TITLE: Wet Prep of Vaginal Secretions

PRINCIPLE / PURPOSE: Bacterial vaginosis is considered to be the most common vaginal infection in women. It is characterized by a massive overgrowth of vaginal microorganisms; primarily Gardnerella vaginalis, Prevotella species, and yeast. The presence of WBCs is one factor suggestive of pelvic inflammartory disease and cervical infections due to Chlamydia trachomatis or Neisseria gonorrhoeae.

Microscopic examination of vaginal secrections can aid in the diagnosis of bacterial vaginosis and/or vulvovaginitis due to candidiasis and trichomoniasis.

SCOPE: This procedure pertains to all vaginal wet prep examinations.

SPECIMEN:

Type: Specimens are obtained during speculum examination. A swab specimen is taken from the posterior fornix and transferred to a purple top transport tube containing ~0.5 mL (bottom of purple label) of sterile saline. The shaft is broken off in the transport tube and the screw cap placed securely on the tube.

* Specimens must be received and analyzed withing 45 minutes of collection. If it is received outside of these time limits then the specimen is rejected and notify the nurse or the attending physician. Cancel the test and document that the specimen was not received within 45 minutes of collection and the date, time, and person notified of cancellation.
* Specimens received in purple transport tubes with more than 1 ml of saline added can still be analyzed if it is within 45 minutes of collection but should be documented in comments that “Specimen diluted, due to transport tube containing more than 1 ml of saline, interpret results with caution.”
* Specimens received with a dry swab (this means that if you touch the swab to a glass slide it does not leave any residue) may still be analyzed as long as it is within 45 minutes of collection but you will have to add ~0.5 mL of saline to interpret the results. Document the results in the LIS system and enter the comment “Dry swab received, had to add saline to interpret results”.
* Specimens received with less than ~0.5 mL of saline or the swab is still moist then interpret results as long as the specimen is within 45 minutes of collection. You may have to have add a drop or two of saline depending upon the moisture of the swab. Do not have to enter a comment with these conditions.

**Handling Conditions**: The purple transport tube must be identified and labeled following the hospital patient identification policy: [H-PC-200-06\_Verification\_of\_Patient\_Identification](http://infonet.armc.com/Policies%20and%20Procedures/Hospital/Provision%20of%20Care%20-%20PC/Planning%20and%20Providing%20Care%20-%20200/H-PC-200-06.doc). The transport tube should be submitted to the lab as soon as possible, using the pneumatic tube system if available. Specimen integrity is compromised after twenty (20) minutes, and will be rejected if received in the Laboratory after 45 minutes of collection time.

On occasion a wet prep is received without an order. Therefore, before the sample expires perform the wet prep and record your results. Phlebotomy will continue to be proactive about obtaining the order. After the order is entered in the LIS system, then enter the recorded results in the computer.

EQUIPMENT AND MATERIALS:

Equipment:

Speculum (physician)

Materials:

purple transport tube

sterile saline

sterile swab

glass slides w/coverslips or Urisystem slide

10% KOH

Sterile pipets

Preparation:

Saline and 10% KOH are ready to use.

Performance Parameters: Do not use any reagents if contaminated or past expiration date.

Storage Requirements: All reagents are stored at room temperature.

QUALITY CONTROL: No external Quality Control material is currently available. Personnel are required to complete new employee and annual competency training.

PROCEDURE:

1. Mix the swab in the saline solution.
2. Use a sterile pipet to transfer the mixture to a Urisystem slide or a glass slide.
3. Scan the Urislide or a glass slide with coverslip on low power (10X) then switch to high power (40X).
4. Examine the slide for the presence of heavily “peppered” squamous epithelial cells (clue cells)
5. Enumerate the number of WBCs, the presence of spermatozoa, budding yeast or hyphae, and motile trichomonas. Clue cells are covered with many coccobacillary bacteria which may obscure the edges of the epithelial cells.

6. Add 1 – 2 drops of 10 % KOH and observe for fungal elements.

INTERPRETATION & REPORTING RESULTS:

Reference Ranges:

Report the absence of each microscopic component:

NO WBCS SEEN

NO TRICHOMONAS, SPERMATAZOA, YEAST OR CLUE CELLS SEEN

Procedures for Abnormal Results:

Report the presence or absence of each microscopic component and semi-quantitate WBC results:

FEW/MODERATE/MANY WBCS SEEN

CLUE CELLS SEEN

TRICHOMONAS SEEN

YEAST SEEN

SPERM SEEN

Reporting Format:

NO - NO

F - FEW

MOD - MODERATE

M - MANY

YEAST - YEAST SEEN

SPERM - SPERMATOZOA SEEN

TRIC - TRICHOMONAS SEEN

CLUE - CLUE CELLS SEEN

WBC - WHITE BLOOD CELLS SEEN

NONE - NO TRICHOMONAS, SPERMATAZOA, YEAST OR CLUE CELLS SEEN

PROCEDURE NOTES:

1. Yeast should be budding or have hyphae present before reporting as positive.

2. Trichomonads can be confused with WBCs if motility is not observed. DO NOT REPORT NON MOTILER TRICHOMONAS.

LIMITATIONS OF THE PROCEDURE:

1. Not all diagnostic characteristics of bacterial vaginosis may be present.

2. The Gram Stain procedure is usually less subjective then the wet prep procedure.

REFERENCES:

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Holst, Elisabet, et al. 1994. *Bacterial Vaginosis and Vaginal Microorganisms in Idiopathic Premature Labor and Association with Pregnancy Outcome*. J. Clin. Micro. 32:176-184.

Joesoef, M. R. et al. 1991. *Reproducibility of a Scoring System for Gram Stain Diagnosis of Bacterial Vaginosis*. J. of Clin. Micro. 29:1730-1731.

Nugent, Robert P. et al. 1991. *Reliability of Diagnosing Bacterial Vaginosis is Improved by a Standardized Method of Gram Stain Interpretation*. J. of Clin. Micro. 29:297-301.

Spiegel, Carol A. 1991. *Bacterial Vaginosis*. Clin. Micro. Reviews. 4:485-498.

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HISTORY PAGE

SOP Number: Micro-707

SOP Title: Wet Prep of Vaginal Secretions

Written By: Jacee Farmer/Shaye K. Yarbrough

Manual in which Hard Copy of this SOP is located: Procedure Manual IV

Distribution: none

Supersedes Procedure:

SOP CHANGE CONTROL

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