

Department:	Laboratory and Blood Bank (Microbiology)		
Document:	Internal Policy and Procedure		
Title:	Blood, Platelets and Other Transfusion Products Culture		
Applies To:	All Laboratory Staff		
Preparation Date:	January 06, 2025	Index No:	LB-IPP-118
Approval Date:	January 20, 2025	Version :	2
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Review Date:	February 20, 2028	No. of Pages:	04

1. PURPOSE:

- 1.1 To establish system and set responsibilities for processing Blood, Platelets, and Other Transfusion Products Culture.

2. DEFINITIONS:

- 2.1 Contaminated Transfusion Bag: Occasionally blood, platelets and other transfusion products may become infected at the time of collection from donors, during processing or at the time of infusion into patients. Any organism isolated must be considered significant.

3. POLICY:

- 3.1 The suspect contaminated transfusion bag should be received in the laboratory intact.
- 3.2 If a delay in transport or processing is anticipated, keep the bag at 4°C.
- 3.3 Screening of platelets units is done routinely to detect any possible contamination of the units. After 24 hours of blood collection, segments of platelet units (each is labelled with Unit's number) are received in microbiology lab for cultivation.

4. PROCEDURE:

- 4.1 For platelet unit culture, withdraw each segment content with a syringe & inoculate in blood culture bottles. This is done under aseptic conditions.
- 4.2 In case of suspected contamination of any blood product, 3 ml of each sample is inoculated in both blood culture bottles (aerobic and anaerobic), then loaded in BD Bactec 9120/ Bactec Alert 3D machine for 5 days.
- 4.3 Follow Up Of Platelet Unit Culture: If no growth after 24 hours incubation, negative result will be released on HEMATOS system. Unit culture will be followed till the vials are finally negative after 5 days of incubation.
- 4.4 Any positive result through this period will be processed & notified immediately to Blood bank for confirmation & immediate action
- 4.5 Positive bottle will be sub-cultured on the following media:
 - 4.5.1 **In case of positive aerobic bottle, sub culture on:** blood agar (BA), MacConkey's agar (MAC) & Chocolate Agar (CHOC) – incubate at 7% CO₂, 35+2 °C for 48 hours.
 - 4.5.2 **In case of positive anaerobic bottle, sub culture on:** blood agar (BA), MacConkey's agar (MAC) – incubate at 35+2 °C for 48 hours under anaerobic conditions (anaerobic jar & anaerobic gas pack).
- 4.6 Any microbial growth will be identified and notified.

5. MATERIAL AND EQUIPMENT:

- 5.1 Blood culture bottles & culture media.
- 5.2 BD Bactec 9120/ Bactec Alert 3D

6. RESPONSIBILITIES:

6.1 Assigned Technician for Microbiology
 6.2 Clinical Pathology Specialist/ Consultant

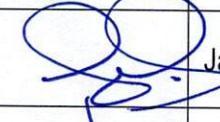
7. APPENDICES:

7.1 Bacterial Contamination Detection in Platelet Units Agreement.

8. REFERENCES:

8.1 Procedure Manual, Toronto Medical laboratories / Mount Sinai Hospital department of microbiology
 8.2 P.R. Murray, E.J. Baron, M.A. Pfaller, R.H. Yolken. 2003. Manual of Clinical Microbiology, 8th ed. ASM Press, Washington, D.C.
 8.3 H.D. Izenberg. 2003. Blood Cultures-General Detection and Interpretation, p.3.4.1.1-3.4.1.19 In Clinical Microbiology Procedures Handbook, 2nd ed. Vol.1 ASM Press, Washington, D.C.

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 06, 2025
Reviewed by:	Ms. Noora Melfi Alanizi	Laboratory & Blood Bank Director		January 08, 2025
Reviewed by:	Mr. Abdulelah Ayed Al Mutairi	QM&PS Director		January 12, 2025
Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 13, 2025
Approved by:	Mr. Fahad Hazam Alshammari	Hospital Director		January 20, 2025

Appendix 7.1 Bacterial Contamination Detection in Platelet Units Agreement.

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



المملكة العربية السعودية
الجمع الصحي بحفر الباطن
مستشفى الولادة والأطفال

Bacterial Contamination Detection in Platelet Units Agreement

PURPOSE

- To establish an agreed system for screening platelets units from blood bank department of MCH for bacterial contamination.
- To define the required activity from either part.
- To assign responsibility for each activity from either party.

AGREEMENT

On 30 JAN. 2018 the Department of Microbiology of MCH agreed to screen platelets units from blood bank department of MCH for bacterial contamination under the following terms:

1. This agreement will apply only if eBDS (first choice for bacterial contamination detection) is out of order
2. After 24 hours (or more) of blood collection, Segments of platelet units (labelled with unit's number), associated, are sent for blood culture to the microbiology department.
3. On receiving the segments, it will be processed according to blood culture procedure (refer to microbiology SOP).
4. Preliminary result will be given after 24 hours-Incubation.
5. A second sample is required if a positive signal was given after 24 hours-incubation.
6. Final report for vials will be given after 5 days-incubation to blood bank department. Instrument
7. At any time, if a confirmed positive signal was given by instrument , the blood bank department will be notified and the sample will be processed for subculture, identification and antibiotic sensitivity.

AGREEMENT REVIEW:

1. Amendments to this agreement require documented review, acceptance and approval of the change by both parties before the change is implemented.
2. This agreement will remain effective indefinitely until either party gives a 60-day written notice of intent to terminate, outlining reasons to do so there will be a documented review of this agreement performed on an annual basis.

DISPUTES

The immediate parties involved in this agreement will settle any disagreements or disputes. If the parties were unable to reach a resolution, the matter will be referred to the next level of authority.

REFERENCES:

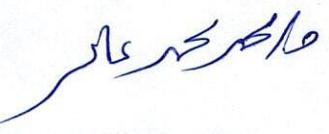
1. CBAHI Hospital Standards 3 Edition 2015 (L.B. 51.2).



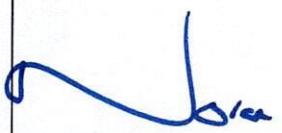
Bacterial Contamination Detection in Platelet Units Agreement

I agree to the terms and conditions listed above and will comply with the best of my ability to ensure they are met.

PARTY ONE:

1. Name: 	Signature: 	Date: 06/01/2025
2. Name Position: د. ملinda المتنبك Position: Blood Bank Physician	Signature: 	Date: 06/01/2025 Position: Laboratory and Blood Bank Director

PARTY TWO:

1. Name: Dr. Kawsar M. Abdou Position: Head of Microbiology Department.	Signature: 	Date: 06/01/2025
2. Name: د. ملinda المتنبك Position: Laboratory and Blood Bank Director	Signature: 	Date: 06/01/2025