Cepheid GeneXpert Infinity-48
Revolutionizing Molecular Diagnostic Testing

In January of 2014, Renown Regional Clinical Lab began offering a new automated molecular diagnostic testing platform. The Cepheid GeneXpert Infinity has redefined the boundaries of time, making a minute by minute impact on patients’ lives. By consolidating the testing platform, the GeneXpert Infinity enables a comprehensive menu of tests to be run on a single system. This analyzer offers “load and go” capability in a single unique PCR cartridge. All aspects of the testing process from sample preparation, DNA extraction, amplification and detection are performed in the cartridge. This “on demand” testing provides rapid turn around times 24 hours a day. Real-time qualitative answers will allow for decreased length of stay, faster treatment, and promote antimicrobial stewardship.

The current testing menu includes:

- **C. difficile**
  Detection of toxin B and the 027/NAP1/BI toxigenic strain.

- **S. aureus Nasal Complete**
  Pre-surgical screening for hip and knee surgery patients to detect both MSSA and MRSA, allowing for pre-surgical prophylaxis.

- **Vancomycin Resistance (VRE)**
  Detection of the VanA gene which encodes for Vancomycin resistance in Enterococci.

- **Influenza A/B/H1N1**
  Influenza by PCR for the detection of A and B viruses and the H1N1 strain.

Coming soon: Group B Streptococcus (for ante-partum and intra-partum testing).
Dr. Elliott ELABORATES: “Why use two when one will do?”

In 2013, Renown launched the Patient Blood Management Program to decrease blood utilization, improve patient outcomes, decrease length of stay, and reduce transfusion complications. The program targeted restructuring the integrated Blood Management Committee, co-chaired by Dr. Amy Alspach (pathologist) and Dr. John Watson (trauma surgeon), and now includes representatives from transfusion services, surgery, trauma, critical care, cardiology, orthopedics, and hematology/oncology. The old adage, “If you don’t need two, you don’t need any” has been replaced with “Why use two when one will do?” Periodic review of usage has been developed to identify areas of opportunity for education and improvement. Renown’s Transfusion Guidelines were updated in accordance with the current national guidelines1.

Adult Guidelines Listed Below:

<table>
<thead>
<tr>
<th>Red Blood Cells</th>
<th>Fresh Frozen Plasma</th>
<th>Platelets</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤7g/dL in a stable patient</td>
<td>Treatment of TTP – plasma exchange</td>
<td>≤ 10,000/μL for all patients</td>
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<tr>
<td>≤8g/dL in a patient with symptoms of suspected cardiac ischemia, orthostatic hypotension, or tachycardia</td>
<td>INR or PTT≥1.5 times the upper limit of normal value with active bleed or invasive procedure or surgery with anticipated significant blood loss</td>
<td>≤ 20,000/μL for a patient with coagulopathy, on heparin, or with anatomic lesion likely to bleed</td>
</tr>
<tr>
<td>Active bleeding or hemolysis with evidence of hemodynamic instability</td>
<td>Urgent reversal of warfarin therapy (with bleeding or invasive procedure)</td>
<td>≤ 50,000/μL for a patient with a current bleed or surgical procedure</td>
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<tr>
<td>≤10g/dL in presence of chronic Heme-Onc disorder (Heme-Onc physician consult)</td>
<td>Correction of known coagulation factor deficiencies for which specific concentrates are unavailable</td>
<td>≤ 100,000/μL for intracerebral, pulmonary, and ophthalmic hemorrhages</td>
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<tr>
<td></td>
<td>Massive transfusion</td>
<td>Massive transfusion or DIC</td>
</tr>
<tr>
<td></td>
<td>Qualitative platelet disorder including anti-platelet drugs &amp; evidence of hemorrhage/scheduled for invasive procedure or surgery</td>
<td></td>
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</tbody>
</table>

1 As set by AABB, American Society of Anesthesiologists, Society of Thoracic Surgeons, and Society of Critical Care Medicine.

Test UPDATES

**Vancomycin Resistance by PCR (VRE)**

CPT Code: 87500   EPIC Code: MIC0000553

Rapid detection of VanA gene for Vancomycin Resistant Enterococci (VRE) by PCR replaces the VRE Screen by culture method.

**Collect**

Anal/Rectal swab in EZ Swab Culturette

**Performed**

Sunday – Saturday

**Analyze THIS (answer): Aspergillus fumigatus**

Compliance CORNER – Statutorily Excluded Services

Services that are not medically reasonable and necessary to the overall diagnosis and treatment of the beneficiary’s condition will not be covered by Medicare. Examples include screening tests for which the beneficiary has no symptoms/conditions such as any lab test ordered with a “routine” or “screening” diagnosis. However, some exceptions are as follows: Cardiovascular Screen (Lipid Panel) once every 5 years, HIV Screen annually, PSA Screen annually, Pap Screen every 1-2 years based on risk, Diabetes Screen (Glucose) annually.

Ref: ICN 006559 MLN Preventative Services, October 2013