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LABORATORY LOCATION:	Jabatan Patologi, Hospital Sultan Ismail
(PERMANENT LABORATORY)	JALAN MUTIARA EMAS UTAMA TAMAN MOUNT AUSTIN, JOHOR
	BAHRU , 81000,
	JOHOR
	MALAYSIA
ACCREDITED SINCE :	25 MARCH 2025
FIELD(S) OF MEDICAL TESTING:	CHEMICAL PATHOLOGY
	HAEMATOLOGY
	MEDICAL MICROBIOLOGY

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	Jabatan Patologi, Hospital Sultan Ismail JALAN MUTIARA EMAS UTAMA TAMAN MOUNT AUSTIN, JOHOR BAHRU, 81000, Johor
FIELD(S) OF MEDICAL TESTING:	CHEMICAL PATHOLOGY, HAEMATOLOGYMEDICAL
	MICROBIOLOGY

SCOPE OF MEDICAL TESTING: CHEMICAL PATHOLOGY

Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
General Chemistry For Blood	Albumin	Bromocresol Green method/
And Urine		Atellica CH as documented in
Serum/plasma		HSI/JP/TPM/CP-02
•	Alkaline Phosphatase	IFCC method/Atellica CH as
	'	documented in
		HSI/JP/TPM/CP-03
	Alanine Transaminase	Modified IFCC method/Atellica
		CH as documented in
		HSI/JP/TPM/CP-01
	Amylase	Ethylidene Blocked-pNPG7/
		Atellica CH as documented in
		HSI/JP/TPM/CP-04
	Aspartate Transaminase	Modified IFCC method/Atellica
		CH as documented in
		HSI/JP/TPM/CP-05
	Bilirubin Total	Vanadate Oxidation/ Atellica CH
		as documented in
		HSI/JP/TPM/CP-18
	Direct Bilirubin	Vanadate Oxidation/ Atellica CH
		as documented in
		HSI/JP/TPM/CP-09
	Calcium	o-cresolphthalein complexone/
		Atellica CH as documented in
		HSI/JP/TPM/CP-06
	Chloride	Indirect Integrated Multisensor
		Technology (IMT)/ Atellica CH as
		documented in
		HSI/JP/TPM/CP-14
	Cholesterol	Enzymatic/ Atellica CH as
		documented in
		HSI/JP/TPM/CP-19
	Creatine Kinase	Modified IFCC method/Atellica
		CH as documented in
		HSI/JP/TPM/CP-07

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Creatine Kinase Muscular Band	Chemiluminescent
(CK MB)	Method/Atellica IM/as
	documented in
	HSI/JP/TPM/CP-30
Creatinine	Jaffe Method/Atellica CH as
	documented in
	HSI/JP/TPM/CP-08
Gamma Glutamyl Transferase	Modified IFCC method/Atellica
(GGT)	CH as documented in
	HSI/JP/TPM/CP-10
Glucose	Hexokinase/Atellica CH as
	documented in
	HSI/JP/TPM/CP-11
High density lipoprotein (HDL)	Enzymatic/ Atellica CH as
	documented in
	HSI/JP/TPM/CP-12
Iron (Total)	Ferrozine/ Atellica CH as
,	documented in
	HSI/JP/TPM/CP-13
Lactate	Enzymatic (Lactate oxidase)/
	Atellica CH as documented in
	HSI/JP/TPM/CP-34
Lactate Dehydrogenase	Enzymatic/ Atellica CH as
, 0	documented in
	HSI/JP/TPM/CP-15
Magnesium	Modified Xylidyl Blue Reaction/
3	Atellica CH as documented in
	HSI/JP/TPM/CP-16
Phosphate	Phosphomolybdate/ Atellica CH
·	as documented in
	HSI/JP/TPM/CP-17
Potassium	Indirect Integrated Multisensor
	Technology (IMT)/ Atellica CH as
	documented in
	HSI/JP/TPM/CP-14
Protein (Total Protein)	Biuret/Atellica CH as documented
,	in HSI/JP/TPM/CP-20
Sodium	Indirect Integrated Multisensor
	Technology (IMT)/ Atellica CH as
	documented in
	HSI/JP/TPM/CP-14
Triglycerides	Enzymatic/ Atellica CH as
	documented in
	HSI/JP/TPM/CP-21
Troponin (Highsensitive Troponin	Chemiluminescent
1)	Method/Atellica IM/as
	documented in
	HSI/JP/TPM/CP-70
Urea	Enzymatic/ Atellica CH as
	documented in
	HSI/JP/TPM/CP-23
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	Uric Acid	Enzymatic/ Atellica CH as documented in HSI/JP/TPM/CP-24
	Urine Biochemistry (Semiquantitative)	Photometry/Cobas U411 as documented in HSI/JP/TPM/CP-67
General Chemistry For Blood And Urine Plasma	Ammonia	Enzymatic method/Atellica CH as documented in HSI/JP/TPM/CP-27
General Chemistry For Blood And Urine Whole Blood	Blood Gases	Potentiometry/Gem 3500 as documented in HSI/JP/TPM/CP-69
Tumor Markers Serum	Alpha Feto Protein	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-47
	Beta HCG	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-48
	CA 125	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-49
	Carcino Embryonic Antige (CEA)	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-50
	Prostatic Specific Antigen (Total PSA)	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-61
Hormones Serum	Cortisol	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-51
	Estradiol	Competitive Direct Chemiluminescent Method/ Atellica IM/as documented in HSI/JP/TPM/CP52
	Leutenising Hormone	Chemiluminescent Method/Atellica IM/as documented in HSI/JP/TPM/CP-58
Hormones Serum/plasma	Follicular Stimulating Hormone	Chemiluminescent Method/ Atellica IM/as documented in HSI/JP/TPM/CP-55
	Progesterone	Competitive Direct Chemiluminescent Method/ Atellica IM/as documented in HSI/JP/TPM/CP59

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	Prolactin	Chemiluminescent
		Method/Atellica IM/as
		documented in
		HSI/JP/TPM/CP-60
	Testosterone	Competitive Direct
		Chemiluminescent Method/
		Atellica IM/as documented in
		HSI/JP/TPM/CP62
	Thyroid Stimulating Hormone	Chemiluminescent Method/Atellica IM/as
		documented in
		HSI/JP/TPM/CP-63
	Thyroxine Free T4	Competitive Direct
	THYTOXIIIO T TOO T T	Chemiluminescent Method/
		Atellica IM/as documented in
		HSI/JP/TPM/CP57
	Triiodothyronine Free T3	Competitive Direct
	Thiodothyronine riee 13	Chemiluminescent Method/
		Atellica IM/as documented in
Thereportie David Meniterina	Carbamazanina	HSI/JP/TPM/CP56 Particle-enhanced turbidimetric
Therapeutic Drug Monitoring	Carbamazepine	
Serum/plasma		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-38
	Digoxin	Latex-enhanced
		Immunoturbidimetric/ Atellica CH
		as documented in
	_	HSI/JP/TPM/CP-39
	Gentamycin	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-40
	Phenobarbital	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-41
	Phenytoin	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-42
	Theophylline	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-44

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	Valproic Acid	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-45
	Vancomycin	Particle-enhanced turbidimetric
		inhibition immunoassay
		(PETINIA) / Atellica CH as
		documented in
		HSI/JP/TPM/CP-46
Immunology	C-Reactive Protein (CRP)	Latex-enhanced
Serum/plasma		Immunoturbidimetric/ Atellica CH
		as documented in
	DI COLE	HSI/JP/TPM/CP-28
	Rheumatoid Factor	Latex-enhanced
		Immunoturbidimetric/ Atellica CH
		as documented in
Immunology	Complement 2	HSI/JP/TPM/CP-35 PEG-enhanced
Immunology Serum	Complement 3	immunoturbidimetric/ Atellica CH
Seruiii		as documented in
		HSI/JP/TPM/CP-31
	Complement 4	PEG-enhanced
	Complement 4	immunoturbidimetric/ Atellica CH
		as documented in
		HSI/JP/TPM/CP-32
Clinical Toxicology	Acetaminophen	Enzymatic method/Atellica CH/as
Serum/plasma	1	documented in
		HSI/JP/TPM/CP-36
	Salicylate	Enzymatic/ Atellica CH as
		documented in
		HSI/JP/TPM/CP-43
Metabolic	Ferritin	Chemiluminescent Method/
Serum/plasma		Atellica IM/as documented in
		HSI/JP/TPM/CP-53
	Folate	Competitive Direct
		Chemiluminescent Method/
		Atellica IM/as documented in
		HSI/JP/TPM/CP54
	HbA1c	HPLC/Biorad D10 as
		documented in
		HSI/JP/TPM/CP-33
	Vitamin B12	Chemiluminescent
		Method/Atellica IM/as
		documented in
		HSI/JP/TPM/CP-64

SCOPE OF MEDICAL TESTING : HAEMATOLOGY

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Specimen Tested	Type of Test/ Properties Measured/	Test Methods, Specifications/ Equipment/Techniques Used
Routine Haematology Whole Blood	Full blood counts and differentials:	Equipment as documented in HSI- JP-AK-HEM01 MINDRAY BC 6200
	Red Blood Cell count	Blood cells counts: Electrical Impedence (direct current) as documented in HSI-JP-TPM-HEM-03
	Haemoglobin	Colorometric method as documented in HSI-JPTPM-HEM-01
	White Blood Cell differential counts	Forward laser scatter, Side laser scatter and Fluorescence staining as documented in HSIJP-TPM-HEM-02
	Reticulocyte count	Electrical Impedance Method, Forward laser scatter, Side laser scatter and Fluorescence staining as documented in HSI-JP-TPM- HEM-03
Routine Haematology Plasma	Coagulation	Equipment as documented in HSI- JP-AK-HEM02 ACL TOP 300 and HSI-JP-AK-HEM-003 ACL ELITE PRO.
	Prothrombin time (PT)	Optical method as documented in HSI-JP-TPMHEM-04
	Activated Partial Thromboplastin Time (APTT)	Optical method as documented in HSI-JP-TPMHEM-05
	Fibrinogen-c	Clauss Method as documented in HSI-JP-TPMHEM-06
Routine Haematology Dry Blood Spots	G6PD Screening Fluorescent spot test	Enzymatic method as documented in HSI-JPTPM-HEM-010
Specialised Haematology Whole Blood	Full Blood Picture	Peripheral Blood Film preparation as documented HSI-JP-AK-HEM-05
Specialised Haematology Bone Marrow Aspirate	Bone marrow aspiration morphological examination	Bone marrow smear preparation as documented in HSI-JP-AK- HEM-06. MGG and Perls staining method as documented in HSI-JP-AK- HEM-07 and HSI-JP-AK-HEM-08
Blood Transfusion Whole Blood	Blood grouping including ABO, Rh(D)	ABO and Rh grouping as documented in ARAHAN KERJA PENGUMPULAN ABO DAN RH, HSI/ JP/ AK / UPT-M-01
Blood Transfusion Plasma	Antibody screening	Antiglobulin test as documented in ARAHAN KERJA PENYARINGAN ANTIBODI, HSI/ JP/ AK / UPT-M-03

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	Antibody identification	Red cell antibody investigation as documented in ARAHAN KERJA PENGENALAN ANTIBODI, HSI/ JP/ AK / UPT-M-04
Blood Transfusion Red Cells	Red cell phenotyping	Red cell phenotyping as documented in ARAHAN KERJA UJIAN RBC PHENOTYPING, HSI/ JP/ AK / UPT-M-07
	Elution	Acid elution technique as documented in ARAHAN KERJA UJIAN ELUSI, HSI/ JP/ AK / UPT- M-05
Blood Transfusion Plasma, Donor Red Cell	Compatibility Test (crossmatch)	Crossmatching as documented in ARAHAN KERJA UJIAN KESERASIAN DARAH, HSI/ JP/ AK / UPT-M-08
Blood Transfusion Red Cell, Plasma	Coomb's Test	Antiglobulin test (direct and indirect) as documented in ARAHAN KERJA UJIAN COOMB', HSI/ JP/ AK / UPT-M-02
Blood Transfusion Whole Blood, Plasma	Investigation of transfusion reaction	Transfusion reaction investigation as documented in ARAHAN KERJA PENYIASATAN REAKSI TRANSFUSI, HSI/ JP/ AK / UPT- M-10

SCOPE OF MEDICAL TESTING: MEDICAL MICROBIOLOGY

Type of Test/	Test Methods, Specifications/
Properties Measured/	Equipment/Techniques Used
Culture & Sensitivity	Microscopic examination,
	Culture, Identification and
	Sensitivity Test as documented in
	HSI/JP/AK/MIC-B-01 and
	HSI/JP/AK/MIC-B-10
Culture & Sensitivity	Macroscopic examination, Cell
	Count, Culture, Identification and
	Sensitivity Test as documented in
	HSI/JP/AK/MIC-B-02 and
	HSI/JP/AK/MIC-B-10
Culture & Sensitivity	Macroscopic examination, Cell
	Count, Culture, Identification and
	Sensitivity Test as documented in
	HSI/JP/AK/MIC-B003 and
	HSI/JP/AK/MIC-B-10
	Properties Measured/ Culture & Sensitivity Culture & Sensitivity

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Bacteriology Urine	Culture & Sensitivity	Microscopic examination, Cell Count, Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-04 and HSI/JP/AK/MIC-B-10
Bacteriology Pus	Culture & Sensitivity	Microscopic examination, Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-05 and HSI/JP/AK/MIC-B-10
Bacteriology Tissue	Culture & Sensitivity	Microscopic examination, Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-06 and HSI/JP/AK/MIC-B-10
Bacteriology Respiratory	Culture & Sensitivity	Microscopic examination, Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-07 and HSI/JP/AK/MIC-B-10
Bacteriology Stool	Culture & Sensitivity	Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-08 and HSI/JP/AK/MIC-B-10
Bacteriology Genital	Culture & Sensitivity	Microscopic examination, Culture, Identification and Sensitivity Test as documented in HSI/JP/AK/MIC-B-09 and HSI/JP/AK/MIC-B-10
Bacteriology Sputum	Direct Smear Acid Fast Bacilli	Fluorescence Microscopy Method as documented in HIS/JP/AK/MIC-B-13
Bacteriology Non-sputum	Direct Smear Acid Fast Bacilli	Fluorescence Microscopy Method as documented in HIS/JP/AK/MIC-B-13
Virology Serum	HBsAg	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	HBs Ab	Electrochemiluminescent Method Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	HBeAg	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	HBeAb	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	HBc Total	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01

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	HBc IgM	Electrochemiluminescent Method
	Tibe igivi	/ Cobas e411 as documented in
		HSI/JP/AK/MIC-S-01
	Anti HCV	Electrochemiluminescent Method
		/ Cobas e411 as documented in
		HSI/JP/AK/MIC-S-01
	HIV Ag Ab	Particle Agglutination Method as
		documented in HSI/JP/TPM/MIC-S-08
	Anti-HIV Particle Agglutination	Electrochemiluminescent Method
		/ Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	Toxoplasma IgM	Electrochemiluminescent Method
		/ Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	Toxoplasma IgG	Electrochemiluminescent Method
		/ Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	Rubella IgM	Electrochemiluminescent Method
		/ Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	Rubella IgG	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01
	Cytomegalovirus IgMHIV Ag Ab	Electrochemiluminescent Method / Cobas e411 as documented in HSI/JP/AK/MIC-S-01
Serology	Anti Streptolysin O	Latex Agglutination Method as
Serum	Test	documented in HSI/JP/TPM/MIC-S-02
	Dengue Rapid Test	Immunochromatographic Method As documented in HSI/JP/TPM/MIC-S-03
	Mycoplasma Particle Agglutination	Particle Agglutination Method as documented in HSI/JP/TPM/MIC-S-04
	Rapid Plasma Reagin Test	Latex Agglutination Method as documented in HSI/JP/TPM/MIC-S-05
	Treponema Pallidum Particle Agglutination	Particle Agglutination Method as documented in HSI/JP/TPM/MIC-S-06
	Legionella Antigen Rapid Test	Immunofluorescence Method as documented in HSI/JP/TPM/MIC-S-07

NOTE: