

**Test Definition: LEU** 

Fecal Leukocytes, Feces

# Overview

# **Useful For**

Suggesting the presence of pathogens such as Salmonella, Shigella, and amebiasis

## **Method Name**

Microscopic/Trichrome Stain

## **NY State Available**

Yes

# **Specimen**

# **Specimen Type**

Fecal

# Specimen Required

Supplies: ECOFIX Stool Transport Medium only (T790)

**Container/Tube:** 

**Preferred:** ECOFIX preservative

**Acceptable:** Zinc Polyvinyl alcohol (Zn-PVA) preservative **Specimen Volume:** Representative portion of collection

**Collection Instructions:** 

- 1. Collect a random fecal specimen.
- 2. Carefully follow instructions on container.
- a. Place specimen into ECOFIX preservative vial OR Zinc-PVA preservative vial within 30 minutes of passage or collection. Refer to the fill line on the preservative vial. **Do not fill** above the line indicated on the container.
- b. Mix the contents of the tube with the spoon, twist the cap tightly closed, and shake vigorously until the contents are well mixed.

## **Forms**

If not ordering electronically, complete, print, and send a <u>Microbiology Test Request</u> (T244) with the specimen.

## **Specimen Minimum Volume**

5 mL

# **Reject Due To**

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

# **Specimen Stability Information**

| Specimen Type Temperature Time Special Container |  |
|--|--|
|--|--|



# **Test Definition: LEU**

Fecal Leukocytes, Feces

| Fecal | Ambient (preferred) | 21 days | PVA OR ECOFIX |
|-------|---------------------|---------|---------------|
|       | Refrigerated        | 21 days | PVA OR ECOFIX |

# Clinical & Interpretive

#### **Clinical Information**

Leukocytes are not normally seen in feces in the absence of infection or other inflammatory processes. Fecal leukocytosis is a response to infection with microorganisms that invade tissue or produce toxins, which causes tissue damage.

Fecal leukocytes are commonly found in patients with shigellosis and salmonellosis and sometimes in amebiasis. Mononuclear cells are found in typhoid fever.

Ulcerative colitis may also be associated with fecal leukocytosis.

# **Reference Values**

An interpretive report will be provided.

## Interpretation

When fecal leukocytes are found they are reported in a semi-quantitative manner: "few" indicates = 2/100x oil immersion microscopic field (OIF); "moderate" indicates 3-9/100x OIF; "many" indicates =10/100x OIF. Erythrocytes are reported in the same manner.

The greater the number of fecal leukocytes, the greater the likelihood that an invasive pathogen such as Salmonella or Shigella is present.

The presence of few or no leukocytes and many erythrocytes suggests possible amebiasis.

Fecal leukocytes are rarely seen in diarrhea caused by other parasites or viruses.

#### **Cautions**

Fecal leukocyte examinations cannot be performed on formalin-preserved specimens. Therefore, ECOFIX-preserved or zinc polyvinyl alcohol-preserved feces must be sent to the laboratory.

#### Clinical Reference

- 1. LaRocque RC and Harris JB: Syndromes of Enteric Infection. In: Bennett JE, Dolin R, and Blaser MJ, eds. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases. 9th ed. Elsevier; 2020:chap 96
- 2. Harris JC, Dupont HL, Hornick RB. Fecal leukocytes in diarrheal illness. Ann Intern Med. 1972;76(5):697-703. doi:10.7326/0003-4819-76-5-697
- 3. Guerrant RL, Shields DS, Thorson SM, Schorling JB, Gröschel DH. Evaluation and diagnosis of acute infectious diarrhea. Am J Med. 1985;78(6B):91-98. doi:10.1016/0002-9343(85)90370-5
- 4. Pickering LK, DuPont HL, Olarte J, Conklin R, Ericsson C. Fecal leukocytes in enteric infections. Am J Clin Pathol. 1977;68(5):562-565. doi:10.1093/ajcp/68.5.562



# **Test Definition: LEU**

Fecal Leukocytes, Feces

## **Performance**

# **Method Description**

Feces preserved in ECOFIX preservative or polyvinyl alcohol are stained with trichrome. (Garcia LS: Diagnostic Medical Parasitology. 6th ed. ASM Press; 2016)

# **PDF Report**

No

# Day(s) Performed

Monday through Saturday

## **Report Available**

4 to 6 days

# **Specimen Retention Time**

7 days

# **Performing Laboratory Location**

Mayo Clinic Laboratories - Rochester Main Campus

# **Fees & Codes**

# **Fees**

- Authorized users can sign in to <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

## **Test Classification**

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

# **CPT Code Information**

89055

## **LOINC®** Information

| Test ID | Test Order Name  | Order LOINC® Value |
|---------|------------------|--------------------|
| LEU     | Fecal Leukocytes | 13655-6            |

| Result ID | Test Result Name | Result LOINC® Value |
|-----------|------------------|---------------------|
| LEU       | Fecal Leukocytes | 13655-6             |