



THIRD EDITION

2022

USER MANUAL

DISEASE SECTION

JOHOR BAHRU PUBLIC HEALTH LABORATORY



KAT A-KATA ALUAN



PENGARAH MAKMAL KESIHATAN AWAM JOHOR BAHRU

Makmal Kesihatan Johor Bahru adalah sebuah makmal yang menyediakan perkhidmatan makmal dalam pendiagnosan, pengawasan dan pemantauan wabak penyakit berjangkit serta perkhidmatan pengawasan kualiti dan keselamatan makanan . Ke arah mencapai perkhidmatan makmal yang cekap, Makmal Kesihatan Johor Bahru sentiasa meningkatkan kualiti pengujian di makmal dengan memastikan anggota adalah mahir dan berpengetahuan. Adalah menjadi harapan kami untuk menjadi pusat kecemerlangan dan pusat rujukan dalam aspek makmal bagi tujuan menangani isu kesihatan awam dalam kalangan masyarakat. User Manual Disease Section ini diterbitkan sebagai bahan rujukan yang menyenaraikan ujian ujian yang di jalankan di Makmal Kesihatan Awam Johor Bahru

A handwritten signature in black ink, appearing to read "Yusmah".

DR YUSMAH MUHAMAD
Pakar Perubatan Kesihatan Awam UD56
Pengarah
Makmal Kesihatan Awam Johor Bahru, Johor



**KETUA SEKSYEN PENYAKIT
MAKMAL KESIHATAN AWAM JOHOR BAHRU**

Assalamualaikum dan salam sejahtera, syukur ke hadrat illahi dengan izin-Nya handbook MKAJB dapat disiapkan dengan jayanya.

MKAJB merupakan pusat rujukan sample dari semua klinik- klinik kesihatan dan pejabat kesihatan daerah diseluruh negeri johor bagi menjalankan ujian2 surveillance, wabak dan juga pusat kajian (research). MKAJB terdiri dari 3 seksyen utama iaitu seksyen pengurusan, seksyen penyakit dan seksyen makanan.

Seksyen Penyakit terdiri dari 7 unit dan 5 unit utama adalah unit Virologi, Molecular, Bakteriologi, Tibi dan Biochem dan dua unit minor iaitu unit Parasitologi dan Sitologi.

Setinggi ucapan tahniah diucapkan kepada semua yang terlibat dalam penerbitan buku Handbook of MKAJB ini yang merupakan edisi terbaru lengkap dengan maklumat serta informasi mengenai ujian2 yang ditawarkan, kaedah-kaedah pengambilan sampel yang betul serta cara- cara penghantaran sampel yang betul bagi memastikan keputusan yang dikeluarkan adalah tepat dan boleh dipercayai.

Besar harapan agar dengan adanya buku Handbook of MKAJB ini dapat membantu memudahkan para pelanggan kami dalam membuat rujukan yang diperlukan.

Sekian, terima kasih,


DR NOOR ILHAM AHMAD
Pakar Patotologi (Mikrobiologi) UD 54
Ketua Seksyen Penyakit
Makmal Kesihatan Awam Johor Bahru, Johor

URUSETIA PENERBITAN
USER MANUAL DISEASE SECTION
EDISI KETIGA 2022
MAKMAL KESIHATAN AWAM JOHOR BAHRU

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DR YUSMAH MUHAMAD

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EDITOR

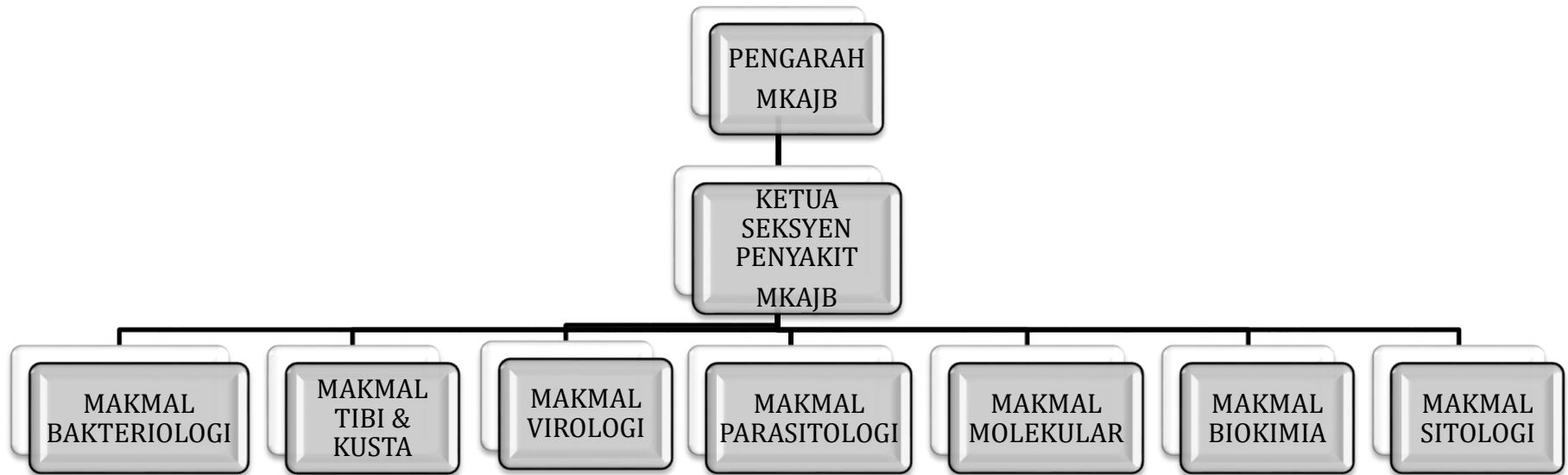
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Pegawai Sains (Mikrobiologi) C54
Pakar Bidang Khusus Mikrobiologi (Mycobacteriologi)
Seksyen Penyakit
Makmal Kesihatan Awam Johor Bahru, Johor

URUSETIA UNIT

Pn Nur Eyuni Mohd Salleh	Pegawai Sains (Mikrobiologi) Unit Tibi Kusta, MKAJB
Pn Siti Noor Aisyah Md Hussin	Pegawai Sains (Mikrobiologi) Unit Tibi Kusta, MKAJB
Pn Misbahah Jilani	Pegawai Sains (Mikrobiologi) Unit Bakteriologi, MKAJB
Pn Lim Cheau Ju	Pegawai Sains (Mikrobiologi) Unit Virologi/Molekular, MKAJB
Pn Nurulfateha Misnar	Pegawai Sains (Mikrobiologi) Unit Virologi/Molekular, MKAJB
Pn Nik Nur Azma Nordin	Pegawai Sains (Mikrobiologi) Unit Virologi/Molekular, MKAJB
Pn Saidatul Akma Nadia	Pegawai Sains (Mikrobiologi) Unit Parasitologi, MKAJB
Pn Siti Sarah Zainal	Pegawai Sains (Kimia Hayat) Unit Biokimia, MKAJB
Pn Farhana Ab Hadi	Pegawai Sains (Kimia Hayat) Unit Biokimia, MKAJB
Pn Jalina Joni	Juruteknologi Makmal Perubatan, Unit Sitologi, MKAJB
En Jmmanni A. Jamil	Juruteknologi Makmal Perubatan, Unit Parasitologi, MKAJB
Pn Wazney Qistina Rukhmanudin	Juruteknologi Makmal Perubatan, Unit Bakteriologi, MKAJB

CARTA ORGANISASI SEKSYEN PENYAKIT
MAKMAL KESIHATAN AWAM JOHOR BAHRU, JOHOR



SENARAI ISI KANDUNGAN

KATA-KATA ALUAN	1
URUSETIA PENERBITAN	3
URUSETIA UNIT	4
CARTA ORGANISASI SEKSYEN PENYAKIT	5
NOMBOR TELEFON MAKMAL DAN UNIT	8
SENARAI NAMA PEGAWAI YANG BOLEH DIHUBUNGI DI MKAJB	9
PENGENALAN	11
VISI	11
MISI	11
OBJEKTIF	11
PIAGAM PELANGGAN	12
SKOP PERKHIDMATAN	12
WAKTU OPERASI	12
ABBREVIATION	13
SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB	14
SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB	15
SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB	16
SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB	17
SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB	18
SENARAI UJIAN DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB	19
SENARAI UJIAN DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB	20
SENARAI UJIAN YANG DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB	21
SENARAI UJIAN BAKTERIOLOGI YANG DITAWARKAN DI MAKMAL RUJUKAN	22
SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI/ MOLEKULAR MKAJB	23

SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI/ MOLEKULAR MKAJB	24
SENARAI UJIAN VIROLOGI/ MOLEKULAR YANG DITAWARKAN DI MAKMAL RUJUKAN	25
SENARAI UJIAN VIROLOGI/ MOLEKULAR YANG DITAWARKAN DI MAKMAL RUJUKAN	26
SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI MKAJB	27
SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI MKAJB	28
SENARAI UJIAN DITAWARKAN DI MAKMAL PARASITOLOGI MKAJB	29
SENARAI UJIAN DITAWARKAN DI MAKMAL TIBI/KUSTA MKAJB	30
SENARAI UJIAN DITAWARKAN DI MAKMAL TIBI/KUSTA MKAJB	31
SENARAI UJIAN TIBI/KUSTA YANG DITAWARKAN DI MAKMAL RUJUKAN	32
SENARAI UJIAN DITAWARKAN DI MAKMAL SITOLOGI MKAJB	33
PACKAGING AND TRANSPORTING SPECIMENS	34
2.1 Triple Packaging System	34
2.2 Itemized List of Contents	35
3.1 An address label with the following information:	36
3.2 Refrigerants	36
3.3 Transport Planning	36
3.4 The sender	36
APPENDIX 1 SENARAI BORANG PERMOHONAN UNTUK UJIAN DI MKAJB:	39

NOMBOR TELEFON MAKMAL DAN UNIT

Nombor telefon MKAJB: 072387162

Nombor Fax: 072387215

Bil	UNIT	NOMBOR SAMBUNGAN
1	Pengarah MKAJB	1001
2	Ketua Seksyen Penyakit, MKAJB	2016
3	Bilik Pegawai	2009/2010
4	Makmal Mikobakteriologi (Makmal TB/Kusta)	2003/2006
5	Makmal Bakteriologi	2009
6	Makmal Biokimia	2013
7	Makmal Sitologi	2018
8	Makmal Virologi/ Molekular	2022/ 2019/ 2020/ 2021
9	Makmal Parasitologi	3030

SENARAI NAMA PEGAWAI YANG BOLEH DIHUBUNGI DI MKAJB

NO	UNITS	OFFICERS NAME	DESIGNATION	EXT
1	Admin	Dr Yusmah Muhamad	Pengarah MKAJB	1001
2	Seksyen Penyakit MKAJB	Dr Noor Ilham Ahmad	Ketua Seksyen Penyakit	2016
3	Biokimia	Pn Farhana Ab Hadi	Pegawai Sains (Kimia Hayat)	2011
4		Pn Siti Sarah Zainal	Pegawai Sains (Kimia Hayat)	2011
5		Pn Paizah Ishak	JTMP U36	2013
6	Bakteriologi	Pn Misbaha Jilani	Pegawai Sains (Mikrobiologi)	2010
7		Pn Wazney Qistina Rukmanuddin	JTMP U32	2009
8		Pn Sonal Patel Ponamchand	JTMP U32	2009
9	Tibi/kusta	Dr Zulaikah binti Mohamed	Pegawai sains (Mikrobiologi) SME TB/Kusta	2007
10		Pn Nur Eyuni Mohd Salleh	Pegawai Sains (Mikrobiologi)	2010
11		Pn Siti Noor Aisyah Md Hussin	Pegawai Sains (Mikrobiologi)	2010
12		Cik Nor Mastika Abdul Waras	JTMP U32	2003
13		En Nor Zahidi Kodori	JTMP U32	2003
14	Unit Virologi /Molekular	Pn Lim Cheau Ju	Pegawai Sains (Mikrobiologi)	2011
15		Pn Nurulfateha Misnar	Pegawai Sains (Mikrobiologi)	2011
16		Pn Nik Nur Azma Nordin	Pegawai Sains (Mikrobiologi)	2011
17		Pn Rizua Fazlen Ahmad Tajuddin	JTMP U32	2022
18		Cik Nor Azlina Md Nasir	Penolong Pegawai Sains C32	2022

NO	UNITS	OFFICERS NAME	DESIGNATION	EXT
19	Parasitology	Saidatul Akma Nadia Mohd Noor	Pegawai Sains (Mikrobiologi)	2010
20		En Mohd Jmmani	JTMP U36	3030
21	Sitologi	Pn Jalina Joni	JTMP U36	2018
22		Pn Sheri Sharlina Muhadzir	JTMP U32	2018
23		En Zamrey Azman	JTMP U32	2018

PENGENALAN

Makmal Kesihatan Awam Johor Bahru adalah makmal yang menjalankan ujian-ujian makmal untuk tujuan surveilan dan wabak bagi menyokong aktiviti program kesihatan awam di dalam Negeri Johor.

VISI

Menyediakan perkhidmatan makmal kesihatan awam yang cepat, tepat dan berkesan dengan cara pengurusan yang bersistematik dan memenuhi keperluan pelanggan.

MISI

Secara berpasukan, kami akan menyediakan perkhidmatan yang efisien dan memenuhi keperluan untuk penjagaan kesihatan pesakit secara profesional dengan pembangunan teknologi terkini melalui latihan dan penyelidikan.

OBJEKTIF

Perkhidmatan Seksyen penyakit MKAJB adalah merangkumi Negeri Johor dan Melaka.

Objektif seksyen penyakit adalah:

1. Menyediakan perkhidmatan makmal untuk aktiviti surveilan
2. Menyediakah perkhidmatan makmal untuk penyiasatan wabak
3. Menyediakan perkhidmatan penyelaras/penganjur untuk penilaian kualiti ujian makmal
4. Menyediakan program latihan kualiti untuk anggota makmal
5. Menjalankan kajian yang berkaitan dengan kesihatan awam dan Kementerian Kesihatan
6. Menulis laporan dan penerbitan

PIAGAM PELANGGAN

Memberi penjelasan yang lengkap untuk ujian yang ditawarkan kepada pelanggan

Memproses spesimen mengikut prosedur yang telah ditetapkan oleh KKM

Menjalankan ujian dengan tepat, berkesan dan boleh dihasilkan semula (*reproducibility*) dan terpelihara dengan menggunakan kaedah dan teknologi yang telah disahkan

Menjalankan ujian STAT/URGENT mengikut tempoh masa yang telah ditetapkan.

Menjaga kerahsiaan keputusan ujian dan butiran pelanggan

SKOP PERKHIDMATAN

Seksyen penyakit terdiri daripada:

Unit Biokimia

Unit Bakteriologi

Unit Tibi/Kusta

Unit Virologi

Unit Molekular

Unit Parasitologi

Unit Sitologi

WAKTU OPERASI

Waktu pejabat:

Ahad hingga Rabu : 8.00 pagi – 5.00 petang

Khamis : 8.00 pagi – 3.30 petang

Tengahari Ahad –Khamis : 1.00 petang - 2.00 petang

Perkhidmatan di luar waktu pejabat akan dilaksanakan oleh anggota yang bertugas mengikut jadual yang ditetapkan. Pelanggan perlu berkomunikasi dengan MKAJB sekiranya ada sampel yang perlu dihantar ke MKAJB selepas waktu pejabat.

ABBREVIATION

AIRC	ALLERGY AND IMMUNOLOGY RESEARCH CENTER
BAL	BRONCHIAL-ALVEOLAR LAVAGE
BBA	BLIND BRONCHIAL ASPIRATE
C&S	CULTURE AND SENSITIVITY
CSF	CEREBROSPINAL FLUID
FISH	FLUORESCENCE IN SITU HYBRIDIZATION
FNAC	FINE NEEDLE ASPIRATION CYTOLOGY
HDL	HIGH DENSITY LIPOPROTEIN
HKL	HOSPITAL KUALA LUMPUR
IF	IMMUNOFLUORESCENCE
IMR	INSTITUTE OF MEDICAL RESEARCH
ISH	IN SITU HYBRIDIZATION
LDL	LOW DENSITY LIPOPROTEIN
LTAT	LABORATORY TURN AROUND TIME
MKAJB	MAKMAL KESIHATAN AWAM JOHOR BAHRU
MKAK	MAKMAL KESIHATAN AWAM KEBANGSAAN
RLTAT	REFERENCE LABORATORY TURN AROUND TIME
TAT	TURN AROUND TIME
UMDP	UNIT OF MOLECULAR DIAGNOSTICS AND PROTEIN
VTM	VIRAL TRANSPORT MEDIA
PDN	PUSAT DARAH NEGARA
ID	IDENTIFICATION
JBPHL	JOHOR BAHRU PUBLIC HEALTH LABORATORY
LTAT	LAB TURN AROUND TIME
MAT	MICROAGGLUTINATION TEST
PCR	POLYMERASE CHAIN REACTION
MTB	MYCOBACTERIUM TUBERCULOSIS
MERS-COV	MIDDLE-EAST RESPIRATORY SYNDROME CORONAVIRUS
MDR-TB	MULTI DRUG RESISTANT TUBERCULOSIS
AFB	ACID FAST BACILLI
EDTA	ETHYLENEDIAMINETETRAACETIC ACID
FLP	FASTING LIPID PROFILE
IGRA	INTERFERON GAMMA RELEASE ASSAY
COVID	CORONA VIRUS DISEASE
VTM	VIRAL TRANSPORT MEDIUM

SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB

NO	PROFILE	TESTS	METHOD	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
1	Congenital Hypothyroidism (CTSH)	Thyroid Stimulating Hormones (TSH)	Chemiluminescence	Serum/Cord Blood	Plain Tube (Without anticoagulant)	3 ml	3 days	Store and transport sample in ice pack (2-8°C)* Hospital Pontian, Hospital Kulai, Hospital Kota Tinggi, Hospital Mersing (New Born screening only)
		Free T4	Chemiluminescence	Serum/Cord Blood	Plain Tube (Without anticoagulant)	3 ml	3 days	
2	Toxicology	Cholinesterase	Butyrylthiocholine (Trinder),	Serum	Plain Tube (Without anticoagulant)	5 ml	5 days	Store and transport sample in ice pack (2-8°C) *Anggota PKD yang terlibat dengan aktiviti fogging sahaja.

SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB

NO	PROFILE	TESTS	METHOD	TYPE OF SPECIMEN	SPECIMEN CONTAINER	SPECIMEN VOLUME	LTAT	REMARK
3	Lipid Profile	Cholesterol	Cholesterol oxidase, esterase, peroxidase	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	Store and transport sample in ice pack (2-8°C)
		HDL-Cholesterol	Direct measure, immunoinhibition	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	
		Triglyceride	Enzymatic, end point	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
4	Liver Function Test	Albumin	Bromcresol Green (BCG)	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	Store and transport sample in ice pack (2-8°C)
		ALP	PNPP, AMP Buffer	Serum /plasma	Plain Tube / Heparin	5 ml	3 days	

SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB

NO	PROFILE	TESTS	METHOD	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
	Liver Function Test	ALT	UV without P5P	Serum /plasma	Plain Tube / Heparin	5 ml	3 days	Store and transport sample in ice pack (2-8°C)
		AST	UV without P5P	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	
		Total Bilirubin	Diazonium Ion	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	
		Total Protein	Biuret method	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	

SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB

NO	PROFILE	TESTS	METHOD	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
5	Renal Profile	Chloride	ISE indirect	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
		Creatinine	Alkaline picrate method	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
		Potassium	ISE indirect	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
		Sodium	ISE indirect	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
		Urea	Urease, UV	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	
		Uric Acid	Uricase, colorimetric	Serum/plasma	Plain Tube / Heparin	5 ml	3 days	

SENARAI UJIAN DITAWARKAN DI MAKMAL BIOKIMIA MKAJB

NO	PROFILE	TESTS	METHOD	TYPE OF SPECIMEN	SPECIMEN CONTAINER	SPECIMEN VOLUME	LTAT	REMARK
6	Miscellaneous Tests	Calcium	o-cresolphthalein complexone	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	
		Inorganic phosphate	Phosphomolybdate method	Serum/ plasma	Plain Tube / Heparin	5 ml	3 days	
		Glucose	Hexokinase,	Plasma	Na fluoride/K oxalate	4 ml	3 days	
7	Thyroid Function Test	Thyroid Stimulating Hormones (TSH)	Chemiluminescence	Serum/ Cord Blood	Plain Tube (Without anticoagulant)	3 ml	3 days	Store and transport sample in ice pack (2-8°C)*
		Free T4	Chemiluminescence	Serum/ Cord Blood	Plain Tube (Without anticoagulant)	3 ml	3days	

SENARAI UJIAN DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
1	Culture for enteric pathogen	Stool swab	Cary Blair	One swab per person	7 days	
2	Salmonella stool / stool clearance Culture and antibiotic sensitivity	Stool swab	Cary Blair	One swab per person	7 days	
4	Vibrio Culture & antibiotic sensitivity	Stool swab	Cary Blair	One swab per person	7 days	1. Send the samples to laboratory within 24 hours after collection at ambient temperature. 2. If delay (NOT >48 hours), please keep samples at 2°C – 8°C and send samples in ice. 3. Ensure the swab shows some faecal staining to avoid low quality sampling.
5	Respiratory Bacteria Culture and drug sensitivity	Throat swab	Amies charcoal	One swab per person	7 days	1. Send the samples to the laboratory within 24 hours after collection at ambient temperature. 2. If Send within 24 hours after collection is unavoidable, send within 48 hours in 2°C – 8°C 3. Delay in transportation will affect the viability of the bacteria.
		Sputum	Sterile container	1-3 ML	7 days	1. Send immediately after collection at 2°C – 8°C. 2. Delay in transportation will affect the viability of the bacteria.
6	<i>C.diphtheria</i> Culture & antibiotic Sensitivity	Throat swab (contact)	Swab in Amies media (clear)	One swab per person	7 days	1. Send within 24 hours after collection at 2°C – 8°C. temperature. 2. Delay in transportation will affect the viability of the bacteria.
		Nasopharyngeal swab (contact)	Amies clear	One swab per person	7 days	

SENARAI UJIAN DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
8	<i>C.diphtheria</i> PCR for Toxin Detection	Bacterial Culture	Pure culture on blood agar	One plate per person	2 days	1. Send at 2°C – 8°C 2. Inoculate a pure single colony on Blood Agar.
9	<i>Bordetella pertussis</i> Culture & Sensitivity	Pernasal swab or Nasopharyngeal Swab (contact)	Amies Charcoal with flocked or dacron swab	One swab per person	10 days	1. Send within 24 hours after collection at ambient temperature. DO NOT REFRIGERATE 2. Do not use Calcium alginate or cotton swab. 3. Delay in transportation will affect the quality of the sample.
10	Leptospira: Microscopic Agglutination test for Leptospira	Serum	Plain tube	3ml	7 days	1. Send sampel at 2°C – 8°C. 2. The Requester shall attach the Serology IgM Leptospira result. Test only conducted on samples with IgM positive or equivocal only.
11	Leptospira: Serology IgM (outbreak only)	Serum		3ml	7 days	1. Send sampel at 2°C – 8°C. 2. Haemolysed samples shall be rejected.
12	Leptospira: Real-Time PCR	Plasma	EDTA tube	3ml	7 days	1. Samples should be collected within 10 days after onset of illness. 2. A brief concise history of illness and physical findings is required, especially the date of onset of illness and date of sample collection.
13	<i>Legionella pneumophila</i> :Culture , Enumeration and Identification	Water from Cooling tower	Insulated Sterile screw cap container	1000ml	21 days	1. Request by appointment only. 2. Send immediately after collection at 2°C – 8°C 3. Delay in transportation will affect the viability of the bacteria.

SENARAI UJIAN YANG DITAWARKAN DI MAKMAL BAKTERIOLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
14	Leptospira sp. Culture and detection in environmental sample	Water	Sterile Whirl Pak	250 ml	21 days	1. Send immediately after collection at ambient temperature. 2. Delay in transportation will affect the viability of the bacteria.
15		Soil	Sterile Whirl Pak	200 g	21 days	1. Send immediately after collection at ambient temperature. 2. Delay in transportation will affect the viability of the bacteria.
16	<i>B. pseudomallei</i> : Culture and Identification of environmental sample	Water	Sterile Whirl Pak	200 ml	21 days	1. Send immediately after collection at ambient temperature. 2. Delay in transportation will affect the viability of the bacteria.
17		Soil	Sterile Whirl Pak	200 g	21 days	1. Send immediately after collection at ambient temperature. 2. Delay in transportation will affect the viability of the bacteria.

SENARAI UJIAN BAKTERIOLOGI YANG DITAWARKAN DI MAKMAL RUJUKAN

NO	TEST	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	REFERRAL LAB	RLTAT	REMARK
1	PCR <i>E.coli</i> diarrheagenic	Bacterial culture	Pure culture on blood agar	Confluent growth	Makmal Kesihatan Awam Ipoh	7 days	All samples for further testing need to be transported at ambient temperature within 24 hours.
2	Salmonella serotyping						All samples for further testing need to be transported at ambient temperature within 24 hours.
3	ELEK test for <i>C.diphtheria</i> toxin				Makmal Kesihatan Awam Kebangsaan		All samples for further testing need to be transported at ambient temperature within 24 hours.
4	Vibrio serotyping						All samples for further testing need to be transported at ambient temperature within 24 hours.

SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI/ MOLEKULAR MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT (Working days)	REMARK
1.	Chikungunya Virus PCR	Serum	Plain tube	1ml / Serum 5ml / Blood	7	1. Sample should be collected within 5 days after onset of illness. 2. A brief concise history of illness and physical findings is required especially the date of onset of illness. * Outbreak Investigation
2.	Dengue Virus PCR	Serum	Plain tube	1ml / Serum 5ml / Blood	7	1. Sample should be collected within 5 days after onset of illness. 2. 5 sampel NS1 positif/ sentinel per week. 3. Severe/ mortality Dengue from Johor. 4. CSF (Kes severe dengue with history NS1 positif)
		CSF	Sterile Screw Capped container	1ml		
3.	Flavivirus PCR	Serum	Plain tube	1ml / Serum 5ml / Blood	7	1. Sample should be collected within 5 days after onset of illness. 2. 2 sampel NS1/IgG/IgM negatif/ sentinel per week
4.	Zika Virus PCR	Serum	Plain tube	1ml / Serum 5ml / Blood	7	1. Sample should be collected within 5 days after onset of illness. 2. A brief concise history of illness and physical findings is required especially the date of onset of illness. * Outbreak Investigation
5.		Urine	Sterile screw capped container	5ml	7	

All sample for molecular tests PCR need to be transport at 2-8°C within 24 hours to 48 hours

SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI/ MOLEKULAR MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT (Working days)	REMARK
6.	HFMD (Enterovirus 71, Coxsackie A16, Pan-Enterovirus) PCR	Mouth Ulcer Swab	VTM	2-2.5ml	7 (Outbreak: 3)	1. Sample should be collected within 5 days after onset of illness. 2. A brief concise history of illness and physical findings is required especially the date of onset of illness and date of sample collection 3. For suspected cases of HFMD, send ONE specimen per patient. 4. Only 5 samples per cluster.
		Vesicle Swab	VTM	2-2.5ml		
		Stool	Sterile screw capped container	(5g or 'pea size')		
		Rectal Swab	VTM	2-2.5ml		
		Throat Swab	VTM	2-2.5ml		
		Pleural fluid	Sterile screw capped container	1-3 ml		
		Cerebrospinal fluid (CSF)	Sterile screw capped container	1-3 ml		
7.	Respiratory Virus Antigen PCR (Influenza A H1N1 & H3N2, Influenza B, MERS- CoV)	Nasopharyngeal Swab/ Nasal swab/ Throat Swab	VTM	2-2.5ml	10 (Outbreak: 3)	1. Sample should be collected within 5 days after onset of illness. 2. A brief concise history of illness and physical findings is required especially the date of onset of illness. * Outbreak Investigation (Only 5 samples per cluster.)
8	SARS-CoV-2 PCR	Combined NPS and OPS	VTM	2-2.5ml	24-48 hours	
		Deep Throat Saliva	DTS container	2ml		
9	STD PCR	Genital swab	VTM	2-2.5ml	7	* Klinik STD KK Mahmoodiah
		Urine specimen	Sterile screw capped container	10-30 mL of first-catch urine		

All sample for molecular tests PCR need to be transport at 2-8°C within 24 hours to 48 hours

SENARAI UJIAN VIROLOGI/ MOLEKULAR YANG DITAWARKAN DI MAKMAL RUJUKAN

NO	TEST	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	REFERRAL LAB	RLTAT	REMARK
1.	Measles (qPCR / Virus Isolation)	Throat swab	VTM	2-2.5ml	MKAK	PCR - 3, VI - 21	1. Respiratory secretion should be taken 1 – 5 days of rash onset. 2. A brief concise history of illness and physical findings is required especially the date of onset of illness and the date of specimen collection 3. Keep and transport specimen at 2- 8°C
		Urine	Sterile screw capped container	10 ml of urine (Early morning first void) OR urine sediment (centrifuged at 500-1000 g for 10 minutes), resuspend sediment in VTM			
		Nasopharyngeal secretion/ Tracheal aspirate	Sterile screw capped container	1-3 ml			
2.	Mumps (qPCR / Virus Isolation)	Oral or buccal swab	VTM	2-2.5ml	MKAK	PCR - 3, VI - 21	1. Specimen should be collected ≤5 days after onset of illness 2. A brief concise history of illness and physical findings is required especially the date of onset of illness and the date of specimen collection 3. Keep and transport specimen at 2- 8°C * Outbreak Investigation
3.	Rubella (qPCR / Virus Isolation)	Urine	Sterile screw capped container	10 ml of urine (Early morning first void)	MKAK	PCR - 3, VI - 21	1. Specimen should be collected <5days after illness 2. A brief concise history of illness and physical findings is required especially the date of onset of illness and the date of specimen collection
		Throat swab	VTM	2-2.5ml			

SENARAI UJIAN VIROLOGI/ MOLEKULAR YANG DITAWARKAN DI MAKMAL RUJUKAN

NO	TEST	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	REFERRAL LAB	RLTAT	REMARK
4.	Varicella Zoster PCR	CSF	Sterile screw capped container	1-3ml	MKAK	5	1. Specimen should be collected ≤5 days after onset of illness 2. A brief concise history of illness and physical findings is required especially the date of onset of illness and the date of specimen collection 3. Keep and transport specimen at 2- 8°C
		Maculopapular lesions or crusts from lesions	Sterile screw capped container	-			
		Vesicular fluid (collect with polyester swab)	Do not place transport medium into the tube the specimen MUST be kept dry	-			

SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
1.	Hepatitis B Screening - HBsAg	Serum	Plain tube	1ml / Serum 5ml / Blood	5 days	Transport sample at 2-8°C within 24 hours to 48 hours * Klinik Metadone * Penjara * Pusat Pemulihan Akhlak
2.	Hepatitis B Antibody Screening	Serum	Plain tube	1ml / Serum 5ml / Blood	5 days	Transport sample at 2-8°C within 24 hours to 48 hours * Screening for MOH staffs only in Johor except Hospital
3.	RPR Syphilis Screening	Serum	Plain tube	1ml / Serum 5ml / Blood	5 days	Transport sample at 2-8°C within 24 hours to 48 hours * Klinik Metadone
4.	Respiratory Virus Antigen Screening – Method Immunofluorescent (Influenza A, Influenza B, Respiratory Syncytial Virus (RSV), Adenovirus, Parainfluenza Virus Types 1, 2 & 3)	Nasopharyngeal Aspirate/ Tracheal Aspirate	Sterile screw capped container	1-3ml	5 days	Transport sample at 2-8°C within 24hours to 48 hours * Outbreak Investigation
5.	<i>Mycoplasma pneumoniae</i> <td>Serum</td> <td>Plain tube</td> <td>1ml / Serum 5ml / Blood</td> <td>3 days</td> <td>* Outbreak Investigation</td>	Serum	Plain tube	1ml / Serum 5ml / Blood	3 days	* Outbreak Investigation
6.	Rotavirus	Fresh Stool	Sterile screw capped container	1-2ml or 1-2 gm	2 days	Acute AGE (sample to collect within the first 48 hours of illness) <i>Send to lab as soon as possible</i> * Outbreak Investigation

SENARAI UJIAN DITAWARKAN DI MAKMAL VIROLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT HARI	REMARK
7.	Hepatitis A Antibody	Serum	Plain tube	1ml / Serum 5ml / Blood	3 days	A brief concise history of illness and physical findings is required especially the date of onset of illness * Outbreak Investigation
8.	Measles IgM	Serum	Plain tube	1ml / serum 5ml / blood	4 days	1. Collect specimen 4 to 28 days after onset of rash. 2. Transport sample at 2-8°C within 24hours to 48 hours
9.	Rubella IgM	Serum	Plain tube	1ml / serum 5ml / blood	7 days	1. Collect specimen 4 to 28 days after onset of rash. 2. Transport sample at 2-8°C within 24hours to 48 hours 3.

SENARAI UJIAN DITAWARKAN DI MAKMAL PARASITOLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT HARI	REMARK
1	PCR for malaria	Blood	EDTA	2.5ml	7	Transport sample at 2-8°C within 24 Hours to 48 Hours
		BFMP Slide	Slide Holder	NA	7	Room Temperature
2	BFMP Rechecking	BFMP Slide Negative	Slide Holder	NA	30	Room Temperature
		BFMP Slide Positive			1	
3	Filaria	60 ul thick Blood Smear	Slide Holder	NA	3	Room Temperature

SENARAI UJIAN DITAWARKAN DI MAKMAL TIBI/KUSTA MKAJB

NO	TESTS	SPECIMEN TYPE	CONTAINER	VOLUME	LTAT (WORKING DAYS)	METHOD	REMARK
1	MTB Identification and Drug susceptibility testing (DST)	Sputum	Sterile screw capped	3-5 ml	63	Culture, Smear Microscopy, Immunochromatography , Fluorescence	Store and transport sample in ice 2-8°C
		Bronchiole Washing	Sterile screw capped	2-5 ml	63		Store and transport sample in ice 2-8°C
		Pus / Pus swab	Sterile screw capped/sterile swab without transport media	3-5 ml	63		Store and transport sample in ice 2-8°C
		Other fluid (Pleural and Synovial)	Sterile screw capped	2-5 ml	63		Store and transport sample in ice 2-8°C
		Tisu	Sterile screw capped		63		Add 2ml sterile saline/distil water (to prevent dehydration)
		Gastric lavage	Sterile screw capped	2-5 ml	63		Neutralized the sample with equal volume of 8-10% Sodium bicarbonate. Store and transport sample in 2-8°C.
		Urine (MSU)	Sterile screw capped	3-5 ml	63		Store and transport sample in 2-8°C.
		CSF	Sterile screw capped	1-3 ml	63		Store and transport sample in 2-8°C

SENARAI UJIAN DITAWARKAN DI MAKMAL TIBI/KUSTA MKAJB

NO	TESTS	SPECIMEN TYPE	CONTAINER	VOLUME	LTAT (WORKING DAYS)	METHOD	REMARK
2	MTB Identification and Drug susceptibility testing (DST)	Positive isolate	LJ / Ogawa	more than 20 colonies/ culture	ID: 7 DST ACM: 28	Culture, Smear Microscopy, Immunochromatography, Fluorescence	Store and transport in ambient temperature. Culture must be sent within 7 days after growth.
		Positive Liquid media	MGIT Tube	Pure growth in liquid culture	ID: 7 DST MGIT: 14		Store and transport in ambient temperature. Positive liquid tube must be sent within 3 days after positive.
3	Line Probe Assay (LPA)	Sputum (AFB Smear positive, >1+)	Sterile screw capped	3-5 ml	7	Molecular	Store and transport sample in 2-8°C. Sample must be sent to MKAJB within 24h after collection.
		Positive isolate	LJ / Ogawa	more than 20 colonies/culture	7		
4	Interferon-gamma release assays (IGRA)	Whole blood	IGRA tube	1.0 ml each tube (4 tubes)	10	ELISA	Non-incubated sample: Store and transport sample in room temperature. Sample must be sent within 16h after collection. Incubated sample: Spin the sample before sent to JBPHL. Store and transport sample in 2-8°C
5	GeneXpert	Sputum	Sterile screw capped	1-5 ml	2	Molecular	Store and transport sample in 2-8°C

SENARAI UJIAN TIBI/KUSTA YANG DITAWARKAN DI MAKMAL RUJUKAN

NO	TEST	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	REFERRAL LAB	RLTAT	DAY OF DESPATCH	REMARK
1	Second-line Drug susceptibility testing for MTBC	Culture isolates - liquid medium	Screw capped container e.g.: MGIT tube	Pure growth in liquid culture	MKAK	31 days from detection of RR-TB and MDR-TB	NA	The liquid medium should be sent within 3 days after positive. Please state the microscopic result on the request form.
2	Second-line Drug susceptibility testing for MTBC	Culture isolates- solid medium	Screw capped container	Pure colonies on solid medium	MKAK	31 days from detection of RR-TB and MDR-TB	NA	1.This test will be done for INH or/and Rif resistance cases 2.For other cases, please consult MKAK's Clinical Microbiologist & Science Officer in charge before request is made
3	Non-tuberculous Mycobacterium (NTM) Culture Identification	Culture isolates - liquid medium	Screw capped container e.g.: MGIT tube	Pure growth in liquid culture	MKAK	35 days (NTM Runyon Group) 10 days (NTM speciation)	NA	The liquid medium should be sent within 3 days after positive. Please state the microscopic result on the request form.
4	Non-tuberculous Mycobacterium (NTM) Culture Identification	Culture isolates- solid medium	Screw capped container	> 20 colonies) Pure colonies on solid medium	MKAK		NA	

SENARAI UJIAN DITAWARKAN DI MAKMAL SITOLOGI MKAJB

NO	TESTS	TYPE OF SPECIMEN	SPECIMEN CONTAINER	VOLUME OF SPECIMEN	LTAT	REMARK
1	Gynae	Liquid based cytology	Sample collected in vial containing fixative	-	2 weeks	Vial supplied by the cytology laboratory
2	HPV	Swab	Flock swab	-	2 weeks	Swab supplied by KA

PACKAGING AND TRANSPORTING SPECIMENS

The guidelines are applicable to the transport of diagnostic specimens. The packaging of infectious materials for transport must therefore address these concerns and be designed to minimize the potential for damage during transport. In addition, the packaging will serve to ensure the integrity of the materials and timely processing of specimens.

1.0 Definitions

Diagnostic specimens collected during an investigation of a serious disease of unknown cause must be handled as infectious substances. A diagnostic specimen is defined as any human or animal material including, but not limited to, excreta, blood and its components, tissue and tissue fluids collected for the purposes of diagnosis.

2.0 Packaging, Labeling and Documentation for Transport

2.1 Triple Packaging System

The system consists of three (3) layers:

- a. **Primary receptacle** is the container (e.g. tube, vial, and bottle) that holds the specimen (Figure 1.1), securely sealed and leak proof. The Screw-top of the container must have a piece of waterproof tape around the cap to prevent the leaking in transit. The primary receptacle must be surrounded by absorbent material capable of taking up the entire liquid contents and must be packed in the secondary container/pack. The International Air Transport Association (IATA) regulations allow 1 liter in a primary receptacle for diagnostic specimens. The outer packaging must not contain more than 4 liters.

- b. **Secondary packaging** is the receptacle into which a primary receptacle and the absorbent and cushioning material are placed (Figure 1.2). The secondary packaging must be leak proof and securely sealed and be placed in the outer packaging and maintain the position of the primary container. The biohazard marking should be on the secondary receptacle and may be on the primary receptacle.

- c. **Tertiary (Outer) packaging** is the receptacle which the secondary packaging with cushioning materials is placed (Figure 1.3). The outer packaging must be rigid (effective 1-1-2005). The outer packaging bears the addressing information along with all required markings and labels such as; the full name and address of the shipper and consignee must be on the outside packaging. The outside packaging must have the name and telephone number of a person who is knowledgeable about the contents of the shipment. This is important emergency information in the event an exposure occurs during shipping.

2.2 Itemized List of Contents

- An itemized list of contents is required. DO NOT place documents inside the secondary container.
- The itemized list is placed OUTSIDE the secondary container.
- The laboratory request form should be placed OUTSIDE the secondary container.

3.0 Requirements for diagnostic specimens

The basic triple packaging system is used with the following specifications and labelling requirements. Primary receptacles may contain up to 500mL each, the total volume in the outer package not to exceed 4L. Labelling of the outer package for the shipment of diagnostic specimens must include the following:

3.1 An address label with the following information:

The receiver's name, address and telephone number.

The sender's name, address and telephone number.

3.2 Refrigerants

Ice or dry ice must be placed outside the secondary receptacle. If wet ice is used it should be in a leak-proof container and the outer package must also be leak-proof.

The secondary receptacle must be secured within the outer package to prevent damage after the refrigerant has melted or dissipated.

3.3 Transport Planning

It is the responsibility of the sender to ensure the correct designation, packaging, labelling and documentation of all infectious substances and diagnostic specimens.

The efficient transport and transfer of infectious materials requires good coordination between the sender and the receiver (receiving laboratory), to ensure that the material is transported safely and arrives on time and in good condition. Such coordination depends upon well-established communication and a partner relationship between the two parties. All have specific responsibilities to carry out in the transport effort.

3.4 The sender

Makes advance arrangements with the receiver of the specimens.

Makes advance arrangements with the carrier to ensure the safe shipment.

Prepares necessary documentation.

Notifies the receiver of transportation arrangements in advance of expected arrival time.

4.0 Spill Clean-Up Procedure

In the event of a spill of infectious or potentially infectious material, the following spill clean-up procedure should be used.

Wear gloves and protective clothing, including face and eye protection if indicated.

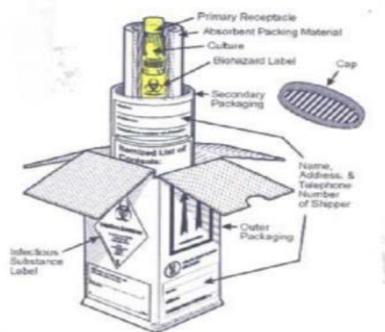
Cover the spill with cloth or paper towels to contain it.

Pour an appropriate disinfectant over the paper towels and the immediately surrounding area (generally, 5% bleach solutions are appropriate)

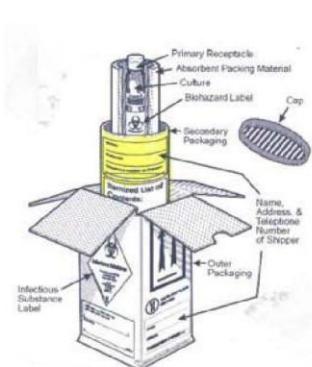
- I. Apply disinfectant concentrically beginning at the outer margin of the spill area, working toward the center.
- II. After the appropriate amount of time (e.g. 30 min), clear away the materials. If there is broken glass or other sharps involved, use a dustpan or a piece of stiff cardboard to collect the material and deposit it into a puncture-resistant container for disposal.

FIGURE 1: TRIPLE PACKAGING

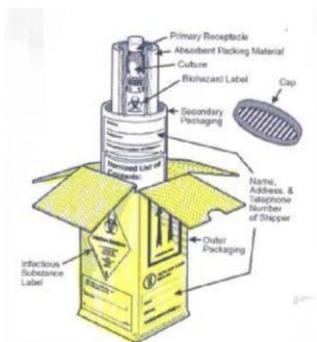
Primary Packaging



Secondary packaging



Tertiary (Outer) packaging



APPENDIX 1 SENARAI BORANG PERMOHONAN UNTUK UJIAN DI MKAJB:

BIL	BORANG	NOMBOR BORANG
1	Borang (Permohonan Ujian Makmal)	D-FM-G-003
2	Borang Permohonan Penyiasatan/Pemantauan Sampel Persekutuan	MKAK/BP/ENV/01 Rev 1
3	Laboratory Request Form	MKAK-BPU-U01
4	Permohonan Ujian Tb	TBIS 20C
5	Ujian Paras Cholinesterase	(D/WS02-001)
6	Laboratory Request Form For Dengue And Flavivirus	MKAK-BPU-D02 (rev_Nov_2015)
7	Borang Permohonan Ujian Makmal Hand Foot And Mouth Disease (HFMD) Makmal Kesihatan Awam	MKA_HFMD_2018
8	Sistem Survelan Influenza Kebangsaan Borang Permohonan Ujian Makmal	Annex 6
9	Measles - Borang Permohonan Dan Keputusan Ujian Makmal	MSLF:01/2004
10	Ujian Saringan Congenital Hypothyroidism	(D/WS/02-003)
11	Borang Permohonan Pap Smear	(Ps 1/96 Pindaan 2007)
12	Survelan <i>Influenza-Like-Illness (ILI)</i> dan <i>Severe Acute Respiratory Infection (sARI)</i>	Lampiran 3(d)
13	Leptospirosis PCR Request Form	LEPTOSPIROSIS/MKAJB
14	Pemeriksaan semula slaid Malaria	PBV (MK) 302
15	Pemeriksaan semula slaid Filaria	PBV (F) 302
16	Borang pemohonan ujian Gen Xpert	Lampiran A

**BORANG-BORANG
PERMOHONAN
UJIAN MKAJB**



**MAKMAL KESIHATAN AWAM JOHOR BAHRU
KEMENTERIAN KESIHATAN MALAYSIA**

No Dok: D/ FM/G-003

No Pindaan: 01

Tarikh Kuatkuasa :

1 Ogos 2017

No ms : 1 drpd 1

**BORANG
(PERMOHONAN UJIAN MAKMAL)**

No Makmal :

A. MAKLUMAT PELANGGAN

Nama :	Tarikh Lahir :
No IC :	Umur : Tahun Bulan
No Rujukan :	Jantina : <input type="checkbox"/> Lelaki <input type="checkbox"/> Perempuan
Alamat :	Bangsa : <input type="checkbox"/> Melayu <input type="checkbox"/> India <input type="checkbox"/> Cina <input type="checkbox"/> Lain-lain <input type="checkbox"/> Bukan Warganegara : _____
Status : <input type="checkbox"/> Kontak Maklumat Kes Indeks Nama: No. Kad Pengenalan: Tarikh/tempat isolasi: <input type="checkbox"/> Kes	Pekerjaan : Status Perkahwinan : <input type="checkbox"/> Bujang <input type="checkbox"/> Berkahwin

B. LAPORAN KLINIKAL

Simptom :	Status Imunisasi :
<input type="checkbox"/> Demam : Suhu °C <input type="checkbox"/> Ruam : Jenis Ruam _____ <input type="checkbox"/> Lain-lain : _____	<input type="checkbox"/> Ya Jenis Imunisasi : _____ Bilangan Dos : _____ Tarikh Dos yang Terakhir : _____ <input type="checkbox"/> Tidak
Tarikh onset : _____	
Diagnosis Klinikal:	

C. MAKLUMAT SPESIMEN

Jenis Spesimen	Masa/Tarikh Pungutan	Komen

D. KATEGORI SPESIMEN

<input type="checkbox"/> Wabak	<input type="checkbox"/> Surveilan	<input type="checkbox"/> Program/Projek
<input type="checkbox"/> Lain-lain : _____		

E. JENIS UJIAN : (Sila catitkan jenis ujian yang dipohon)

<input type="checkbox"/> Bakteriologi : _____	<input type="checkbox"/> Serologi : _____
<input type="checkbox"/> Biokimia : _____	<input type="checkbox"/> Lain-lain : _____

F. MAKLUMAT PEMOHON

Nama : _____	
Jawatan : _____	
Tarikh : _____	Cop dan Tandatangan

G. UNTUK KEGUNAAN MAKMAL

Keputusan : _____

Dilaporkan Oleh : _____ Disahkan Oleh : _____

Tarikh Laporan : _____

MAKMAL KESIHATAN AWAM KEBANGSAAN, KEMENTERIAN KESIHATAN MALAYSIA

Lot 1853, Kg Melayu Sungai Buloh, 47000 Sungai Buloh, Selangor Darul Ehsan

Tel: 03-61565109 Fax: 03-61402249/61569654

LABORATORY REQUEST FORM FOR DENGUE AND FLAVIVIRUS

Lab No. (for lab use) :

REQUESTOR INFORMATION

Name :

Post :

Address :

District :

State :

Tel. No. :

Fax No. :

Email :

Purpose of Sampling

a. Dengue (please tick purpose of sampling as below)

- Outbreak
 Surveillance
 Diagnostic

b. Flavivirus (please tick purpose of sampling as below)

- Outbreak
 Surveillance
 Diagnostic

Specimen Category : case Contact**A. PATIENT'S INFORMATION**

Name :

Age :

Date of birth

IC No.

Sex :

 Male Female

Reference No. :

Nationality : Malaysian Non Malaysian

Address

(Please state country of origin) _____

Postcode :

Occupation :

District :

State :

Tel. No. :

B. CLINICAL SUMMARY

- Fever : T°C
 Retro-orbital pain
 Maculopapular rash
 Vomitting
 Myalgia/arthritis

- Diarrhea
 Bleeding tendencies
 Hepatomegaly
 Shock
 CNS Complications

Laboratory findings at admission

Hb : TWBC : (PN : %; L: %; M: %; E: %)

Platelets : /mm³ HCT :

Dengue NS1 : Date of test :

Method :

Dengue IgG : Date of test :

Method :

Dengue IgM : Date of test :

Method :

Date of fever onset : _____(dd/mm/yyyy)

Clinical/Provisional Diagnosis :

- Dengue Fever
 Dengue Shock Syndrome
 Compensated Shock

 Dengue Hemorrhagic Death : _____(dd/mm/yyyy) Other (flavivirus).**C. PATIENT'S LOCATION**

- Clinic Ward ICU

D. SPECIMEN INFORMATION

Type of specimen : _____

Name of Collector :

Date of Collection: (dd/mm/yyyy)

Date specimen Received (for lab use) : (dd/mm/yyyy)

E. RESULTS (for lab use only)

Verified by :

Date:

BORANG PERMOHONAN UJIAN MAKMAL
HAND FOOT AND MOUTH DISEASE (HFMD)
MAKMAL KESIHATAN AWAM

No. Rujukan Makmal: MKA _____ / CL / 20 _____ / _____)

A. TUJUAN PERSAMPELAN	
Wabak / Kluster wabak	<input type="radio"/>
Survelan (Klinik Sentinel)	<input type="radio"/>
Kes Teruk (Masuk Wad & Umur < 5 tahun) / Sporadik	<input type="radio"/>

B. MAKLUMAT PESAKIT	
Nama Pesakit:	
No. Kad Pengenalan / Passport:	Umur:
Warganegara:	Jantina: L / P
Hospital / Klinik Kesihatan:	Wad:
R/N:	Bangsa :
Negeri:	Daerah :

C. MAKLUMAT KLINIKAL			
Gejala	Tandakan (✓) di ruangan berkenaan	Tarikh mula	
Demam ≥ 38°C			
Ulser di mulut & tekak			
Maculopapular rash dan / vesikel pada tapak tangan dan tapak kaki			
Tanda dan gejala URTI			
Lain-lain			

D. MAKLUMAT SPESIMEN KLINIKAL				
Jenis Spesimen	Tandakan (✓) di ruangan berkenaan	Tarikh diambil	Tarikh dihantar	Pengambil Sampel
Rectal swab				
Mouth ulcer				
Vesicle swab				
Stool				

- Ambil dan hantar hanya 1 sampel sahaja mengikut keutamaan
- Sampel swab mesti dimasukkan ke dalam bekas yang mengandungi Viral Transport Medium (VTM) dan suhu penghantaran untuk semua sampel adalah 2-8 degree celsius.

E. MAKLUMAT PEMOHON	F. MAKLUMAT MAKMAL TRANSIT* (sekiranya berkenaan)
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:
No. Telefon:	No. Telefon:

G. UNTUK KEGUNAAN MAKMAL	
Kaunter Penerimaan Sampel	Makmal
Tarikh spesimen diterima:	Tarikh spesimen diterima:
Suhu: °C	Suhu: °C
Jenis spesimen:	Jenis spesimen:
Status: Sampel Diterima / Sampel Ditolak*	Status: Sampel Diterima / Sampel Ditolak*
* Sekiranya spesimen ditolak, sila nyatakan sebab:	
CATATAN:	
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:

Sebarang kemasukan, sila hubungi:

Makmal Kesihatan Awam Johor Bahru (u.p Makmal Molekular) : 07-2387162 / 2019

MALAYSIA INFLUENZA

SISTEM SURVELAN INFLUENZA KEBANGSAAN BORANG PERMOHONAN UJIAN MAKMAL

No. Rujukan Makmal: (IMR / RES / 20 /) (MKAK / RES / 20 /)

A. MAKLUMAT PESAKIT				
Negeri:				
Hospital / Klinik Kesihatan:		Wad:		
Nama Pesakit:		No. Kad Pengenalan / Passport:		
R/N:	Warganegara:	Umur:	Jantina: L / P	

B. MAKLUMAT KLINIKAL		
Gejala	Tandakan (✓) di ruangan berkenaan	Tarikh mula
Demam ≥ 38°C / sejarah demam beberapa hari sebelumnya		
Batuk		

Dapatan X-Ray (sekiranya berkenaan):

C. MAKLUMAT SPESIMEN KLINIKAL					
Jenis Spesimen	Tandakan (✓) di ruangan berkenaan	Tarikh diambil	Tarikh dihantar	Pengambil Sampel	(Tandatangan & Cop)
Nasopharyngeal (NP) swab					
Throat swab					
Nasopharyngeal aspirates					
Bronchoalveolar lavage (BAL)					
Tracheal aspirate					
Endotracheal tube aspiration					
Lain-lain (sila nyatakan:)					

NOTA: Sampel palitan (swab) mesti dimasukkan ke dalam bekas yang mengandungi Viral Transport Media (VTM) dan sampel lain dimasukkan ke dalam bekas steril kosong.
Kesemua jenis sampel mesti disimpan pada suhu 2°-8°C sejurus diambil dan tiba di makmal yang dikenalpasti dalam tempoh sekurang-kurangnya 48 jam selepas pengambilan.

CATATAN:

D. MAKLUMAT PEMOHON	E. MAKLUMAT MAKMAL TRANSIT* (sekiranya berkenaan)
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:
No. Telefon:	No. Telefon:

* Makmal Transit: Makmal dimana spesimen dihantar untuk tujuan pengumpulan sebelum ia seterusnya dihantar ke MKAK Sungai Buloh / Unit Virologi, IMR

F. UNTUK KEGUNAAN MAKMAL	
Kaunter Penerimaan Sampel	Makmal
Tarikh spesimen diterima:	Tarikh spesimen diterima:
Suhu: °C	Suhu: °C
Jenis spesimen:	Jenis spesimen:
Status: Sampel Diterima / Sampel Ditolak*	Status: Sampel Diterima / Sampel Ditolak*
* Sekiranya spesimen ditolak, sila nyatakan sebab:	
CATATAN:	
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:

Sebarang kemasukan, sila hubungi:

- Makmal Kesihatan Awam Kebangsaan (MKAK) Sungai Buloh, Selangor (u.p. Makmal Isolasi Virus): 03-6126 1200 / 1325
- Unit Virologi, Institut Penyelidikan Perubatan (IMR): 03-2616 2671

No. Rujukan Makmal

MEASLES – BORANG PERMOHONAN DAN KEPUTUSAN UJIAN MAKMAL

A. MAKLUMAT PESAKIT			
Negeri:	Daerah:		
Hospital / Klinik Kesihatan:			
Nama Pesakit:			
No. K/P:	Umur:	Jantina: L / P	
B. MAKLUMAT IMUNISASI MEASLES			
Imunisasi measles: <input type="checkbox"/> Ada <input type="checkbox"/> Tiada <input type="checkbox"/> Tidak diketahui	Tarikh dos terakhir diberi:		
C. MAKLUMAT KLINIKAL			
Gejala (Simptom)	Ada / Tiada (Tandakan ✓ diruang berkenaan)	Tarikh mula	
Demam			
Ruam (maculopapular rash)			
Konjunktivitis			
Batuk			
“Coryza”			
D. SPESIMEN KLINIKAL			
Spesimen: <input type="checkbox"/> Pertama <input type="checkbox"/> Kedua			
Spesimen (tandakan ✓ diruang berkenaan)	Tarikh diambil	Tarikh penghantaran	
Darah / Serum	/ /	/ /	
Sekresi pernafasan (Respiratory secretion)	/ /	/ /	
Air kencing (Urine)	/ /	/ /	
E. MAKLUMAT PEMOHON			
Nama dan Cop Pegawai:	No telefon: No. fax: e-mail:		
Tandatangan:			
F. MAKAL (Untuk Kegunaan Makmal)			
Keadaan spesimen:	Tarikh terima spesimen:		
Spesimen	Jenis ujian	Keputusan ujian	Komen
Darah / Serum			
Sekresi pernafasan (Respiratory secretion)			
Air kencing (Urine)			
Nama dan tandatangan Pegawai Makmal:			
Jawatan Pegawai Makmal dan Cop Makmal:			Tarikh:

* Nota: Jika spesimen ini adalah spesimen kedua, maklumat mengenai Imunisasi Measles dan Klinikal tidak perlu diisi jika telah diisi pada borang spesimen pertama.

Spesimen klinikal (darah / sekresi pernafasan / air kencing) hendaklah diambil jika pesakit disyakki sebagai kes measles.
Defini kes (case definition) adalah seperti dinyatakan di belakang.

Measles Elimination In Malaysia – Measles Surveillance Manual (1st edition)

SURVELAN INFLUENZA-LIKE-ILLNESS (ILI) DAN SEVERE ACUTE RESPIRATORY INFECTION (sARI)

BORANG PERMOHONAN UJIAN MAKMAL

(Sampel ILI Dihantar Ke MKAK/MKA Mengikut Zon & Sampel sARI Dihantar Ke Unit Virologi, IMR)

No. Rujukan Makmal (MKAK/MKA/IMR):

A. MAKLUMAT PESAKIT			
Negeri:			
Hospital / Klinik Kesihatan:		Wad:	
Nama Pesakit:		No. Kad Pengenalan / Passport:	
R/N:	Warganegara:	Umur:	Jantina: L / P

B. MAKLUMAT KLINIKAL		
Gejala	Tandakan (✓) di ruangan berkenaan	Tarikh mula
Demam ≥ 38°C / sejarah demam beberapa hari sebelumnya		
Batuk		
Sakit Tekak		
Pneumonia		
Lain-lain (Nyatakan)		

Dapatan X-Ray (sekiranya berkenaan):

C. MAKLUMAT SPESIMEN KLINIKAL				
Jenis Spesimen	Tandakan (✓) di ruangan berkenaan	Tarikh diambil	Tarikh dihantar	Pengambil Sampel
Nasopharyngeal swab (NPS) Oropharyngeal swab (OPS)				(Tandatangan & Cop)
Saliva				
Aspirate (sila nyatakan:)				
Lain-lain (sila nyatakan:)				

NOTA: Sampel pelitan (swab) mesti dimasukkan ke dalam bekas yang mengandungi Viral Transport Media (VTM) dan sampel lain dimasukkan ke dalam bekas steril kosong. Kesemua jenis sampel mesti disimpan pada suhu 2°-8°C sejurus diambil dan tiba di makmal yang dikenalpasti dalam tempoh sekurang-kurangnya 48 jam selepas pengambilan.

CATATAN:

D. MAKLUMAT PEMOHON	E. MAKLUMAT MAKMAL TRANSIT* (sekiranya berkenaan)
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:
No. Telefon:	No. Telefon:

* Makmal Transit: Makmal dimana spesimen dihantar untuk tujuan pengumpulan sebelum ia seterusnya dihantar ke MKAK Sungai Buloh / Unit Virologi, IMR

F. UNTUK KEGUNAAN MAKMAL	
Kaunter Penerimaan Sampel	Makmal
Tarikh spesimen diterima:	Tarikh spesimen diterima:
Suhu: °C	Suhu: °C
Jenis spesimen:	Jenis spesimen:
Status: Sampel Diterima / Sampel Ditolak*	Status: Sampel Diterima / Sampel Ditolak*

* Sekiranya spesimen ditolak, sila nyatakan sebab:

CATATAN:	
Tandatangan & Cop Pegawai:	Tandatangan & Cop Pegawai:

Sebarang kemasukan, sila hubungi:

- Makmal Kesihatan Awam Kebangsaan (MKAK) Sungai Buloh, Selangor (u.p. Makmal Isolasi Virus): 03-6126 1200 / 1325
- Unit Virologi, Institut Penyelidikan Perubatan (IMR), NIH, Setia Alam; 03-33628960

KAWALAN PENYAKIT-PENYAKIT BAWAAN VEKTOR KEMENTERIAN KESIHATAN MALAYSIA

PEMERIKSAAN SEMULA SELAID FILARIA

1. Makmal yang mengantar : _____

2. Nama Pelapor : _____
3. Jawatan : _____
4. Tarikh :

Makmal yang memeriksa semula : _____

Tarikh diterima : _____

Tarikh penghantaran balik : _____

Name : _____

No. Rujukan

KAWALAN PENYAKIT-PENYAKIT BAWAAN VEKTOR
KEMENTERIAN KESIHATAN MALAYSIA

PEMERIKSAAN SEMULA SELAID MALARIA

1. Makmal yang Menghantar:
2. Nama Pelapor:
3. Jawatan:
4. Tarikh:

Makmal yang memeriksa semula:

Tarikh diterima :

Tarikh penghantaran balik:

Nama :

Nama :

MAKLUMAT PEMOHON (cop rasmi)	
Nama :	
Jawatan :	
Alamat :	
Daerah :	Negeri :
No. Tel :	No. Faks :
E-mel :	

No. Makmal (untuk kegunaan makmal):

MAKMAL KESIHATAN AWAM KEBANGSAAN
KEMENTERIAN KESIHATAN MALAYSIA
 Lot 1853, Kg. Melayu Sungai Buloh,
 47000 Sungai Buloh, Selangor Darul Ehsan
 Tel : 03 - 61565109
 Faks : 03 - 64102249 / 61569654

BORANG PERMOHONAN PENYIASATAN/PEMANTAUAN SAMPEL PERSEKITARAN

A. MAKLUMAT SAMPEL					
Jenis Sampel :	Tujuan persampelan :				
Tarikh Persampelan :	<input type="checkbox"/> Wabak / kluster <input type="checkbox"/> Survelan <input type="checkbox"/> Program / projek <input type="checkbox"/> Lain-lain :				
Lokasi Persampelan :					
Nama Pegawai Persampelan :					
No. Kad Kuasa Pegawai Persampelan :					
Jenis ujian :					
Analisa Parameter Fizikal					
ID Sampel	Masa Persampelan	Suhu (°C)	pH	Clarity	Catatan
B. MAKLUMAT SAMPEL BERKAITAN PENGESANAN LEGIONELLA SAHAJA					
Jumlah Tangki/Menara Penyejuk :	Tarikh Akhir Penyelenggaraan :				
Kaedah yang digunakan untuk penyelenggaraan (termasuk jenis bahan kimia) :					
C. MAKLUMAT KES (sekiranya ada) :					
Nama kes :	Status kes / <input type="checkbox"/> Hidup				
No. K/P atau ID :	kontak* : <input type="checkbox"/> Mati				
Pekerjaan / Pendedahan (Exposure) :	* potong mana yang tidak berkenaan				

D. MAKLUMAT LOKASI PERSAMPELAN

Keadaan Sekitar Lokasi Persampelan :

- Premis makanan *(Kekal / Bergerak)
- Pernakan haiwan. Nyatakan :
- Kawasan Kediaman / Perumahan. Nyatakan :
- Aktiviti rekreasi. Nyatakan :
- Aktiviti pertanian
- Sistem pengurusan sisa *(Baik / Tidak)
- Sistem saliran air *(Baik / Tidak)
- Kawasan banjir
- Kawasan redup / celah batu
- Lain-lain :

* potong mana yang tidak berkenaan

Adakah sampel air menjadi sumber bekalan air kepada awam? Ya Tidak

Jenis sumber air : Terawat Tidak Terawat. Nyatakan :

E. LAKARAN LOKASI PERSAMPELAN

Petunjuk :

DOKUMEN TERKINI



**MAKMAL KESIHATAN AWAM JOHOR BAHRU
KEMENTERIAN KESIHATAN MALAYSIA**

UJIAN PARAS CHOLINESTERASE

Doc. No. : D/WS/02-001
Revision No. : 02
Effective Date : 1st Jan 2018
Page No. : 1 of 1

(A) BUTIR PERIBADI

Nama :	Umur :	
No Kad Pengenalan :	Pekerjaan :	
Jantina : L / P	Bangsa : M/C/I/L	Taraf Perkahwinan: Bujang/Berkahwin
Alamat Majikan :		

(B) BUTIR KLINIKAL

Berat badan :	kg	Tinggi :	m	Tekanan darah :	/mmHg
---------------	----	----------	---	-----------------	-------

Ada menggunakan racun perosak selain daripada semasa bekerja?
(contoh berkebun atau ladang) Sila tandakan (/) pada kotak.

Ya	
Tidak	

Ada mengambil ubat?

(Jika ada sila nyatakan nama ubat-ubat tersebut)

Ada tanda-tanda klinikal berikut (Sila tanda [/] pada kotak)

<i>Jaundice</i>	<i>Anxiety</i>	<i>Staggering gait</i>
<i>Lymphadenopathy</i>	<i>Tremors</i>	<i>Mental confusion</i>
<i>Hepatomegaly</i>	<i>Salivation</i>	<i>Miosis</i>
<i>Splenomegaly</i>	<i>Lacrimation</i>	<i>Hypotension</i>
Lain-lain: Sila nyatakan		

Sejarah klinikal (termasuk pengambilan alkohol, merokok)

(C) BUTIR PENYEMBURAN RACUN PEROSAK

Jenis racun perosak. (Sila tandakan [/] pada kotak)	<i>Organophosphate</i>	<i>Carbamate</i>
---	------------------------	------------------

Ada memakai perlindungan diri seperti berikut semasa mengendalikan racun perosak?
(Sila tandakan [/] pada kotak.)

Topeng muka (mask)
Sarong tangan
Apron/kot/Baju khas
Kasut but getah
Earplug/earmuff
Goggles
Lain-lain. Sila nyatakan.....

Tarikh akhir penyemburan/pendedahan pada racun perosak (Diisi untuk permohonan baseline shj)

Tempoh masa anggota direhatkan (Diisi untuk permohonan baseline shj)	> 30 hari
	> 14 hari

(D) UJIAN CHOLINESTERASE (Sila tandakan [/] pada yang berkaitan)

a) Serum **BASELINE** (Sebelum Penyemburan)

<i>1st Baseline</i>		Tarikh Pengambilan	Masa Pengambilan
<i>2nd Baseline</i>			
<i>3rd Baseline</i> (Jika perlu)			

b) Serum **POST EXPOSURE** (Selepas Penyemburan)

Tarikh Penyemburan		Masa Pengambilan
Tarikh Pengambilan darah		

Nama Pegawai Perubatan :
Cop dan Pengesahan : Tarikh penghantaran :

DOKUMEN TERKAWAL



MAKMAL KESIHATAN AWAM JOHOR BAHRU
KEMENTERIAN KESIHATAN MALAYSIA

Doc. No. : D/WS/02-003

Revision No. : 00

Effective Date : 1st Jan 2018

Page No. : 1 of 1

UJIAN SARINGAN "CONGENITAL HYPOTHYROIDISM"

Hospital

Perkara 1-9 hendaklah diisi oleh kakitangan bilik bersalin

Perkara 11-12 hendaklah diisi oleh kakitangan makmal



Leptospirosis Request Form
Makmal Kesihatan Awam
Jalan Persiaran Tanjung
81200 Johor Bahru Johor

LEPTOSPIROSIS/MKAJB

Tel: 07-2387162

A. SENDER'S INFORMATION

Hospital: _____

Ward: _____

Date of Admission: ___/___/___

Name of Requesting Doctor: _____

Signature: _____

Tel No: _____

Fax No: _____

B. PATIENT INFORMATION

Name: _____

Address: _____

IC No: _____

R/N No: _____

Age: _____ Date of Birth: ___/___/___

Race: Malay Chinese Indian

Others: _____

Sex: Male Female

Occupation: _____

C. CLINICAL FEATURES / COMPLICATIONS

Date Onset: ___/___/___

Illness duration: ___ days

Sign & Symptoms:

MUST TICK AT LEAST ONE OF THE FOLLOWING

- Conjunctival suffusion
- Meningeal irritation
- Jaundice
- Haemorrhages (from the intestinal and lungs)
- Cardiac arrhythmia or failure

- Others: _____
- Nausea/vomiting
- Jaundice
- Diarrhoea
- Rash
- Convulsion
- Hepatomegaly
- Lymphadenopathy

D. EXPOSURE

- Bathing/swimming(where) _____
- Hunting(where) _____
- Fishing(where) _____
- Camping(where) _____
- Contact with animals (cattle,cow,rodents)

E. SPECIMEN INFORMATION

Date of collection: ___/___/___

Type of specimen:

- Blood for PCR (5 mls in EDTA tube, only for cases with fever lesser than 10 days, prior to antibiotics)

F. LABORATORY INFORMATION

Date specimen received: ___/___/___

Date test performed: ___/___/___

Result of test:

Verified by: _____

PROGRAM TB / KUSTA
JABATAN KESIHATAN NEGERI JOHOR
PERMOHONAN UJIAN GENE XPERT

Maklumat berikut perlu diisi setiap kali permohonan ujian dilakukan. Lampiran ini hendaklah dikepalkan bersama-sama borang permohonan TBIS 20C

KLINIK KESIHATAN: _____

TARIKH : _____

DAERAH : _____

NAMA PESAKIT :

NO KAD PENGENALAN :

Sila tandakan dalam petak yang disediakan (WAJIB DIISI)

SEBAB UJIAN DIJALANKAN

- Kanak-Kanak
- PL HIV
- Kes Berulang
- Gagal Rawatan
- Terhenti Rawatan
- Hilang Dalam Rawatan
- Sputum Tak Convert Selepas 2 Bulan
- Tiada Perubahan Gejala Selepas 2 Bulan
- Kes DR-TB Susulan (Selain RR-TB & MDRTB)
- Kontak DR-TB

UJIAN KULTUR :

- MTB Complex
- NTM
- Pending
- Not Done
- No Growth
- Contaminated

DST (RIFAMPICIN)

- Resistance
- Sensitive
- Pending
- Not Done