NATIVE LAB SERVICES

RAPID DETECTION

Wounds

BENEFITS OF MOLECULAR DETECTION

- Quick & painless sample collection
- >95% Accuracy
- High sensitivity (>95%) and specificity (>99%)
- Results in just 24-48 hours
- Enables physicians to accurately diagnose & treat patients sooner

PATIENT BENEFIT

Fast & Accurate Pathogen Identification

Patients will appreciate that a single wound sample can be processed quickly to identify a variety of fungal/bacterial infection sources, including antibiotic-resistant strains. Physicians can receive results in as little as 24-48 hours, allowing them to diagnose and treat their patients sooner.

WHAT IS COVERED?

In most cases, insurance plans cover the cost of genetic testing when recommended by a person's doctor for medically necessary diagnosis and treatment.

Diagnose and Treat Your Patients Sooner

Quantitative PCR allows physicians to quickly identify the source of an infection at the molecular level. This highly sensitive and specific diagnostic testing method is greater than 95% accurate in identifying a variety of fungal/bacterial infection sources, including drug-resistant strains, from a single patient sample. Molecular analyses can be completed in as little as 24-48 hours, which enables physicians to better diagnose and treat their patients more effectively.

Accurate Molecular Detection

EQUIPPING PHYSICIANS & IMPROVING PATIENT CARE

As antibiotic resistance becomes more prevalent, evaluating patients for antibiotic-resistant bacterial strains is a crucial component for any physician-developed treatment plan. Molecular detection methods, including quantitative polymerase chain reaction (qPCR), have created a paradigm shift in diagnostic testing. These modern tools can accurately identify pathogenic fungal or bacterial infection sources, including antibiotic resistance markers, much faster (1-2 days) as compared with common culture methods (>2 weeks.) Physicians are able to diagnose and develop treatment plans much sooner, thereby improving patient care.

Wounds Panel

MOLECULAR (DNA) BASED DETECTION

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GRAM-POSITIVE

- S. aureus
- S. epidermidis
- Strep pyogenes
- Strep agalactiae
- Strep viridans
- F. magna
- C. perfringens
- P. prevotti
- P. acnes
- E. faecalis

GRAM-NEGATIVE

- E. coli
- B. fragilis
- K. pneumoniae
- P. mirabilis
- P. aeruginosa
- A. baumanii
- C. braakii
- S. marcescens

YEAST

- Candida albicans
- Candida glabrata
- Candida parapsilosis
- Candida dubliniensis
- Candida tropicalis

COVERED ANTIBIOTIC RESISTANCE

- TEM (Augmentin)
- qnrA/qnrS (Fluoroquinolones)
- ermA/ermB/mefA (Macrolides)
- tetB (Doxycycline)
- NIM (Nitromidizole)
- CTX-M (Cephalosporins)
- SHV (Cephalosporins)
- CMY/MOX/LAT (Cephalosporins)
- mecA (MRSA)
- VanA/VanB (Vancomycin)
- ACC (Ampicillin and Related Class)
- IMP/OXA (Carbapenem and Related Class)
- sul1/sul2 (Sulfa)
- drfA1 (Trimethoprim)

Your lab can quickly identify 21 bacterial/wound species and 25 resistance genes on site.

Analytical Methods Comparison

Rapid Bacterial

✓ Quick Result	✗ Lack specificity
✓ Low Cost	✗ No information on resistance or virulence
✓ Ease of Use	✗ Speciation is difficult and potentially confounding

Culture & Sensitivity

✓ Sensitivity analysis can provide antibiotic MIC	✗ Up to 1-2 weeks to isolate individual pathogens from routine normal flora
✓ Allows for quantization of bacterial population	✗ Highly variable between technologist experience and training
	✗ Not all organisms of infectious biofilms will grow in culture

Molecular (DNA) Based Diagnosis

✓ Quick Result, 24-48 hours	✗ Gene fragments and transposons limit the ability to determine actual resistance, and instead only offer “potential” resistance
✓ >95% Accuracy	✗ Resistance genes highly variable – some bacteria may be resistant and missed due to gene variability
✓ >95% Sensitivity	✗ Resistance profiles are representative of the entire biofilm, not necessarily species-specific.
✓ >99% Specificity	
✓ Ease of use (automated opportunities)	
✓ Speciation easily identified	
✓ Can detect numerous individual entities in a biofilm without loss to culture	