HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER
MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank		
Document:	Internal Policy and Procedure		
Title:	Patient Sample Handling and Labelling		
Applies To:	All Blood Bank Staff		
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1. PURPOSE:

1.1 Proper collection and labelling of blood bank specimens are important to ensure patient safety.

2. DEFINITONS:

2.1 **Plain tube** is with red top (Serum).
2.2 **EDTA tube** is with lavender top (Plasma/RBCs).

3. POLICY:

3.1 Implementation of good blood bank samples handling and documentation are important to ensure patient safety and adequate results.
3.2 Pre-transfusion testing is performed on a specimen collected from the recipient with every admission and within three days of the scheduled transfusion time.
3.3 Two staff members verify the patient's identity prior to blood drawing for cross match.

4. PROCEDURE:

4.1 **Principle:**
- 4.1.1 Meticulous attention to the identification of the patient and labelling of the sample cannot be over-stressed. Improperly labelled samples may result in serious transfusion complications if used for cross-match.
- 4.1.2 Misidentification of patients and blood samples is the leading cause of transfusion-related death.
- 4.1.3 Two staff members verify the patient's identity prior to blood drawing for cross match.
- 4.1.4 The completed label shall be attached to the tube before leaving the side of the patient .
- 4.1.5 The phlebotomist's identification may be placed on the label of the tube or placed on the requisition.
- 4.1.6 Samples not meeting the labelling requirements must be recollected. In certain situations, it may be necessary to process an inadequately labelled sample, but only with approval of the blood bank supervisor or medical director.
- 4.1.7 Although samples of insufficient quantity should generally not be received, it may be necessary to process these samples when difficulties in collection were encountered .

4.2 **Blood bank samples labelling requirements:**
- 4.2.1 Minimum patient identification (PIN):
  - 4.2.1.1 Surname/family name (correctly spelt).
  - 4.2.1.2 First name(s) in full.
  - 4.2.1.3 Hospital number.
- 4.2.2 Patient's medical record number: legible and correct.
- 4.2.3 The time of collection and date.
- 4.2.4 Signature of the individual collecting the sample
  - 4.2.4.1 Two Phlebotomist names and signatures with the date and time of blood withdrawal.

4.3 **Blood bank Sample Requirements:**

4.3.1

Requested Test	Patient Specimen Type	Adult volume	Paediatric volume
Type and screen Or Type and Cross match	Plain/EDTA	6 ml	3 ml
Antibody screening	Plain/EDTA	6 ml	3 ml
Antibody identification	Plain/EDTA	6 ml	3 ml
Antibody titration	Plain/EDTA	6 ml	3 ml
DAT	EDTA	6 ml	3 ml
Blood grouping (ABO, Rh)	EDTA	6 ml	3 ml
Red cell phenotype	EDTA	6 ml	3 ml
Cord blood	EDTA	6 ml	3 ml
Transfusion Reaction	Plain and EDTA	6 ml each	3 ml

4.3.2 For neonates testing: 1-2 ml EDTA sample.

4.3.3 Donor's processing samples: At least one EDTA tube (3 ml) and two plain tubes (6 ml each).

4.4 **Specimen receipt:**

4.4.1 The reception bench for specimens just at the entry of the Laboratory.

4.4.2 It is the duty of the technician/ specialist on the reception area to check that:

4.4.2.1 All the required data are recorded on the requests.

4.4.2.2 The specimen is provided with patient's name, ID 'file number', time of withdrawal and ward. Tube is firmly stoppered, Label is firmly attached, Label information is complete, The specimen has adequate volume for the required tests.

4.4.2.3 The patient's name and file number on the request form should be in complete agreement with the identification given on the specimen.

4.4.2.4 If any specimen does not meet the acceptance criteria, the technician on reception area should reject this specimen and should follow the procedure for specimen rejection and should notify the involved staff of the involved wards.

4.4.3 Samples and requests could be sent by nurses to the laboratory reception

4.4.4 If the order and sample are accepted, the technician/ specialist on the blood bank must:

4.4.4.1 Label the request with the lab number and date of receiving.

4.4.4.2 Record his/ her name and signature on the blood transfusion request form.

4.4.4.3 Record the patient information on the 'receiving cross match sample and request' form. For blood group ,ICT ,Ab identification ,Titration ,Cross match sample received via Careware system of laboratory and hematos system of blood bank

4.5 **Criteria for rejection of samples:**

4.5.1 Blood specimens submitted for Blood Bank are rejected for the following reasons:

4.5.1.1 Mislabelled specimen – if the specimen does not match the request.

4.5.1.1.1 Improperly labelled samples will not be used for Transfusion Service testing if the label and accompanying requisition are not signed and completed correctly or if the label and requisition do not match. Complete hand-written or machine-imprinted information is acceptable for labelling

4.5.1.2 Specimen with no label.

4.5.1.3 Tube is not firmly stoppered or label is not firmly attached.

4.5.1.4 The sample date is different from date of collection.

4.5.1.5 Specimen collected in the wrong tube.

4.5.1.6 Wrong specimen submitted.

4.5.1.7 Specimen is broken, leaking or contaminated.

4.5.1.8 Hemolysed specimen. Blood bank staff may accept hemolysed samples of patients with intravascular hemolysis like favism.

4.5.1.8.1 If the sample was haemolysed (free haemoglobin in the serum may be confused with antibody-induced hemolysis) or lipemic, it is not used and another sample is asked for by phone. Name, computer number of the nurse receiving the call and the time of call are written on the request.

4.5.1.9 Inadequate volume of the specimen.

4.5.1.9.1 Although samples of insufficient quantity should generally not be received, it may be necessary to process these samples when difficulties in collection were encountered.

4.5.1.10 Samples without sufficient information on the requests, e.g. patient name, file number, physician name and stamp, diagnosis, date and time of collection, test to be done.

4.5.2 If the sample must be rejected;

4.5.2.1 Phone the collecting department to notify them the sample must be re-collected and explain what is wrong.

4.5.2.2 Report the cause of rejection and condition of sample.

4.5.2.3 Write name and computer number of the nurse receiving the call and time on the patient request.

4.4.2.4 Tell the collecting department to reorder the specimen.

4.4.2.5 If the new sample does not reach blood bank within 2 hours of phone call, cancel the order.

4.4.2.6 Do not allow nursing staff to re-label improperly labelled sample and do not return the sample.

4.5.3 If the sample doesn't meet the criteria but must be accepted, get medical director, blood bank physician or supervisor to approve acceptance.

4.5.4 OVR is written if the cause of rejection is repeated.

4.6 **Timing of Specimen Collection:**

4.6.1 For RBCs transfusion: The patient's blood specimen should be received in the blood bank in advance of the scheduled procedure, with sufficient time allowed to complete all pre-transfusion testing.

4.6.2 For plasma, or platelet transfusion: The sample may be withdrawn at the time of unit release but arrange with the blood bank first for the availability of the suitable blood group and amount.

4.7 **Sample validity:**

4.7.1 Patient's samples are valid for 3 days for serological testing. After 3 days a new sample must be drawn for additional cross matching.

4.7.2 Pre-transfusion testing is performed on a specimen collected from the recipient with every admission and within three days of the scheduled transfusion time.

4.7.3 Samples from patients who have been pregnant or transfused within 3 months must be collected within 72 hours of surgery .

4.7.4 In recently transfused patients, the pre-transfusion sample used for testing must be no more than 24 hours old at the time of intended transfusion.

4.7.5 Note: Theoretically, if no transfusion or pregnancy has occurred in the previous 3 months, no limit exists to the length of time that a pre-transfusion sample is valid for donor red cell selection.

4.7.6 For plasma, platelet, or cryoprecipitate transfusion, the sample is used to detect or confirm the blood group.

4.8 **Sample storage:**

4.8.1 Samples are refrigerated at 1-6 ° according the following limits:

4.8.1.1 EDTA whole blood: Up to 7 days.

4.8.1.2 Separated plasma/serum: Up to 7 days.

4.8.2 Store cross match samples for 7 days at 1-6°C.

4.9 **Safety:**

4.9.1 All blood and blood product must be treated as potentially infectious. Follow universal precaution procedure and Lab safety manual.

4.10 **Procedure Notes:**

4.10.1 The sample should not be drawn from the tubing used for infusion of IV fluid or from the contiguous vein, but from a fresh venipuncture site.

4.10.2 Sample must be drawn from an arm without IV access. If site not available, draw below IV access.

4.10.3 For cross match, plasma is often preferred as incompletely clotted serum specimens may contain small fibrin clots that trap red cells into aggregates and cause false-positive results.

4.10.4 Collection of a type-and-screen specimen days in advance of surgery, with a second specimen being collected (by another nurse) for blood grouping is one approach to mitigate the problem.

5. MATERIALS AND EQUIPMENT:

5.1 **Forms and Records:**
- 5.1.1 Careware system of the laboratory ,Hematos system of blood bank & Sample rejection form.
- 5.1.2 Rejected samples register.

6. RESPONSIBILITIES:

6.1 It is the responsibility of all blood bank staff to accept only specimens that are complete, accurate and legibly labelled.

6.2 It is the responsibility of the departmental nurses to follow the labelling instructions .

7. APPENDICES:

7.1 Receiving cross match sample and request form

7.2 Sample rejection form

8. REFERENCES:

8.1 The Unified Practical Procedure Manual for Blood Banks in The Arab Countries, 1434-2013.

8.2 The Standard Policy for Blood Banks in The Kingdom of Saudi Arabia, 1st edition, 1435-2014.

8.3 National Standards for Clinical laboratories and Blood Banks, 1st edition, 2015.

8.4 AABB Technical manual, 18th edition, 2014.

8.5 AABB Standards for Blood Banks and Transfusion Services, 30th edition, 2016.

8.6 Mollison's Blood Transfusion in Clinical Medicine; 12th edition, 2014.

8.7 Good Manufacturing Practice for Blood Establishments, Version 2.0, May 2019, Saudi FDA

9. APPROVALS:

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Appendix 7.1 Receiving cross match sample and request form

Kingdom of Saudi Arabia
Hafar Al Batin Health Cluster
Maternity and Children Hospital

المملكة العربية السعودية
التجمع الصحي بحفر الباطن
مستشفى الولادة والأطفال

RECEIVED SAMPLES REGISTRATION

DAY:..... DATE:..... DUTY: Morning ( ) Evening ( ) Night ( )

No.	Name الاسم	File No. رقم الملف	Department القسم	Sample type نوع العينه	Receiving time وقت استقبال العينه	Result release خروج النتيجه	Accept/Reject اقبل ارفض	Signature التوقيع

DOC-LB-062

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RECEIVED SAMPLES REGISTRATION

Appendix 7.2 Sample rejection form

Kingdom of Saudi Arabia
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المملكة العربية السعودية
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SPECIMEN REJECTION FORM

PATIENT INFORMATION

Patient Name		**MRN/ National ID No.**	
Test		**Department**	

THE LABORATORY IS UNABLE TO PROCESS THIS SPECIMEN FOR THE FOLLOWING REASON:

Specimen/Sample ID Illegible البيانات غير مقروءه	Damaged - Contaminated عينه ملوثه
No Diagnosis لا يوجد تشخيص	Damaged - Expired Transport Media وسائط نقل منتهيه الصلاحيه
Incomplete Data البيانات غير مكتمله	Damaged - Improper Transport Media وسائط نقل غير سليمه
Wrong Labelling بيانات خاطئه	Damaged - Improper Temperature درجه الحراره غير سليمه
Wrong Request Form ركوست غير صحيح	No Sample Received ركوست بدون عينه
No Stamp/Singular لا يوجد ختم الطبيب المعالج أو القسم	Hemolysed Sample عينه متحلله
Test Not Available التحليل غير متوافر	Clotted Sample عينه متجلطه
Wrong Tube أنبوبه خاطئه	Lipeamic Sample عينه دهنيه
Quantity Not Sufficient الكميه غير كافيه	Over sample كميه العينه أكبر من الكميه المطلوبه
Damaged - Too Old عينه قديمه	Others:
Damaged - Broken or Leaked عينه مفتوحه أو مكسوره	

THE FORM COMPLETED BY:

Laboratory Staff		Department	
Date and Time		Sign/Stamp	