

Dear patient,

Few things are more important than your health. And when you have an infection that's hard to diagnose or keeps recurring despite antibiotics, you need answers. MicroGenDX is the go-to test when a standard culture — which returns inconclusive results some 50% of the time — doesn't pinpoint the real source of your infection.

Please share the information below with your healthcare provider about this advanced DNA diagnostic test. It also explains how to order your test from MicroGenDX.

If you don't have a physician, or if your insurance doesn't cover this test and you are paying out-of-pocket, please contact 1-855-208-0019. Our thanks for your interest in qPCR+NGS advanced diagnostics from MicroGenDX.

HEALTHCARE PROVIDER INFORMATION

Dear healthcare provider,

Your work is indispensable to the lives of your patients. Having a complete picture of the microbiome at the sample site makes it much easier to make informed, targeted treatment decisions. That's where Next-Generation DNA Sequencing (NGS) comes in.

Highly accurate and comprehensive, this diagnostic tool identifies all the microbes present that might be causing persistent infection, inflammation, or pain in your patients. With MicroGenDX test results, you can prescribe more targeted and effective treatment for chronic or recurring infections.

Your patient is interested in putting the diagnostic benefits of MicroGenDX to use, so please keep reading for details about our technology and how we can help you and your patients. Please also feel free to contact us at 1-855-208-0019 for more information — you can consult with one of our physicians or PhDs to learn more about this technology and including it in your diagnostic regimen.

Knowing the precise makeup of a patient's microbiome can better target the microbes causing dysbiosis and infection

NGS is an extremely effective and rapid diagnostic tool to identify microbes that are disrupting healthy microbial communities in the body. This disruption leads to infections, symptoms, and suffering. The information in this handout illustrates the power and effectiveness of MicroGenDX qPCR+NGS testing when treating chronic or recurring infections. Using MicroGenDX DNA diagnostics provides the data needed to prescribe a suitable antimicrobial that targets the disruptive microbes, but doesn't kill off the healthy microbial communities in the body.

Without the complete picture of the body's microbiome provided by DNA diagnostics, it is much more difficult to make targeted clinical decisions in an informed way.

MicroGenDX knows DNA diagnostics for infections

MicroGenDX has processed over 1.5 million molecular samples, has more than 35 clinical studies published, provides 17 resistance genes for 10 classes of antimicrobials in 24-48 hours, and returns NGS test results in 3.5 days. During the past 13 years providing DNA diagnostics, MicroGenDX has become the most experienced, fastest, and least expensive molecular lab in the industry.

HEALTHCARE PROVIDER INFORMATION

The superiority of MicroGenDX NGS over culture or PCR alone

Microbes in sample | NGS results provide comprehensive identification of bacteria and fungi present in an infection sample using a curated database of more than 50,000 microbial species. NGS results also estimate the relative abundance of each microbe in the sample.

Host response/pressure | One school of thought in treating infection is to target the dominant species detected. By destroying the strongest and most prevalent microbes, the biofilm community collapses and the other microbes are taken out under host pressure. With DNA evidence, NGS indicates the entire makeup of the community, including the dominant species at the sample site. This comprehensive picture facilitates a more effective treatment of the infection.

How to get started

If you are new to MicroGenDX, you can begin by calling 855-208-0019 or visiting www.microgendx.com/getting-started-with-microgendx

- A representative can assist you with:
 - ✓ Reviewing sampling techniques
 - ✓ Receiving educational materials
 - ✓ Initiating peer consultations to interpret molecular diagnostic reports and navigate challenging infection cases
- ✓ Ordering testing supplies
- ✓ Navigating the Lab Portal to search for and retrieve patient lab reports and order supplies

Reading the MicroGenDX qPCR+NGS report

In combination with other diagnostic tools — such as WBC, L/E, CRP, and patient symptoms — the MicroGenDX report refines antibiotic and antifungal options most appropriate to treat detected microbes, including biofilm communities. The listed antibiotic and antifungal options are representative of effective, widely available antimicrobials.

STEP 1. WARNING: Patient infection is resistant to these antimicrobials

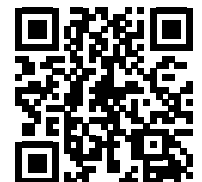
STEP 2. Bacterial load indicates level of total bacteria in the sample

STEP 3. Higher percentages of bacteria and fungi reinforce which organisms can be targeted for eradication

STEP 4. Treatment options for consideration that provide flexibility in targeting dominant species —

antimicrobials from the *Johns Hopkins Guides* and *Sanford Guide* (Note: These are not antibiotic sensitivities)

STEP 1 RESISTANCE GENES DETECTED		ANTIMICROBIALS FOR CONSIDERATION														
Beta-lactam, Tetracycline, Quinolone		Gran Stain	Respiration	Extended spectrum penicillins/Beta-lactamase inhibitors e.g. Augmentin	Fosfomycin	Aminoglycosides e.g. Amikacin	Anti-Pseudomonal penicillins/Beta-lactamase inhibitors e.g. Zosyn	Antifolates e.g. Bactrim	Carbapenems e.g. Merrem	Nitrofurantoin e.g. Macrobid	Colistin	Glycopeptides e.g. Vancomycin	Linezolid (Zyvox)	Lipopeptides e.g. Cubicin	Aminoglycosides+Aminopenicillins e.g. Ampicillin/Gentamicin	Aminopenicillins e.g. Amoxicillin
LEVEL 2 NGS REPORT		COMPREHENSIVE IDENTIFICATION NEXT-GEN DNA SEQUENCING RESULTS with PRIOR PCR RESULTS.														
STEP 2 COMPLETE (NGS & PCR RESULTS)		DNA copies per mL	NGS %													
BACTERIAL LOAD		High	> 10 ⁷													
Proteus mirabilis	65%	-	FAn	√	√	√	√	√	√							
Escherichia coli	32%	-	FAn	√	√	√	√	√	√	√						
Enterococcus faecalis	2%	+	FAn	√	√	√	√	√	√	√	√	√	√			
FUNGI DETECTED		None														
STEP 3		STEP 4														
FUNGI DETECTED		ANTIFUNGAL RECOMMENDATION														



To get started using MicroGenDX, scan this QR code with your phone or visit www.microgendx.com/getting-started-with-microgendx