Parasite Exam, Blood Test Instructions for Preparing Smears

Blood films should be made as soon as possible after collection to avoid prolonged exposure to EDTA anticoagulant. For laboratories submitting a sample (smears) for a blood parasite exam **and** the blood sample is not expected to arrive in the UVMMC lab within 2-4 hours of specimen collection, 3 thin blood smears and 2 thick blood smears should be prepared from the blood specimen. Send smears along with the original EDTA specimen and include the patient's travel history when available.

Test Name	Epic Code	Mayo Access ID	Atlas Code
Parasite Exam, Blood	LAB2545	FAH5888	BPEX

Instructions for preparation of thin and thick blood smears:

- 1. Slides must be clean and grease-free.
- 2. Prepare 3 thin blood films as follows:
 - a. Prepare 3 thin smears with either the mini prep-slide machine OR by manually dropping and spreading (with another clean slide) a thin film with a "feathered edge" that is no more than a single cell thick.
 - b. Allow the film to thoroughly air dry and then fix by briefly immersing in either absolute or 95% methyl alcohol (Methanol).
 - c. Allow to air dry after fixation.
 - d. Place the slides in a transport container.
- 3. Prepare 2 thick blood smears as follows:
 - a. Place a large drop of blood (approximately the size of a dime) on a slide.
 - b. Using a corner of a second slide, spread the drop in a circular motion while applying firm pressure to literally scratch the blood onto the carrier slide. This technique allows the blood to dry quickly and adhere well to the slide. Use approximately 20 circular sweeps with the second slide. The drop of blood should be about the size of a quarter when finished.
 - c. Do not fix. Air dry thoroughly (approximately 45 minutes) before placing in transport container.

Reference: Mathison BA, Pritt BS: Update on Malaria Diagnostics and Test Utilization. J Clin Microbiol 2017 Jul; 55 (7):2009-2017

For questions, please contact the UVMMC Microbiology Lab.

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