

BIOMÉRIEUX

DON'T LET THEM MISS A **SMILE.**

## BIOFIRE® Syndromic PCR Testing for Infectious Diseases in Children



PIONEERING DIAGNOSTICS



# Diagnosing a sick child can be a challenge.

Pediatric patients can't always tell you their symptoms. The BIOFIRE® Panels utilize a syndromic approach—simultaneously testing for different pathogens that can cause similar symptoms. In about an hour, you'll have the actionable results you need to help put your patients, and their concerned caregivers, at ease.

## 6 Panels. 170+ Targets. ~1 Hour.



**BIOFIRE® FILMARRAY®  
MENINGITIS/ENCEPHALITIS PANEL\*†**  
14 Targets. ~1 Hour.



**BIOFIRE®  
RESPIRATORY 2.1 PANEL\***  
22 Targets. ~45 Minutes.



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL PANEL\*†**  
22 Targets. ~1 Hour.



**BIOFIRE®  
JOINT INFECTION PANEL\*†**  
39 Targets. ~1 Hour.



**BIOFIRE®  
BLOOD CULTURE IDENTIFICATION 2 PANEL\*†**  
43 Targets. ~1 Hour.



**BIOFIRE® FILMARRAY®  
PNEUMONIA PANEL\*†**  
33 Targets. ~1 Hour.

\* FDA cleared † CE 2797

# Identify more clinically relevant pathogens.

Compared to standard of care, syndromic testing can detect more clinically relevant pathogens that make pediatric patients sick.

Here are some examples of clinical evidence using BIOFIRE® Panels:



**BIOFIRE® FILMARRAY®  
MENINGITIS/  
ENCEPHALITIS PANEL**



**4x**

Diagnostic yield  
for bacterial pathogens<sup>1</sup>



**2.8x**

Diagnostic yield  
for viruses<sup>2</sup>



**BIOFIRE®  
RESPIRATORY 2.1  
PANEL**



**57%**  
Diagnostic yield<sup>3</sup>



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL  
PANEL**

**11%**

Standard-of-care  
methods

vs

**40%**

BIOFIRE GI Panel<sup>4</sup>



# Shorten the time to diagnosis.

With just two minutes hands-on time and about an hour turnaround time, syndromic testing can significantly reduce the time to actionable results compared to standard of care in pediatric hospitals.

Here are some examples of clinical evidence using BIOFIRE® Panels:



**BIOFIRE® FILMARRAY®  
MENINGITIS/  
ENCEPHALITIS PANEL**



**6 days**  
Standard-of-care  
methods

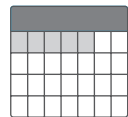
vs



**2 days**  
BIOFIRE ME Panel<sup>5</sup>



**BIOFIRE®  
RESPIRATORY 2.1  
PANEL**



**2-5 days**  
Standard-of-care  
methods

vs



**3 hrs**  
BIOFIRE RP2.1 Panel<sup>6</sup>



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL  
PANEL**



**31 hrs**  
Standard-of-care  
methods

vs



**4 hrs**  
BIOFIRE GI Panel<sup>4</sup>



**BIOFIRE® FILMARRAY®  
PNEUMONIA  
PANEL**

BIOFIRE PN Panel



**46.5 hrs**  
Before standard-of-  
care methods<sup>7</sup>



Standard-of-care methods

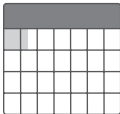
# Provide faster optimal therapy to your pediatric patients.

Syndromic testing has shown a significant decrease in time to optimal therapy in pediatric patients.

Here are some examples of clinical evidence using BIOFIRE® Panels:



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL  
PANEL**



**35 hrs**  
Standard-of-care  
methods

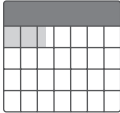
vs



**11 hrs**  
BIOFIRE GI Panel<sup>4</sup>



**BIOFIRE®  
BLOOD CULTURE  
IDENTIFICATION 2 PANEL**



**60 hrs**  
Standard-of-care  
methods

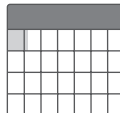
vs



**27 hrs**  
BIOFIRE BCID Panel<sup>8,\*</sup>



**BIOFIRE® FILMARRAY®  
MENINGITIS/  
ENCEPHALITIS PANEL**



**28 hrs**  
Standard-of-care  
methods

vs



**18 hrs**  
BIOFIRE ME Panel<sup>9</sup>

\*Data obtained with the previous version of the BIOFIRE BCID2 Panel.



# Improve your patient management.



Syndromic testing results when combined with appropriate antimicrobial stewardship (AMS) interventions can help inform patient management decisions like stopping or altering therapy, reducing length of stay (LOS), or moving the patient into or out of isolation.

Here are some examples of clinical evidence using BIOFIRE® Panels:



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL  
PANEL**



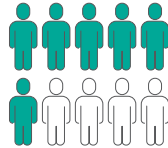
**23%**  
of pediatric patients  
received revised medical  
management<sup>10</sup>



**36%**  
reduction  
in antibiotic use<sup>11</sup>



**BIOFIRE® FILMARRAY®  
PNEUMONIA  
PANEL**



**60%**  
of pediatric patients had  
a change in antibiotics<sup>12</sup>



**BIOFIRE® FILMARRAY®  
MENINGITIS/  
ENCEPHALITIS PANEL**



**8.8-day**  
LOS reduction<sup>1\*</sup>



**BIOFIRE®  
BLOOD CULTURE  
IDENTIFICATION 2 PANEL**



**Children could be discharged earlier  
compared to standard-of-care methods<sup>13,†</sup>**

\*When pathogen was identified.  
†Data obtained with the previous version of the BIOFIRE BCID2 Panel.

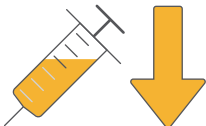
# Reduce unnecessary testing and procedures.

Using a syndromic approach to test for a broad grouping of probable pathogens, syndromic testing can reduce unnecessary testing in pediatric patients, like repeat lumbar punctures, chest radiographs, and imaging studies.

Here are some examples of clinical evidence using BIOFIRE® Panels:



**BIOFIRE® FILMARRAY®  
MENINGITIS/  
ENCEPHALITIS PANEL**

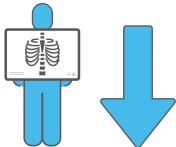


**15.1%**

Decrease in lumbar punctures where a clinical guideline was in place plus mPCR\* testing using the ME and RP Panels.<sup>14</sup>



**BIOFIRE®  
RESPIRATORY 2.1  
PANEL**



**59%**

Less chest radiographs<sup>15</sup>



**BIOFIRE® FILMARRAY®  
GASTROINTESTINAL  
PANEL**

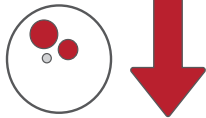


Up to  
**53%**

Reduction in use of imaging studies<sup>16,17</sup>



**BIOFIRE®  
BLOOD CULTURE  
IDENTIFICATION 2 PANEL**



**21%**

Fewer repeat blood cultures among inpatients<sup>18,†</sup>

\*mPCR=multiplex polymerase chain reaction †Data obtained with the previous version of the BIOFIRE BCID2 Panel.



# Increase confidence with accurate results.

The following BIOFIRE® Panels are either FDA cleared and/or CE marked. BIOFIRE technology is based on nested multiplex PCR results with high sensitivity and specificity.



## BIOFIRE® FILMARRAY® MENINGITIS/ENCEPHALITIS PANEL

94.2% sensitivity, 99.8% specificity<sup>19</sup>



## BIOFIRE® RESPIRATORY 2.1 PANEL

Overall Performance: 97.1% sensitivity, 99.3% specificity<sup>20</sup>  
SARS-CoV-2 Performance: 98.4% PPA, 98.9% NPA<sup>21</sup>



## BIOFIRE® FILMARRAY® GASTROINTESTINAL PANEL

98.5% sensitivity, 99.2% specificity<sup>22</sup>



## BIOFIRE® JOINT INFECTION PANEL

91.7% sensitivity, 99.8% specificity<sup>23</sup>



## BIOFIRE® BLOOD CULTURE IDENTIFICATION 2 PANEL

99.0% sensitivity, 99.8% specificity<sup>24</sup>



## BIOFIRE® FILMARRAY® PNEUMONIA PANEL

BAL-like: 96.2 % sensitivity, 98.3% specificity<sup>25</sup>  
Sputum-like: 96.3% sensitivity, 97.2% specificity<sup>25</sup>



# Introducing the BIOFIRE® Joint Infection (JI) Panel, a new syndromic panel from bioMérieux.

The BIOFIRE JI Panel has a broad panel menu of 31 pathogens and 8 AMR genes that includes targets commonly associated with pediatric septic arthritis like *Kingella kingae*, *Staphylococcus aureus*, *Streptococcus agalactiae*, *Streptococcus pneumoniae*, & *Streptococcus pyogenes*. With a turnaround time of about an hour, the BIOFIRE JI Panel can provide fast accurate results that may aid clinicians in pathogen guided patient management.<sup>26</sup>



**BIOFIRE®  
JOINT INFECTION  
PANEL**

## BIOFIRE syndromic testing can improve pediatric care.

BIOFIRE® Panels can make a significant impact on pediatric patient care. Syndromic testing provides accurate, reliable results that can alleviate anxiety for parents and providers.



**ADD THE BIOFIRE PANELS TO YOUR  
PEDIATRIC WORKFLOW TODAY.**





## References

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20. Overall performance based on prospective clinical study for the BIOFIRE® FILMARRAY® Respiratory 2 Panel, data on file, BioFire Diagnostics
21. Overall performance based on prospective SARS-CoV-2 clinical study for the BIOFIRE® Respiratory 2.1 Panel in comparison to 3 EUA tests, data on file, BioFire Diagnostics.
22. Overall performance based on prospective clinical study for the BIOFIRE® FILMARRAY® Gastrointestinal Panel, data on file, BioFire Diagnostics.
23. Overall performance based on prospective clinical study for the BIOFIRE® Joint Infection Panel, data on file, BioFire Diagnostics.
24. Overall performance is the aggregate of the prospective, archived, and seeded data from the clinical studies. Data on file, BioFire Diagnostics.
25. Overall performance based on prospective clinical study for the BIOFIRE® FILMARRAY® Pneumonia Panel, data on file, BioFire Diagnostics.
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Product availability varies by country. Please contact your local bioMérieux representative for details.



*“Syndromic testing  
has changed the way  
I practice medicine.”*

- Dr Jaime Fergie, MD, FAAP, FIDSA  
Director of Pediatric Infectious Diseases  
Driscoll Children's Hospital, Texas, USA



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