**UW Medicine - Pathology**

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May-Grunwald Giemsa for Demonstration of Mast Cell and Bacteria Procedure

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| Adopted Date: 06/22/05  Review Date: 09/03/10  Revision Date: 07/11/11 |

PURPOSE

To identify the method for performing the special stain of May-Grunwald Giemsa for demonstration of mast cell and bacteria procedure.

PROCEDURE

**Fixation:**

10% buffered neutral formalin.

**Sectioning:**

Paraffin sections cut at 4 microns.

**Reagents:**

**Stock Jenner**

Jenner stain, dry powder 1.0 gm

Absolute Methanol 400.0 ml

*Working:*

**Jenner**

Stock Jenner solution 25.0 ml

Distilled water 25.0 ml

**Solutions:**

Use type II de-ionized water in all solutions.

**Stock Giemsa Solution**

Giemsa Powder 1.0 gm

Glycerin 66.0 ml

Absolute Methanol 66.0 ml

*Working:*

**Giemsa Solution**

Stock Giemsa Solution 40.0 drops

Distilled Water 100.0 ml

**Procedure:**

1. Deparaffinize and hydrate slides to water.
2. Wash in running water for 10 minutes
3. Absolute Methyl Alcohol, 2 changes, 3 minutes each.
4. Place slides in working Jenner solution for 6 minutes. Do not rinse.
5. Place slides in working Giemsa solution for 45 minutes.
6. Rinse quickly in distilled water.
7. Individually differentiated slides in 1% Glacial Acetic Acid just until section becomes purplish pink. Use quick dips. Check slides microscopically for well differentiated nuclei. Red cell will become reddish pink.
8. Rinse in running water.
9. Dehydrate in 95% and Absolute Isopropyl alcohol
10. Clear in Xylene and mount.

**Results:**

Mast cell granules rust red

Nuclei blue

Cytoplasm pink to rose

Bacteria and Spirochetes rose to purple

Rickettsiae violet

Chromatin of Parasites red

RBC's salmon red

Written By: Director Approval:

(Signature and Date) (Signature and Date)

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Histology Supervisor