

April 2023

RESPIRATORY MULTIPLEX PCR PANELS

Ampath has a range of panels to detect respiratory pathogens. These include smaller, targeted panels (Table 1) and more comprehensive panels indicated in Table 2. The components of the comprehensive respiratory panels are indicated in Table 3.

The choice of test is determined by the requesting clinician based on their clinical assessment, suspected respiratory pathogen, urgency of result, cost and patient medical scheme reimbursement considerations. For more information regarding the cost and turnaround times of these panels, please consult with your local Ampath representative.

TABLE 1: TARGETED PANELS

Available panel	SARS-CoV-2/influenza/RSV	Atypical bacterial PCR	Pertussis PCR
Components	Influenza A (not subtyped), influenza B, SARS-CoV-2 and RSV A&B	<i>C. pneumoniae</i> , <i>M. pneumoniae</i> , <i>Legionella</i> species	<i>B. pertussis</i> , <i>B. parapertussis</i> and <i>B. holmesii</i>
Mnemonic	COVTRIPCR	BACPMPCR	BPPCR
Specimen	Nasopharyngeal swab, nasal swab, nasal wash/aspirate	Bronchoalveolar lavage, nasopharyngeal aspirate, nasopharyngeal swab, throat swab, sputum, tracheal aspirate, pleural fluid, tissue	

TABLE 2: COMPREHENSIVE PANELS

Panel	Core respiratory virus	Comprehensive respiratory virus	Biofire® respiratory pathogens	Biofire® pneumonia
Mnemonic	RVCORPCR	RPCOMPPCR	RESPMPCR*	PNEUMOPCR*
Specimen	Upper or lower respiratory tract specimens: Nasopharyngeal swab, nasopharyngeal aspirate, nasal mid-turbinate swab, throat swab, sputum, bronchoalveolar lavage, tracheal aspirate		Upper respiratory tract specimens only: Nasopharyngeal swab, throat swab, nasopharyngeal aspirate	Lower respiratory tract specimens only: Sputum, tracheal aspirate, bronchoalveolar lavage

* Biofire medical aid reimbursement criteria:

Medical aid reimbursement only applies to hospitalised patients when requested by a specialist. Preauthorisation is not required.

Note: Not all schemes reimburse for Biofire® panels.

TABLE 3: COMPONENTS OF COMPREHENSIVE PANELS

Multiplex PCR panel	Core respiratory virus	Comprehensive respiratory virus	Biofire® respiratory pathogens*	Biofire® pneumonia*
Viruses	SARS-CoV-2 Influenza A (not subtyped) Influenza B RSV A&B Adenovirus Metapneumovirus Parainfluenza viruses Rhinovirus	SARS-CoV-2 Influenza A (subtyped) Influenza B RSV A&B Adenovirus Metapneumovirus Parainfluenza 1–4 Rhinovirus Enterovirus Coronavirus (229E, NL63, OC43) Bocavirus	SARS-CoV-2 Influenza A (subtyped) Influenza B RSV A&B Adenovirus Metapneumovirus Parainfluenza virus 1–4 Rhino/enterovirus Coronavirus (229E; NL63; OC43; HKU1)	Influenza A Influenza B RSV A&B Adenovirus Metapneumovirus Parainfluenza virus 1–4 Rhino/enterovirus Coronavirus (229E; NL63; OC43; HKU1) MERS-CoV This assay does not include SARS-CoV-2
Bacteria		<i>C. pneumonia</i> <i>M. pneumonia</i> <i>Legionella pneumophila</i> <i>B. pertussis</i> <i>B. parapertussis</i>	<i>C. pneumoniae</i> <i>M. pneumoniae</i> <i>B. pertussis</i> <i>B. parapertussis</i>	<i>C. pneumoniae</i> <i>M. pneumoniae</i> <i>Legionella pneumophila</i> <i>A. baumannii</i> complex <i>E. cloacae</i> complex <i>E. coli</i> <i>H. influenzae</i> <i>K. aerogenes</i> <i>K. oxytoca</i> <i>K. pneumoniae</i> <i>M. catarrhalis</i> <i>Proteus species</i> <i>P. aeruginosa</i> <i>S. marcescens</i> <i>S. aureus</i> <i>S. agalactiae</i> <i>S. pyogenes</i> <i>S. pneumoniae</i>
Antimicrobial resistance genes	None	None	None	Carbapenemases NDM, KPC, IMP, OXA-48, VIM ESBL CTX-M MRSA MecA/C, MREJ