

Fairview Health Services  
 Department Laboratory / Nursing  
 Section Acute Care: Collection  
 Category Provision of Care

**Subject** **FECAL COLLECTION, RANDOM/TIMED**

**Purpose** Provide information for collection of optimal fecal specimens to ensure accurate test results

**Policy** Fecal tests may be qualitative, microscopic, culture or quantitative. **Consult specific test in Fairview Lab Guide for unique test requirements.**

**Procedure** Patient Identification

Use two patient identifiers whenever collecting a specimen. Refer to the procedure Patient Identification and Laboratory Specimen Labeling.

**COLLECTION OF A RANDOM SPECIMEN OTHER THAN OVA AND PARASITE OR ENTERIC PATHOGEN (STOOL CULTURE)**

1. Review specimen and diet requirements with the patient.
2. Instruct the patient to pass stool into dry container to avoid contaminating the specimen with urine or toilet paper. The use of a collection device on a toilet seat helps to avoid urine contamination of the feces.
3. Transfer a portion of the feces to the specimen container using a disposable tongue depressor. The amount of specimen needed is specified in the Fairview Lab Guide. Do not fill the container more than 1/2 full. Do not contaminate the outside of the container.
4. Label the specimen container following Patient Identification and Laboratory Specimen Labeling procedure. Place labeled container in a plastic specimen transport bag. Attach completed request form to the outside of the bag.
5. Deliver specimen to the laboratory immediately. If it is not possible to transport immediately, refrigerate covered container to prevent bacterial overgrowth, chemical changes and the evolution of gases. If stored for a long period, it may be necessary to periodically release the lid to release gas pressure.

**COLLECTION OF A OVA & PARASITE SPECIMEN**

1. Instruct the patient to pass stool into dry container to avoid contaminating the specimen with urine or toilet paper. The use of a collection device on a toilet seat helps to avoid urine contamination of the feces.
2. Specimens must be submitted to the laboratory within ONE HOUR of collection in a plastic leakproof container using a disposable tongue depressor (5-10 mL liquid feces or 1 gm formed feces).

If this is not possible (if specimen cannot be submitted within ONE HOUR), place specimen in Ecofix preservative vial. Ecofix vial is available from the laboratory. See number 3 for Ecofix vial collection procedure.

3. Ecofix Vial Collection Procedure (See Attachment B, photocopy as necessary).
  - a. Using spoon built into the lid of the Ecofix vial, place enough stool into the vial to raise the liquid level to the red line (as indicated on the Ecofix vial).
  - b. Thoroughly break up the specimen in the Ecofix vial using spoon in the lid of the vial. Tightly close vial. Shake vigorously.
4. Label the specimen container following Patient Identification and Laboratory Specimen Labeling Procedure. Place labeled container in a plastic specimen transport bag. Attach completed request form to the outside of the bag.
5. See Lab Guide for additional information if needed including causes for rejection.

### **COLLECTION OF AN ENTERIC PATHOGEN (STOOL CULTURE) SPECIMEN, INCLUDES SHIGA TOXIN**

1. Instruct the patient to pass stool into dry container to avoid contaminating the specimen with urine or toilet paper. The use of a collection device on a toilet seat helps to avoid urine contamination of the feces.

Portions of feces that are bloody or contain mucus are especially significant.

  - a. A rectal swab may be submitted but is not recommended. Collect rectal swab only if feces cannot be obtained. See step 4.
  - b. NOTE: Shiga toxin testing CANNOT be performed from a rectal swab.
2. Specimens must be refrigerated immediately and submitted to the laboratory within TWO HOURS in a plastic container using a disposable tongue depressor (1-3 mL feces).

If this is not possible (if specimen cannot be submitted within TWO HOURS), place specimen in Modified Cary Blair vial (Para Pak C&S orange top) and refrigerate. Para Pak C&S is available from the laboratory. See number 3 for Para Pak C&S vial collection procedure.
3. Para Pak C&S Collection Procedure (See Attachment C, photocopy as necessary).
  - a. Using spoon built into the lid of the Para Pak C&S vial, place enough stool into the vial to raise the liquid level to the red line (as indicated on the Para Pak C&S vial).
  - b. Thoroughly break up the specimen in the Para Pak C&S vial using the spoon in the lid of the vial. Tightly close vial. Shake vigorously.
  - c. Refrigerate vial immediately. Refrigerated vial must be returned to the laboratory within 72 hours.
4. Rectal Swab Collection (not recommended): Swab rectal mucosa or insert swab 3 cm into anal canal and leave for 20-30 seconds before removing. Place swab in culture container tube and crush ampule.
5. Label the specimen container following Patient Identification and Laboratory Specimen Labeling procedure. Place labeled container in a plastic specimen transport bag. Attach completed request form to the outside of the bag.
6. See Lab Guide for additional information if needed.

## COLLECTION OF TIMED SPECIMEN

The start of the collection period is when the first stool is passed and collected. The end of the collection period is at the same time of day on the designated day, e.g., on day three for a 3-day (72 hour) collection. Record the time and date of the start and end of the collection on the request form.

1. Review collection protocol (e.g. duration, diet) with the patient.
2. Instruct patient to avoid contaminating the specimen with urine or with toilet paper. Use a collection device on a toilet seat helps to avoid urine contamination of the feces.
3. Collect all feces passed during the collection period into the large stool collection container(s). Do not fill the container more than 1/2 full. Do not contaminate the outside of the container(s). Refrigerate or freeze specimen during the collection period. If a second container is used, label each container “one of two” or “two of two”.
4. Label specimen container(s) with patient name and identification number. Place labeled container(s) in plastic specimen transport bag. Attach completed request form to the outside of the bag. Deliver the specimen to the laboratory.

Note:

Markers for 3-day collection: For children with constipation and steatorrhea, occasionally carmine red markers in gelatin capsules or cachets (200-500 mg) may be given at the beginning of the test and again at 72 hours. The first stool saved shows a red marker. Any stools appearing between marked stools are saved. The last saved stool shows the second marker. The time between the appearances of the markers may be variable. Refrigerate or freeze specimen during the collection period.

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| Equipment/<br>Supplies | <ul style="list-style-type: none"><li>• Clean, dry bedpan or disposable collection device (hat) for toilet seat.</li><li>• Clean, dry specimen container with tight-fitting lid. Two large stool collection containers are usually required for a timed collection.</li><li>• For the collection and transport of stool specimens for ova and parasite examination, a specimen vial containing a fixative (<b>Ecofix vial</b>) is available from the laboratory.</li><li>• For the collection and transport of stool specimens for <b>stool culture</b>/enteric pathogens (if <b>refrigerated</b> specimen will not arrive in laboratory within 2 hours), place specimen in preservative (Modified Cary-Blair, Para-Pak C&amp;S) and <b>refrigerate. Preservative available from the laboratory.</b></li><li>• Disposable tongue depressors.</li><li>• Plastic specimen transport bag.</li></ul> |
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References Phlebotomy Standardization Committee, Fairview Laboratories

File Location Acutecare\Web\_Intranet\Collection\SPC2108\_fecal

Original Date 2/92 Original Author(s): C Senn and P Bormann

Revised 4/02, 5/07; 5/08, 5/09, 10/09 Last Revised/Approved by: K Garin

Reviewed 8/03; 7/04; 6/05; 6/06, 5/09, 10/09 Last Reviewed/Approved by: K Garin

Medical Director 5/09 P Ferrieri  
Approval

*Please see Attachments A, B and C.*

## Attachment A:

### PATIENT INFORMATION - FECAL COLLECTION

(photocopy as needed)

Dear Patient:

Here's what you should know about collecting a fecal specimen at home. To make sure you obtain a suitable specimen, follow these instructions carefully:

#### COLLECTING A FECAL SAMPLE AT HOME

Note: If collecting a fecal occult blood specimen(s), refer to the package insert for collection instructions.

1. Use a bedpan (if one is available) to collect the stool sample. Be sure the bedpan is clean. If you don't have a bedpan, use a large jar or container that you've thoroughly cleaned and rinsed. You will be given a plastic container with a lid for a test for fecal fat excretion. Use the container to collect collection. A second container is sometimes needed to prevent overfilling during a 3 day collection period.
2. Do not contaminate the specimen by urinating or placing toilet tissue in the bedpan, jar, or container.
3. Collect a specimen of every stool passed within the period designated by your doctor. For a Fat Excretion Test, you may be asked to collect every stool passed in a 3 day (72 hour) period. Consider your first stool as the starting time of the collection period. If you accidentally discard a specimen, call the doctor.
4. For a single specimen the doctor or nurse will give you a small container with a tight lid to minimize odor - in which to save all or part of the specimen. Use a tongue blade or piece of cardboard to transfer the stool from the bedpan or jar to the specimen container. When doing so, be careful not to contaminate the outside of the container with the stool.

Do not overfill the container; fill no more than half full. Store container in a cool place (preferably refrigerated) during the collection period. Carefully loosen the lid occasionally, to allow gas to escape.

#### 5. Routine Stool Culture

Test includes Salmonella, Shigella, Campylobacter, E. coli 0157 and Shiga toxins 1 & 2.

- a. Collect feces in clean, dry bedpan or wide-mouthed container, or onto newspaper over the toilet seat.
- b. Immediately transfer feces into Para Pak C&S transport medium (orange cap), using the spoon provided in the cap of the vial if necessary, until the specimen reaches the red "ADD SPECIMEN TO THIS LINE" mark.
- c. Cover tightly and shake firmly to insure that the specimen is adequately mixed. Refrigerate immediately.
- d. Store in refrigerator until submitted to the laboratory. Must arrive within 72 hours.

Causes for rejection: Specimens contaminated with water or urine. Specimens collected on swabs cannot be used for Shiga toxin testing and therefore is not recommended.

#### 6. Ova & Parasite Examination

- a. Collect feces in clean, dry bedpan or wide-mouth container or onto newspaper over the toilet seat.
- b. Within one hour of collection, transfer feces into ECOFIX preservative (green cap) using the spoon provided in the cap of the vial if necessary, until the specimen reaches the red "ADD SPECIMEN TO THIS LINE" mark.
- c. Cover tightly and shake firmly to insure that the specimen is adequately mixed.
- d. Store at room temperature until submitted to the laboratory.

Causes for rejection: Specimens from patients receiving antidiarrheal compounds, antibiotics, antacids, oils, bismuth or barium are unsuitable; specimens missed with urine or toilet bowl water, more than one specimen per day.

7. If you have difficulty defecating, call the doctor.
8. Return the specimen to the clinic as soon as possible.

**Attachment B:**

**USE OF ECOFIX VIAL FOR SUBMITTING STOOL SPECIMENS TO BE EXAMINED FOR PARASITES**

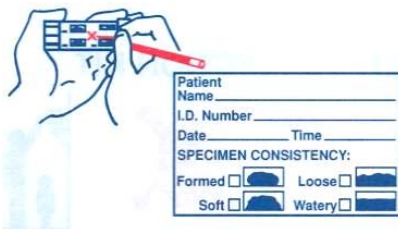
(photocopy as needed)



1. The kit consists of one Ecofix vial.



3. Using spoon built into lid of tube, place enough stool into the vial to raise the liquid level to the red line.



5. Fill in requested information on each vial label.



2. The stool should be passed into a dry container. Urine should not be passed into the same container.



4. Thoroughly break up specimen in vial using spoon, twist cap tightly closed, and shake vigorously.

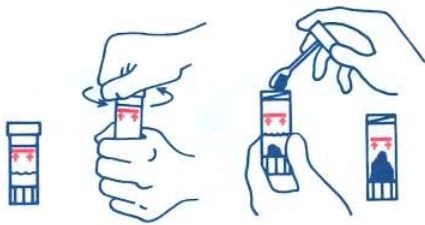
6. Return vial to lab with patient request card.

**Attachment C:**

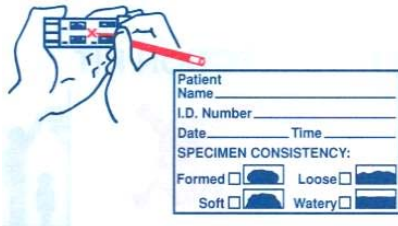
**USE OF MODIFIED CARY-BLAIR VIAL (PARA PAK C&S) FOR SUBMITTING STOOL SPECIMENS TO BE EXAMINED FOR ENTERIC PATHOGENS AND SHIGA TOXINS** (photocopy as needed)



1. The kit consists of one Modified Cary-Blair (Para Pak C&S orange top) vial.



3. Using spoon built into lid of tube, place enough stool into the vial to raise the liquid level to the red line.



5. Fill in requested information on each vial label.



2. The stool should be passed into a dry container. Urine should not be passed into the same container.



4. Thoroughly break up specimen in vial using spoon, twist cap tightly closed, and shake vigorously. Refrigerate vial.

6. Return refrigerated vial to lab within 72 hours of collection.