

BIOMÉRIEUX



Clinical Impact of the BIOFIRE[®] FILMARRAY[®] *Pneumonia plus* (PN*plus*) Panel

34

TARGETS

~1hr

PIONEERING DIAGNOSTICS

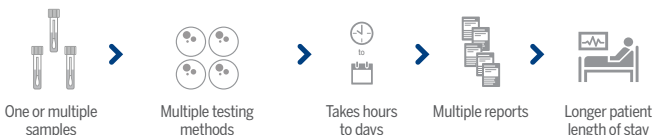
BIOFIRE® Syndromic Testing

The right test, the first time

BIOFIRE syndromic testing allows rapid identification of infectious agents that produce similar symptoms in patients.

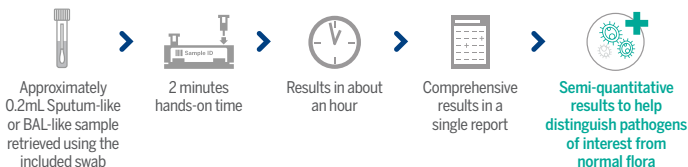
Traditional testing methods

Traditional methods of pathogen identification can be time consuming and lack sensitivity.



Fast. Easy. Comprehensive.

Syndromic testing provides a streamlined workflow and fast, comprehensive results.



Get Results Faster

In a pediatric study, the BIOFIRE® FILMARRAY® Pneumonia (PN) Panel results were available in 1–1.5 hours, as compared to 48–72 hours for standard-of-care results.¹



1–1.5 hrs
BIOFIRE PN Panel results



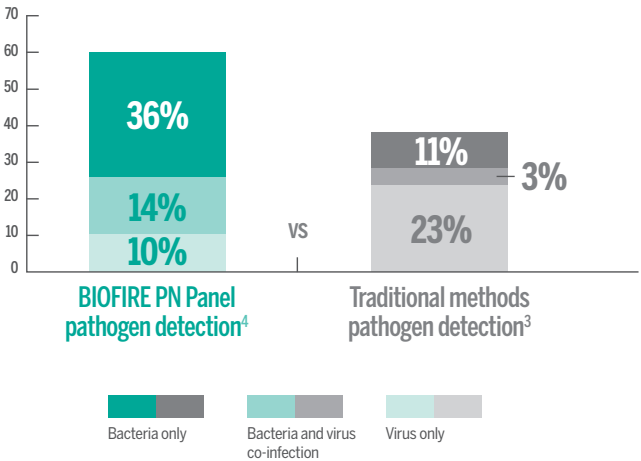
48–72 hrs
standard-of-care results

Who Should Get Tested

The BIOFIRE® FILMARRAY® Pneumonia *plus* (PN*plus*) Panel is intended to be used for patients with a suspected lower respiratory tract infection where BAL-like or sputum-like samples are available.²

Detects More Organisms

In a CDC-sponsored study of the etiology of community-acquired pneumonia requiring hospitalization, a bacterial agent was only identified in 14% of patient samples.³ The BIOFIRE PN Panel is more sensitive and can detect more organisms than traditional culture.⁴



Aid Antimicrobial Stewardship



Using the BIOFIRE® FILMARRAY® Pneumonia *plus* (PN*plus*) Panel results, 42% of patients had antibiotics de-escalated compared to 8% without using the Panel.⁵

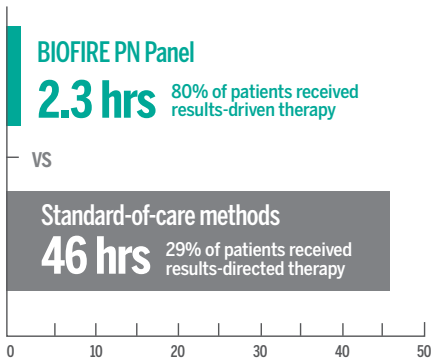


42%
of patients had
antibiotics de-escalated

Antibiotics were changed based on panel results in 60% of PICU patients. Length of stay was shortened from 9 days to 5 days.⁶

Superior Clinical Outcomes

80% of patients received results-driven therapy in approximately 2.3 hours vs. SOC where 29% of patients received results-directed therapy after approximately 46 hours.⁵





BIOFIRE® FILMARRAY® PNEUMONIA PLUS (PNplus) PANEL

1 Test. 34 Targets. ~1 Hour.

BACTERIA

(Semi-Quantitative)

Acinetobacter calcoaceticus-baumannii complex
Enterobacter cloacae complex
Escherichia coli
Haemophilus influenzae
Klebsiella aerogenes
Klebsiella oxytoca
Klebsiella pneumoniae group
Moraxella catarrhalis
Proteus spp.
Pseudomonas aeruginosa
Serratia marcescens
Staphylococcus aureus
Streptococcus agalactiae
Streptococcus pneumoniae
Streptococcus pyogenes

ATYPICAL BACTERIA

(Qualitative)

Chlamydia pneumoniae
Legionella pneumophila
Mycoplasma pneumoniae

VIRUSES

Adenovirus
Coronavirus
Human metapneumovirus
Human rhinovirus/enterovirus
Influenza A virus
Influenza B virus
Middle East respiratory syndrome coronavirus (MERS-CoV)
Parainfluenza virus
Respiratory syncytial virus

ANTIMICROBIAL RESISTANCE GENES

Carbapenemases

IMP
KPC
NDM
OXA-48-like
VIM

ESBL
CTX-M

Methicillin Resistance
mecA/C and MREJ (MRSA)



Product availability varies by country. Consult your bioMérieux representative.

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Learn more about the BIOFIRE range of commercially-available panels for syndromic infectious disease diagnostics.



Guidelines

- BTS Guidelines for the management of CAP in adults WS Lim, Thorax 2009; 64 (Suppl. III).
- BTS Guidelines for the management of CAP in adults M. Harris, Thorax 2011; 66.
- Guidelines for the management of adult lower respiratory tract infections – Woodhead, 2011, European Respiratory Journal 2011 38: 112-118.
- NICE Clinical Guideline: Pneumonia in Adults : diagnosis and management, 2014.
- International ERS/ESICM/ALAT guidelines for the management of hospital-acquired pneumonia and ventilator-associated pneumonia. Torres A. Eur Respir J. 2017 Sep 10;50(3). pii: 1700582. doi: 10.1183/13993003.00582-2017. Print 2017 Sep.

References

1. El-Nawawy A.A. *et al.* Comparison of a Point-of-Care FilmArray Test to Standard-of-Care Microbiology Test in Diagnosis of Healthcare Associated Infections in a Tertiary Care Pediatric Intensive Care Unit Antibiotics 2022, 11, 453. doi:10.3390/antibiotics11040453.
2. BIOFIRE® FILMARRAY® Pneumonia *plus* Panel Instructions for Use.
3. Jain S, Self WH, *et al.* Community-Acquired Pneumonia Requiring Hospitalization among U.S. Adults. The New England journal of medicine. 2015;373(5):415-427. doi:10.1056/NEJMoa1500245.
4. Data on file, bioMérieux. The stated performance is the overall aggregate performance of the prospective clinical study data presented in the IFU. Performance data is for pathogen detection only.
5. Poole S., *et al.* Molecular point-of-care testing for lower respiratory tract pathogens improves safe antibiotic de-escalation in patients with pneumonia in the ICU: results of a randomised controlled trial. Journal of Infection 2022. Dec;85(6):625-633. doi:10.1016/j.jinf.2022.09.003.
6. Fireizen, Y *et al.* The Impact of Penumonia PCR Panel Testing in the PICU: A Quality Improvement. J Pediatr Intensive Care 2022, <https://doi.org/10.1055/s-0042-1743178>.

Performance

BAL-like (including BAL and mini-BAL): 96.2% sensitivity, 98.4% specificity; Sputum-like (including ETA): 96.3% sensitivity, 97.3% specificity⁴

Panel Specifications

Sample Type: BAL-like (including BAL and mini-BAL), Sputum-like (including ETA)

Sample Volume: 0.2 mL
