



**Neuberg**  
DIAGNOSTICS

• India • UAE • South Africa • USA

# *Neu* INSIGHTS

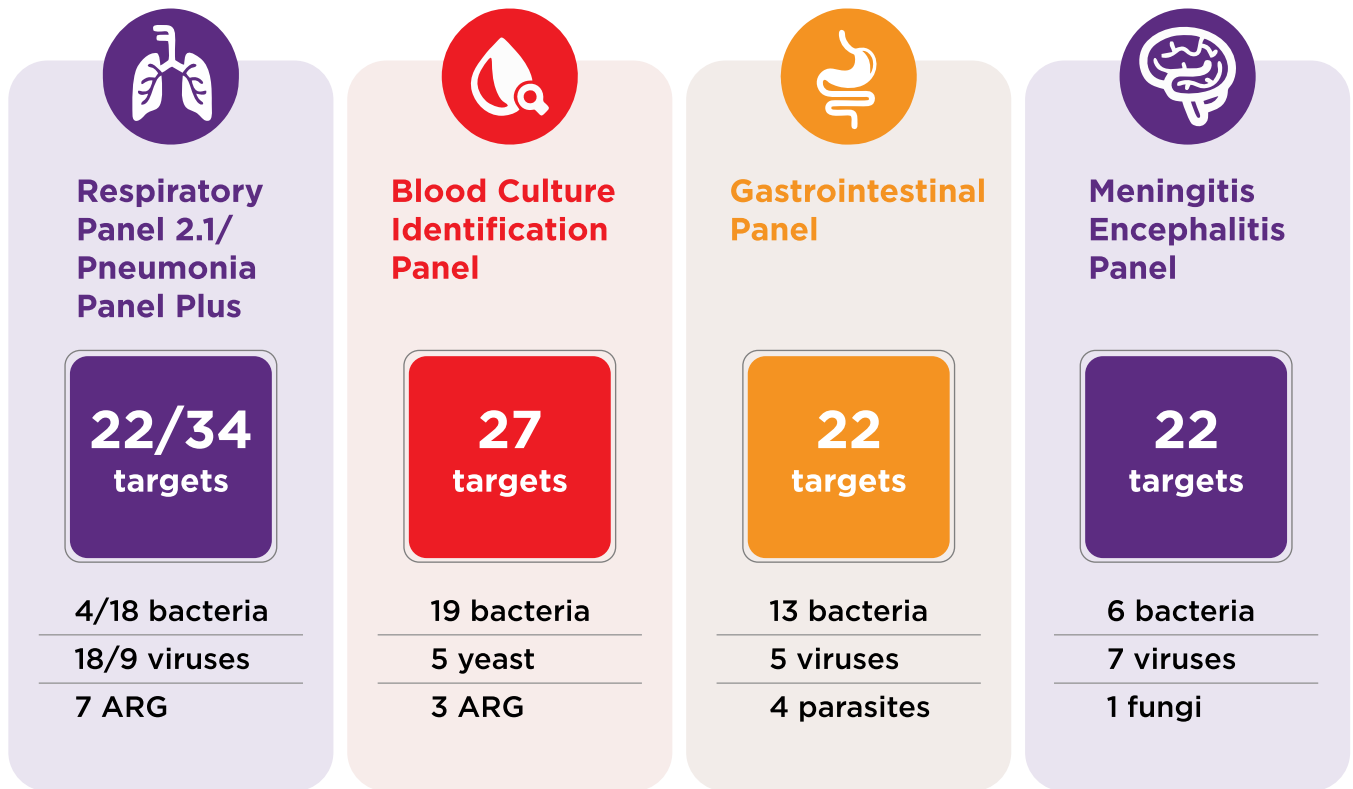


**BIO**  **FIRE**

**Molecular diagnosis of infectious diseases**

Serial number : 006 Edition : 1. 2022

# One System. Many applications



## The Right Test, The First Time.

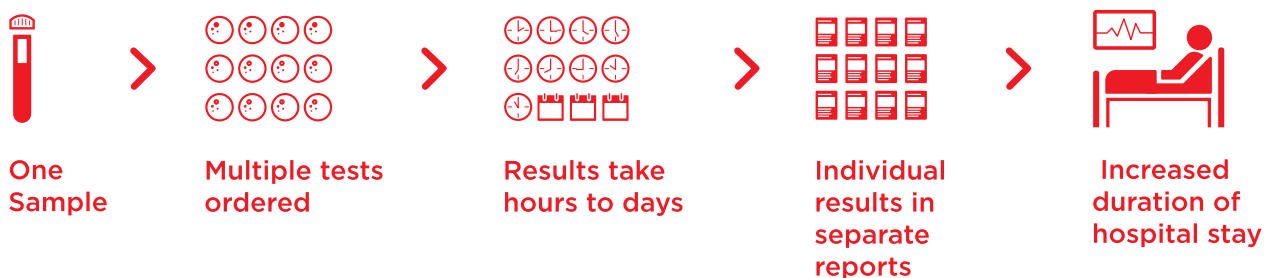
Syndromic testing is a symptom-driven broad grouping of probable pathogens into one, rapid test that maximizes the chance of getting the right answer in a clinically relevant timeframe.

### Syndromic Testing



**VS.**

### Traditional Testing



# Respiratory Panel 2.1 EUA FDA-Cleared



22 pathogens

Sample :  
Nasopharyngeal Swabs

## Viral

Adenovirus  
Coronavirus 229E  
Coronavirus HKU1  
Coronavirus Oc43  
Coronavirus NL63

## Sars-Cov 2

Human Metapneumovirus  
Human Rhinovirus/  
Enterovirus  
Influenza A  
Influenza A/H1  
Influenza A/H1-2009  
Influenza A/H3  
Influenza B

## Viruses

Parainfluenza 1  
Parainfluenza 2  
Parainfluenza 3  
Parainfluenza 4  
RSV

## Bacterial

Bordetella pertussis  
Bordetella parapertussis  
Chlamydomphila pneumoniae  
Mycoplasma Pneumoniae

## Specimen Collection and Preparation

### Nasopharyngeal swab (NPS) in Viral Transport Medium (VTM)

- ▶ No specific swab or VTM type/brand required
- ▶ Multiple swabs/media evaluated in Interference studies
- ▶ 300µL required for testing

### Specimen transport and storage

- ▶ Room temperature (19°-30° C) for up to 4 hours
- ▶ Refrigerated ( 2°-8° C) for up to 3 days
- ▶ Frozen (≤ -15° C ) for up to 30 days



# BioFire Pneumonia Panel Plus

1 Test. 43 Targets. 1 Hour.

## BioFire Pneumonia Panel Plus Targets

Bacteria (Semi-quantitative)	Atypical Bacteria (Qualitative)	Viruses	Antimicrobial Resistance Genes
<ul style="list-style-type: none"> <li>✓ Acinetobacter calcoaceticus-baumannii complex</li> <li>✓ Enterobacter Cloacae complex</li> <li>✓ Escherichia coli</li> <li>✓ Haemophilus influenzae</li> <li>✓ Klebsiella aerogens</li> <li>✓ Klebsiella oxytoca</li> <li>✓ Klebsiella pneumoniae group</li> <li>✓ Moraxella catarrhalis</li> <li>✓ Protex spp.</li> <li>✓ Pseudomonas aeruginosa</li> <li>✓ Serratia marcescens</li> <li>✓ Staphylococcus aureus</li> <li>✓ Streptococcus pneumoniae</li> <li>✓ Streptococcus pyogenes</li> </ul>	<ul style="list-style-type: none"> <li>✓ Chlamydia pneumoniae</li> <li>✓ Legionella pneumophila</li> <li>✓ Mycoplasma pneumoniae</li> </ul>	<ul style="list-style-type: none"> <li>✓ Adenovirus</li> <li>✓ Coronavirus</li> <li>✓ Human Metapneumovirus</li> <li>✓ Human Rhinovirus/Enterovirus</li> <li>✓ influenza A</li> <li>✓ influenza B</li> <li>✓ Middle East Respiratory Syndrome Coronavirus (MERS-CoV)</li> <li>✓ Parainfluenza</li> <li>✓ Respiratory Syncytial Virus</li> </ul>	<ul style="list-style-type: none"> <li>✓ Carbapenemases <i>IMP</i> <i>KPC</i> <i>NDM</i> <i>OXA - 48 - like</i> <i>VIM</i></li> <li>✓ ESBL <i>CTX-M</i></li> <li>✓ Methicillin Resistance</li> </ul>

## Enhance the Standard of Care with the BioFire Pneumonia Panel Plus

### Traditional Testing Methods

### Syndromic Testing Method



Blood Cultures <sup>2</sup>

Culture on Lower Respiratory Samples<sup>3</sup>

Urine Antigen Testing <sup>4,5</sup>

BioFire Pneumonia Panel Plus<sup>1</sup>

Low positivity rate

Low sensitivity

Low sensitivity

High sensitivity

Results in days

Results in days

Results in hours

Results in about an hour

High complexity

Subjective interpretation

Limited organisms

Objective semi-quantitative

## Panel Specifications

**Sample Type:** Sputum (including endotracheal aspirate) and bronchoalveolar lavage (BAL) (including mini-BAL)

**Storage Conditions:** All kit components stored at room temperature (15-25° C)

# BioFire Blood Culture Identification 2 (BCID 2) Panel

1 Test. 43 Targets. 1 Hour.

## The BioFire BCID2 Panel Targets

### Gram- Negative Bacteria

- ✓ Acinetobacter calcoaceticus-baumannii complex
- ✓ Bacteroides fragilis
- ✓ Enterobacterales
- ✓ Enterobacter cloacae complex  
*Escherichia coli*  
*Klebsiella aerogenes*  
*Klebsiella oxytoca*  
*Klebsiella pneumoniae group*  
*Proteus*  
*Salmonella*  
*Serratia marcescens*
- ✓ Haemophilus influenzae
- ✓ Neisseria meningitidis
- ✓ Pseudomonas aeruginosa
- ✓ Stenotrophomonas maltophilia

### Gram- Positive Bacteria

- ✓ Enterococcus faecalis
- ✓ Enterococcus faecium
- ✓ Listeria monocytogenes
- ✓ Staphylococcus  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Staphylococcus lugdunensis*
- ✓ Streptococcus  
*Streptococcus agalactiae*  
*Streptococcus pneumoniae*  
*Streptococcus pyogenes*

### Antimicrobial Resistance Genes

- ✓ Carbapenemases  
*IMP*  
*KPC*  
*OXA-48-like*  
*NDM*  
*VIM*
- ✓ Colistin Resistance  
*mcr-1*
- ✓ ESBL  
*CTX-M*
- ✓ Methicillin Resistance  
*mecA/C*  
*mecA/C and MREJ (MRSA)*
- ✓ Vancomycin Resistance  
*vanA/B*

### Antimicrobial Resistance Genes

- ✓ Candida albicans
- ✓ Candida auris
- ✓ Candida glabrata
- ✓ Candida krusei
- ✓ Candida parapsilosis
- ✓ Candida tropicalis
- ✓ Cryptococcus neoformans/gattii

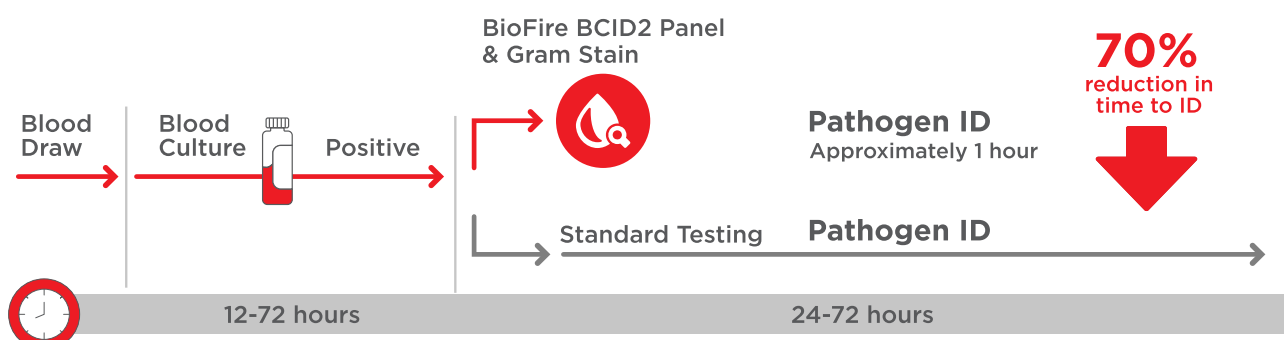
## Specimen Collection and Preparation

### Positive Blood Culture Bottle

- ▶ Flagged by instrument
- ▶ Positive by gram stain
- ▶ Sample Volume - 100 µl
- ▶ Do not use charcoal bottles
- ▶ Use 28 gauge needle to avoid resin introduction into pouch



## Streamline Workflow and Provide Fast, Actionable Results



# GI Panel CE & FDA- Cleared



**22 pathogens**

**Sample :**  
**Stool resuspended in**  
**Cary Blair**

## Bacteria

Aeromonas  
Campylobacter  
Clostridium  
difficile (Toxin A/B)  
Pleisomonas  
shigelloides  
Salmonella  
Vibrio  
Vibrio cholerae  
Yersinia  
enterocolitica

## Protozoa

Cryptosporidium  
Cyclospora  
cayetanensis  
Entamoeba  
histolytica  
Giardia lamblia

## Viruses

Andenovirus F 40/41  
Astrovirus  
Norovirus GI/GII  
Rotavirus A  
Sapovirus

## Diarrheagenic E.coli I Shigella

E.coli O157  
Enteroggregative  
E.coli(EAEC)  
Enteropathogenic  
E. coli(EPEC)  
Enterotoxigenic  
E. coli (ETEC)  
Shiga-like toxin-  
producing E.coli  
(STEC)  
Shigella  
Enteroinvasive  
E.coli (EIEC)

## Specimen Collection and Preparation

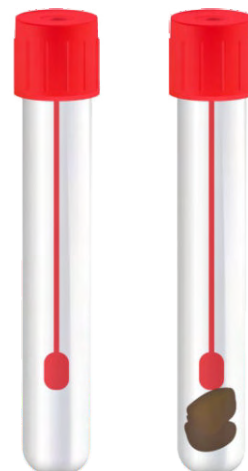
### Stool in Cary Blair Transport Media

- ▶ Provides a liquid sample
- ▶ Add stool upto the line marked, mix
- ▶ Do not overfill

**Sample Volume- 200mL**

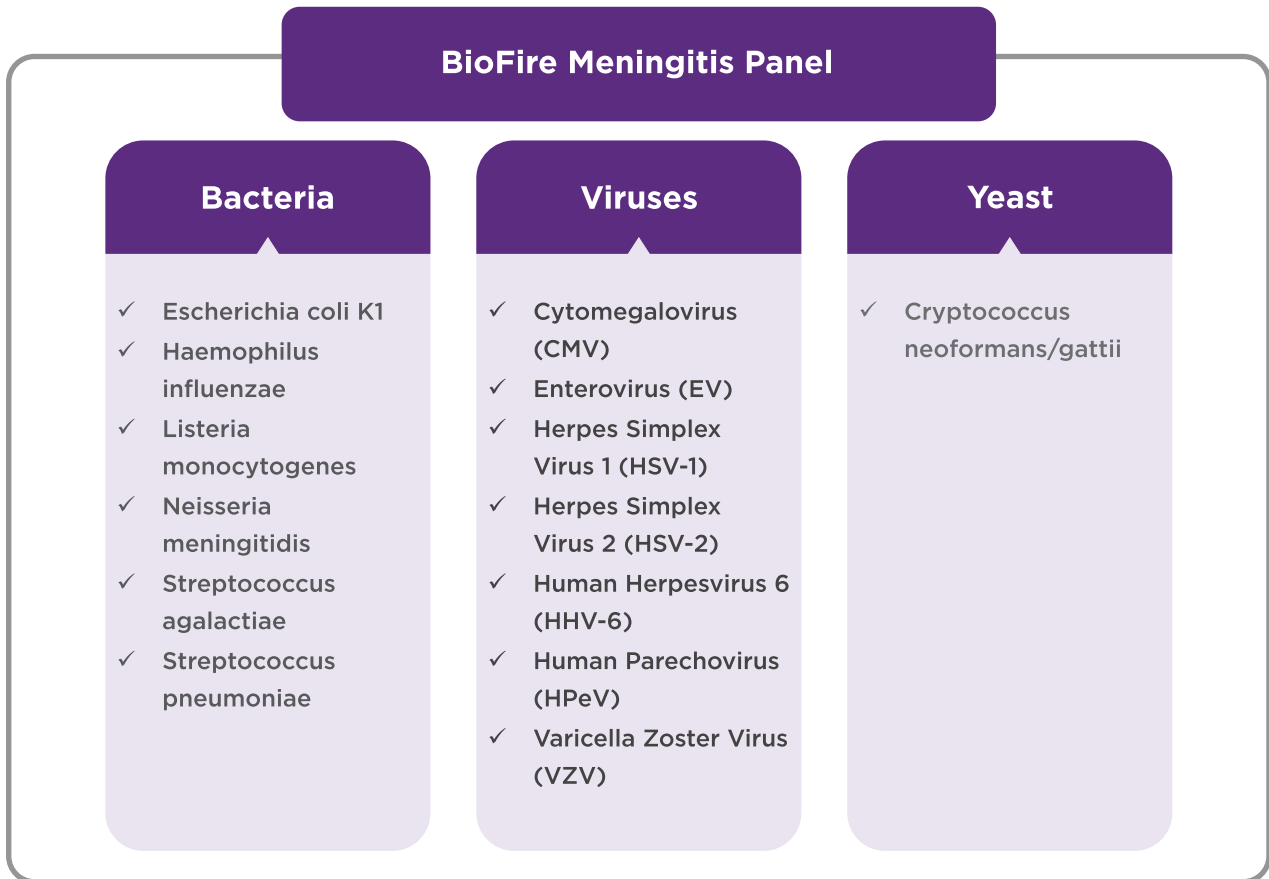
### Sample Storage

- ▶ Up to 4 days
- ▶ Ambient or refrigerator temperature

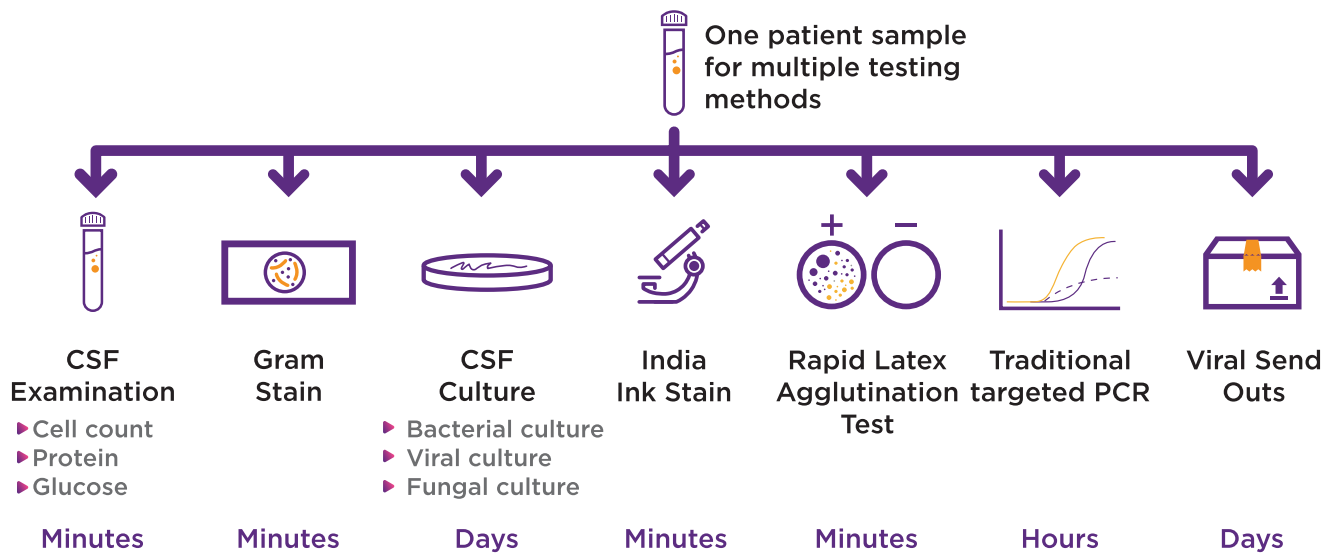


# BioFire Meningitis Panel

1 Test. 14 Pathogens. 1 Hour.



## Traditional Testing Methods



## BioFire FilmArray Meningitis Panel



# How Does the FilmArray Work?

**FilmArray**<sup>®</sup>

The Fastest Way To Better Results

The FilmArray reagent pouch stores all the necessary reagents for sample preparation, reverse transcription, PCR and detection in a freeze-dried format. Prior to a run, the user injects hydration solution and sample, combined with sample buffer mix into the pouch. The FilmArray instrument does the rest.



- ▶ First, the Film Array extracts and purifies all nucleic from the sample.
- ▶ Next, the FilmArray performs a nested multiplex PCR. During the first-stage PCR, the FilmArray performs a single, large volume, massively multiplexed reaction. Last, individual single plex second-stage PCR reactions detect the products from the first stage PCR.
- ▶ Using endpoint melting curve data, the FilmArray software automatically generates a result for each target in a single report.

## Easy, Fast, Comprehensive and Scalable

### Easy

- ▶ No precise pipetting required
- ▶ Simple sample preparation

### Fast

- ▶ Two minutes of hands-on time
- ▶ Run time of only one hour

### Comprehensive

- ▶ 5 panels CE-marked and FDA cleared
- ▶ Up to 43 different targets in one test

### High Throughput

- ▶ Up to 176 runs per day
- ▶ Random access 24/7
- ▶ Scalable
- ▶ LIS





**Knock out** **medical emergencies,**  
**before it's too late!**

**HEALTH ko aasani se na lo,  
TEST aasani se karo**



**Blood Tests**



**Health Packages**



**ECG**



**ICMR Approved  
COVID Tests**

**“ Get your blood test done  
Anywhere, Anytime...  
Neuberg hain na ”**

# Notes :

A series of horizontal dashed lines providing space for writing notes.

# PARTNERS IN HEALTH



## DR. UMA SENTHIL KUMAR

Consultant Microbiologist - Neuberg Ehrlich  
[druma.s@neubergdiagnostics.com](mailto:druma.s@neubergdiagnostics.com)



## DR. PREETI KABRA

Chief Of Lab - Neuberg Ehrlich  
[dr.preetikabra@neubergdiagnostics.com](mailto:dr.preetikabra@neubergdiagnostics.com)



## DR. SARANYA NARAYAN

Chief Technical Director - Neuberg Ehrlich  
[drsaranya@neubergdiagnostics.com](mailto:drsaranya@neubergdiagnostics.com)

FOR MORE DETAILS, CONTACT US AT

 **9700 36 9700**

[neubergdiagnostics.com](http://neubergdiagnostics.com)



● India ● UAE ● South Africa ● USA