HOSPITAL MELAKA

TRANSFUSION MEDICINE LABORATORY SERVICES HANDBOOK

SECOND EDITION, 2024

TRANSFUSION MEDICINE
LABORATORY SERVICES HANDBOOK

2nd EDITION, NOVEMBER 2024

JABATAN PERUBATAN TRANSFUSI
HOSPITAL MELAKA
NO TEL: 06-2892883

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TRANSFUSION MEDICINE SERVICES

A) INTRODUCTION

Transfusion Medicine Service Hospital Melaka is the sole provider of blood and blood components to Hospital Melaka as well as all district and private hospitals within the state. Headed by a Transfusion Medicine Specialist, the Transfusion Medicine Service is responsible for the collection, processing, and microbiological screening of all donated blood and supply of blood / blood components to patients for transfusion. Besides, the department also provides services for clinical transfusions and immunohematology testing. The department implement the usage of blood bank information system (BBISv2) for an efficient management of test requests and release of results in transfusion services.

B) SERVICES

The Transfusion Medicine Laboratory at Hospital Melaka offers 24-hour services for the pre-transfusion testing and provision of blood and blood components to both inpatients and outpatients requiring elective and emergency transfusions.

1. **Pre - transfusion tests offered are:**

   i. **GSH (Group, Screen & Hold)**
      a) ABO & Rh D grouping
      b) Antibody screening and antibody identification (if antibody screening positive)

   ii. **GXM (Group & Crossmatch)**
      a) ABO & Rh D grouping
      b) Antibody screening and antibody identification (if antibody screening positive)
      c) Crossmatch

2. **Other immunohematology test offered:**

   i. ABO Rh D grouping
   ii. Direct and Indirect Coombs (Antiglobulin) Test (DAT & IAT)
   iii. Red cell antibody titer (Anti-D, anti-c)
   iv. Red cell phenotyping
   v. Isohaemagglutinin (anti-A, anti-B) titer (need prior arrangement with medical officer/specialist)
   vi. Cold agglutinin titer (need prior arrangement with medical officer/specialist)
   vii. Donath- Landsteiner test (need prior arrangement with medical officer/specialist)
   viii. Investigations of all adverse transfusion reactions
   ix. Investigation of ABO discrepancy

3. **Other test / Services (need prior arrangement with medical officer/specialist):**

   i. **In-house**

   - Leukodepleted (filtered) red cells.
   - Wash red cells

   ii. **Outsource to Pusat Darah Negara (PDN)**

   - Irradiation of red cells and platelets
   - Pathogen inactivation of plasma
   - RBC genotyping.
   - Platelet immunology - for investigation of neonatal alloimmune thrombocytopenia, immune thrombocytopenia, platelet refractoriness and post-transfusion purpura).
   - Transfusion Related Acute Lung Injury (TRALI) investigation - HLA antibody/HLA typing

C) PRE-ANALYTICAL REQUIREMENTS.

1. ORDERING BLOOD FOR TRANSFUSION

The decision to transfuse shall be made based on clinical judgement. The benefits and risks shall be assessed, and alternative therapies shall be considered. The clinician managing the patient shall be responsible for prescribing blood for that patient.

In order to ensure patient safety, sampling and labelling of blood sample shall follow the following steps:

i. Positive patient identification by asking the patient to state their full name and IC number.
ii. Check the answer givens against the information stated on the patient's identification wristband and case notes.
iii. For unconscious and pediatric patients, patient identification should be done by checking the patient identification wristband and verifying the admission form/case notes. If a family member is with the patient, ask for the patient's full name and identification card number.
iv. The process of taking and labelling blood samples must be done by one personnel at the bedside, one patient at a time.
v. The person who takes the blood sample must fill up the form and label the blood tube by himself or herself.
vi. Label blood samples with a plain (empty) label, not a printed label.
vii. Never label 2 or more patient's sample at the same time.
viii. Second verifier needs to witness blood sampling and labeling procedure to ensure that sample is taken from the right patient and correctly labeled before signing the second verifier checklist.

- For further details, please refer to Prosedur Kualiti Pengurusan Transfusi Darah dan Komponen Darah (PK-HM-S-05) - available at Hospital Melaka website (MyHM Gateway).

2. REQUEST FORM (REFER TABLE 1 AND TABLE 2)

i. Borang Permohonan Transfusi Darah PER-SS-BT 105 (Pin.1/2016).
   a) All request forms must be filled out legibly.
   b) The following information must be provided in the request form.
      i) Patient's full name (in capital letter)
      ii) Patient's identity number: Identity card (IC) number/Passport number/Police or Army number/EDHM number (for unknown patient)
      iii) Patient's registration number (exception for unregistered patient from emergency department and emergency case from O&G Patient Admission Centre, Day Care)
      iv) Sex & age
      v) Source: Ward, Unit and Name of Hospital/Health Centers
      vi) Patient's Diagnosis /Reason of transfusion
      vii) Select type or blood component and write number of unit required
      viii) Name and signature of the personnel who obtained and labelled the samples, date and time
      ix) The requested doctor's name, signature and stamp.
      x) Second verifier checklist and signature (attach together with the GSH/GXM form).

ii. PER-PAT-301 form.
   a) All request forms must be filled out legibly.
      i) Patient's full name
      ii) Patient's identity number: Identity card number/Passport number/Police or Army number/EDHM number (for unknown patient)
      iii) Sex & age
      iv) Source: Ward, Clinic and Name of Hospital/Health Centers
      v) Patient's clinical summary and diagnosis
      vi) Test request
      vii) Time and date of request
      viii) The requested doctor's name, signature and stamp.

iii. For transfusion reaction investigations, inform the on-call MO blood bank. Obtain the transfusion reaction kit from the blood bank and follow the instructions provided.

3. SAMPLES/SPECIMENS/TYPE OF CONTAINERS (REFER TABLE 1 AND TABLE 2)

All patient samples must be labelled with two patient's identifiers (i.e., the full name of the patient and the patient's identity number). The volume and type of containers of blood required are based on the test request.

4. TYPE OF CONTAINER, SPECIMEN AND REQUEST FORM FOR EACH TEST.

i. For in-house tests (Table 1)

NO.	TEST	CONTAINER	SPECIMEN	VOLUME	REQUEST FORM
1.	Group, Screen and hold (GSH)	EDTA	Whole Blood	2 ml	Borang Permohonan Transfusi Darah PER-SS-BT 105 (Pin.1/2016) **(Refer Appendix 1)**
2.	Group and Crossmatch (GXM) (adult and infant > 4 months old)	EDTA	Whole Blood	2 ml	
3.	Group and Crossmatch (GXM) (neonate & Infant < 4 months old)	EDTA	Whole Blood	Neonate/infant: 2 ml Mother: 2 ml	
4.	Blood component request (FFP, Cryoprecipitate, platelet)	EDTA	Whole Blood	2 ml (Blood sample is not required if patient has at least 2 previous GSH/GXM record)	
5.	ABO and Rh D grouping	EDTA	Whole Blood	2 ml	PER-PAT 301 form **(Refer Appendix 2)**
6.	Antibody identification	EDTA	Whole Blood	8 ml (4 EDTA tubes)	
7.	Anti-D titre	EDTA	Whole Blood	2 ml	
8.	Direct Coombs (Antiglobulin) tests (DAT)	EDTA	Whole Blood	2 ml	
9.	Indirect Coombs (Antiglobulin) test (IAT)	EDTA	Whole Blood	2 ml	
10.	Red cell phenotyping	EDTA	Whole Blood	2 ml	
11.	Cold agglutinin test	EDTA	Whole Blood	4 ml (2 EDTA tubes)	
12.	Donath - Landsteiner test	Plain tube	Whole Blood	5 ml (2 Plain tubes)	
13.	Isohaemagglutinin titer	EDTA	Whole blood	2 ml	

ii. *For outsource test (Table 2)

NO.	TEST	CONTAINER	SPECIMEN	VOLUME	REQUEST FORM
1.	RBC genotyping	EDTA	Whole Blood	5 ml (2 EDTA tubes)	Permohonan Ujian Immunohematologi (PDN/IH/QP-05/01) **(Refer Appendix 3)** PER-PAT 301 form
2.	Extended antibody identification	EDTA , Plain tube	Whole Blood	EDTA (10 ml) Plain tube (10 ml)	
3.	Blood group confirmation	EDTA , Plain tube	Whole Blood	EDTA (10 ml) Plain tube (10 ml)	
4.	TRALI investigation	EDTA, Plain tube	Whole Blood	EDTA (6 ml) Plain tube (6 ml)	Transfusion Related Acute Lung Injury (TRALI) Request Form : Recipient Investigation (PDN/HI/QP-02/11) Transfusion Related Acute Lung Injury (TRALI) Request Form: Donor Investigation (PDN/HI/QP-02/12)
5.	Platelet antibody test		Whole Blood		Platelet Immunology Test Request (PDN/IH/QP-05/02) **(Refer Appendix 4)**
	i. Neonatal alloimmune thrombocytopenia	EDTA , Plain tube	Mother sample	EDTA (10 ml) Plain tube (10 ml)	
		EDTA	Father sample	10 ml	
		EDTA	Baby sample	1 ml	
	ii. Post transfusion purpura & platelet refractoriness	EDTA, Plain tube	Whole Blood	EDTA (10 ml) Plain tube (10 ml)	
	iii. Immune thrombocytopenia	EDTA, Plain tube	Whole Blood	Plain tube (10 ml) EDTA tube: 10 ml: if plt > 20 x10^9/L 10-15 ml: if plt 10-20 x10^9/L 2 ml : if plt < 9 x 10^9/L	

*Please refer to Pusat Darah Negara website (www.pdn.gov.my) for further details

5. TRANSPORTATION OF SPECIMEN.

i. The specimen should be transported to the laboratory as soon as possible.
ii. Please do not store the blood specimen in the ward refrigerator.

6. REJECTION CRITERIA

The list of common or primary rejection criteria is as follows:

i. Incomplete labeling of blood sample
ii. Wrong container
iii. No specimen received for the intended test
iv. Information on request form and specimen do not tally
v. Incomplete request form
vi. Insufficient sample
vii. The specimen not suitable for analysis e.g hemolysed blood sample
viii. Sample clotted
ix. Duplicate request
x. No second verifier checklist (for GSH/GXM request).
xi. Using preprinted label for GSH/GXM request

Note:

a) Lab staff will call and inform the requesting unit/ward/clinic/hospital regarding the rejected request.
b) The detail of rejected request information can be view in the BBIS ward viewer.
c) All received requests will be entered in BBIS and the status of the request can be viewed in BBIS ward viewer.

URGENT BLOOD AND BLOOD COMPONENT REQUEST

An URGENT blood and blood component should only be requested when it is required for immediate patient management. A delay in treatment might result in patient morbidity or mortality. The sample must reach the laboratory as soon as possible.

Urgent requests:

1. All urgent requests must be accompanied by a phone call to transfusion medicine medical officer on duty to facilitate the process. Details of the clinical summary, diagnosis, and reason for urgency to justify the need are required. Details of the communication, including the names of the caller and receiver, must be documented.
2. Urgent requests should be separated from non-urgent requests and sent immediately to the laboratory by the ward or OT.
3. Include : Safe O/uncrossmatched blood, saline phase crossmatch, urgent full crossmatch and Massive Transfusion Protocol (MTP)

Note:

For further details, please refer to Prosedur Kualiti Pengurusan Transfusi Darah dan Komponen Darah (PK-HM-S-05).

D) POST ANALYTICAL

TEST RESULTS/REPORTS

1. The verified test results can be viewed and printed from BBIS ward viewer. Only transfusion reaction report will be dispatched to respective ward or unit.

2. For private hospitals, all test results will be printed by the lab staff and handed over to the respective hospital.

LABORATORY TURN – AROUND TIME

TESTS AND THE LABORATORY TURN AROUND TIME (LTAT)

NO	TEST	LTAT
IN-HOUSE TEST		
1.	ABO and Rh D grouping	1 working day
2.	Antibody identification	Within 3 working days
3.	Anti-D titre	3 working days
4.	Direct Coombs (Antiglobulin) test (DAT)	Within 3 working days
5.	Indirect Coombs (Antiglobulin) test (IAT)	Within 3 working days
6.	Red cell phenotyping	3 working days
7.	Cold agglutinin test	3 working days
8.	Donath - Landsteiner test	3 working days
9.	Isohaemagglutinin titer	3 working days
OUTSOURCE TEST*		
1.	RBC genotyping	20 days
2.	Extended antibody identification	10 days
3.	Blood group confirmation	10 days
4.	TRALI investigation	20 working days
5.	Platelet antibody test	15 days

* Note: LTAT for outsourced tests is calculated from the time the samples are received at the PDN receiving counter.

BLOOD AND BLOOD COMPONENT REQUEST AND THE LABORATORY TURN AROUND TIME (LTAT)

NO	TEST	LTAT
1.	Safe O or uncrossmatch group specific (patient with 2 previous record in BBIS)	5 minutes
2.	Uncrossmatch group specific (blood grouping need to be tested)	15 minutes
3.	Saline crossmatch (GSH available)	15 minutes
4.	Saline crossmatch (GSH not available)	20 minutes
5.	GSH convert GXM (urgent full crossmatch)	45 minutes
6.	Urgent GXM (Full crossmatch)	45 minutes
7.	Group, Screen and hold (GSH)	4 hours
8.	Routine Crossmatch (GXM)	2 hours
9.	Blood component availability	
	i. Fresh frozen plasma	30 minutes
	ii. Cryoprecipitate	30 minutes
	iii. Platelet	Immediately if patient has 2 previous GSH/GXM record 15 minutes if new patient (blood grouping need to be tested)

Notes:

1. GSH samples will be stored in the laboratory for 72 hours and can be converted to GXM during that period.
2. All crossmatched blood bags will be stored in the laboratory for 48 hours and can be used during that period.

APPENDIX 1

PER-SS-BT 105

(Pind. 1/2016)

No. Makmal:

BORANG PERMOHONAN TRANSFUSI DARAH
PERKHIDMATAN TRANSFUSI PERUBATAN

(Mesti dipenuhi dalam dua salinan. Tulis dengan pen mata bulat dan sila tandakan √ dalam petak yang berkenaan.)

Nama (Tulis huruf besar)			No. Kad Pengenalan		No. Daftar
Hospital	Unit	Wad	Bangsa	Umur	Jantina
Pegawai Kerajaan Ya/Tidak	Kelas	Bayar/Percuma	Pakar Perunding		Kumpulan Darah Ada/Tiada
Diagnosa		Sebab transfusi komponen darah		Hb % atau keputusan lain yg berkaitan (Plt count etc)	
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"	

Sampel darah diambil dan dilabel oleh:

Saya mengesahkan bahawa saya telah mengenalpasti identiti pesakit dengan bertanya secara langsung* dan memeriksa gelang pengenalan pesakit. Saya juga mengesahkan bahawa saya telah mengambil sendiri sampel darah pesakit tersebut dan melabelkannya dengan serta merta sebaik sahaja ianya diambil.

Tandatangan .....

Nama .....

Jawatan.....

Tarikh.....Waktu .....pagi/petang

* (atau ahli keluarga / penjaga untuk kes-kes pediatrik dan pesakit yang tidak sedarkan diri)

Units/ mls

- ☐ WHOLE BLOOD .....
- ☐ PACKED CELLS .....
- ☐ PAEDIPACK .....
- ☐ PLATELET CONCENTRATE .....
- ☐ CRYOPRECIPITATE .....
- ☐ FRESH FROZEN PLASMA .....
- ☐ CRYOSUPERNATANT.....

SPECIAL REQUIREMENT :

- ☐ WASHED.....
- ☐ FILTERED.....
- ☐ IRRADIATED.....
- ☐ OTHERS : .....
- ☐ GROUP, SCREEN & HOLD

Nota:-

(1) Sila hantarkan 3ml-5ml sampel darah dalam tiub EDTA. Untuk makluman, ujian keserasian memerlukan masa 2 jam.

(2) Dalam keadaan kecemasan, sila hubungi makmal transfusi darah untuk pembekalan segera berdasarkan keserasian pada peringkat awal ujian. Darah yang dibekalkan mempunyai risiko ketidakserasian yang kecil. Penggunaan darah tersebut merupakan tanggungjawab pegawai perubatan yang merawat.

(3) Darah yang tidak digunakan perlu dipulangkan dengan kadar segera ke makmal transfusi kecuali Pegawai Perubatan meminta dipanjangkan tempoh simpanannya di wad.

(4) AMARAN: Setiap transfusi darah membawa risiko infeksi.

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

Bekalan diperlukan

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

(b) Segera (lihat Nota 2) ☐

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

(d) Sampel disimpan selama 24 jam. ☐

Saya mengesahkan bahawa sampel darah yang disertakan ini telah diambil daripada pesakit bernama seperti di atas dan dilabelkan mengikut prosedur kerja yang telah ditetapkan. Saya juga mengesahkan bahawa setelah diperiksa, pesakit ini memerlukan/ akan memerlukan transfusi darah.

Tandatangan: .....
Cop dan Nama
Pegawai Perubatan: .....
(Huruf besar)

KHAS UNTUK KEGUNAAN KAKITANGAN MAKMAL TRANSFUSI 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.....											
Waktu ..... pg/ptg											

Serum pesakit diserasikan dengan beg darah no.	UJIAN KESERASIAN DARAH					Catatan
	R.T.	37ºC	AHG	T/Tangan.	Tarikh & masa	

APPENDIX 2

PER - PAT 301

KEMENTERIAN KESIHATAN MALAYSIA
PERKHIDMATAN PATOLOGI

JABATAN PATOLOGI
HOSPITAL MELAKA
JALAN MUFTI HAJI KHALIL
75400 MELAKA

FAX No.: 06-2812148

UNTUK KEGUNAAN MAKMAL
LAB No.

1. Nama:		2. No. Pendaftaran:	
3. No. K/P:		4. Jantina: ☐ Lelaki	☐ Perempuan
5. Umur:	6. Keturunan:	7. Wad/Klinik:	
8. Tarikh Masuk Wad:	9. Pekerjaan:	10. Taraf Perkahwinan:	11. ☐ Bayaran ☐ Percuma
12. No. Laporan Dahulu:		13. Butiran Penting	
14. Ringkasan Klinikal, Penemuan Pembedahan dan Riwayat Keluarga:			
15. Diagnosis:			

	Ya	Tidak
Jaundice	☐	☐
Lymphadenopathy	☐	☐
Hepatomegaly	☐	☐
Splenomegaly	☐	☐
Bleeding Tendency	☐	☐
H/O Transfusion	☐	☐

Haematinics .....

.....

.....

Drug/Chemical History

.....

.....

Data Makmal Terdahulu

Hb .....

Platelet .....

TWDC .....

16. Kategori Permohonan/Jenis Ujian:

Patologi Kimia		Klinikal		Hematologi	
B. Sugar	☐	Bld. Count	☐	FBP	☐
B. Urea	☐	ESR	☐	BM ASP.	☐
S. Elec	☐	BFMP	☐	Hb. Analysis	☐
B. Gases	☐	U. Sugar	☐	Coagulation	☐
S. Billirubin	☐	U. Alb.	☐	PT	☐
LFT	☐	U. ME	☐	PTT	☐
Se. Creatinine	☐	Stool ME	☐	BTCT	☐

Histo/Saitologi	Mikro/Immunologi	
Spesimen	Spesimen	Ujian

Lain-lain .....

.....

.....

17. Pengambilan Spesimen: Tarikh: ☐☐☐☐☐☐ Masa: ☐☐☐☐

18. Nama Doktor: .....

19. Tarikh: .....

.....

Tandatangan dan cop Doktor

LAPORAN "Sila Lihat Sebelah"

APPENDIX 3

PDN/IH/QP-05/01, ver 02
Effective date : 01 October 2024

Permohonan Ujian Immunohematologi (PDN)

Makmal Rujukan Immunohematologi Kebangsaan (MRIK), Pusat Darah Negara, Jalan Tun Razak, 50400 Kuala Lumpur
No telefon : 03-2613 2688 ext 2672 / 5640 (Red Cell / Genotyping), ext 2766 (Platelet)

BAHAGIAN A : Maklumat Pesakit

Nama Pesakit :		Etnik :
No KP / Passport :	Hospital :	Umur :
Diagnosis :	Hb :	Jantina :

Sejarah transfusi :	**Ringkasan klinikal :**

** Digalakkan untuk kepilkan bersama borang patologi / surat rujukan hospital yang mengandungi maklumalat sejarah transfusi / ringkasan klinikal pesakit.

BAHAGIAN B : Maklumat Pemohon (Tabung Darah Hospital) dan Pelulus Permohonan (PDN)

Maklumat doktor / pemohon	Maklumat MO PDN dihubungi	
Nama : Tandatangan : No telefon : Cop rasmi : Tarikh :	Nama : Tarikh : Masa :	Sila imbas kod QR berikut untuk akses ke MRIK Customer Referral Guide **bit.ly/MRIKrequestPDN**

BAHAGIAN C : Maklumat Permohonan Ujian (berdasarkan MRIK Customer Referral Guide, PDN/IH/QP-05/G01)

√ ujian dipohon		Maklumat sokongan ujian (mandatory untuk diisi)		Ujian / maklumat lain (sekiranya ada) :
	Blood Group Investigation	Nyatakan diskrepansi / penemuan makmal anda :		
	Anti-human Globulin (AHG) Test	Saringan antibodi : **BG :** **Sel 1 :** **Sel 2 :** **Sel 3 :** **DAT :** Jenis antibody terdahulu (jika ada) :		
	Crossmatching	No Kod MO PDN :	Tarikh diperlukan :	
	BG :	Bil. darah diperlukan :	Permohonan khas (cth : irradiate) :	
	Transfusion Reaction	Sila sertakan borang haemovigilan dan sampel pesakit/beg penderma seperti yang yang disenaraikan dalam MRIK Customer Referral Guide.		
	Genotyping	Profil sistem darah yang dimohon : Keputusan ujian serologi :		

**** Nota : untuk maklumat persampelan, sila rujuk MRIK Customer Referral Guide melalui kod QR yang disertakan.**

Prepared by : Nurul Munira Bt Yahya Reviewed by : Dr. Rozi Hanisa Bt Musa Approved by : Dr. Nor Hafizah Bt Ahmad Page 1 of 1

APPENDIX 4

PDN/IIH/QP-05/02, ver 02
Effective date : 01 October 2024

Platelet Immunology Test Request (PDN)

Makmal Rujukan Immunohematologi Kebangsaan (MRIK), Pusat Darah Negara, Jalan Tun Razak, 50400 Kuala Lumpur
No telefon : 03-2613 2688 ext 2766 (Platelet), ext 2672/5640 (Red Cell / Genotyping)

IMPORTANT : Note on Platelet Immunology Test Request	MRIK Referral Guide
1. All platelet Immunology case must be discussed with specialist (on-call) PDN for approval of referral. 2. Collect fresh sample before sending. All samples must reach lab within 48 hours. Sample reception is during office hours only. 3. New case of PXM must be requested with PAb. However, if PAb is neg, PXM may be cancelled. 4. For additional PXM request (initial case of less than 2 weeks), please call MO PDN (on-call) to check on sample availability. if sample is still available, verbal request is accepted. If new sample required, please send the samples together with this form. 5. **For <u>all PXM</u> request**, please advise MO on-call PDN to raise PXM notification form to the lab, once request approved.	bit.ly/MRIKrequestPDN

Detail of patient and requesting doctor

Patient's name :		Age :	Ward : Hosp name :
ID No :		Gender :	
Platelet count :	Pregnant : ☐ Yes ☐ No	Ethnicity :	Details of medical officer requesting :-

Indication** (See footer note) Diagnosis:
- ☐ NAIT
- ☐ PTR
- ☐ PTP
- ☐ ITP

Select test required
- ☐ Platelet antibody identification (PAb)
- ☐ NAIT investigation
- ☐ NAIT family HPA genotyping *(only if NAIT is positive for anti-HPA)*
- ☐ Platelet Crossmatch (PXM) supply
  - See note above, point # 3-5
  - Name of MO PDN spoken to :

Signature :
Name :
Official stamp :
Tel num. :
Date and time :

Name of specialist (PDN) approving :

Clinical History

Clinical presentation, sign and symptom. Preliminary / working diagnosis. History of medication.		FBP result to rule out pseudo-thrombocytopenia:
History of blood product transfusion, platelet count trend. Indication of immune-mediated thrombocytopenia.		
For NAIT case only: History of current delivery – birth history / ICH / IUT / onset of thrombocytopenia		
Family history of previous miscarriage / stillbirth / pre-mature / NAIT delivery and severity / platelet dysfunction		
History of mother in current pregnancy / delivery. Any miscarriage / stillbirth ?	Gravida : Para :	History of antenatal ITP / Autoimmune disease and medication received :
Availability of father's sample	Available and sent together with this request: Name / ID No	Not available Reason :

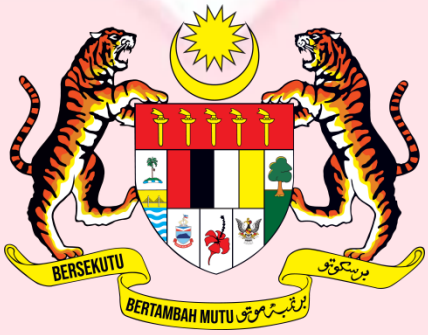
** ***Whole blood volume. Do not spin / process.***

<u>NAIT case</u> (biological parent sample)
- *Mother : 10ml EDTA tube **<u>and</u>** 10ml in plain tube*
- *Father : 10ml EDTA tube*
- *Baby : 1ml in EDTA tube*

<u>PTR and PTP case</u>
<u>Platelet crossmatch</u>
- *10ml in EDTA tube, **<u>and</u>***
- *10ml plain tube*

<u>ITP case</u>
- *10ml plain tube, **<u>and</u>***
- *10ml in EDTA tube (if plt > 20 x 10^9/L)*
- *15 – 20 ml in EDTA (if plt 10 - 20 x 10^9/L)*
- *2ml in EDTA if plt <9 x 10^9/L)*

Prepared by : Nurul Munira Bt Yahya Reviewed by : Dr. Rozi Hanisa Bt Musa Approved by : Dr. Nor Hafizah Bt Ahmad Page 1 of 1



Visi Jabatan Perubatan Transfusi

"Menyediakan perkhidmatan transfusi yang efisyen, efektif dan berterusan bagi memenuhi keperluan penjagaan kesihatan masyarakat, pesakit dan penderma darah melalui amalan perubatan transfusi yang terkini"

Prepared by: Dr. Norazlina Hamzah
Reviewed by: Dr.Nor Amiza Mat Amin
30 November 2024