



Molecular Testing of Positive Blood Culture Media February 2018

On February 6, PCL Alverno began rapid MRSA resistance detection of positive blood culture media. This PCR assay is run in conjunction with MALDI-TOF rapid identification of *Staphylococcus aureus*. Following the identification of *Staph aureus*, an aliquot is sent to our molecular team to be run on the Cepheid Xpert MRSA/SA Blood Culture assay. The Cepheid assay will confirm the identification of *Staph aureus* and detect the *mecA* gene for methicillin resistance.

What to expect with this new algorithm.

- 1) First notification: MALDI-TOF sepsityper identification of *Staphylococcus aureus* within 2½ hours of culture positive.

- 2) Second notification: Cepheid result within next 1½ to 2½ hours:
 mecA Detected (MRSA) isolate
 - or -
 mecA Not Detected (*Staph aureus*, not MRSA)

Expanded Molecular Testing coming in March.

Klebsiella pneumoniae, *Enterococcus faecalis* or *faecium*, and unidentified yeast will be sent to molecular for BioFire's FilmArray® rapid identification confirmation and resistance gene detection. This testing will follow the same testing and alert algorithm.