New Screening Cultures and PCR Tests for MRSA and MSSA

The Providence Regional Laboratory, in cooperation with local Infection Control Practitioners, is introducing new culture and PCR tests to screen patients for colonization with Methicillin Resistant or Methicillin Susceptible *Staphylococcus aureus* (MRSA, MSSA).

- The Microbiology Laboratory offers two options using chromogenic media to directly detect these organisms. These tests are suitable for screening patients if the result is not needed for 1 to 3 days. These tests are available now.
- The Infectious Diseases and Molecular Diagnostics Laboratory will offer two corresponding PCR tests. The MRSA PCR test will screen for MRSA DNA. The SA/MRSA PCR test will screen for both *Staph. aureus* and MRSA DNA. These tests are suitable for screening patients as they enter the hospital. These tests will be available by October 2008.

**Test Name:**
- Culture, Methicillin Resistant *Staph. aureus*
- Culture, Methicillin Susceptible *Staph. aureus*
- MRSA PCR
- SA/MRSA PCR

**CPT Code:**
- Culture, Methicillin Resistant *Staph. aureus* – 87070
- Culture, Methicillin Susceptible *Staph. aureus* – 87070
- Methicillin Resistant *Staph. aureus* PCR – 87641
- *Staph. aureus*/MRSA PCR – 87640, 87641

**Methodology:**
- Chromogenic medium
- Real Time PCR

**Performed:**
- Culture – Daily
- PCR – Monday through Friday twice daily; Saturday and Sunday once daily

**Reported:**
- Culture, MRSA – 18 to 28 hours after receipt in PPMC Microbiology Laboratory.
- Culture, MSSA – 24 to 72 hours after receipt in PPMC Microbiology Laboratory.
- MRSA PCR – 12 to 24 hours
- *Staph. aureus*/MRSA PCR – 12 to 24 hours

**Specimen Required:**
- Preferred: Lawson # 224140 – BBL CultureSwab. This red-capped swab is suitable for use for both screening cultures and PCR testing.
- Alternative: Lawson # 128381 – StarSwab II. This white topped swab is suitable for use for cultures but may not be used for PCR testing.

A procedure for collecting nasal swabs is attached for your convenience.

**Transport:** These screening samples should be transported to the laboratory immediately, but if necessary swabs may be transported and stored at room temperature for up to 3 days.
**Unacceptable Conditions:**
- Culture: Refrigerated and frozen samples are not acceptable.
- PCR: Frozen samples are not acceptable.
- White capped gel swabs are not acceptable for PCR testing.

**Stability:**
- Culture: Swabs are stable at room temperature or up to 3 days.
- PCR: Swabs are stable at room temperature or refrigerated up to 3 days.

**Reference Interval:** Colonization rates for these organisms vary from 2 – 5% (MRSA) to 25 – 35% (MSSA) in normal adults. Certain groups of patients may have a higher rate.

For more information, please contact Providence Laboratory Services at 503.215.6660, the Microbiology Laboratory at 503.215.5669, or the Infectious Diseases and Molecular Diagnostics laboratory at 503.215.6141.