



INTEGRATED PATHOLOGY SERVICE MICROBIOLOGY DOCUMENT WEST SUSSEX

Pathology User Manual Microbiology Investigations Faeces and Sellotape Slides

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Faeces & Sellotape slides

Faeces

Please include relevant clinical information which should include the location of any travel abroad, food handling employment, recent antibiotics and suspected food poisoning.

Optimal time and Method of collection

Collect specimens as soon as possible after onset of symptoms and before antimicrobial therapy, where possible, into an appropriate 'spoon' container. In ward areas, specimen may be passed into a clean, dry, disposable bedpan or similar container before being transferred into an appropriate 'spoon' container. The specimen is unsatisfactory if any residual soap, detergent or disinfectant remains in the pan.

Adequate Quantity and Appropriate Number of Specimens

1-2 grams of faeces is usually sufficient for routine culture – in any case, please do not fill the specimen container more than half full.

Numbers and frequency of specimen collection are dependent on clinical condition of Patient

Optimal transport and storage conditions

Specimens should be transported and processed as soon as possible Important pathogens such as *Shigella* species may not survive the pH changes that occur in faeces specimens which are not promptly delivered to the laboratory, even if refrigerated.

Limitations of the examination procedure

- Only a small portion of the sample provided is examined
- Selective/differential agar is used for the detection of Escherichia coli 0157
 based on its inability to ferment sorbitol. However, certain strains will ferment
 sorbitol. Although there are systems in place to test sorbitol-fermenting
 colonies in certain circumstances (relevant clinical information etc.), there is
 the possibility that some sorbitol-fermenting strains will not be detected.
- Important pathogens such as Shigella species may not survive the pH changes that occur in faeces specimens which are not promptly delivered to the laboratory, even if refrigerated.
- The Rotavirus test that is used does not define the presence of rotavirus associated gastro-enteritis, but only demonstrates the presence of the antigen in stool. As with all *in vitro* diagnostic procedures, test results should be interpreted by a clinician in conjunction with other clinical information

- The use of meconium stools in the Rotavirus assay is not recommended, as their performance characteristics have not been evaluated
- Stools containing high levels of blood may result in an invalid Rotavirus test result. Testing with an additional specimen is recommended
- Most faecal concentration methods for parasites destroy trophozoite stages
- Faecal concentration methods for parasites do not work well on liquid stools
- Microscopic examination can miss low numbers of faecal parasites especially if profuse liquid diarrhoea is produced
- Sampling of stool for parasites incorrectly assumes an even distribution of the parasite in the bowel. It is therefore possible to have a negative result from a patient who is positive for the parasite
- Failure to detect toxin A and toxin B from patients with suspected C. difficile
 associated disease may not preclude actual disease but may be due to such
 factors as improper collection, handling and storage of the specimen, or toxin
 concentrations in stool below the detection limit of the kit. Reactivity of
 positive samples may decrease with time due to degradation of the toxins.

Sellotape slides

Used to look for threadworms (*Enterobius vermicularis*) only.

A patient information leaflet is available on the Trust Intranet.

Optimal time and Method of collection

Collect specimens before antimicrobial or anti-diarrhoeal therapy where possible

Apply clear Sellotape to the perianal region, pressing the adhesive side of the tape firmly against the left and right perianal folds several times. Stick the tape onto a glass slide and label with the patient's name. Place the slide into the slide holder and send to the laboratory for microscopy.

Adequate Quantity and Appropriate Number of Specimens

Ideally, samples should be taken for at least four to six consecutive days. If the results of all these are negative the patient can be considered free from infection. However, in practice, more than one specimen is rarely received.

Optimal transport and storage conditions

Refrigeration or store at room temperature (20 - 25°C) for up to 48hr