



Haematology & Transfusion Medicine Unit

CME1

Dr Fatmawati Kamal

Head of HM & TMU

Introduction

- Haematology
 - CBC/ CBC-diff
 - Reticulocyte count (%)
 - Haemostasis
 - *PT/ aPTT/ Ddimer, mixing test*
 - Iron profile
 - Peripheral blood film
 - Special haematology
 - *Bone marrow, thrombophilia, factor assay, Hb analysis.*
- Transfusion Medicine
 - Pre-transfusion testing
 - Group & crossmatch
 - DAT
 - Transfusion reaction investigation.

Filling up forms

- Clinical history
 - Relevant, correct
 - Sufficient
 - Tally with the test ordered.
 - Prev lab findings when applicable

FORMS

PERKHIDMATAN PATOLOGI HOSPITAL 17th St Buloh																																		
1. Nama: Ng Ghim Hwa	2. No. Pendaftaran: C1																																	
3. No. K/P: 620403086433	4. Jantina: <input checked="" type="checkbox"/> Lelaki																																	
5. Umur: 57	6. Keturunan: MELAYU	7. Wad/Unit: 2																																
8. Tarikh Masuk Wad: 29/11/2019	9. Pekerjaan: PATHOLOGIST	10. Taraf Perkahwinan: <input checked="" type="checkbox"/> Sudah																																
12. No. Laporan Dahulu:	13. Bilangan Pelesenan: 10194472 KOD: 8705 C9 C4 81000 (P)1																																	
14. Ringkasan Klinikal, Penemuan Pembedahan dan Riwayat Keluarga: No urinal episode with weakness pusule kerosokan di CT scan Kemp HBT uskup od thrombophilic screen																																		
15. Diagnosis: Yang HBT. Pusule kerosokan.																																		
16. Kategori Permohonan/Jenis Ujian: <table border="1"><thead><tr><th>Patologi Kimia</th><th>Klinikal</th><th>Hematologi</th><th>Histo/Sitologi</th></tr></thead><tbody><tr><td>B. Sugar</td><td>Bld. Count</td><td>BBP</td><td></td></tr><tr><td>B. Urea</td><td>ESR</td><td>BM Asp</td><td></td></tr><tr><td>S. Elec</td><td>BFMP</td><td>Hb Analysis</td><td></td></tr><tr><td>B. Gases</td><td>U. Sugar</td><td>Coagulation</td><td></td></tr><tr><td>S. Bilirubin</td><td>U. Alb.</td><td></td><td></td></tr><tr><td>LFT</td><td>U. ME</td><td></td><td></td></tr><tr><td>Se. Creatinine</td><td>Stool ME</td><td></td><td></td></tr></tbody></table> Lain-lain: Complement 3, Complement 4			Patologi Kimia	Klinikal	Hematologi	Histo/Sitologi	B. Sugar	Bld. Count	BBP		B. Urea	ESR	BM Asp		S. Elec	BFMP	Hb Analysis		B. Gases	U. Sugar	Coagulation		S. Bilirubin	U. Alb.			LFT	U. ME			Se. Creatinine	Stool ME		
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S. Bilirubin	U. Alb.																																	
LFT	U. ME																																	
Se. Creatinine	Stool ME																																	
17. Pengambilan Specimen: Tarikh: 01/12/19 Masa: 10.00																																		
18. Nama Doktor: [Redacted]																																		
19. Tarikh: 01/12/19																																		

- Illogical
- Lack of knowledge

: 59y 6m 7d Ordered Date/Time : 27-02-2020 01:46
 : Malay Consultant in Charge :
 : MALE
 : N/A
 History **ANEMIA**

Test Name	Specimen	Location	Priority
PERIPHERAL BLOOD FILM	WHOLE BLOOD	CPDRLSB	URGENT

Collection : 27-02-2020 05:19:36
 Taken by / Printed : NURSYAZWANI ARIFFIN
 Taken at : SBC - Phlebotomy Ward 1

ARRIVED

CSL Diff Lab release.

27 FEB'20 8:31AM

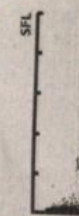
(P) PBF

No.: 107789202
 Patient ID: 1810-067983
 Name: Mohammad Bin Zali
 Sample Comment:
 Ward: Adapter: 17
 Bir

Positive Count

WBC	7.87	[10 ³ /uL]	
RBC	7.04 +	[10 ⁶ /uL]	
HGB	20.8 +	[g/dL]	
HCT	63.9 +	[%]	
MCV	90.8	[fL]	
MCH	29.5	[pg]	
MCHC	32.6	[g/dL]	
PLT	142	[10 ³ /uL]	
RDW-SD	45.7	[fL]	
RDW-CV	14.3	[%]	
PDW	12.6	[fL]	
MPV	11.0	[fL]	
P-LCR	31.3	[%]	
PCT	0.16	[%]	
NEUT	5.49	[10 ³ /uL]	69.7 [%]
LYMPH	1.50	[10 ³ /uL]	19.1 [%]
MONO	0.66	[10 ³ /uL]	8.4 [%]
EO	0.21	[10 ³ /uL]	2.7 [%]
BASO	0.01	[10 ³ /uL]	0.1 [%]
IG	0.02	[10 ³ /uL]	0.3 [%]
RET		[%]	
IRF		[%]	
LFR		[%]	
MFR		[%]	
HFR		[%]	
RET-He		[pg]	

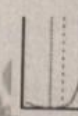
WDF



RET



RBC



WBC IP Message

RBC IP Message
Erythrocytosis

Mohammad Bin Zali
Rev. 27/2/2020
1077892
FORM

Department of Pathology
Level 1, UiTM Medical Specialist Center
Faculty of Medicine
UiTM Sg Buloh
Jalan Hospital
47000 Sg Buloh Selangor
Phone: 03-6126 5000 Ext: 5215

URGENT

HAEMATOLOGY REQUEST FORM

UITM/

Name : MOHAMMAD BIN ZALI
Reg No : 1810067983
I/C No : 600820035823
DOB : 20-08-1960
Age : 59y 6m 7d
Race : Malay
Gender : MALE
App.Date (Specimen) : N/A
Remark :

Clinic / Ward : SBC - Inpat
Date of Admission / Clinic :
Appointment :
Requested By : DR. MUHAM
Ordered Date/Time : 27-02-2020
Consultant in Charge :

Clinical History ~~ANEMIA~~ polycytemia ? 2020 to chronic hypoxia.
Pt smoke smoker, ex
ULLi - severe OSA, on CPAP during night. admitted for AEC.
- COPD on
spirometry respromat.

No	Test Name	Specimen	Location
1	PERIPHERAL BLOOD FILM	WHOLE BLOOD	CPDRLSB

Specimen Collection : 27-02-2020 05:19:36
Sample Taken by / Printed : NURSYAZWANI ARIFFIN
by
Sample Taken at : SBC - Phlebotomy Ward 1 → K3

MSA Ariff Jal

27 F

1079154
FORM

Faculty of Medicine
UiTM Sg Buloh
Jalan Hospital
47000 Sg Buloh Selangor
Phone: 03-6126 5000 Ext: 5215

URGENT

HAEMATOLOGY REQUEST FORM

Name : [REDACTED]
Reg No : [REDACTED]
I/C No : [REDACTED]
DOB : 08-02-1949
Age : 71y 1m 0d
Race : Malay
Gender : FEMALE
App.Date (Specimen) : N/A
Remark :
Clinic / Ward : SBC - Inp
Date of Admission / Clinic Appointment :
Requested By : [REDACTED]
Ordered Date/Time : 11-03-202
Consultant in Charge :

Clinical History
71Y.O lady
ul ESRF, DM.HPT, BRONCHIAL ASTHMA

H/O TYPE2 MI hb 6.8 post tx hb9

presented currently for APO
noted hb ranging 8-10 with hypochromic microcytic features

TRO hematological pathology

No	Test Name	Specimen	Location
1	PERIPHERAL BLOOD FILM	WHOLE BLOOD	CPDRLSB

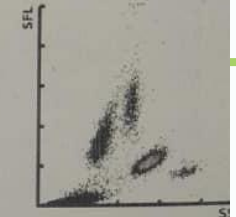
Specimen Collection : 11-03-2020 11:09:41
Sample Taken by / Printed : NURASYIMAH SUHAIMI
by
Sample Taken at : SBC - Phlebotomy Ward 1

Sample No.: 107915402
Patient ID: CTC0045832
Name: Membunga Binti Salle
Sample Comment:
Ward: Adapter: 1 Pos.: 10
Birth: 1
Nic

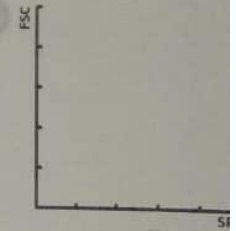
Positive Morph. Count

WBC 8.23 [10³/uL]
RBC 3.74 [10⁶/uL]
HGB 9.3 [g/dL]
HCT 28.5 [%]
MCV 76.5 [fL]
MCH 24.9 [pg]
MCHC 32.5 [g/dL]
PLT 361 [10³/uL]
RDW-SD 54.9 [fL]
RDW-CV 19.5 + [%]
PDW 10.5 [fL]
MPV 10.0 [fL]
P-LCR 23.8 [%]
PCT 0.36 [%]
NEUT 4.92 * [10³/uL] 59.7 * [%]
LYMPH 2.17 * [10³/uL] 26.4 * [%]
MONO 0.87 * [10³/uL] 10.6 * [%]
EO 0.22 [10³/uL] 2.7 [%]
BASO 0.05 [10³/uL] 0.6 [%]
IG 0.01 * [10³/uL] 0.1 * [%]
RET [%]
IRF [%]
LFR [%]
MFR [%]
HFR [%]
RET-He [pg]

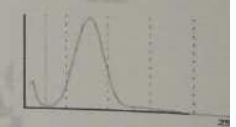
WDF



RET



RBC



PUSAT DARAH NEGARA
BORANG PERMOHONAN TRANSFUSI DARAH

(Mesti dipenuhi dalam dua salinan oleh Pegawai Perubatan. Tulis dengan pen mata bulat dan sila tandakan ✓ dalam petak yang sesuai.)

Nama (Tulis huruf besar) Suriana binti Salar		No. Kad Pengenalan 810110552		No. Daftar CTC0045433	
Hospital MUMK	Unit Surgical	Wad Ward 2	Bangsa Malayu	Umur 35th	Jantina Perempuan
Pegawai Kerajaan Ya/Tidak	Kelas	Bayar/Percuma	Pakar Perunding Miss Suraya	Kumpulan Darah Ada/Tiada	
Diagnosa			Sebab transfusi darah PRE-OP		Hb%

Diagnosis

Indication for transfusion

TMU

Transfusi darah masa lalu? Ya/Tidak	Jika 'ya' sebutkan tarikh transfusi darah yang terakhir	Komplikasi?
Sekiranya pesakit seorang wanita, nyatakan -->	Bil. Kehamilan	Bil. Lahir Mati
Tanda-tanda "Haemolytic Disease of Newborn"		
Contoh darah diambil dan dilabel oleh Nama Novarina Mohamed		Units/mls
Tandatangan [Signature]		Units/mls
Tarikh 24-2-2020		
Waktu 0940 pagi/petang		
<input type="checkbox"/> WHOLE BLOOD <input type="checkbox"/> PACKED CELLS <input type="checkbox"/> WASHED RED CELLS <input type="checkbox"/> LEUCOCYTE POOR RBC <input checked="" type="checkbox"/> GROUP, SCREEN & HOLD		<input type="checkbox"/> PLATELET CONCENTRATE <input type="checkbox"/> CRYOPRECIPITATE <input type="checkbox"/> FRESH FROZEN PLASMA <input type="checkbox"/> CRYOSUPERNATANT

Nota:-

- Sila hantarkan 5ml contoh darah dalam tiub tanpa antibekuan.
- Dalam keadaan kecemasan, sila telefon makmal transfusi darah. Ujian keserasian darah memerlukan masa 2 jam. Bila darah diperlukan dengan segera, ujian keserasian darah boleh dipercepatkan, tetapi tahap keselamatan penggunaan darah adalah berkurangan dan Pegawai Perubatan yang menggunakan darah tersebut bertanggungjawab di atas segala masalah yang timbul sekiranya ada. Untuk kes-kes yang tidak memerlukan darah dengan segera, hantarkan contoh darah 24 jam lebih awal.
- Darah yang tidak digunakan pada waktu yang ditetapkan dalam tempoh 24 jam akan dibatalkan kecuali pegawai Perubatan meminta dipanjangkan tempoh simpanannya.
- MUSTAHAK- Sila beritahu PPD dengan segera sekiranya darah yang diminta tidak diperlukan.
- AMARAN: Setiap transfusi darah membawa risiko kecil infeksi.

WARNING: Every blood transfusion carries a small risk of infection.

Bekalan diperlukan

(a) Serta merta, tanpa ujian keserasian darah (untuk menyelamatkan nyawa)

(b) Segera (lihat Nota 2)

(c) Pada jam pg/ptg (Lihat Nota 3)

(d) Disimpan selama 24 jam.

Saya di sini mengesahkan bahawa spesimen darah yang disertakan ini telah diambil daripada pesakit bernama seperti di atas, bahawa saya telah mengenalpasti identiti pesakit dengan bertanya secara langsung dan/atau dengan memeriksa gelang pengenalan pesakit, dan bahawa saya telah melabel spesimen berkenaan dengan serta merta sebaik sahaja ia diambil.

Pegawai Perubatan
WAD 2
Pusat Pakar Perubatan I

Tandatangan: [Signature]

Cop dan Nama Pegawai Perubatan: [Signature] 77492
(Huruf besar)

KHAS UNTUK KEGUNAAN KAKITANGAN MAKMAL PUSAT PERKHIDMATAN DARAH

Permintaan diterima	T/Tangan	Anti A	Anti B	Anti AB	Sel A	Sel B	Sel O	Rh D	Kump. Darah	T/Tangan	Tarikh & masa
Tarikh	[Signature]	4+	4+	4+	0	0	0	4+	AB	[Signature]	24/2/20
Waktu								pos			11:15pm

UJIAN KESERASIAN DARAH

Serum pesakit diserasikan dengan beg darah no.	UJIAN KESERASIAN DARAH					Catatan
	R.T.	37°C	AHG	T/Tangan	Tarikh & masa	
AB/113343217361/1	0	0	0	[Signature]	24/2/20 11:30pm	Antibody Screening Negative

Rejection rate

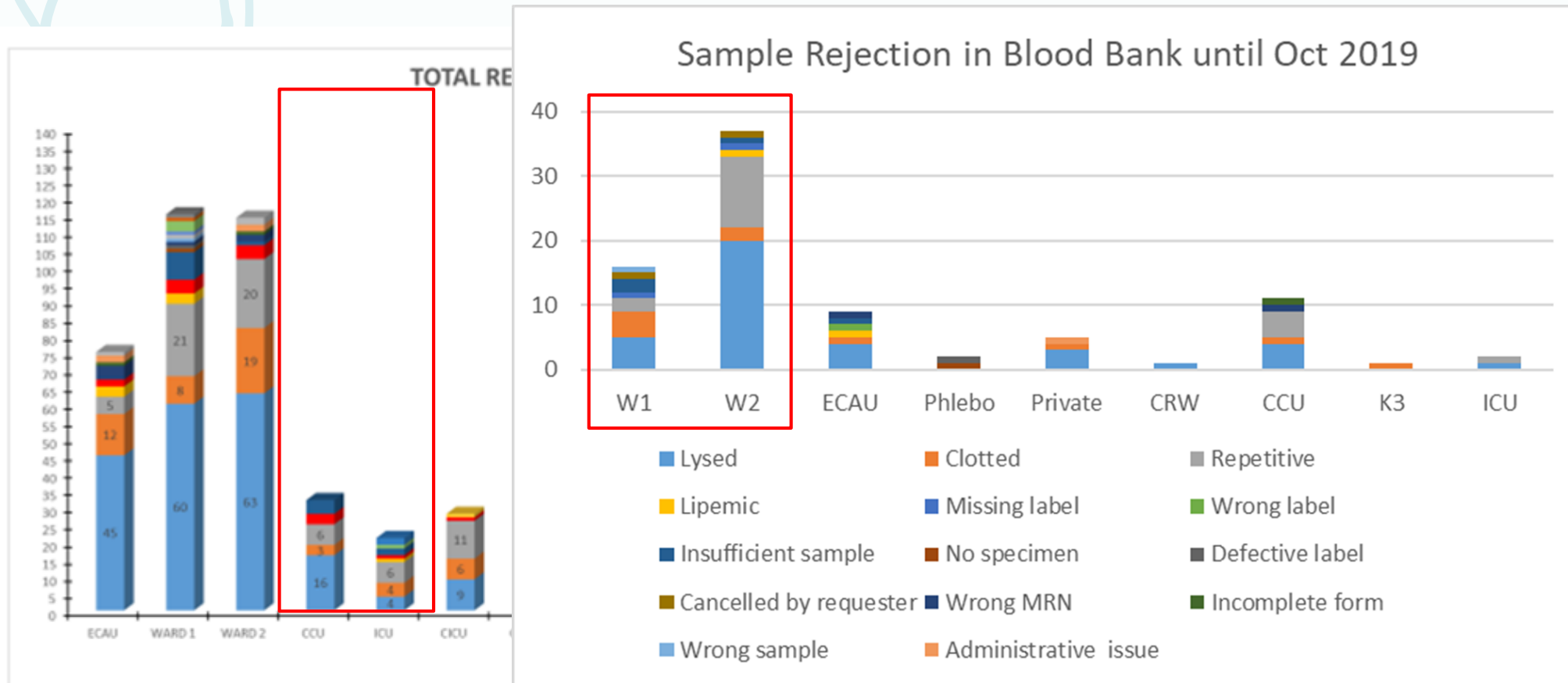


Table 3.4: Thrombophilia Testing^{124,125}

Recommendations	Grade
Do not offer thrombophilia testing during the acute thrombotic event or prior to initiation of anticoagulant therapy	B
Do not offer thrombophilia testing to patients who are continuing anticoagulant treatment	B
Consider testing for APA and LA in patients who have had unprovoked DVT or PE if it is planned to stop anticoagulant treatment	B
Consider testing for hereditary thrombophilia in patients who have unprovoked DVT or PE and who have a first-degree relative who has had a DVT or PE if it is planned to stop anticoagulant treatment	C
Do not offer thrombophilia testing to patients who have had a provoked DVT or PE	A
Do not offer thrombophilia testing in women with a previous VTE associated with pregnancy or the oral contraceptive pill	C
Do not offer thrombophilia testing to first-degree relatives of patients with thrombophilia who have had a DVT or PE	B
Do not offer thrombophilia testing to patients who have had an arterial thrombosis but consider APA and LA if there are no other risk factors	B
Do not offer thrombophilia testing in recurrent miscarriages or pregnancy losses except for APA and LA	B
Neonates and children with purpura fulminans should be tested urgently for protein C or protein S deficiency	A



FACULTY OF MEDICINE

Universiti Teknologi MARA

Passion for Excellence, Compassion for People



practice worldwide.

specialist training in medicine.

- In providing produce/generate/ deliver relevant, translational, fundamental and cutting-edge research in medicine.
- In the provision of medical services .



UNDERGRADUATE

The undergraduate programme, MBBS440 is a 5-years MQA accredited programme that consist of pre-clinical and clinical studies. It involves 3 campuses in Sg. Buloh, Selayang & Teluk Intan
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POSTGRADUATE

Professional Masters in Clinical Medicine are offered in Medicine, Psychiatry, Primary Care and Pathology. Fellowships, Masters and PhD are also offered
[Read More](#)



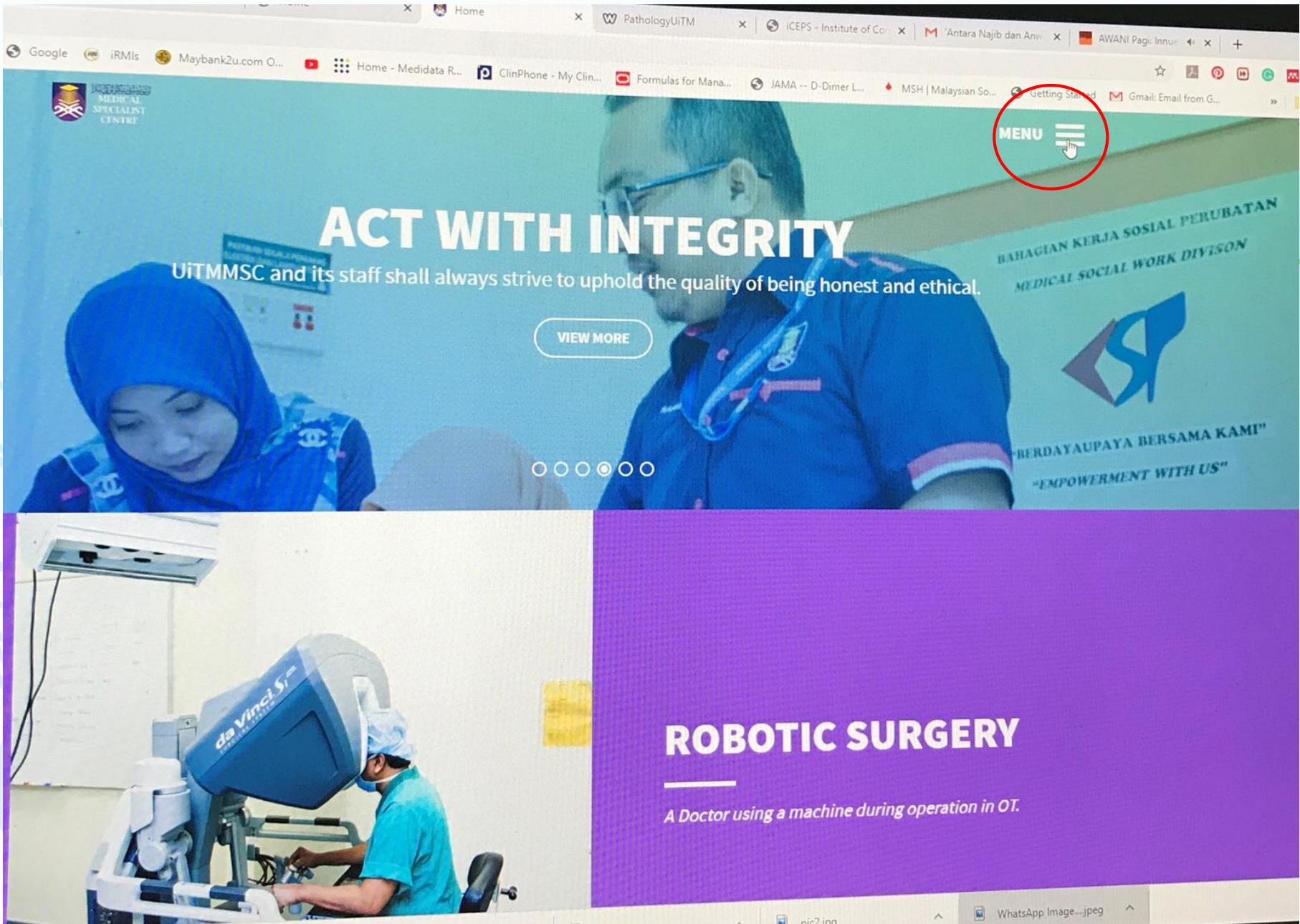
RESEARCH

Medical research is under the facilitation of the Research Secretariat of the faculty as well as the university's IRMI. There are also substantial number of state of the art facilities of research within the campuses
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CLINICAL SERVICE

UiTM Medical Specialist Centre (PPUITM) is currently providing services to the community in Selayang and Sungai Buloh. UiTM Private Specialist Centre (UITMPSC) provides the cutting-edge medical services namely robotic surgery and others
[Click here for PPUITM](#)
[Click here for UITMPSC](#)





PATHOLOGY


Faculty of Medicine, UiTM

Department of Pathology


Universiti Teknologi MARA Medical Centre (UiTMMSC)

Department of Pathology is an accredited medical laboratory that encompasses five pathology disciplines, namely Anatomic Pathology Unit, Chemical Pathology Unit, Haematology & Transfusion Medicine Unit, Medical Genetic Pathology Unit and Forensic Pathology Unit.


Department of Pathology caters for both diagnostic and research service. It is located on the first floor of the UiTM Medical Specialist Centre (UiTMMSC), UiTM Sungai Buloh Campus and on the 5th floor of the UiTM Medical Specialist Centre, UiTM Selayang Campus.




Anatomic Pathology Unit
Department of Pathology
Faculty of Medicine, UiTM




Chemical Pathology Unit
Department of Pathology
Faculty of Medicine, UiTM



**Haematology & Transfusion
Medicine Unit**
Department of Pathology
Faculty of Medicine, UiTM



Medical Genetics Unit
Department of Pathology
Faculty of Medicine, UiTM



Forensic Medicine Unit
Department of Pathology
Faculty of Medicine, UiTM

Contacts

Department of Pathology
Level 1, UiTM Medical Specialist Centre,
UiTM Sg. Buloh Campus,
47000, Jalan Hospital,
Sg. Buloh, Selangor,
MALAYSIA

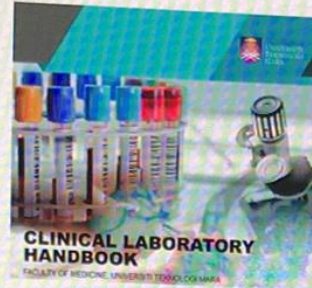
Central Specimen Reception (CSR)
03-61265000 ext 5215

Anatomic Pathology
03-61265000 ext 5053 / 5244

**Chemical Pathology/Haematology &
Blood Bank**
03-61265000 ext 5215 / 5209

UiTM Medical Centre Selayang
03-61264813

Downloads



HANDBOOK
CLINICAL LABORATORY HANDBOOK
1st Edition 2019

GUIDELINES
GUIDELINES FOR THROMBOPHILIA TESTING
GUIDELINES FOR THALASSAEMIA TESTING –
DNA ANALYSIS (2015)

REPORT
CHEMICAL PATHOLOGY SPECIMEN REJECTION
JAN_JUNE 2018

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CUSTOMER SATISFACTION SURVEY
FORM
RRF Research Request Form P&M July
2018
Borang Pembayaran Perkhidmatan
Makmal BPPM
THALASSAEMIA DNA ANALYSIS
FORM (WITH MALAY LANGUAGE
CONSENT FORM)
THALASSAEMIA DNA ANALYSIS
FORM (WITH ENGLISH LANGUAGE
CONSENT FORM)