

# THE PATHCARE NEWS

## UPDATE: BIOFIRE FILMARRAY SYNDROMIC PANELS

Testing for respiratory pathogens using comprehensive multiplex molecular panels has become a valuable diagnostic tool to assist in early identification of causative organisms. Appropriate use supports timely and directed antimicrobial therapy, especially for organisms that cannot be cultured routinely (e.g. *Mycoplasma*, *Legionella*, *Chlamydomphila*, *Bordetella* and viruses); decreases in-hospital admission rate, length of hospital stay, and also assists in antimicrobial stewardship by avoiding the use of empiric antimicrobial agents.

You may be aware of Discovery Health’s decision to cease the funding of BioFire FilmArray syndromic panels in December 2019. These extensive multiplex PCR panels offer the advantage of very quick results but are most costly than conventional, slower multiplex assays.

We are pleased to announce that we’ve entered into an agreement with Discovery Health whereby BioFire Respiratory, Gastrointestinal and Meningoencephalitis panels will again be supported by the funder **but only when performed upon specialist referral in hospitalised patients (Respiratory Panel) or when performed upon specialist referral in hospitalised patients AND Emergency Room patients ordered by ER doctors (Gastrointestinal and Meningoencephalitis panels)**. These factors are crucial for reimbursement; if not adhered to, the cost of tests will have to be recovered from the patient.

Please enquire from your local PathCare laboratory whether BioFire panels are available in your area. A summary of the different test methodologies is presented below, and please note that the current menu of single pathogen as well as limited multiplex panels remains orderable.

Name	Turn-around time	Targets included	Special considerations
BioFire Respiratory Panel (J5579)	6 hours from receipt in the laboratory	Bordetella pertussis/parapertussis, Chlamydomphila pneumoniae, Mycoplasma pneumoniae, Adenovirus, Influenza A (subtypes H1 [including A(H1N1)pdm09] & H3), Influenza B, Metapneumovirus, Parainfluenza virus 1-4, Enterovirus & Rhinovirus, RSV, Coronavirus (229E, HKU1, OC43, NL63, MERS & SARS-CoV-2)	Specialist referral in hospitalised patients.
Multiplex Respiratory Bacterial Panel (H5952)	24 hours from receipt in the laboratory	Chlamydomphila pneumoniae, Mycoplasma pneumoniae, Legionella pneumophila, Bordetella pertussis, Bordetella parapertussis, Streptococcus pneumoniae, Haemophilus influenzae	None
Multiplex Respiratory Viral Panel (L5953)	24 hours from receipt in the laboratory	Influenza A, Influenza A H1-2009, Influenza B, Coronavirus NL63, Coronavirus 229E, Coronavirus OC43, Parainfluenza 1, 2, 3, 4, Metapneumovirus A&B, Rhinovirus, RSV A&B, Adenovirus, Enterovirus, Parechovirus, Bocavirus	None
BioFire Gastrointestinal Panel (B5807)	6 hours from receipt in the laboratory	Campylobacter (jejuni, coli and upsaliensis), Clostridium difficile (toxin A/B), Plesiomonas shigelloides, Salmonella, Yersinia enterocolitica, Vibrio (parahaemolyticus, vulnificus and cholerae), Diarrheagenic E. coli/Shigella Enteroaggregative E. coli (EAEC), Enteropathogenic E. coli (EPEC), Enterotoxigenic E. coli (ETEC) lt/st, Shiga-like toxin-producing E. coli (STEC) stx1/stx2, E. coli O157, Shigella/Enteroinvasive E. coli (EIEC), Adenovirus F 40/41, Astrovirus, Norovirus GI/GII, Rotavirus A, Sapovirus	Specialist referral in hospitalised patients. Patients referred from ER (see text).
Multiplex Gastrointestinal Viral Panel (M6008)	24 hours from receipt in the laboratory	Adenovirus, Rotavirus A, Norovirus GI/GII, Astrovirus, Sapovirus	None
Multiplex Gastrointestinal Bacterial Panel (F6010)	24 hours from receipt in the laboratory	Salmonella enterica spp., Shigella spp./EIEC, Campylobacter jejuni/coli/lari, Yersinia enterocolitica, Vibrio cholerae/parahaemolyticus, Shiga-like toxin-producing E. coli (STEC) stx1/stx2, Giardia lamblia, Entamoeba histolytica, Cryptosporidium parvum/hominis	None
BioFire Meningoencephalitis Panel (F5596)	6 hours from receipt in the laboratory	Escherichia coli K1, Neisseria meningitidis, Haemophilus influenzae, Streptococcus agalactiae (group B), Listeria monocytogenes, Streptococcus pneumoniae, HSV-1, HSV-2, VZV, CMV, Enterovirus, HHV-6, Human parechovirus, Cryptococcus neoformans/gattii	Specialist referral in hospitalised patients. Patients referred from ER (see text).