

Department:	Laboratory and Blood Bank (Haematology)		
Document:	Internal Policy and Procedures		
Title:	Giemsa Staining		
Applies To:	All Laboratory Staff		
Preparation Date:	January 06, 2025	Index No:	LB-IPP-044
Approval Date:	January 20, 2025	Version :	2
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1. PURPOSE:

- 1.1 To establish system and set responsibilities for processing Giemsa stain

2. DEFINITIONS:

- 2.1 **Giemsa stain** is used in cytogenetics and for the histopathological diagnosis of malaria and other parasites.

3. POLICY:

- 3.1 Place slides into the working Giemsa stain (2.5%) for 45-60 minutes
- 3.2 The smears could be stained for shorter times in more concentrated stains.

4. PROCEDURE:

4.1 Preparation of the specimen:

- 4.1.1 Treat specimens containing mucus (sputum mainly) with a mucolytic agent (e.g., Sputalysin) by mixing the agent in a 1:1 ratio with the specimen.
- 4.1.2 Centrifuge at 500 ~ g for 5 minutes.
- 4.1.3 Discard supernatant.
- 4.1.4 Re-suspend the remaining sediment.
- 4.1.5 Place drops of the sediment on the centre of a microscopic slide.
- 4.1.6 Spread the drop on the slide with a pipette to evenly distribute on the slide.
- 4.1.7 Air dry and stain following the required procedure.

4.2 Staining:

- 4.2.1 Prepare fresh working Giemsa stain in a staining jar.
- 4.2.2 Place slides into the working Giemsa stain (2.5%) for 45-60 minutes.
- 4.2.3 Remove thin smear slides and rinse by dipping 3-4 times in the Giemsa buffer. Thick smears should be left in buffer for 5 minutes.
- 4.2.4 Dry the slides upright in a rack.
- 4.2.5 As alternates to these 45-60 minutes in 2.5% Giemsa stain, the smears could be stained for shorter times in more concentrated stains; one alternate is 10 minutes in 10% Giemsa; the shorter stains yield faster results, but use more stain and might be of less predictable quality.

5. MATERIAL AND EQUIPMENT:

- 5.1 Giemsa stain reagent
- 5.2 Light microscope with an oil immersion lens 100X

6. RESPONSIBILITIES:

- 6.1 Assigned Haematology Technician
- 6.2 Clinical Pathology Specialist/ Consultant.

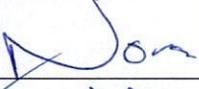
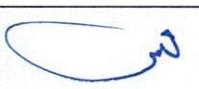
7. APPENDICES:

N/A

8. REFERENCES:

- 8.1 Procedure Manual, Toronto Medical laboratories / Mount Sinai Hospital department of microbiology.
- 8.2 Bailey & Scott's Diagnostic Microbiology. Feingold & Baron; 12th. Ed.2007, C.V. Mosby Co. p. 301.
- 8.3 Clinical Microbiology Procedures Handbook, American Society of Microbiology, Washington DC, 2005.

9. APPROVALS:

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