PROCEDURE
Corewell Health East - Wet Prep Examination - All Beaumont Hospitals

This Procedure is Applicable to the following Corewell Health sites:
Corewell Health Beaumont Grosse Pointe Hospital, Corewell Health Beaumont Troy Hospital, Corewell Health Dearborn Hospital, Corewell Health Farmington Hills Hospital, Corewell Health Taylor Hospital, Corewell Health Trenton Hospital, Corewell Health Wayne Hospital, Corewell Health William Beaumont University Hospital (Royal Oak)

Applicability Limited to: N/A

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Functional Area: Clinical Operations, Laboratory

Lab Department Area: Lab - Microbiology

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1. **Purpose**
   The document describes the procedure to perform and result a wet prep exam. The procedure is performed by trained qualified Laboratory staff.

2. **Principle**
   The Wet Prep exam is a rapid method to diagnose the causes of vaginitis. While a wet prep exam can be used for other microbiologic identification testing, this procedure describes a direct test examination, which quickly identifies the presence or absence of the diagnostic "Clue" cells, as well as detect the presence of yeast and *Trichomonas vaginalis* in female vaginal specimens.

3. **Clinical Significance**
   1. Bacterial vaginosis is a clinical syndrome, characterized by a shift in the vaginal microbiota from the dominant microbiota of *Lactobacillus* spp. to a mixed microbiota of *Gardnerella vaginalis*, *Prevotella* spp., *Mobiluncus* spp., and *Mycoplasma hominis*.
   2. Budding yeasts can also be identified in the vaginal fluid and are an indicator of yeast vaginitis. The vaginal discharge becomes thin and milky with a strong, fishy odor.
   3. Vaginitis may also be caused by infection with the parasite, *Trichomonas vaginalis*. Trichomoniasis may cause a vaginal discharge that is yellow-green, foamy, and malodorous.

4. **Responsibility**
   Personnel who have completed the competency requirements will perform this testing.

5. **Specimen**
   Lab Test Directory | Corewell Health Laboratory

6. **Reagent/Equipment Needed**
   1. Standard 1x3 microscope slide
   2. Transfer pipette

3. Glass cover slip
4. Microscope

7. Quality Control

The laboratory participates in the appropriate required proficiency testing (PT)/external quality assessment (EQA) program accepted by CAP.

8. Procedure

A. Sample must arrive into the lab within 2 hours of collection. If it is received beyond this time, the test should be cancelled due to specimen beyond stability.

B. Preparation

1. E-Swab transport swab submitted
2. Vortex the tube to release material into the liquid medium.
3. Using a transfer pipette, place one drop of the suspension onto the slide.
4. Apply a glass cover slip before microscopic examination.

C. Examination

1. Examine the cover-slipped slide under the low power objective (10X).
2. Look for the diagnostic "Clue cells" in the preparation. These are epithelial cells covered entirely with bacteria, giving the cell a "fur-like" appearance.
3. Look for the presence of yeast cells, budding yeast with or without pseudohyphae.
4. Look for the presence of **motile** trophozoites of *Trichomonas vaginalis*.
5. Confirm all suspicious elements using the high dry objective (40X).

9. Interpretation

A. **Negative:** No clue cells, no *T. vaginalis* and no yeast observed.
B. **Positive:** One or more diagnostic elements observed.
   1. Clue cells
   2. Yeast
   3. *T. vaginalis* demonstrating characteristic motility.
C. ***Non-motile trophozoites of *T. vaginalis* are not reported.**

10. Reporting

Issue a Final report. Select appropriate reporting comment for each diagnostic element.

1. Negative: No diagnostic elements observed
   a. No Clue cells seen.
   b. No yeast seen.
   c. No Trichomonas seen

2. Positive: Any diagnostic elements observed
   a. Clue cells present
   b. Yeast present
   c. Trichomonas present

11. Limitations

1. Specimens at room temperature (20-26°C or 68-78.8°F) or refrigerated must be tested within 2 hours of collection. The diagnostic cellular elements will begin to deteriorate after an extended period of time.
2. A false negative result may occur if the specimen is inadequately collected.

12. Revisions

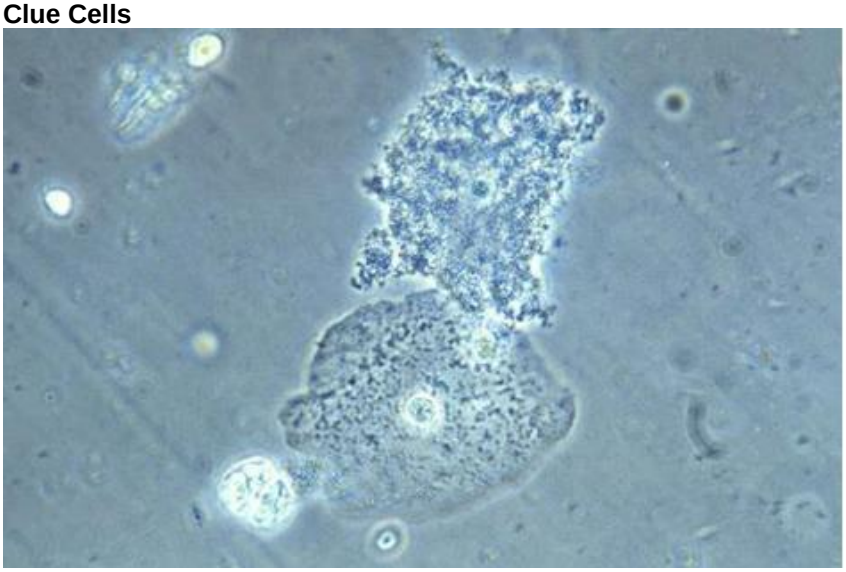
Corewell Health reserves the right to alter, amend, modify or eliminate this document at any time without prior written notice.

13. References

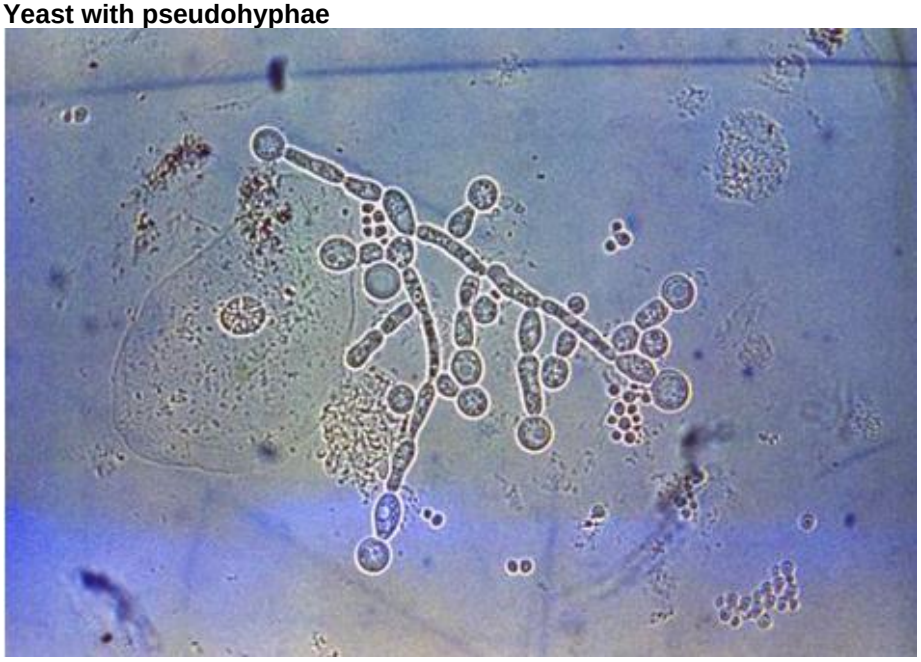
A. Shimizu, R. Y., Grimm, F., Garcia, L. S., & Deplazes, P. (2011). Specimen collection, transport, and processing: parasitology. In Versalovic J, Carroll KC, Funke G, Jorgensen JH, Landry ML, Warnock DW (Eds), Manual of Clinical Microbiology, (10th ed., pp. 2047–2063) American Society for Microbiology Press.
B. York, M.K. (2016). Wet mount for detection of leukocytes and microorganisms. In Leber, A. L. (Ed.) Clinical Microbiology Procedures Handbook, (4th ed., p.3.2.3.) American Society for Microbiology Press. doi:1110.1128./9781555818814.ch3.2.3.
C. Novak-Weekley, S., & Leber, A. L. (2015). Intestinal and Urogenital Amebae, Flagellates, and Ciliates. In Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S. S., Warnack, D.W. (Eds.) Manual of Clinical Microbiology, (11th ed. (pp. 2399-2424). American Society of Microbiology Press.

14. Examples

A. **Clue Cells**



B. **Yeast with pseudohyphae**



C. ***Trichomonas vaginalis***

15. Procedure Development and Approval

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16. Keywords

Not Set