Now Available…

New Skin and Soft Tissue Infections (SSTI)

Test 367  SSTI Panel Antibiotic Resistance
[Enterococcus faecalis, Escherichia coli, Group A Streptococcus, Group B Streptococcus, Klebsiella species, Proteus mirabilis, Pseudomonas aeruginosa, Staphylococcus aureus]  
Methicillin resistant Staphylococcus aureus (MRSA)  
Community Associated MRSA (CA-MRSA)

Advantages:
• Real-Time PCR
• Simple and convenient sample collection
• No refrigeration is required before or after collection
• Specimen stable for up to five (5) days after collection
• Test additions are available up to 30 days after collection
• 24 - 48 hour turnaround time. Up to 72 hours with resistance testing
• High diagnostic specificity and sensitivity
• One vial, multiple pathogens

Medical Diagnostic Laboratories L.L.C.
**125  Bacteroides fragilis by Real-Time PCR**

Clinical significance: Bacteroides are Gram-negative, anaerobic bacilli associated with a number of different types of infections that are typically polymicrobial in nature. Anatomic sites affected include the central nervous system, head, neck, chest, abdomen, pelvis, skin and soft tissue. Due to their fastidious growth requirements, *Bacteroides* species are extremely hard to identify by culturing methodologies and, as a result, are believed to be under reported pathogenic agents. *B. fragilis* is considered normal flora of the gastrointestinal tract and is commonly associated with SSI of the abdomen and abscesses.

**141  Escherichia coli by Real-Time PCR**

Clinical significance: *E. coli* are Gram-negative, facultative, rod-shaped bacteria that naturally inhabit the gastrointestinal tract. Outside their normal environment, *E. coli* can cause infection, particularly within the urinary tract. They are also associated with skin infections in regions in close proximity to the rectum, particularly with incontinent individuals. Individuals undergoing surgical procedures associated with the gastrointestinal tract and lower regions of the spine are also at risk of contracting infection.

**172  Klebsiella species by Real-Time PCR (Reflex to Speciation by Pyrosequencing)**

Clinical significance: *Klebsiella* species are Gram-negative, facultative rods that colonize the skin and gastrointestinal tract. These opportunistic pathogens are a leading cause of nosocomial infections second only to *E. coli*, and account for 8% of all hospital-acquired infections. Such infections typically arise within the respiratory, biliary and urinary tracts as well as surgical sites. The ubiquitous nature of these bacteria, in combination with increased treatment with broad-spectrum antibiotics, has led to the development of resistant strains. Two species, *K. pneumoniae* and *K. oxytoca*, account for the majority of infections with *K. pneumoniae* serving as an important cause of community-acquired pneumonia in the elderly and *K. oxytoca* more commonly associated with UTIs.

**362  Prevotella species Group 1 (P. bivia, P. disiens, P. intermedia, P. melaninogenica) by Real-Time PCR**

Clinical significance: *Prevotella* species are Gram-negative, anaerobic bacilli that colonize the vaginal and oral cavities. Depending on their anatomic location, these bacteria cause a wide-range of infections. Oral cavity colonization is associated with sinus and periodontal infections peritonsillar abscess and pneumonia, while those colonizing the GI tract have been isolated from cases of peritonitis, intra-abdominal abscess, postoperative wound infections, pelvic inflammatory disease, vulvovaginal and perianal infections. Infections of the soft tissue include gangrene and necrotizing fasciitis.

**363  Prevotella species Group 2 (P. corporis, P. albensis) by Real-Time PCR**

Clinical significance: *Prevotella* species are Gram-negative, facultative bacilli that colonize the gastrointestinal tract and are a source of nosocomial infection within hospitals and long-term care facilities. Usually associated with UTIs, *Proteus mirabilis* has also been isolated from abscesses, SSI, decubitus ulcers and burns.

**174  Pseudomonas aeruginosa by Real-Time PCR**

Clinical significance: *Pseudomonas aeruginosa* is a Gram-negative bacillus associated with a number of different opportunistic infections and is particularly problematic for ventilated patients, burn patients and those with chronic debilities. Infections of the skin include those affecting the feet and toenails (tinea), hot tub/swimming pool infections (folliculitis) and burn wound sepsis. Recently, the ability of *P. aeruginosa* to form bio-films has been postulated as a mechanism for long standing wounds that will not heal.

**1112  Streptococcus pyogenes (GAS) by Real-Time PCR**

Clinical significance: GAS is a Gram-negative, coccus that resides harmlessly on the skin as a commensal until the protective skin barrier is breeched and it becomes pathogenic. GAS is a causative factor, along with *Staphylococcus aureus*, for impetigo. While impetigo itself is not life-threatening, it can lead to more serious complications, including cellulitis and MRSA affecting the skin and poststreptococcal glomurelonephritis affecting the kidney.

**127  Group B Strep (GBS) by Real-Time PCR**

Clinical significance: GBS, *Streptococcus agalactiae*, is a Gram-positive coccus that causes a number of serious infections in both pregnant women and adults with underlying health issues, like diabetes mellitus, heart disease and malignancy. Aside from its role in neonatal sepsis, GBS has been associated with infections within the over-seventy years of age group, particularly the bedridden and those afflicted with congestive heart failure, where UTI, pneumonia and soft tissue infections are the most frequent manifestations. Streptococci, along with Staphylococci, are the leading causative agents associated with the potentially life-threatening skin infection, cellulitis.

**1118  Staphylococcus aureus with methicillin resistance (MRSA) by Conventional PCR**

Clinical significance: *Staphylococcus aureus* is a Gram-positive coccus that is largely considered to be normal flora of the skin. However, upon breach of this protective barrier, Staph can become highly pathogenic, particularly within individuals having chronic disorders such as diabetes, cancer, vascular and lung disease, eczema and individuals with weakened immune systems. Infections of the skin often go untreated as initial infections resemble pimples or spider bites, allowing the infection to progress to greater degrees of severity. Infections are further complicated by the emergence and circulation of methicillin-resistant strains.