KAISER PERMANENTE®
COLORADO LABORATORY

WET PREPARATION FOR VAGINAL SWABS

PRINCIPLE

Vaginal secretions are suspended in saline and examined microscopically to detect the presence of Trichomonas, yeast, clue cells, WBCs and other fungal elements, which could indicate the presence of Gardnerella vaginalis. KOH can also be added to help in the detection of fungal elements.

SCOPE

Medical Technologists and Medical Laboratory Technicians at the Medical Office Laboratories

SPECIMEN REQUIREMENTS and SPECIMEN STABILITY

All specimens are to be collected by the provider. Providers will collect vaginal discharge with a sterile swab and place in sterile green top tube, adding saline until the absorbent tip of the swab is covered. The wet preparation must be examined within one hour of collection. Specimens received greater than 1 hour old will be rejected and the provider notified of the rejection.

MATERIALS / REAGENTS

- Sterile Saline
- Glass Slides
- Coverslips
- Disposable plastic pipettes
- Microscope

CALIBRATION

None

QUALITY CONTROL

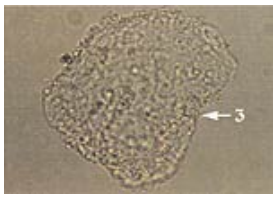
None

PROCEDURE

1. Mix the discharge material collected on the swab with the saline in the sterile tube to make an adequate emulsion of the specimen.
2. Place a drop of the mixed saline on the slide and place a coverslip on top of it.
3. Examine the specimen, first under low magnification (10X) and then high (40X) magnification, using reduced light.
   Note: Reduction of the intensity of the light source will heighten the contrast and make objects more clearly visible.

Examine for the following:

www.bacterialvaginosis.com

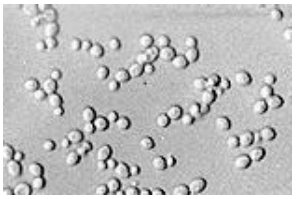


Clue Cells – Vaginal epithelial cells coated with coccobacilli and/or bacilli that often obscure the edges of the cells.

www.irvingcrowley.com

Trichomonas – Pear-shaped organism with an undulating membrane that extends half the length of the body, which is approximately 7 µm in total length.

www.pathmicro.med.sc.edu



Yeast Cells – Unicellular, eukaryotic, budding cells that are generally round to oval or, less often, elongate or irregular in shape

www.diaglab.vet.cornell.edu

WBCs

RESULTS AND REPORTING

1. Results are entered in the “ARE” application of the LIS.
2. Enter results into the LIS using the following quantification criteria:

QUANTITY	# PER 40x field
Rare	0-1
Few	2-10
Moderate	10-25
Many	>25

3. Results must be entered for all four parameters: Trichomonas, yeast, clue cells and WBCs

NOTES AND LIMITATIONS

1. Trichomonas organisms typically exhibit rapid, jerky motility but this can be lost quickly if samples are allowed to dry. Therefore, wet preparations must be examined **immediately.** Trichomonas can be confused with white blood cells, report only if motile

2. Gardnerella vaginalis has a “fishy” odor and usually indicates the presence of clue cells

3. Reagents must be used within their expiration dates

4. Observe Universal Precautions with all specimens

REFERENCES

Balows, A., Hauser, W.J., Hermann, K.L., Isenberg, H.D. & Shadomy, H.J., Manual of Clinical Microbiology 9th Edition, American Society of Microbiology, Washington, DC, 2007

Cumitech 17A; “Laboratory Diagnosis of Female genital tract Infections,” American Society for Microbiology**,** Washington, DC, 1993