HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER MATERNITY AND CHILDREN HOSPITAL

Department:	Laboratory and Blood Bank (Parasitology)		
Document:	Internal Policy and Procedure		
Title:	Microscopic Examination of Stool		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

1.1 To establish system and set responsibility for work.
1.2 To elucidate the proper procedure for stool examination.

2. DEFINITONS:

N/A

3. POLICY:

3.1 Stool sample volume should be at least 3gm.
3.2 Stool sample should be not contaminated with water or non-food debris, non-absorbable antidiarrheal drugs.
3.3 Microscopic examination of direct smear is done to assess the worm burden of patient
3.4 Microscopic examination of direct smear is done to provide quick diagnosis.
3.5 Microscopic examination of direct smear is done to check organism motility.

4. PROCEDURE:

4.1 **Principle:**
4.1.1 The microscopic examination of a direct smear has several purposes: to assess the worms burden of a patient, to provide a quick diagnosis of a heavily infected specimen, to check organism motility and to diagnose parasites that may be lost in concentrated techniques.

4.2 **Specimen:**
4.2.1 Any fresh stool specimen.

4.3 **Quality control** for direct smear:
4.3.1 Check the working iodine solution each time it is used.
4.3.2 Iodine should be the color of strong Orange Peko tea, discard if it is too light.
4.3.3 Protozoan stained with iodine should contain yellow gold cytoplasm, brown glycogen material and paler refractile nuclei. The chromatid bodies may not be as clearly visible as in a saline mount.
4.3.4 The microscope should be calibrated (within the last months).
4.3.5 Ensure that reagents and chemicals used are not expired.

4.4 **Procedure:**
4.4.1 Place one drop of 0.9% normal saline on the left side and one drop of iodine (working solution) on the wright side of the slide.
4.4.2 Take a small amount of fecal specimen and thoroughly emulsify the stool in saline and iodine using an applicator stick.
4.4.3 Slide a 22 mm cover slip at an angle into the edge of the emulsified faecal drop, push the cover slip across the drop before allowing it to fall into place .
4.4.4 Systematically check the whole 22 mm cover slip overlapping fields with 10 objective lenses.
4.4.5 Switch to high dry 40 objective lens for more details of any suspect eggs or protozoa.

4.5 **Interpretation:**

4.5.1 Protozoan stained with iodine should contain yellow gold cytoplasm, brown glycogen materials and paler retractile nuclei.

4.5.2 The chromatoidal bodies may not be as clearly visible as in saline motion.

4.5.3 Protozoal trophozoite, cysts and helminth eggs and larva can be seen and identified.

5. MATERIALS AND EQUIPMENT:

5.1 Normal saline (0.9%).
5.2 Lugols iodine solution 10%
5.3 Slides
5.4 Cover slips
5.5 Wooden sticks

6. RESPONSIBILITIES:

6.1 The assigned technetium will perform the test

7. APPENDICES:

N/A

8. REFERENCES:

8.1 Cheesbrough, Monica District Laboratory Practice in Tropical Countries. Part 1: Pt.1 Press (1999)

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Talal Abdelgawad	Clinical Pathologist		January 02, 2025
Reviewed by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 07, 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 12, 2025
Approved by:	Mr. Fahad Hazam Alshammari	Hospital Director		January 16, 2025