Rapid identification of microorganisms in positive blood cultures

Northwell Health Laboratories will routinely perform a rapid PCR to test for the presence of the 23 microorganisms (and 3 antibiotic resistance genes) that cause more than 95% of all sepsis. This will be performed as part of our routine blood culture antibiotic susceptibilities workup, so no additional orders will be necessary.

The results will be available in approximately 3 hours, cutting the turnaround time for bacterial identification by up to 45 hours and improving the early selection of appropriate antibiotics.

The rapid test (BioFire FilmArray®) is FDA-approved and is based on amplification of nucleic acids by Polymerase Chain Reaction (PCR). The following microorganisms and antibiotic resistance markers are detected:

**Gram positive bacteria**
- Enterococcus
- Listeria monocytogenes
- Staphylococcus aureus
- Staphylococcus, not S. aureus
- Streptococcus sp.
- not pneumoniae
- Streptococcus agalactiae
- Streptococcus pneumoniae
- Streptococcus pyogenes

**Gram negative bacteria**
- Acinetobacter baumannii
- Haemophilus influenzae
- Neisseria meningitidis
- Pseudomonas aeruginosa
- Enterobacter cloacae complex
- Escherichia coli
- Klebsiella oxytoca
- Klebsiella pneumoniae
- Proteus sp.
- Serratia marcescens

**Yeast**
- Candida albicans
- Candida glabrata
- Candida krusei
- Candida parapsilosis
- Candida tropicalis

**Resistance markers**
- mecA - methicillin resistance
- vanA/B - vancomycin resistance
- KPC - carbapenem resistance

If you have any questions, please contact Client Services at (516) 719-1100.