

General Stool Examination

Stool specimen

1. Faecal specimens are examined for the presence of protozoa and helminthes larvae or eggs.
2. The stages of protozoa found in stools are trophozoites and cysts.
3. Adult worms and segments of tapeworms are usually visible to the naked eye, but eggs, larvae, trophozoites, and cysts can be seen only with the microscope.

Collection of stool specimens

1. Because of the fragile nature of many intestinal parasites, and the need to maintain their morphology for accurate identification, reliable microscopic diagnosis can't be made unless the stool is collected properly.
2. Approximately 10 grams of fresh faeces uncontaminated by urine, oil, water, dyes into a clean plastic container.
3. The container should be free from antiseptics and disinfectants.
4. Label all samples clearly with the patient's name, reference number, date, and time of collection.
5. All samples should be accompanied by a requisition form from the physician giving relevant clinical details and recent travel history.
6. Samples and forms from patients with a confirmed or suspected diagnosis of certain infectious diseases such as AIDS or hepatitis should be clearly labeled with "Risk of Infection" or "Biohazard".
7. Most viable parasites are susceptible to desiccation or temperature variation. If time lapse between collection and observation is considerable, i.e. more than 4 days, it may be necessary to add

some form of preservative to the faeces to retain the morphology as near to the original as possible.

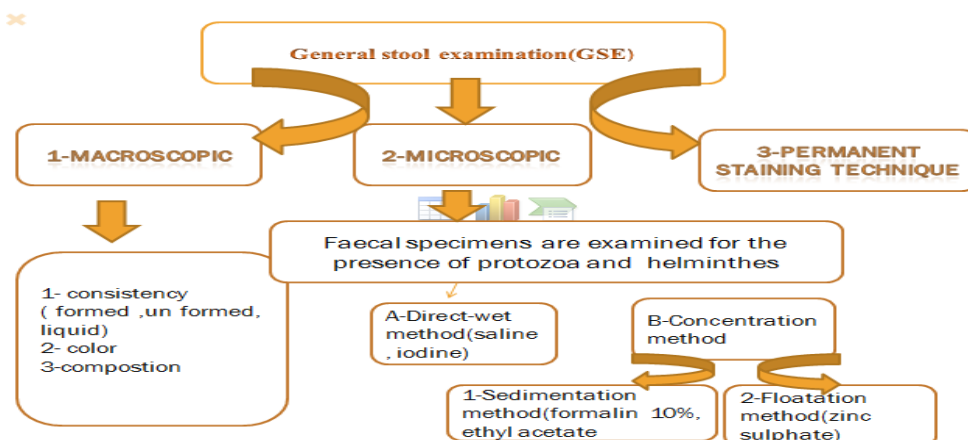
8. Formed samples can be kept in a refrigerator at 4 °C for a short while, but not in incubator.
9. Any whole worms or segments passed should be placed in a separate container.

Collect the Information of the Patient

- History (Age, occupation, residency, previous infection)
- Complaint Provisional diagnosis
- Clinical examination Provisional diagnosis
- Investigations Confirm the diagnosis
 - Laboratory investigations
 - Radiology
 - Surgical intervention (Exploratory)

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General stool examination divided into:



A. Macroscopic examination of the stool

1. Consistency (formed, soft, loose, and watery).
2. Color.
3. Blood.
4. Pus.
5. Mucus.
6. Cast.
7. Stones.
8. Parasites (worm, segment).
9. Others.

B. Microscopic examination of the stool**1. Parasitic finding that includes**

- a. Protozoa (cyst, trophozoites).
- b. Helminthes (worm, larvae, segment, ova).

2. Non parasitic finding

- a. R.B.C
- b. Pus cells
- c. Epithelial cells
- d. Mucus
- e. Fat droplets
- f. Stone cell (crystals)
- g. Bacteria
- h. Yeast and fungi

i. Air bubbles

j. Food particles that include:

1. Plant origin (plant tissue, starch).
2. Animal origin (glycogen, muscle fiber).

C. The chemical examination includes:

1. Stool pH.
2. Reducing substances.
3. Presence of fat, carbohydrate, and proteins.

Stool Sample Exam or tests

1. Direct method, for microscopically G.SE.

- A. Wet preparation (smear with saline and iodine).
- B. Dry preparation (smear with stain).

2. In direct methods

- A. Culture
- B. Concentration
- C. Sedimentation method.
- D. Flotation method.
- E. Specific technique like immune test.

