

Urogenital Specimen—Wet Prep [Parasitology/Microbiology Manual]		Page 1 of 5
Doc#: PARA 100	Section: MICROBIOLOGY	Effective Date: September 5, 2019

SCOPE: This policy applies to UPMC Hanover.

KEYWORDS: Trichomonas, wet prep,

PURPOSE: *Trichomonas vaginalis* infections are primarily diagnosed by detecting live motile flagellates from direct saline (wet) mounts. Microscope slides made from patient specimens can be examined under low and high power for the presence of actively moving organisms.

POLICY:

Specimen should be delivered to laboratory within one half-hour of collection. Specimen should be examined immediately upon arrival in the Microbiology Dept. Do not refrigerate.

SPECIMEN:

Wet Prep swab submitted in 1mL of saline. All specimens should be held at room temperature because refrigerator temperatures inhibit motility and have a deleterious effect on the organism. Laboratory should receive specimen within 30 minutes to 1 hour—kept warm. Vaginal Discharge, Urethral Discharge, Penile Discharge, or Urethral–Mucosa Scrapings: Collect the above specimens using cotton or Dacron swab. Place specimen in 1.0 mL of 0.85% NaCl in a test tube.

TRANSPORT:

Specimen must be transported as soon as possible to the laboratory. Heel warmers have been used to keep specimen warm for transport.

QUALITY CONTROL:

Saline should be clear and free of visible contamination. Microscope has been calibrated and not moved. Objectives and oculars from the calibration procedure should be used for all measurements on the microscope.

PROCEDURE:

1	Apply the patient’s specimen to a small area of a clean microscope slide using dropper.
2	Cover the specimen with a #1 coverslip (22x22mm).

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3	Examine the wet mount with low-power (10x) objective and low light.
4	Examine the entire coverslip for motile flagellates of <i>Trichomonas vaginalis</i> and yeast, WBC's, clue cells, and sperm that may be present. Suspicious objects can be examined with the high-power (40x) objective. (See pictures at end of procedure for appearance.)
5	The wet prep result comes up as a list of organisms possibly seen. Note quantity of Trichomonas, Yeast, Clue cells, and WBC's as Rare, Few, Moderate, Many, or None seen. Sperm is quantitated as above and reported only if seen. Do NOT report the absence of sperm.
8	The Trichomonas organism is slightly larger than a PMN (Polymorphonuclear cell) and flagellar movement should be seen. Yeast cells are smaller, slightly ovoid cells. Clue cells are sloughed, epithelial cells covered with tiny gram-variable rods and coccobacilli. These "clue cells" are associated with <i>Gardnerella vaginalis</i> and suggest bacterial vaginosis.

INTERPRETATION:

If motile flagellates (axostyle and undulating membrane) are seen, then the trophozoites of *T. vaginalis* are present.

If non-motile organisms can be identified, then the trophozoites of *T. vaginalis* are observed. If non-motile organisms are visible after staining with Giemsa stain or iodine (see procedural notes), they may be reported as observed.

For vaginal specimens, the presence of WBCs is not as important as the examination for clue cells, yeasts and *Trichomonas vaginalis*. *T. vaginalis* is often associated with WBCs.

The presence of budding yeast indicates vaginal candidiasis.

The presence of clue cells indicates bacterial vaginosis..

PROCEDURE NOTES:

Clue cells are squamous epithelial cells whose borders are obscured by large amounts of bacteria adhering to them. They appear as granular cells with an undefined edge.

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- If a specimen is submitted past one hour of collection, it is unacceptable and must be recollected.
- When specimen is examined microscopically, always confirm that no fecal contamination (artifacts, vegetable debris, etc.) is present. This is usually found in urine specimens, but could lead to a false positive result as patient may have a *Trichomonas hominis* intestinal infection that may be unidentifiable from *T. vaginalis*.

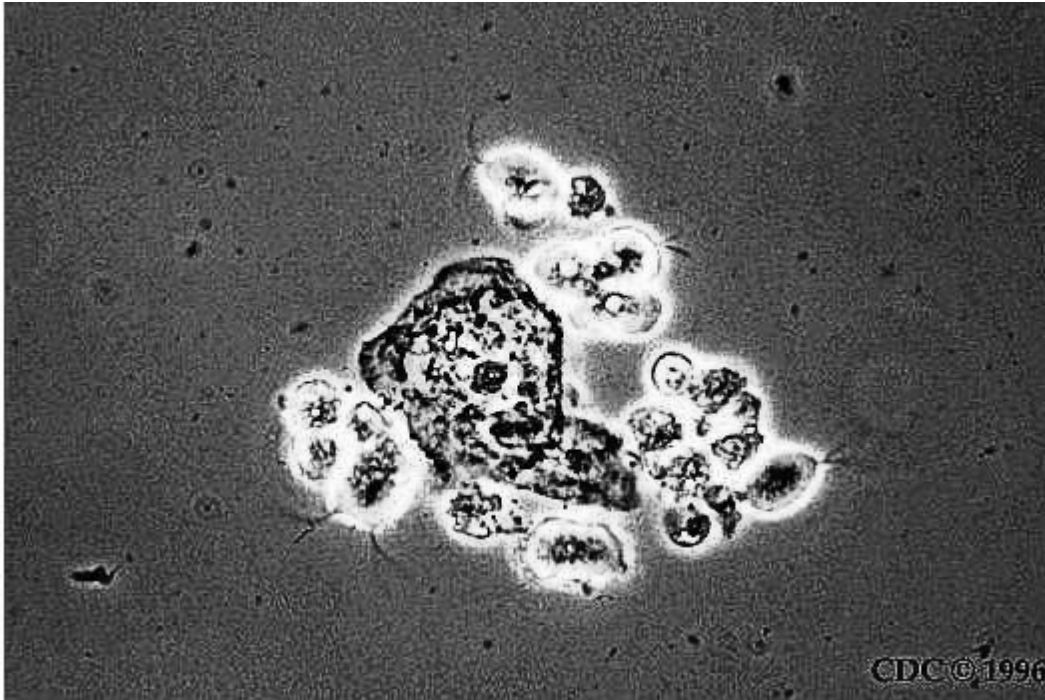
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