MEMORANDUM #139

TO: UNCHCS Attending Physicians, Housestaff, Department Heads and Supervisors

FROM: Nichole Korpi-Steiner, Ph.D., Director, Special Chemistry Laboratory
John Schmitz, Ph.D., Associate Director, Clinical Microbiology/Immunology Laboratories
Eric Weimer, Ph.D., Associate Director, Clinical Microbiology/Immunology Laboratories
Maya Styner, M.D., Endocrinology and Metabolism
Peter Gilligan, Ph.D., Director, Clinical Microbiology/Immunology Laboratories
Herbert C. Whinna, M.D., Ph.D., Medical Director, McLendon Clinical Laboratories

SUBJECT: Changes to 25-Hydroxy Vitamin D testing

DATE: January 5, 2017

Effective January 8th, 2018, 25-Hydroxy Vitamin D testing will change from a laboratory developed test using mass spectrometry to a FDA-approved test that uses immunoassay methodology which is certified by the CDC Vitamin D Standardization Certification Program.

Impact on patient 25-Hydroxy Vitamin D testing:

- Test order code “Vitamin D (25-Hydroxy)” will not change.
- Reference intervals will not change.
- Total 25-Hydroxy Vitamin D values will continue to be reported.
- Vitamin D2 and D3 value reporting will be discontinued.
- Total 25-Hydroxy Vitamin D testing ordered on or after January 8th, 2017 will report lower values than previously reported due to analytical differences between the new and current methods of testing.

\[
\text{New method 25-HydroxyVitD} = 0.93\text{[Current method 25-HydroxyVitD]} - 2.56
\]

- **Please note that a decrease in 25-Hydroxy Vitamin D level may or may not indicate an actual change in the patient’s 25-Hydroxy Vitamin D level.**
- The following chart demonstrates the degree of expected difference between the new and current methods at various 25-Hydroxy Vitamin D levels:

<table>
<thead>
<tr>
<th>25-HydroxyVit D Range (ng/mL)</th>
<th>Mean Bias (ng/mL; New Method compared with Current Method)</th>
<th>%CV</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 to 20</td>
<td>-0.9</td>
<td>0.18</td>
</tr>
<tr>
<td>20 to 30</td>
<td>-2.6</td>
<td>0.16</td>
</tr>
<tr>
<td>30 to 40</td>
<td>-8.6</td>
<td>0.18</td>
</tr>
<tr>
<td>40 to 50</td>
<td>-8</td>
<td>0.15</td>
</tr>
</tbody>
</table>

If you have any questions related to these changes, please contact the Clinical Immunology Laboratory at 984-974-1815.