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LABORATORY LOCATION: (PERMANENT LABORATORY)	Disease Division, Makmal Kesihatan Awam Kebangsaan Sungai Buloh Lot 1853, Kampung Melayu Sungai Buloh, 47000 Sungai Buloh, Selangor., 47000, SELANGOR MALAYSIA
ACCREDITED SINCE :	04 FEBRUARY 2025
FIELD(S) OF MEDICAL TESTING:	CHEMICAL PATHOLOGY MEDICAL MICROBIOLOGY (BACTERIOLOGY) MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY) MEDICAL MICROBIOLOGY (LEPROSY) MEDICAL MICROBIOLOGY (PARASITOLOGY) MEDICAL MICROBIOLOGY (VIROLOGY)

The standard used for assessment of this laboratory is MS ISO 15189:2022 (ISO 15189:2022, IDT).

A medical laboratory's fulfilment of the requirements of ISO 15189 means the laboratory meets both the technical competence requirements and the management system requirements necessary for it to consistently deliver technically valid test results. The management system requirements in ISO 15189 are written in language relevant to a medical laboratory's operations. Medical laboratories that implement ISO 15189 operate generally in accordance with the principles of ISO 9001. (See Joint IAF-ILAC-ISO Communiquè, November 2021)

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CENTRAL LOCATION	Disease Division, Makmal Kesihatan Awam Kebangsaan Sungai Buloh Lot 1853, Kampung Melayu Sungai Buloh, 47000 Sungai Buloh, Selangor., 47000, Selangor
FIELD(S) OF MEDICAL TESTING:	CHEMICAL PATHOLOGY, MEDICAL MICROBIOLOGY (BACTERIOLOGY)MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)MEDICAL MICROBIOLOGY (LEPROSY)MEDICAL MICROBIOLOGY (PARASITOLOGY)MEDICAL MICROBIOLOGY (VIROLOGY)

#### **SCOPE OF MEDICAL TESTING: CHEMICAL PATHOLOGY**

Specimen Tested	Type of Test/	Test Methods, Specifications/
_	Properties Measured/	Equipment/Techniques Used
Serum	Glucose	Enzymatic UV Test (Hexokinase
		Method) by Olympus AU400
		Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Calcium	Cresolphthalein Complexone by
		Olympus AU400 Chemistry
		Analyser as documented in
		Clinical Chemistry Test Using
		Chemistry Analyser
		(MKAK/BKM/WI-02).
	Inorganic phosphorus	Phosphomolybdate UV by
		Olympus AU400 Chemistry
		Analyser as documented in
		Clinical Chemistry Test Using
		Chemistry Analyser
		(MKAK/BKM/WI-02).
	Cholinesterase	Butyrylthiocholine to butyrate by
		Olympus AU400 Chemistry
		Analyser as documented in
		Clinical Chemistry Test Using
		Chemistry Analyser
		(MKAK/BKM/WI-02).
Lipid Profile	Cholesterol	Cholesterol Oxidase by Olympus
Serum		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).

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	HDL_Cholesterol	Immuno Inhibition using Cholesterol Esterase and Cholesterol Oxidase Method By Olympus AU400 Chemistry Analyser (MKAK/BKM/WI-02).
	LDL_Cholesterol	Calculated/Derived Parameter as documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).
	Triglyceride	Lipase/GPO-PAP Colorimetric without Glycerol Correction by Olympus AU400 Chemistry Analyser as documented in Clinical Chemistry Test Using Chemistry Analyser MKAK/BKM/WI02).
Liver Function Serum	Alkaline Phosphatase	P-nitro-phenylphosphate (pNPP) to p nitrophenol by Olympus AU400 Chemistry Analyser as documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).
	Alanine Transaminase	Rate UV,Tris Buffer Without Pyridoxal Phosphate, IFCC/SFBC by Olympus AU400 Chemistry Analyser as documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).
	Aspartate Transaminase	Chemistry Analyser as Documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).
	Total Bilirubin	Dichlorophenyl Diazonium by Olympus AU400 Chemistry Analyser as Documented in MKAK/BKM/WI-02.
Liver Function Test Serum	Total Protein	Biuret Reaction, End Point Olympus by AU400 Chemistry Analyser as Documented in MKAK/BKM/WI-02.
	Albumin	Bromocresol Green (BCG) Olympus by AU400 Chemistry Analyser as documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).
	Globulin	Calculated/Derived Parameters as documented in Clinical Chemistry Test Using Chemistry Analyser (MKAK/BKM/WI-02).

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Renal Profile	Urea	Urease Kinetic by Olympus
Serum		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Creatinine	Alkaline Picrate Without
		Deproteinisation by Olympus
		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Uric Acid	Uricase / PAP Method (Uricase
		Peroxidase With Ascorbate
		Oxidase) by Olympus AU400
		Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Sodium	Indirect ISE Method by Olympus
		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Potassium	Indirect ISE Method by Olympus
		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).
	Chloride	Indirect ISE Method by Olympus
		AU400 Chemistry Analyser as
		documented in Clinical Chemistry
		Test Using Chemistry Analyser
		(MKAK/BKM/WI-02).

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (BACTERIOLOGY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	<b>Properties Measured/</b>	<b>Equipment/Techniques Used</b>
Stool & Rectal Swab	Culture and Sensitivity for	Handling and processing of
	Salmonella Typhi and Salmonella	Bacteriological specimen as
	sp.	documented in
		MKAK/BAK/WP03, processing
		and identification of Salmonella
		Typhi and Salmonella sp. as
		documented In MKAK/BAK/WI-04
		and Antibiotic Susceptibility
		Testing as documented in
		MKAK/BAK/WI-03.



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	Culture and Sensitivity Vibrio cholerae	Handling and processing of Bacteriological specimen as documented In MKAK/BAK/WP03, processing and identification of <i>Vibrio cholerae</i> as documented in MKAK/BAK/WI-05 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
	Culture and Sensitivity for Enteric Pathogens	Handling and processing of Bacteriological specimen as documented in MKAK/BAK/WP 03, Processing, and Identification of Enteric Pathogens as documented in MKAK/BAK/WI-10 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
Isolate	Biotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
	Serotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
	Corynebacterium Diphtheriae	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31. Processing and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
	PCR for Corynebacterium diphtheriae Toxin Detection	Processing and Identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47.
	ELEK Test for Corynebacterium diphtheriae	Processing and Identification of Corynebacterium diphtheria as Documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
	Haemophilus influenzae	Serotyping for Haemophilus influenzae as documented in MKAK/BAK/WI-60

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	Neisseria meningitidis	Serotyping for Neisseria meningitidis as documented in MKAK/BAK/WI-61
	Acinetobacter baumannii Burkholderia cepacia Campylobacter jejuni Corynebacterium diphtheriae E.coli O157:H7 Klebsiella pneumoniae Neisseria meningitidis Pseudomonas aeruginosa Salmonella sp. Serratia marcescens Shigella sonnei Shigella flexneri Stapylococcus aureus Vibrio cholerae	Pulsed-Field Gel Electrophoresis as documented in MKAK/BAK/WI-59
	Serotyping of Salmonella sp.	Serotyping of Salmonella sp. as documented in MKAK/BAK/WI-28.
Throat Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasal Swab, Sputum	Culture and Sensitivity for Respiratory bacteria	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Serology Serum	Leptospira interrogans	Leptospira serovars identification by Microscopic Agglutination Test as documented in MKAK/BAK/WI-55
	Detection of Leptospira IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-49.
	Detection of Coxiella burnetti IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-32.
	Detection of Coxiella burnetti IgG	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-33.



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	Qualitative and Semi qualitative detection of Syphilis using Rapid Plasma Reagin (RPR)	Qualitative and Semi-qualitative Manufacturer Method of the Flocculation Tests for the detection of Syphilis using Rapid Plasma Reaging (RPR) as documented in MKAK/BAK/WI-50.
	Detection of <i>Treponema pallidum</i> by Particle Agglutination (TPPA)	Treponema pallidum Passive Particle Agglutination (TPPA) as documented in MKAK/BAK/WI-51.
Cerebrospinal Fluid (csf), Tracheal Aspirate, Bronchoalveloar Larvage (bal), Pleural Fluid, Plasma In Edta	Neisseria meningitidis Haemophilus influenzae Streptococcus pneumoniae	Detection of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae by real-time polymerase chain reaction (qPCR) as documented in MKAK/BAK/WI-38
Urine	Candida sp Corynebacterium urealyticum Enterococcus sp Enterobacterales Pseudomonas sp. Salmonella sp. Staphylococcus aureus (MRSA) Staphylococcus epidermidis Staphylococcus saprophyticus Streptococcus agalactiae	Processing and Identification of Urine Pathogens as documented in MKAK/BAK/WI03
Sputum, Pus, Nasal Swab (carrier Screening), Isolate, Blood, Sterile Body Fluid	Methicillin Resistance Staphylococcus aureus (MRSA)	Detection of Methicillin Resistant Staphylococcus aureus (MRSA) as documented in MKAK/BAK/WI-48 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Nasopharyngeal Aspirate, Nasopharyngeal Swab	Molecular detection of Bordetella pertussis	Detection of <i>Bordetella pertussis</i> by Real Time Polymerase Chain Reaction (PCR) as documented in MKAK/BAK/WI-23.

SCOPE OF MEDICAL TESTING : MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)

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Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
	Handling and processing of
	Bacteriological specimen as
	documented in
ο <b>ρ</b> .	MKAK/BAK/WP03, processing
	and identification of Salmonella
	Typhi and Salmonella sp. as
	documented In MKAK/BAK/WI-04
	and Antibiotic Susceptibility
	Testing as documented in
	MKAK/BAK/WI-03.
Culture and Sensitivity Vibrio	Handling and processing of
cholerae	Bacteriological specimen as
	documented In
	MKAK/BAK/WP03, processing
	and identification of Vibrio
	cholerae as documented in
	MKAK/BAK/WI-05 and Antibiotic
	Susceptibility Testing as
	documented in
	MKAK/BAK/WI-03.
Culture and Sensitivity for Enteric	Handling and processing of
Pathogens	Bacteriological specimen as
	documented in MKAK/BAK/WP
	03, Processing, and Identification
	of Enteric Pathogens as
	documented in MKAK/BAK/WI-10
	and Antibiotic Susceptibility
	Testing as Documented in
	MKAK/BAK/WI-03.
Biotyping for Vibrio cholerae	Processing and identification of
	Vibrio cholerae as documented in
	MKAK/BAK/WI-05.
Serotyping for Vibrio cholerae	Processing and identification of
	Vibrio cholerae as documented in
	MKAK/BAK/WI-05.
Corynebacterium Diphtheriae	Processing and identification of
	Respiratory bacteria as
	documented in
	MKAK/BAK/WI-31. Processing
	_
	and identification of
	and identification of Corynebacterium diphtheria as
	and identification of  Corynebacterium diphtheria as documented in MKAK/BAK/WI-47
	and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility
	and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in
PCR for Corvnebacterium	and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
PCR for Corynebacterium	and identification of  Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03. Processing and Identification of
PCR for Corynebacterium diphtheriae Toxin Detection	and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
	Culture and Sensitivity for Salmonella Typhi and Salmonella sp.  Culture and Sensitivity Vibrio cholerae

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	ELEK Test for Corynebacterium diphtheriae	Processing and Identification of Corynebacterium diphtheria as Documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
	Haemophilus influenzae	Serotyping for <i>Haemophilus</i> influenzae as documented in MKAK/BAK/WI-60
	Neisseria meningitidis	Serotyping for Neisseria meningitidis as documented in MKAK/BAK/WI-61
	Acinetobacter baumannii Burkholderia cepacia Campylobacter jejuni Corynebacterium diphtheriae E.coli O157:H7 Klebsiella pneumoniae Neisseria meningitidis Pseudomonas aeruginosa Salmonella sp. Serratia marcescens Shigella sonnei Shigella flexneri Stapylococcus aureus Vibrio cholerae	Pulsed-Field Gel Electrophoresis as documented in MKAK/BAK/WI-59
	Serotyping of Salmonella sp.	Serotyping of Salmonella sp. as documented in MKAK/BAK/WI-28.
Throat Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasal Swab, Sputum	Culture and Sensitivity for Respiratory bacteria	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Serology Serum	Leptospira interrogans	Leptospira serovars identification by Microscopic Agglutination Test as documented in MKAK/BAK/WI-55
	Detection of Leptospira IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-49.
	Detection of Coxiella burnetti IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-32.

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	Detection of Coxiella burnetti IgG	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-33.
	Qualitative and Semi qualitative detection of Syphilis using Rapid Plasma Reagin (RPR)	Qualitative and Semi-qualitative Manufacturer Method of the Flocculation Tests for the detection of Syphilis using Rapid Plasma Reaging (RPR) as documented in MKAK/BAK/WI-50.
	Detection of <i>Treponema pallidum</i> by Particle Agglutination (TPPA)	Treponema pallidum Passive Particle Agglutination (TPPA) as documented in MKAK/BAK/WI-51.
Cerebrospinal Fluid (csf), Tracheal Aspirate, Bronchoalveloar Larvage (bal), Pleural Fluid, Plasma In Edta	Neisseria meningitidis Haemophilus influenzae Streptococcus pneumoniae	Detection of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae by real-time polymerase chain reaction (qPCR) as documented in MKAK/BAK/WI-38
Urine	Candida sp Corynebacterium urealyticum Enterococcus sp Enterobacterales Pseudomonas sp. Salmonella sp. Staphylococcus aureus (MRSA) Staphylococcus epidermidis Staphylococcus saprophyticus Streptococcus agalactiae	Processing and Identification of Urine Pathogens as documented in MKAK/BAK/WI03
Sputum, Pus, Nasal Swab (carrier Screening), Isolate, Blood, Sterile Body Fluid	Methicillin Resistance Staphylococcus aureus (MRSA)	Detection of Methicillin Resistant Staphylococcus aureus (MRSA) as documented in MKAK/BAK/WI-48 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Nasopharyngeal Aspirate, Nasopharyngeal Swab	Molecular detection of Bordetella pertussis	Detection of <i>Bordetella pertussis</i> by Real Time Polymerase Chain Reaction (PCR) as documented in MKAK/BAK/WI-23.



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## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (LEPROSY)

Type of Test/	Test Methods, Specifications/ Equipment/Techniques Used
Culture and Sensitivity for Salmonella Typhi and Salmonella sp.	Handling and processing of Bacteriological specimen as documented in MKAK/BAK/WP03, processing and identification of Salmonella Typhi and Salmonella sp. as documented In MKAK/BAK/WI-04 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Culture and Sensitivity Vibrio cholerae	Handling and processing of Bacteriological specimen as documented In MKAK/BAK/WP03, processing and identification of <i>Vibrio cholerae</i> as documented in MKAK/BAK/WI-05 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Culture and Sensitivity for Enteric Pathogens	Handling and processing of Bacteriological specimen as documented in MKAK/BAK/WP 03, Processing, and Identification of Enteric Pathogens as documented in MKAK/BAK/WI-10 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
Biotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
Serotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
	Culture and Sensitivity for Salmonella Typhi and Salmonella sp.  Culture and Sensitivity Vibrio cholerae  Culture and Sensitivity for Enteric Pathogens  Biotyping for Vibrio cholerae

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	Corynebacterium Diphtheriae  PCR for Corynebacterium	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31. Processing and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.  Processing and Identification of
	diphtheriae Toxin Detection	Corynebacterium diphtheria as documented in MKAK/BAK/WI-47.
	ELEK Test for Corynebacterium diphtheriae	Processing and Identification of Corynebacterium diphtheria as Documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
	Haemophilus influenzae	Serotyping for <i>Haemophilus</i> influenzae as documented in MKAK/BAK/WI-60
	Neisseria meningitidis	Serotyping for Neisseria meningitidis as documented in MKAK/BAK/WI-61
	Acinetobacter baumannii Burkholderia cepacia Campylobacter jejuni Corynebacterium diphtheriae E.coli O157:H7 Klebsiella pneumoniae Neisseria meningitidis Pseudomonas aeruginosa Salmonella sp. Serratia marcescens Shigella sonnei Shigella flexneri Stapylococcus aureus Vibrio cholerae Serotyping of Salmonella sp.	Pulsed-Field Gel Electrophoresis as documented in MKAK/BAK/WI-59  Serotyping of Salmonella sp. as
	Serotyping of Salmonella sp.	documented in MKAK/BAK/WI-28.
Throat Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasal Swab, Sputum	Culture and Sensitivity for Respiratory bacteria	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.

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Serology Serum	Leptospira interrogans	Leptospira serovars identification by Microscopic Agglutination Test as documented in
		MKAK/BAK/WI-55
	Detection of Leptospira IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA)
		as documented in MKAK/BAK/WI-49.
	Detection of Coxiella burnetti IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in
		MKAK/BAK/WI-32.
	Detection of Coxiella burnetti IgG	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked
		Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-33.
	Qualitative and Semi qualitative detection of Syphilis using Rapid Plasma Reagin (RPR)	Qualitative and Semi-qualitative Manufacturer Method of the Flocculation Tests for the detection of Syphilis using Rapid Plasma Reaging (RPR) as documented in MKAK/BAK/WI-50.
	Detection of <i>Treponema pallidum</i> by Particle Agglutination (TPPA)	Treponema pallidum Passive Particle Agglutination (TPPA) as documented in MKAK/BAK/WI-51.
Cerebrospinal Fluid (csf), Tracheal Aspirate, Bronchoalveloar Larvage	Neisseria meningitidis Haemophilus influenzae	Detection of Neisseria meningitidis,
(bal), Pleural Fluid, Plasma In Edta	Streptococcus pneumoniae	Haemophilus influenzae and Streptococcus pneumoniae by real-time polymerase chain reaction (qPCR) as documented in MKAK/BAK/WI-38

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Urine	Candida sp	Processing and Identification of
	Corynebacterium	Urine Pathogens as documented
	urealyticum	in MKAK/BAK/WI03
	Enterococcus sp	
	Enterobacterales	
	Pseudomonas sp.	
	Salmonella sp.	
	Staphylococcus aureus	
	(MRSA)	
	Staphylococcus	
	epidermidis	
	Staphylococcus	
	saprophyticus	
	Streptococcus agalactiae	
Sputum, Pus, Nasal Swab (carrier	Methicillin Resistance	Detection of Methicillin Resistant
Screening), Isolate, Blood, Sterile	Staphylococcus aureus (MRSA)	Staphylococcus aureus (MRSA)
Body Fluid		as documented in
		MKAK/BAK/WI-48 and Antibiotic
		Susceptibility Testing as
		documented in
		MKAK/BAK/WI-03.
Nasopharyngeal Aspirate,	Molecular detection of Bordetella	Detection of Bordetella pertussis
Nasopharyngeal Swab	pertussis	by Real Time Polymerase Chain
		Reaction (PCR) as documented
		in MKAK/BAK/WI-23.

# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (PARASITOLOGY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	Properties Measured/	Equipment/Techniques Used
Stool & Rectal Swab	Culture and Sensitivity for Salmonella Typhi and Salmonella sp.	Handling and processing of Bacteriological specimen as documented in MKAK/BAK/WP03, processing and identification of <i>Salmonella</i> Typhi and <i>Salmonella sp.</i> as documented In MKAK/BAK/WI-04 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.



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	Culture and Sensitivity Vibrio cholerae	Handling and processing of Bacteriological specimen as documented In MKAK/BAK/WP03, processing and identification of <i>Vibrio cholerae</i> as documented in MKAK/BAK/WI-05 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
	Culture and Sensitivity for Enteric Pathogens	Handling and processing of Bacteriological specimen as documented in MKAK/BAK/WP 03, Processing, and Identification of Enteric Pathogens as documented in MKAK/BAK/WI-10 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
Isolate	Biotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
	Serotyping for Vibrio cholerae	Processing and identification of Vibrio cholerae as documented in MKAK/BAK/WI-05.
	Corynebacterium Diphtheriae	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31. Processing and identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
	PCR for Corynebacterium diphtheriae Toxin Detection	Processing and Identification of Corynebacterium diphtheria as documented in MKAK/BAK/WI-47.
	ELEK Test for Corynebacterium diphtheriae	Processing and Identification of Corynebacterium diphtheria as Documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
	Haemophilus influenzae	Serotyping for <i>Haemophilus</i> influenzae as documented in MKAK/BAK/WI-60

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	Neisseria meningitidis	Serotyping for Neisseria meningitidis as documented in MKAK/BAK/WI-61
	Acinetobacter baumannii Burkholderia cepacia Campylobacter jejuni Corynebacterium diphtheriae E.coli O157:H7 Klebsiella pneumoniae Neisseria meningitidis Pseudomonas aeruginosa Salmonella sp. Serratia marcescens Shigella sonnei Shigella flexneri Stapylococcus aureus Vibrio cholerae	Pulsed-Field Gel Electrophoresis as documented in MKAK/BAK/WI-59
	Serotyping of Salmonella sp.	Serotyping of Salmonella sp. as documented in MKAK/BAK/WI-28.
Throat Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasal Swab, Sputum	Culture and Sensitivity for Respiratory bacteria	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Serology Serum	Leptospira interrogans	Leptospira serovars identification by Microscopic Agglutination Test as documented in MKAK/BAK/WI-55
	Detection of Leptospira IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-49.
	Detection of Coxiella burnetti IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-32.
	Detection of Coxiella burnetti IgG	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-33.

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	Qualitative and Semi qualitative detection of Syphilis using Rapid Plasma Reagin (RPR)	Qualitative and Semi-qualitative Manufacturer Method of the Flocculation Tests for the detection of Syphilis using Rapid Plasma Reaging (RPR) as documented in MKAK/BAK/WI-50.
	Detection of <i>Treponema pallidum</i> by Particle Agglutination (TPPA)	Treponema pallidum Passive Particle Agglutination (TPPA) as documented in MKAK/BAK/WI-51.
Cerebrospinal Fluid (csf), Tracheal Aspirate, Bronchoalveloar Larvage (bal), Pleural Fluid, Plasma In Edta	Neisseria meningitidis Haemophilus influenzae Streptococcus pneumoniae	Detection of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae by real-time polymerase chain reaction (qPCR) as documented in MKAK/BAK/WI-38
Urine	Candida sp Corynebacterium urealyticum Enterococcus sp Enterobacterales Pseudomonas sp. Salmonella sp. Staphylococcus aureus (MRSA) Staphylococcus epidermidis Staphylococcus saprophyticus Streptococcus agalactiae	Processing and Identification of Urine Pathogens as documented in MKAK/BAK/WI03
Sputum, Pus, Nasal Swab (carrier Screening), Isolate, Blood, Sterile Body Fluid	Methicillin Resistance Staphylococcus aureus (MRSA)	Detection of Methicillin Resistant Staphylococcus aureus (MRSA) as documented in MKAK/BAK/WI-48 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Nasopharyngeal Aspirate, Nasopharyngeal Swab	Molecular detection of Bordetella pertussis	Detection of <i>Bordetella pertussis</i> by Real Time Polymerase Chain Reaction (PCR) as documented in MKAK/BAK/WI-23.

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Specimen Tested	Type of Test/ Properties Measured/	Test Methods,Specifications/ Equipment/Techniques Used
Stool & Rectal Swab	Culture and Sensitivity for	Handling and processing of
Stool & Nectal Swap	Salmonella Typhi and Salmonella	Bacteriological specimen as
	sp.	documented in
	Sp.	MKAK/BAK/WP03, processing
		and identification of Salmonella
		Typhi and Salmonella sp. as
		documented In MKAK/BAK/WI-04
		and Antibiotic Susceptibility
		Testing as documented in
		MKAK/BAK/WI-03.
	Culture and Sensitivity Vibrio	Handling and processing of
	cholerae	Bacteriological specimen as
		documented In
		MKAK/BAK/WP03, processing
		and identification of Vibrio
		cholerae as documented in MKAK/BAK/WI-05 and Antibiotic
		Susceptibility Testing as
		documented in
		MKAK/BAK/WI-03.
	Culture and Sensitivity for Enteric	Handling and processing of
	Pathogens	Bacteriological specimen as
		documented in MKAK/BAK/WP
		03, Processing, and Identification
		of Enteric Pathogens as
		documented in MKAK/BAK/WI-10
		and Antibiotic Susceptibility
		Testing as Documented in
		MKAK/BAK/WI-03.
Isolate	Biotyping for Vibrio cholerae	Processing and identification of
		Vibrio cholerae as documented in
		MKAK/BAK/WI-05.
	Serotyping for Vibrio cholerae	Processing and identification of
		Vibrio cholerae as documented in
		MKAK/BAK/WI-05.
	Corynebacterium Diphtheriae	Processing and identification of
		Respiratory bacteria as
		documented in
		MKAK/BAK/WI-31. Processing
		and identification of
		Corynebacterium diphtheria as
		documented in MKAK/BAK/WI-47
		and Antibiotic Susceptibility
		Testing as documented in MKAK/BAK/WI-03.
	DCP for Conmobacterium	
	PCR for Corynebacterium	Processing and Identification of
	diphtheriae Toxin Detection	Corynebacterium diphtheria as documented in
		MKAK/BAK/WI-47.
		WINARVDARV VVI-47.

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	ELEK Test for Corynebacterium diphtheriae	Processing and Identification of Corynebacterium diphtheria as Documented in MKAK/BAK/WI-47 and Antibiotic Susceptibility Testing as Documented in MKAK/BAK/WI-03.
	Haemophilus influenzae	Serotyping for <i>Haemophilus</i> influenzae as documented in MKAK/BAK/WI-60
	Neisseria meningitidis	Serotyping for Neisseria meningitidis as documented in MKAK/BAK/WI-61
	Acinetobacter baumannii Burkholderia cepacia Campylobacter jejuni Corynebacterium diphtheriae E.coli O157:H7 Klebsiella pneumoniae Neisseria meningitidis Pseudomonas aeruginosa Salmonella sp. Serratia marcescens Shigella sonnei Shigella flexneri Stapylococcus aureus Vibrio cholerae	Pulsed-Field Gel Electrophoresis as documented in MKAK/BAK/WI-59
	Serotyping of Salmonella sp.	Serotyping of Salmonella sp. as documented in MKAK/BAK/WI-28.
Throat Swab, Nasopharyngeal Aspirate, Nasopharyngeal Swab, Nasal Swab, Sputum	Culture and Sensitivity for Respiratory bacteria	Processing and identification of Respiratory bacteria as documented in MKAK/BAK/WI-31 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Serology Serum	Leptospira interrogans	Leptospira serovars identification by Microscopic Agglutination Test as documented in MKAK/BAK/WI-55
	Detection of Leptospira IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-49.
	Detection of Coxiella burnetti IgM	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-32.

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	Detection of Coxiella burnetti IgG	Manufacturer Method/ Microplate Reader ELX808/ Enzyme Linked Immunosorbent Assay (ELISA) as documented in MKAK/BAK/WI-33.
	Qualitative and Semi qualitative detection of Syphilis using Rapid Plasma Reagin (RPR)	Qualitative and Semi-qualitative Manufacturer Method of the Flocculation Tests for the detection of Syphilis using Rapid Plasma Reaging (RPR) as documented in MKAK/BAK/WI-50.
	Detection of <i>Treponema pallidum</i> by Particle Agglutination (TPPA)	Treponema pallidum Passive Particle Agglutination (TPPA) as documented in MKAK/BAK/WI-51.
Cerebrospinal Fluid (csf), Tracheal Aspirate, Bronchoalveloar Larvage (bal), Pleural Fluid, Plasma In Edta	Neisseria meningitidis Haemophilus influenzae Streptococcus pneumoniae	Detection of Neisseria meningitidis, Haemophilus influenzae and Streptococcus pneumoniae by real-time polymerase chain reaction (qPCR) as documented in MKAK/BAK/WI-38
Urine	Candida sp Corynebacterium urealyticum Enterococcus sp Enterobacterales Pseudomonas sp. Salmonella sp. Staphylococcus aureus (MRSA) Staphylococcus epidermidis Staphylococcus saprophyticus Streptococcus agalactiae	Processing and Identification of Urine Pathogens as documented in MKAK/BAK/WI03
Sputum, Pus, Nasal Swab (carrier Screening), Isolate, Blood, Sterile Body Fluid	Methicillin Resistance Staphylococcus aureus (MRSA)	Detection of Methicillin Resistant Staphylococcus aureus (MRSA) as documented in MKAK/BAK/WI-48 and Antibiotic Susceptibility Testing as documented in MKAK/BAK/WI-03.
Nasopharyngeal Aspirate, Nasopharyngeal Swab	Molecular detection of Bordetella pertussis	Detection of <i>Bordetella pertussis</i> by Real Time Polymerase Chain Reaction (PCR) as documented in MKAK/BAK/WI-23.



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## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (BACTERIOLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Clinical Specimen	Microscopic Examination of AFB Smears	Preparation, staining and AFB Smear Examination using microscope as documented in MKAK/TB/WI-01.
	Culture Procedure For Mycobacteria	Culture of Clinical Specimen using Automated BACTEC MGIT 960 and Conventional Method as documented in MKAK/TB/WI-02.
Clinical Specimen & Isolate	Detection of Multi Drug Resistant <i>Mycobacterium</i> tuberculosis	Line Probe Assay Method using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-19.
Isolate	Identification Test of  Mycobacterium tuberculosis  complex	Manufacturer method using kits as documented in MKAK/TB/WI-16, MKAK/TB/WI-24.
	Antibiotic Susceptibility Testing for First Line Antibiotic mycobacterium tuberculosis complex	Sensitivity Method Using Absolute Concentration Method as documented in MKAK/TB/WI-05 and Sensitivity Method using Automated BACTEC MGIT 960 as documented In MKAK/TB/WI-06.
Plasma	Interferon Gamma Release Assay (IGRA)	ELISA Test (Quantiferon TB Gold- plus kit) using DYNEX DS2® System as Documented in MKAK/TB/WI-27
mycobacterium Tuberculosis Isolate	Antibiotic Susceptibility Testing (AST) for Secondline Antibiotic	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14
	Mycobacterium tuberculosis complex	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14
	Antibiotic Susceptibility Testing for Second-line Antibiotic Mycobacterium tuberculosis complex	Line Probe Assay Method Using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-22
Clinical Specimen (sputum, Csf, Tissue) <i>mycobacterium Tuberculosis</i> Isolate	Molecular detection of Mycobacterium tuberculosis and Rifampicin resistance	Molecular detection of Mycobacterium tuberculosis and Rifampicin resistance using Xpert MTB/RIF test as documented in MKAK/TB/WI-29



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# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Clinical Specimen	Microscopic Examination of AFB Smears	Preparation, staining and AFB Smear Examination using microscope as documented in MKAK/TB/WI-01.
	Culture Procedure For Mycobacteria	Culture of Clinical Specimen using Automated BACTEC MGIT 960 and Conventional Method as documented in MKAK/TB/WI-02.
Clinical Specimen & Isolate	Detection of Multi Drug Resistant <i>Mycobacterium</i> <i>tuberculosis</i>	Line Probe Assay Method using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-19.
Isolate	Identification Test of Mycobacterium tuberculosis complex	Manufacturer method using kits as documented in MKAK/TB/WI-16, MKAK/TB/WI-24.
	Antibiotic Susceptibility Testing for First Line Antibiotic mycobacterium tuberculosis complex	Sensitivity Method Using Absolute Concentration Method as documented in MKAK/TB/WI-05 and Sensitivity Method using Automated BACTEC MGIT 960 as documented In MKAK/TB/WI-06.
Plasma	Interferon Gamma Release Assay (IGRA)	ELISA Test (Quantiferon TB Gold- plus kit) using DYNEX DS2® System as Documented in MKAK/TB/WI-27
mycobacterium Tuberculosis Isolate	Antibiotic Susceptibility Testing (AST) for Secondline Antibiotic	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14
	Mycobacterium tuberculosis complex	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14
	Antibiotic Susceptibility Testing for Second-line Antibiotic Mycobacterium tuberculosis complex	Line Probe Assay Method Using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-22

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Clinical Specimen (sputum, Csf,	Molecular detection of	Molecular detection of
Tissue) mycobacterium	Mycobacterium tuberculosis and	Mycobacterium tuberculosis and
Tuberculosis Isolate	Rifampicin resistance	Rifampicin resistance using Xpert
		MTB/RIF test as documented in
		MKAK/TB/WI-29

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (LEPROSY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	<b>Properties Measured/</b>	Equipment/Techniques Used
Clinical Specimen	Microscopic Examination of AFB Smears	Preparation, staining and AFB Smear Examination using microscope as documented in MKAK/TB/WI-01.
	Culture Procedure For Mycobacteria	Culture of Clinical Specimen using Automated BACTEC MGIT 960 and Conventional Method as documented in MKAK/TB/WI-02.
Clinical Specimen & Isolate	Detection of Multi Drug Resistant <i>Mycobacterium</i> tuberculosis	Line Probe Assay Method using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-19.
Isolate	Identification Test of Mycobacterium tuberculosis complex	Manufacturer method using kits as documented in MKAK/TB/WI-16, MKAK/TB/WI-24.
	Antibiotic Susceptibility Testing for First Line Antibiotic mycobacterium tuberculosis complex	Sensitivity Method Using Absolute Concentration Method as documented in MKAK/TB/WI-05 and Sensitivity Method using Automated BACTEC MGIT 960 as documented In MKAK/TB/WI-06.
Plasma	Interferon Gamma Release Assay (IGRA)	ELISA Test (Quantiferon TB Gold- plus kit) using DYNEX DS2® System as Documented in MKAK/TB/WI-27
mycobacterium Tuberculosis Isolate	Antibiotic Susceptibility Testing (AST) for Secondline Antibiotic	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14
	Mycobacterium tuberculosis complex	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14

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	Antibiotic Susceptibility Testing for	Line Probe Assay Method Using
	Second-line Antibiotic	Thermocycler and Hybridization
	Mycobacterium tuberculosis	Equipment as documented in
	complex	MKAK/TB/WI-22
Clinical Specimen (sputum, Csf,	Molecular detection of	Molecular detection of
Tissue) mycobacterium	Mycobacterium tuberculosis and	Mycobacterium tuberculosis and
Tuberculosis Isolate	Rifampicin resistance	Rifampicin resistance using Xpert
		MTB/RIF test as documented in
		MKAK/TB/WI-29

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (PARASITOLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Clinical Specimen	Microscopic Examination of AFB Smears	Preparation, staining and AFB Smear Examination using microscope as documented in MKAK/TB/WI-01.
	Culture Procedure For Mycobacteria	Culture of Clinical Specimen using Automated BACTEC MGIT 960 and Conventional Method as documented in MKAK/TB/WI-02.
Clinical Specimen & Isolate	Detection of Multi Drug Resistant <i>Mycobacterium</i> <i>tuberculosis</i>	Line Probe Assay Method using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-19.
Isolate	Identification Test of Mycobacterium tuberculosis complex	Manufacturer method using kits as documented in MKAK/TB/WI-16, MKAK/TB/WI-24.
	Antibiotic Susceptibility Testing for First Line Antibiotic mycobacterium tuberculosis complex	Sensitivity Method Using Absolute Concentration Method as documented in MKAK/TB/WI-05 and Sensitivity Method using Automated BACTEC MGIT 960 as documented In MKAK/TB/WI-06.
Plasma	Interferon Gamma Release Assay (IGRA)	ELISA Test (Quantiferon TB Gold- plus kit) using DYNEX DS2® System as Documented in MKAK/TB/WI-27
mycobacterium Tuberculosis Isolate	Antibiotic Susceptibility Testing (AST) for Secondline Antibiotic	Sensitivity Method Using Automated BACTEC MGIT 960 as Documented in MKAK/TB/WI-14

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	Mycobacterium tuberculosis	Sensitivity Method Using
	complex	Automated BACTEC MGIT 960
		as Documented in
		MKAK/TB/WI-14
	Antibiotic Susceptibility Testing for	Line Probe Assay Method Using
	Second-line Antibiotic	Thermocycler and Hybridization
	Mycobacterium tuberculosis	Equipment as documented in
	complex	MKAK/TB/WI-22
Clinical Specimen (sputum, Csf,	Molecular detection of	Molecular detection of
Tissue) mycobacterium	Mycobacterium tuberculosis and	Mycobacterium tuberculosis and
Tuberculosis Isolate	Rifampicin resistance	Rifampicin resistance using Xpert
		MTB/RIF test as documented in
		MKAK/TB/WI-29

# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (VIROLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Clinical Specimen	Microscopic Examination of AFB Smears	Preparation, staining and AFB Smear Examination using microscope as documented in MKAK/TB/WI-01.
	Culture Procedure For Mycobacteria	Culture of Clinical Specimen using Automated BACTEC MGIT 960 and Conventional Method as documented in MKAK/TB/WI-02.
Clinical Specimen & Isolate	Detection of Multi Drug Resistant <i>Mycobacterium</i> tuberculosis	Line Probe Assay Method using Thermocycler and Hybridization Equipment as documented in MKAK/TB/WI-19.
Isolate	Identification Test of Mycobacterium tuberculosis complex  Antibiotic Susceptibility Testing for First Line Antibiotic mycobacterium tuberculosis complex	Manufacturer method using kits as documented in MKAK/TB/WI-16, MKAK/TB/WI-24. TB/WI-17 and MKAK/TB/WI-24. Sensitivity Method Using Absolute Concentration Method as documented in MKAK/TB/WI-05 and Sensitivity
	·	Method using Automated BACTEC MGIT 960 as documented In MKAK/TB/WI-06.
Plasma	Interferon Gamma Release Assay (IGRA)	ELISA Test (Quantiferon TB Gold- plus kit) using DYNEX DS2® System as Documented in MKAK/TB/WI-27



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mycobacterium Tuberculosis	Antibiotic Susceptibility Testing	Sensitivity Method Using
Isolate	(AST) for Secondline Antibiotic	Automated BACTEC MGIT 960
		as Documented in
		MKAK/TB/WI-14
	Mycobacterium tuberculosis	Sensitivity Method Using
	complex	Automated BACTEC MGIT 960
		as Documented in
		MKAK/TB/WI-14
	Antibiotic Susceptibility Testing for	Line Probe Assay Method Using
	Second-line Antibiotic	Thermocycler and Hybridization
	Mycobacterium tuberculosis	Equipment as documented in
	complex	MKAK/TB/WI-22
Clinical Specimen (sputum, Csf,	Molecular detection of	Molecular detection of
Tissue) mycobacterium	Mycobacterium tuberculosis and	Mycobacterium tuberculosis and
Tuberculosis Isolate	Rifampicin resistance	Rifampicin resistance using Xpert
		MTB/RIF test as documented in
		MKAK/TB/WI-29

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (BACTERIOLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Skin Tissue	Microscopic detection of <i>M. leprae</i>	Skin Slit, Staining and
	by Slit Skin Smear method	Microscopic of Skin Tissue Using
		Method as documented in Slit
		Skin Smear Preparation,
		MKAK/LEP/WI-01, Preparation of
		Modified Ziehl-Neelsen Stains,
		MKAK/LEP/WI-02, Modified Ziehl-
		Neelsen Staining,
		MKAK/LEP/WI03 and Slit Skin
		Smear Microscopic Examination,
		MKAK/LEP/WI-04.

# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
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Skin Tissue	Microscopic detection of M. leprae	Skin Slit, Staining and
	by Slit Skin Smear method	Microscopic of Skin Tissue Using
		Method as documented in Slit
		Skin Smear Preparation,
		MKAK/LEP/WI-01, Preparation of
		Modified Ziehl-Neelsen Stains,
		MKAK/LEP/WI-02, Modified Ziehl-
		Neelsen Staining,
		MKAK/LEP/WI03 and Slit Skin
		Smear Microscopic Examination,
		MKAK/LEP/WI-04.

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (LEPROSY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	Properties Measured/	Equipment/Techniques Used
Skin Tissue	Microscopic detection of <i>M. leprae</i>	Skin Slit, Staining and
	by Slit Skin Smear method	Microscopic of Skin Tissue Using
		Method as documented in Slit
		Skin Smear Preparation,
		MKAK/LEP/WI-01, Preparation of
		Modified Ziehl-Neelsen Stains,
		MKAK/LEP/WI-02, Modified Ziehl-
		Neelsen Staining,
		MKAK/LEP/WI03 and Slit Skin
		Smear Microscopic Examination,
		MKAK/LEP/WI-04.

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (PARASITOLOGY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	<b>Properties Measured/</b>	Equipment/Techniques Used
Skin Tissue	Microscopic detection of <i>M. leprae</i>	Skin Slit, Staining and
	by Slit Skin Smear method	Microscopic of Skin Tissue Using
		Method as documented in Slit
		Skin Smear Preparation,
		MKAK/LEP/WI-01, Preparation of
		Modified Ziehl-Neelsen Stains,
		MKAK/LEP/WI-02, Modified Ziehl-
		Neelsen Staining,
		MKAK/LEP/WI03 and Slit Skin
		Smear Microscopic Examination,
		MKAK/LEP/WI-04.



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#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (VIROLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Skin Tissue	Microscopic detection of <i>M. leprae</i> by Slit Skin Smear method	Skin Slit, Staining and Microscopic of Skin Tissue Using Method as documented in Slit Skin Smear Preparation, MKAK/LEP/WI-01, Preparation of Modified Ziehl-Neelsen Stains, MKAK/LEP/WI-02, Modified Ziehl- Neelsen Staining,
		MKAK/LEP/WI03 and Slit Skin Smear Microscopic Examination, MKAK/LEP/WI-04.

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (BACTERIOLOGY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	Properties Measured/	Equipment/Techniques Used
Whole Blood In Edta Tube, Blood	Molecular detection of	Real Time PCR Method as
Spot On Filter Paper, Blood Film,	Plasmodium species.	documented in Handling And
Giemsa Stained Blood Smear		Processing of specimen for
		Parasitology Section MKAK/
		PARA/WP-01, Processing
		Specimen for Polymerase Chain
		Reaction (PCR) Analysis
		MKAK/PARA/WP-02, Nucleic
		Acid Extraction
		MKAK/PARA/WI-01 and Real
		Time PCR for Plasmodium
		Species (MKAK/PARA/WI-02).

# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
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Whole Blood In Edta Tube, Blood	Molecular detection of	Real Time PCR Method as
Spot On Filter Paper, Blood Film,	Plasmodium species.	documented in Handling And
Giemsa Stained Blood Smear		Processing of specimen for
		Parasitology Section MKAK/
		PARA/WP-01, Processing
		Specimen for Polymerase Chain
		Reaction (PCR) Analysis
		MKAK/PARA/WP-02, Nucleic
		Acid Extraction
		MKAK/PARA/WI-01 and Real
		Time PCR for Plasmodium
		Species (MKAK/PARA/WI-02).

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (LEPROSY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Whole Blood In Edta Tube, Blood	Molecular detection of	Real Time PCR Method as
Spot On Filter Paper, Blood Film,	Plasmodium species.	documented in Handling And
Giemsa Stained Blood Smear		Processing of specimen for
		Parasitology Section MKAK/
		PARA/WP-01, Processing
		Specimen for Polymerase Chain
		Reaction (PCR) Analysis
		MKAK/PARA/WP-02, Nucleic
		Acid Extraction
		MKAK/PARA/WI-01 and Real
		Time PCR for Plasmodium
		Species (MKAK/PARA/WI-02).

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (PARASITOLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used

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Whole Blood In Edta Tube, Blood	Molecular detection of	Real Time PCR Method as
Spot On Filter Paper, Blood Film,	Plasmodium species.	documented in Handling And
Giemsa Stained Blood Smear		Processing of specimen for
		Parasitology Section MKAK/
		PARA/WP-01, Processing
		Specimen for Polymerase Chain
		Reaction (PCR) Analysis
		MKAK/PARA/WP-02, Nucleic
		Acid Extraction
		MKAK/PARA/WI-01 and Real
		Time PCR for Plasmodium
		Species (MKAK/PARA/WI-02).

#### SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (VIROLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Whole Blood In Edta Tube, Blood	Molecular detection of	Real Time PCR Method as
Spot On Filter Paper, Blood Film,	Plasmodium species.	documented in Handling And
Giemsa Stained Blood Smear		Processing of specimen for
		Parasitology Section MKAK/
		PARA/WP-01, Processing
		Specimen for Polymerase Chain
		Reaction (PCR) Analysis
		MKAK/PARA/WP-02, Nucleic
		Acid Extraction
		MKAK/PARA/WI-01 and Real
		Time PCR for Plasmodium
		Species (MKAK/PARA/WI-02).

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (BACTERIOLOGY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	Properties Measured/	<b>Equipment/Techniques Used</b>
Urine, Throat Swab,	Molecular Detection of Measles	Molecular Detection of Measles
Nasopharyngeal Secretions, Csf,	Virus	and Rubella Virus as
Organ Biopsy And Cell Culture.		documented in
		MKAK/MOL/WI-03 and
		Polymerase Chain Reaction
		(PCR) Analysis for Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01.

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Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture (rubella Test)	Molecular Detection of Rubella Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Throat Swab, Nasal Swab, Sputum, Nasopharyngeal Aspirates, Organ Biopsies, Bronchiol Alveolar Larvage, Throat Washing, Eye Swab, Endotracheal Tube And Cell Culture.	Molecular Detection of Influenza A and B Virus	Molecular Detection of Influenza A and B Virus as documented in MKAK/MOL/WI-04 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Serum, Cerebrospinal Fluid, Organ Biopsy And Cell Culture	Molecular Detection of Dengue virus	Molecular Detection of Dengue Virus as documented in MKAK/MOL/WI-05 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Vesicle Swab, Serum, Cerebrospinal Fluid, And Mouth Ulcer Swab	Molecular Detection of Varicella Zoster Virus	Molecular Detection of Varicella Zoster Virus as documented in MKAK/MOL/WI-07 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Nasopharyngeal Swab, Oropharyngeal Swab, Combine Nasopharyngeal And Oropharyngeal Swab, Deep Throat Saliva (dts) Saliva	SARS-CoV-2 virus	Real-Time RT PCR Assay as documented in Realtime RT-PCR Assay for Detection of SARS-CoV-2 (MKAK/MOL/WI-13) Polymerase Chain Reaction (PCR) Analysis fo Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-02

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Rectal Swab, Stool, Cerebrospinal Fluid, Serum, Throat Swab, Mouth Ulcer Swab Vesicle Swab, Ulcer Swab, Pleural Fluid, Organ Biopsy And Cell Culture.	Molecular Detection of Enterovirus	Molecular Detection of Enterovirus as documented in MKAK/MOL/WI-08 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Cerebrospinal Fluid, Skin Lesions Swab, Vesicle Swab/fluid, Serum, Genital Swab And Mouth Ulcer Swab, Tissue Culture, Tissue Biopsy, Bronchoalveolar Lavage, Nasopharyngeal Aspirate, Tracheal Aspirate, Nasopharyngeal Swab, Rectal Swab, Eye Swab	Molecular Detection of Herpes Simplex Virus	Molecular Detection of Herpes Simplex Virus as documented in MKAK/MOL/WI-09 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Serum And Cerebrospinal Fluid, Tissue Biopsy And Cell Culture Fluid	Molecular Detection of Japanese Encephalitis virus	Molecular Detection of Japanese encephalitis virus as documented in MKAK/MOL/WI-10 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Blood, Serum	Detection of Measles IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-02.
	Detection of Rubella IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-04.
Blood, Serum, Csf	Detection JE IgM Antibody	Manufacturer Method/Microplate Reader Elx808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-16.

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Urine, Respiratory Specimen, Etc.	Virus Isolation of Measles	Virus Isolation and Identification of Measles and Rubella Virus as
	Virus Isolation of Rubella	documented in MKAK/VIRO/WI-08. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05
Respiratory Specimen	Virus Isolation of Respiratory Viruses	Virus Isolation and Identification of Measles and Rubella Virus as
	Respiratory Antigen Detection	documented in MKAK/VIRO/WI-06. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05
Blood, Serum, Cerebrospinal Fluid, Rectal Swab, Stool, Vesicle Swab/fluid, Throat Swab, Eye Swab, Pleural Fluid / Swab,tissue Biopsy, Etc.	Virus Isolation of Enterovirus	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-07. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05



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# SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (NATIONAL TUBERCULOSIS REFERENCE LABORATORY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture.	Molecular Detection of Measles Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture (rubella Test)	Molecular Detection of Rubella Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Throat Swab, Nasal Swab, Sputum, Nasopharyngeal Aspirates, Organ Biopsies, Bronchiol Alveolar Larvage, Throat Washing, Eye Swab, Endotracheal Tube And Cell Culture.	Molecular Detection of Influenza A and B Virus	Molecular Detection of Influenza A and B Virus as documented in MKAK/MOL/WI-04 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Serum, Cerebrospinal Fluid, Organ Biopsy And Cell Culture	Molecular Detection of Dengue virus	Molecular Detection of Dengue Virus as documented in MKAK/MOL/WI-05 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Vesicle Swab, Serum, Cerebrospinal Fluid, And Mouth Ulcer Swab	Molecular Detection of Varicella Zoster Virus	Molecular Detection of Varicella Zoster Virus as documented in MKAK/MOL/WI-07 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.

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Nasopharyngeal Swab,	SARS-CoV-2 virus	Real-Time RT PCR Assay as
Oropharyngeal Swab, Combine		documented in Realtime RT-PCR
Nasopharyngeal And		Assay for Detection of SARS-
Oropharyngeal Swab, Deep Throat		CoV-2 (MKAK/MOL/WI-13)
Saliva (dts) Saliva		Polymerase Chain Reaction
Came (a.c.) Came		(PCR) Analysis fo Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-02
Rectal Swab, Stool, Cerebrospinal	Molecular Detection of Enterovirus	Molecular Detection of
Fluid, Serum, Throat Swab, Mouth		Enterovirus as documented in
Ulcer Swab Vesicle Swab, Ulcer		MKAK/MOL/WI-08 and
Swab, Pleural Fluid, Organ Biopsy		Polymerase Chain Reaction
And Cell Culture.		(PCR) Analysis for Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01. Handling &
		Management of Positive Control
		and Negative Control in
		MKAK/MOL/WP-02
Cerebrospinal Fluid, Skin Lesions	Molecular Detection of Herpes	Molecular Detection of Herpes
Swab, Vesicle Swab/fluid, Serum,	Simplex Virus	Simplex Virus as documented in
Genital Swab And Mouth Ulcer		MKAK/MOL/WI-09 and
Swab, Tissue Culture, Tissue		Polymerase Chain Reaction
Biopsy, Bronchoalveolar Lavage,		(PCR) Analysis for Virus- From
Nasopharyngeal Aspirate,		Receiving to Disposal as
Tracheal Aspirate,		documented in
Nasopharyngeal Swab, Rectal		MKAK/MOL/WP-01. Handling &
Swab, Eye Swab		Management of Positive Control
		and Negative Control in
		MKAK/MOL/WP-02
Serum And Cerebrospinal Fluid,	Molecular Detection of Japanese	Molecular Detection of Japanese
Tissue Biopsy And Cell Culture	Encephalitis virus	encephalitis virus as documented
Fluid		in MKAK/MOL/WI-10 and
		Polymerase Chain Reaction
		(PCR) Analysis for Virus- From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01. Handling &
		Management of Positive Control
		and Negative Control in
		MKAK/MOL/WP-02
Blood, Serum	Detection of Measles IgM	Manufacturer Method/ Microplate
	Antibody	Reader ELX808 / Enzyme Linked
		Immunosorbent Assay (ELISA)
		Technique as documented in
		MKAK/SERO/WI-02.

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	Detection of Rubella IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-04.
Blood, Serum, Csf	Detection JE IgM Antibody	Manufacturer Method/Microplate Reader Elx808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-16.
Urine, Respiratory Specimen, Etc.	Virus Isolation of Measles Virus Isolation of Rubella	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-08. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05
Respiratory Specimen	Viruses Respiratory Antigen Detection	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-06. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05

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Blood, Serum, Cerebrospinal Fluid,	Virus Isolation of Enterovirus	Virus Isolation and Identification
Rectal Swab, Stool, Vesicle		of Measles and Rubella Virus as
Swab/fluid, Throat Swab, Eye		documented in
Swab, Pleural Fluid / Swab, tissue		MKAK/VIRO/WI-07. Cell lines
Biopsy, Etc.		preparation follow Preparation of
		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for
		Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in
		MKAK/VIRO/WI-05

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (LEPROSY)

Specimen Tested	Type of Test/	Test Methods, Specifications/
	Properties Measured/	Equipment/Techniques Used
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture.	Molecular Detection of Measles Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture (rubella Test)	Molecular Detection of Rubella Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Throat Swab, Nasal Swab, Sputum, Nasopharyngeal Aspirates, Organ Biopsies, Bronchiol Alveolar Larvage, Throat Washing, Eye Swab, Endotracheal Tube And Cell Culture.	Molecular Detection of Influenza A and B Virus	Molecular Detection of Influenza A and B Virus as documented in MKAK/MOL/WI-04 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.

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Serum, Cerebrospinal Fluid, Organ Biopsy And Cell Culture  Vesicle Swab, Serum, Cerebrospinal Fluid, And Mouth Ulcer Swab	Molecular Detection of Dengue virus  Molecular Detection of Varicella Zoster Virus	Molecular Detection of Dengue Virus as documented in MKAK/MOL/WI-05 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Molecular Detection of Varicella Zoster Virus as documented in MKAK/MOL/WI-07 and
		Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Nasopharyngeal Swab, Oropharyngeal Swab, Combine Nasopharyngeal And Oropharyngeal Swab, Deep Throat Saliva (dts) Saliva	SARS-CoV-2 virus	Real-Time RT PCR Assay as documented in Realtime RT-PCR Assay for Detection of SARS-CoV-2 (MKAK/MOL/WI-13) Polymerase Chain Reaction (PCR) Analysis fo Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-02
Rectal Swab, Stool, Cerebrospinal Fluid, Serum, Throat Swab, Mouth Ulcer Swab Vesicle Swab, Ulcer Swab, Pleural Fluid, Organ Biopsy And Cell Culture.	Molecular Detection of Enterovirus	Molecular Detection of Enterovirus as documented in MKAK/MOL/WI-08 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Cerebrospinal Fluid, Skin Lesions Swab, Vesicle Swab/fluid, Serum, Genital Swab And Mouth Ulcer Swab, Tissue Culture, Tissue Biopsy, Bronchoalveolar Lavage, Nasopharyngeal Aspirate, Tracheal Aspirate, Nasopharyngeal Swab, Rectal Swab, Eye Swab	Molecular Detection of Herpes Simplex Virus	Molecular Detection of Herpes Simplex Virus as documented in MKAK/MOL/WI-09 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02

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Serum And Cerebrospinal Fluid, Tissue Biopsy And Cell Culture Fluid	Molecular Detection of Japanese Encephalitis virus	Molecular Detection of Japanese encephalitis virus as documented in MKAK/MOL/WI-10 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Blood, Serum	Detection of Measles IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-02.
	Detection of Rubella IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-04.
Blood, Serum, Csf	Detection JE IgM Antibody	Manufacturer Method/Microplate Reader Elx808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-16.
Urine, Respiratory Specimen, Etc.	Virus Isolation of Measles Virus Isolation of Rubella	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-08. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05



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Respiratory Specimen	Virus Isolation of Respiratory	Virus Isolation and Identification
	Viruses	of Measles and Rubella Virus as
		documented in
	Respiratory Antigen Detection	MKAK/VIRO/WI-06. Cell lines
		preparation follow Preparation of
		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for
		Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in
		MKAK/VIRO/WI-05
Blood, Serum, Cerebrospinal Fluid,	Virus Isolation of Enterovirus	Virus Isolation and Identification
Rectal Swab, Stool, Vesicle		of Measles and Rubella Virus as
Swab/fluid, Throat Swab, Eye		documented in MKAK/VIRO/WI-07. Cell lines
Swab, Pleural Fluid / Swab, tissue Biopsy, Etc.		preparation follow Preparation of
Вюрѕу, Етс.		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for
		Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in
		MKAK/VIRO/WI-05

## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (PARASITOLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture.	Molecular Detection of Measles Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.

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Urine, Throat Swab, Nasopharyngeal Secretions, Csf,	Molecular Detection of Rubella	Molecular Detection of Measles and Rubella Virus as
Organ Biopsy And Cell Culture (rubella Test)	VIIUS	documented in MKAK/MOL/WI-03 and
(rubella rest)		Polymerase Chain Reaction
		(PCR) Analysis for Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01.
Throat Swab, Nasal Swab,	Molecular Detection of Influenza A	Molecular Detection of Influenza
Sputum, Nasopharyngeal	and B Virus	A and B Virus as documented in
Aspirates, Organ Biopsies,	and 5 mas	MKAK/MOL/WI-04 and
Bronchiol Alveolar Larvage, Throat		Polymerase Chain Reaction
Washing, Eye Swab, Endotracheal		(PCR) Analysis for Virus - From
Tube And Cell Culture.		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01.
Serum, Cerebrospinal Fluid, Organ	Molecular Detection of Dengue	Molecular Detection of Dengue
Biopsy And Cell Culture	virus	Virus as documented in
		MKAK/MOL/WI-05 and
		Polymerase Chain Reaction
		(PCR) Analysis for Virus- From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01.
Vesicle Swab, Serum,	Molecular Detection of Varicella	Molecular Detection of Varicella
Cerebrospinal Fluid, And Mouth	Zoster Virus	Zoster Virus as documented in
Ulcer Swab		MKAK/MOL/WI-07 and
		Polymerase Chain Reaction
		(PCR) Analysis for Virus- From
		Receiving to Disposal as
		documented in
	0.000.000	MKAK/MOL/WP-01.
Nasopharyngeal Swab,	SARS-CoV-2 virus	Real-Time RT PCR Assay as
Oropharyngeal Swab, Combine		documented in Realtime RT-PCR
Nasopharyngeal And		Assay for Detection of SARS-
Oropharyngeal Swab, Deep Throat		CoV-2 (MKAK/MOL/WI-13)
Saliva (dts) Saliva		Polymerase Chain Reaction
		(PCR) Analysis fo Virus - From
		Receiving to Disposal as documented in
		MKAK/MOL/WP-02
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Rectal Swab, Stool, Cerebrospinal Fluid, Serum, Throat Swab, Mouth Ulcer Swab Vesicle Swab, Ulcer Swab, Pleural Fluid, Organ Biopsy And Cell Culture.	Molecular Detection of Enterovirus	Molecular Detection of Enterovirus as documented in MKAK/MOL/WI-08 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Cerebrospinal Fluid, Skin Lesions Swab, Vesicle Swab/fluid, Serum, Genital Swab And Mouth Ulcer Swab, Tissue Culture, Tissue Biopsy, Bronchoalveolar Lavage, Nasopharyngeal Aspirate, Tracheal Aspirate, Nasopharyngeal Swab, Rectal Swab, Eye Swab	Molecular Detection of Herpes Simplex Virus	Molecular Detection of Herpes Simplex Virus as documented in MKAK/MOL/WI-09 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Serum And Cerebrospinal Fluid, Tissue Biopsy And Cell Culture Fluid	Molecular Detection of Japanese Encephalitis virus	Molecular Detection of Japanese encephalitis virus as documented in MKAK/MOL/WI-10 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01. Handling & Management of Positive Control and Negative Control in MKAK/MOL/WP-02
Blood, Serum	Detection of Measles IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-02.
	Detection of Rubella IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-04.
Blood, Serum, Csf	Detection JE IgM Antibody	Manufacturer Method/Microplate Reader Elx808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-16.

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Urine, Respiratory Specimen, Etc.	Virus Isolation of Measles	Virus Isolation and Identification of Measles and Rubella Virus as
	Virus Isolation of Rubella	documented in
		MKAK/VIRO/WI-08. Cell lines preparation follow Preparation of
		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in MKAK/VIRO/WI-05
Respiratory Specimen	Virus Isolation of Respiratory	Virus Isolation and Identification
	Viruses	of Measles and Rubella Virus as
	Boonington, Antigon Detection	documented in MKAK/VIRO/WI-06. Cell lines
	Respiratory Antigen Detection	preparation follow Preparation of
		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in MKAK/VIRO/WI-05
Blood, Serum, Cerebrospinal Fluid,	Virus Isolation of Enterovirus	Virus Isolation and Identification
Rectal Swab, Stool, Vesicle		of Measles and Rubella Virus as
Swab/fluid, Throat Swab, Eye		documented in
Swab, Pleural Fluid / Swab,tissue		MKAK/VIRO/WI-07. Cell lines preparation follow Preparation of
Biopsy, Etc.		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for
		Mycoplasma in Cell Lines as documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in
		MKAK/VIRO/WI-05



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## SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY (VIROLOGY)

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture.	Molecular Detection of Measles Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Urine, Throat Swab, Nasopharyngeal Secretions, Csf, Organ Biopsy And Cell Culture (rubella Test)	Molecular Detection of Rubella Virus	Molecular Detection of Measles and Rubella Virus as documented in MKAK/MOL/WI-03 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Throat Swab, Nasal Swab, Sputum, Nasopharyngeal Aspirates, Organ Biopsies, Bronchiol Alveolar Larvage, Throat Washing, Eye Swab, Endotracheal Tube And Cell Culture.	Molecular Detection of Influenza A and B Virus	Molecular Detection of Influenza A and B Virus as documented in MKAK/MOL/WI-04 and Polymerase Chain Reaction (PCR) Analysis for Virus - From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Serum, Cerebrospinal Fluid, Organ Biopsy And Cell Culture	Molecular Detection of Dengue virus	Molecular Detection of Dengue Virus as documented in MKAK/MOL/WI-05 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.
Vesicle Swab, Serum, Cerebrospinal Fluid, And Mouth Ulcer Swab	Molecular Detection of Varicella Zoster Virus	Molecular Detection of Varicella Zoster Virus as documented in MKAK/MOL/WI-07 and Polymerase Chain Reaction (PCR) Analysis for Virus- From Receiving to Disposal as documented in MKAK/MOL/WP-01.

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Nasopharyngeal Swab,	SARS-CoV-2 virus	Real-Time RT PCR Assay as
Oropharyngeal Swab, Combine	SANS-COV-2 VIIUS	documented in Realtime RT-PCR
Nasopharyngeal And		Assay for Detection of SARS-
Oropharyngeal Swab, Deep Throat		CoV-2 (MKAK/MOL/WI-13)
Saliva (dts) Saliva		Polymerase Chain Reaction
(3.3)		(PCR) Analysis fo Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-02
Rectal Swab, Stool, Cerebrospinal	Molecular Detection of Enterovirus	Molecular Detection of
Fluid, Serum, Throat Swab, Mouth		Enterovirus as documented in
Ulcer Swab Vesicle Swab, Ulcer		MKAK/MOL/WI-08 and
Swab, Pleural Fluid, Organ Biopsy		Polymerase Chain Reaction
And Cell Culture.		(PCR) Analysis for Virus - From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01. Handling &
		Management of Positive Control
		and Negative Control in
		MKAK/MOL/WP-02
Cerebrospinal Fluid, Skin Lesions	Molecular Detection of Herpes	Molecular Detection of Herpes
Swab, Vesicle Swab/fluid, Serum,	Simplex Virus	Simplex Virus as documented in
Genital Swab And Mouth Ulcer		MKAK/MOL/WI-09 and
Swab, Tissue Culture, Tissue		Polymerase Chain Reaction
Biopsy, Bronchoalveolar Lavage,		(PCR) Analysis for Virus- From
Nasopharyngeal Aspirate,		Receiving to Disposal as
Tracheal Aspirate,		documented in
Nasopharyngeal Swab, Rectal		MKAK/MOL/WP-01. Handling &
Swab, Eye Swab		Management of Positive Control
		and Negative Control in
		MKAK/MOL/WP-02
Serum And Cerebrospinal Fluid,	Molecular Detection of Japanese	Molecular Detection of Japanese
Tissue Biopsy And Cell Culture	Encephalitis virus	encephalitis virus as documented
Fluid		in MKAK/MOL/WI-10 and
		Polymerase Chain Reaction
		(PCR) Analysis for Virus- From
		Receiving to Disposal as
		documented in
		MKAK/MOL/WP-01. Handling &
		Management of Positive Control
		and Negative Control in MKAK/MOL/WP-02
Blood, Serum	Detection of Measles IgM	Manufacturer Method/ Microplate
Dioou, Octuiti	Antibody	Reader ELX808 / Enzyme Linked
	Airibody	Immunosorbent Assay (ELISA)
		Technique as documented in
		MKAK/SERO/WI-02.

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Detection of Rubella IgM Antibody	Manufacturer Method/ Microplate Reader ELX808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-04.
Detection JE IgM Antibody	Manufacturer Method/Microplate Reader Elx808 / Enzyme Linked Immunosorbent Assay (ELISA) Technique as documented in MKAK/SERO/WI-16.
Virus Isolation of Measles Virus Isolation of Rubella	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-08. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05
Viruses Respiratory Antigen Detection	Virus Isolation and Identification of Measles and Rubella Virus as documented in MKAK/VIRO/WI-06. Cell lines preparation follow Preparation of Media, Reagent and Antibiotic as documented in MKAK/VIRO/WI01, PCR Screening and Treatment for Mycoplasma in Cell Lines as documented in MKAK/VIRO/WI-03 and Preparation and Maintenance Procedure for Adherent Cell Lines as documented in MKAK/VIRO/WI-05
	Virus Isolation of Measles Virus Isolation of Rubella  Virus Isolation of Respiratory Virus Solation of Respiratory Viruses

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Blood, Serum, Cerebrospinal Fluid,	Virus Isolation of Enterovirus	Virus Isolation and Identification
Rectal Swab, Stool, Vesicle		of Measles and Rubella Virus as
Swab/fluid, Throat Swab, Eye		documented in
Swab, Pleural Fluid / Swab, tissue		MKAK/VIRO/WI-07. Cell lines
Biopsy, Etc.		preparation follow Preparation of
		Media, Reagent and Antibiotic as
		documented in
		MKAK/VIRO/WI01, PCR
		Screening and Treatment for
		Mycoplasma in Cell Lines as
		documented in
		MKAK/VIRO/WI-03 and
		Preparation and Maintenance
		Procedure for Adherent Cell
		Lines as documented in
		MKAK/VIRO/WI-05

NOTE: