
<td>5.0 – 10.0 ug/mL</td>
</tr>
<tr>
<td>Trough</td>
<td>1.0 – 2.0 ug/mL</td>
<td>&lt;2.0 ug/mL</td>
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</tbody>
</table>

Routine Testing: 7 days a week, Day and Evening Shift in Tox/Special Chem in the Specialty Testing Center

If you have questions or need additional information please contact Laboratory Client Services at 734-7373.

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