

## **4.0**

### **FAMILY PLANNING LABORATORY**

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### INTRODUCTION

Collection of laboratory specimens at a Family Planning visit is a required component to ensure a high standard of care in providing screening and prevention services. All laboratory procedures, quality assurance monitoring and recording must be performed according to current CLIA regulations. Refer to CLIA Laboratory Manual for specific guidelines.

Clinic staff should have a discussion on the importance of recommended screening tests with the client.

### SERVICE POPULATION

Women and men presenting for Family Planning services.

### METHODOLOGY

#### **4.1 LABORATORY TESTS – IF INDICATED**

Initial Visit/Annual Visit

Pap smear

Chlamydia test see Section 4.4 for indications for testing

#### **4.2 LABORATORY TESTS - SPECIAL**

The following laboratory tests may be ordered by the clinician on initial/annual exam when indicated:

A. urine pregnancy test

chlamydia trachomatis (Ct)/gonorrhea (GC)

hemoglobin

vaginal pH

wet prep of vaginal discharge (KOH, normal saline)

urine dipstick

skin test for TB: recommended for client who is born in foreign area with high risk for TB (see TB protocol), Native American, diabetic, HIV+, alcoholic

gram stains

blood glucose screen

rubella immunity status

HIV for clients who have an affirmative response to one or more of the following since their last HIV test (if ever):

- Injected drugs and shared equipment (e.g., needles syringes, cotton, water) with others
- Had unprotected intercourse with someone that might be infected (e.g., a partner who injected drugs, has been diagnosed or treated for a STD or hepatitis, has had multiple or anonymous sex partners, or has exchanged sex for drugs or money)
- Had unprotected vaginal or anal intercourse with more than one sex partner
- Been diagnosed or treated for an STD in the last 12 months, hepatitis, or tuberculosis
- Had a fever or illness of unknown cause
- Been told they have an infection related to a “weak immune system”

Source of data: CDC. Revised guidelines for HIV counseling, testing, and referral and revised recommendations for HIV screening of pregnant women. MMWR 2001;50 (No.RR-19): 9.

Hepatitis B and C tests – Refer to Hepatitis Program Protocol

Syphilis

B. All other tests are done by local hospital or community laboratory. The client is expected to pay for any additional tests.

### 4.3 LABORATORY RESULTS

Laboratory results are to be reviewed by the nurse before being recorded and filed in the client chart.

Abnormal results are to be brought to the attention of the usual clinician (MD, CNM, CNP, PA). This may be in person or by phone. Notification of a clinician is only necessary if an exam or order is needed; example: abnormal Pap, positive GC/Ct test, positive RPR, low hemoglobin. In the event that the usual clinician is not available for urgent cases, the District Health Officer should be contacted. For example, positive RPR in a pregnant client or HSIL on Pap smear.

Abnormal results requiring a clinician's attention include:

|                                |   |
|--------------------------------|---|
| Hgb                            | less than 5th percentile for altitude (see table below)           |
| Syphilis serology              | reactive or positive ( *pregnant client and/or HIV positive)      |
| TPPA                           | positive (this confirmation test is run when RPR is positive)     |
| Gonorrhea                      | positive  |
| Pap smear                      | ASC-US, ASC-H, AGC<br>LSIL or HSIL, invasive cancer               |
| TB test                        | positive (does not require clinician attention unless infectious) |
| Whole blood                    | random: 140 mg/dl or above  |
| Glucose screen                 | fasting: 110 mg/dl or above (referral to PMD)                     |
| Chlamydia test                 | positive  |
| UA Dipstick ,                  | presence of blood, glucose, ketones, nitrates, leukocytes         |
| HIV                            | positive  |
| Hepatitis B or C               | positive, Hepatitis B carrier status in a pregnant woman          |
| * immediate attention required |   |

Any normal or abnormal lab results that are unexpected, confusing or of concern to you should be discussed with a clinician.

#### Anemia cutoffs (5th percentile) for nonpregnant women

##### Hemoglobin

|                   | Altitude (ft) |           |           |           |           |           |           |
|-------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                   | 3000-3999     | 4000-4999 | 5000-5999 | 6000-6999 | 7000-7999 | 8000-8999 | 9000-9999 |
| <b>Non-smoker</b> | 12.2          | 12.3      | 12.5      | 12.7      | 13.0      | 13.3      | 13.6      |
| <b>Smoker</b>     | 12.5          | 12.6      | 12.8      | 13.0      | 13.3      | 13.6      | 13.9      |

Source of data: Recommendations to Prevent and Control Iron Deficiency in the United States. MMWR 1998;47:11-13.

##### Hematocrit

|                   | Altitude (ft) |             |           |           |           |           |
|-------------------|---------------|-------------|-----------|-----------|-----------|-----------|
|                   | < 3000        | 5000-5999   | 6000-6999 | 7000-7999 | 8000-8999 | 9000-9999 |
| <b>Non-smoker</b> | 36            | 37.5        | 38        | 39        | 40        | 41        |
| <b>Smoker**</b>   | 37 - 38       | 38.5 - 39.5 | 39 - 40   | 40 - 41   | 41 - 42   | 42 - 43   |

\*\*Lower value is for smoking < 1 pack per day, upper value for > 2 packs/day (1 - 2 packs/day is in between)

Source of data: CDC. CDC criteria for anemia in children and childbearing-aged women. MMWR 1989; 38(22); 400-4.

## 4.4 LABORATORY METHODOLOGY/PROCEDURE

### A. CHLAMYDIA TESTING

Chlamydia Trachomatis is now the most common bacterial sexually transmitted disease. It causes cervicitis, pelvic inflammatory disease and infertility in women. Men, women and infants are affected but women bear an inordinate burden because of their increased risk for adverse reproductive consequences. Infections in women are often asymptomatic.

#### DIAGNOSTIC:

Sexually active **men** and women of any age with signs or symptoms of an STI, such as penile discharge, PID **or** mucopurulent cervicitis or a friable cervix on exam should be tested for gonorrhea and chlamydia.

#### SCREENING:

- 1.1 Age 25 and under: Test all sexually active women and men age 25 and under annually.
- 1.2 Age 26 and over: In asymptomatic women over 30 years of age the rate of positive Ct. tests is **generally** less than 3% which makes false positive tests more likely to occur. Test only women who are not in a mutually monogamous relationship and who have at least one of the risk factors below
  - **client or their partner** reports having 2 or more partners in the last 12 months
  - **client** has had a new sexual partner within the past 3 months
  - **client** has been diagnosed with an STI such as GC, Ct, trichomoniasis or syphilis within the past year
2. Any man or woman who is a known contact to a partner with gonorrhea, chlamydia, or NGU should be tested and treated for Ct, GC, or both according to protocol.
3. Pregnant women and women seeking an IUD insertion should be screened regardless of age.
4. Women under 20 years of age with positive chlamydia test results should be encouraged to return for a re-test 3 to 4 months following treatment.
5. Testing should not substitute client counseling/education regarding correct and consistent condom use in STI prevention.
6. For management of symptomatic women or laboratory confirmed positive test results and their partners, please refer to "CDC – 2002 STD Treatment Guidelines".
7. Because methods of collection and specimen handling vary according to the specific test being used, detailed instructions are not provided here.
8. The procedure and standard to be followed will be that found in the package insert and SLD protocol.
9. Document reason for testing women ages 26 and older in client record if this is not apparent from the history. Routine annual testing of low risk women is not recommended.

### B. GONORRHEA SCREENING

1. For detailed procedure in collecting Gonorrhea samples, see Laboratory Standard Operating Procedures Manual.
2. For instructions on handling collection kits or media see STD Protocol.
3. For treatment of positive tests see CDC 2002 Treatment Guidelines.

### C. BLOOD GLUCOSE

In the local clinic office, use the blood glucose meter to screen blood glucose. If random sample whole blood glucose is 140 mg/dl or more, repeat screen as below. \*\*

Testing for diabetes with fasting plasma glucose should be considered:

\* in all individuals at age 45 years and above, and if normal, every 3 years,

\* at a younger age or more frequently (annually) in individuals who:

- are obese (BMI = 27kg/m<sup>2</sup> or =20% above desirable body weight)
- have a family history of diabetes (i.e. parents or siblings with diabetes)
- are members of a high-risk ethnic population (African-American, Hispanic- American, Native American, Asian-American, Pacific islander)
- have delivered a baby weighing > 9 lb. or have been diagnosed with gestational DM
- are hypertensive (BP > 140/90)
- have an HDL cholesterol level = 35 mg/dl (0.9 mmol/l) and/or a triglyceride level =250 mg/dl (2.82 mmol/l)
- on previous testing, had impaired glucose tolerance (IGT) (= plasma glucose 140-199 mg/dl with 2-hour oral glucose tolerance test) or impaired fasting glucose (IFG) (=plasma glucose 110-125 mg/dl)

\*\*If fasting sample is 110 mg/dl or above, or random sample blood glucose is above 140 mg/dl with symptoms of diabetes such as polyuria, polydipsia, and/or unexplained weight loss, or 2-hour plasma glucose ≥ 200 with oral glucose tolerance test:

1. Consult immediately with clinician regarding contraceptive method.
2. Refer to client's primary care source for evaluation of possible diabetes.

(The Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Diabetes Care 1998;21(S1):S5-S19 provides criteria for diagnosis of diabetes mellitus.)

In our clinic setting, clients may not be able to pay for plasma glucose tests. We should offer the whole blood glucose meter test strip, which is NOT diagnostic, but can help screen clients who need diagnostic testing (with plasma glucose). Cutoffs to guide referral for diagnostic testing are above.

Additional information is available from the NMDOH Diabetes Prevention and Control Program.

#### D. PAP SMEAR

##### 1. PURPOSE:

The Pap smear provides a means of screening for pre-invasive and invasive cervical cancer. Educate all women about the risk factors for cervical cancer (HPV infection, multiple partners, tobacco use etc.) and importance of screening.

The Pap smear report includes information about the identification of organisms causing cervicitis or vaginitis.

Pap smears are screening tools, not diagnostic tools. Refer any woman with a clinically suspicious cervical lesion for colposcopy, with biopsy as indicated. Fifty percent of women presenting with invasive cervical cancer had recent Pap smears and 30 percent of these women had negative Paps.

The need for cervical cancer screening should not be the basis for the onset of gynecologic care. It is critical that women who may not need a pap smear obtain appropriate preventive health care, including pelvic exam and screening and treatment of sexually transmitted infections.

Recommendations for routine Pap smear screening per 2002 American Cancer Society Guidelines

- In adolescents who have had vaginal intercourse: screening should begin approximately 3 years after the onset of **vaginal** intercourse, however no later than 21 years of age.
- Under age 30, once screening begins, repeat the Pap smear annually.
- Age 30 and after, women who have had 3 consecutive annual Pap smears with technically satisfactory normal/negative cytology results, may be screened every 3 years.

**Exceptions:** Women who have had history of DES in utero exposure, are HIV positive, or are immunocompromised should have annual screening.

Pap smear should be done as indicated above *except* for the following clients (any age):

- virginal women who deny a history of sexual abuse
- post total hysterectomy women (with removal of the cervix) for benign gynecologic disease ex uterine fibroids.

Efforts should be made to confirm and/or document via physical exam and review of the pathology report, when available, that the hysterectomy was performed for benign reasons and that the cervix was completely removed.

Provider discretion and client choice following counseling should be used to guide the initiation of cervical cytology.

## 2. PROCEDURE:

The procedure and standard to be followed in collection of the Pap smear sample will be found in the CLIA lab manual. When taking the Pap smear, be sure to obtain a good endocervical sample (use a cytobrush after the spatula). If you wet the speculum with water and also plan to test the pH of vaginal secretions, dry it before the exam. The pH of water is usually 7.

Family planning staff making Pap smear appointments should remind the woman not to put anything in her vagina for 48 hours before each Pap—that is, no intercourse, douching, tampons, or vaginal medications. Clients getting Pap smears should not use vaginal creams for 1 week prior to their Paps, should not be having their menses at the time of their Paps, and should aim to have their Pap mid-cycle if possible.

## 3. EQUIPMENT FOR PAP SMEAR:

Public Health Division has a laboratory contract for pap smears. Items marked with an asterisk (\*) are provided by the contractor.

- Well screened private examination room
- Drape sheets
- Examining table with stirrups
- Paper for table
- Stool for examiner
- Lamp
- Gloves
- Vaginal Specula (three sizes--Pederson nullipara, Graves medium, and large)
- Dacron tip swab
- Calgiswabs
- \*Cytobrush and plastic spatula
- \*Gynecologic Cytopathology request form
- \*Glass slides with frosted end
- \*Pump fixative (in box with kits)
- \*Clinician instruction manual

(Note: A copy of "Improving the Quality of Clinical Pap Smear Technique and Management, Client Pap Smear, Education, and the Evaluation of Pap Smear Laboratory Testing" was provided to each Local Health Office in 1990 as a reference guide.)

## **4.5 THE ABNORMAL PAP SMEAR**

### A. PURPOSE:

To assure that the client with an abnormal Pap smear receives appropriate medical follow-up.

### B. EQUIPMENT

- Pap Smear Report
- Client Chart with appropriate entry on the Problem List
- Abnormal Pap Smear Follow-up Log
- Form: Client Acknowledgment of Abnormal Medical Condition
- Referral Form

## C. INTERPRETATION AND MANAGEMENT

Clinician should review all abnormal Pap smear as soon as possible.

Always review the client's past Pap smear results.

Confirm that the woman did not put anything in her vagina for 48 hours before the Pap.

Offer referral for colposcopy if recommended on Pap Test Algorithm. Document in chart if woman declines this service.

Ask client to sign the "Client Acknowledgment of Abnormal Medical Condition" form.

## **RESULTS REQUIRING EVALUATION**

See PAP Algorithm. Notes below elaborate on the table.

### 1. Benign Cellular Changes

#### 1. Infections reported on Pap smear

##### a. Trichomonas

- If the woman was treated when the Pap was taken and told that her partner needs treatment, further action is not needed.
- If the woman was not treated: Consider treatment based on the Pap since this is a highly specific test.
- Among women at risk for STDs screen for GC and chlamydia if this was not already done, explain potential complications of trichomoniasis and advise STD evaluation and treatment for her partner.

##### b. Bacterial vaginosis:

The Pap is not an accurate test for B.V.

If the woman is pregnant or trying to conceive and her Pap is positive for bacterial vaginosis, notify her and offer specific testing (pH, wet prep, amine) prior to treatment.

##### c. Candida, actinomyces, herpes simplex, see CT

### 2. ASC

**2.1 ASC-US** – Atypical Squamous cells of undetermined significance. If this is initial ASC-US, repeat the pap smear in 4-6 months x 2.

#### **Previous history of ASCUS**

If ASC-US recurs at any time during the 1-year follow-up period after previous ASC-US, refer for colposcopy. If ASC-US resolves, then recurs, consult colposcopist.

Persistent ASCUS with negative colposcopy-consult Colposcopist.

**2.2 ASC-H-** Atypical Squamous cell cannot exclude HSIL – refer for colposcopy.

### 3. Low Grade SIL (LSIL)

See algorithm.

For adolescents under age 20, repeat pap at 6 and 12 months. If any ASC or worse, refer for colposcopy.

For clients aged 20 or greater, refer for colposcopy.

### 4. Vaginal Estrogen Treatment of ASC-US and LSIL Paps Among Peri menopausal Women

ASC-US and LSIL Pap smears among peri menopausal women are likely to be associated with benign genital atrophy-induced squamous cell nuclear enlargement rather than cervical dysplasia. There is a strong correlation between estrogen deficiency and squamous atypia. Providing a course of intra-vaginal estrogen cream followed by a repeat pap test approximately one week after completing a regimen is an acceptable option for women who have clinical or cytological evidence of atrophy provided there are no contraindications to using intra-vaginal estrogen.

These abnormal Paps can be treated with one of the following vaginal estrogen regimens for 12 weeks before repeating the client's Pap smear within one week of treatment completion, if normal result, repeat the pap smear in 4-6 months, if negative, return to routine screening.

Refer for colposcopy if a result of ASC or greater is obtained on repeat Pap. For a client wishing to continue topical vaginal estrogen for atrophic vaginitis, refer her to a PMD.

Vagifem vaginal tablets 25mcg/tab: Sig:1 tablet per vagina daily for 2 weeks, then 1 tablet per vagina twice a week for 10 weeks (ex. Monday + Friday) Dispense 2 boxes (note: each box contains 18 tablets so there will be 2 extra tablets per treatment)

OR

Premarin Conjugated Estrogen Vaginal Cream 0.625mg conjugated estrogens/gm: Sig: 1 gram per vagina daily for the first 3 weeks of a month for 3 months Dispense two 42.5 g tubes.

References:

Abati A et al. Squamous atypia in the atrophic cervical vaginal smear: a new look at an old problem. Cancer 1998 Aug 25; 84(4): 218-25.

Kaminski et al. The significance of atypical cervical cytology in an older population. Obstet Gynecol 1989;73: 13-5.

## Family Planning Program Pap Test Algorithm

Always review the client's Pap history (past results)

|   | RESULTS   | ACTION   | NEXT PAP/ACTION  | ACTION   |
|---|---|--|--|--|
| 1 | <p>NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY</p> <p>BENIGN CELLULAR CHANGES<br/>Reactive changes<br/>Inflammation, Atrophy, Radiation, IUD, Other i.e. infections such as Trichomonas, Chlamydia, Fungal, Actinomyces, Herpes Simplex</p> | Treat as appropriate   | <p>Routine Screening<br/>Age &lt; 30 yrs repeat in 1 year</p> <p>Age &gt;30 yrs and after, repeat annually until 3 consecutive negative Paps, then Pap every 3 years</p> <p>Exceptions: DES exposure in utero, HIV +, immunocompromised repeat in 1 year</p> |  |
| 2 | Satisfactory but absence of endocervical/transformation zone component  | <p>2.1 previous pap normal</p> <p>2.2 History of incompletely evaluated abnormal Paps</p>  | <p>2.1 Routine screening</p> <p>2.2 Repeat Pap in 6 months</p>   |  |
| 3 | ASC-US<br>(Atypical Squamous Cells of Undetermined Significance)  | Immunocompromised, refer for colposcopy  | Non-immunocompromised: Repeat pap q 4-6 mos. X 2   | If normal results x 2, return to routine screening. If any Pap has ASC-US or worse, colposcopy |
| 4 | ASC-H<br>Cannot exclude HSIL  | Colposcopy**   |  |  |
| 5 | LSIL<br>(Low Grade Squamous Intraepithelial Lesion encompassing HPV, "Mild Dysplasia", CIN I)   | <p>5.1 Adolescents &lt; age 20, repeat Pap at 6 and 12 months. If any ASC or worse, colposcopy.</p> <p>5.2 Age 20 or greater, Colposcopy**</p> |  |  |
| 6 | HSIL<br>(High Grade Squamous Intraepithelial Lesion)<br>Moderate dysplasia<br>Severe Dysplasia/CIS, CIN 2 & CIN3  | Colposcopy**   |  |  |
| 7 | AGC (Atypical glandular cells) NOS, favor neoplasia, AIS (endocervico adeno carcinoma in situ)  | Colposcopy** with endocervical sampling, EMB if >35 yr old or abnormal vaginal bleeding (any age) or atypical endometrial cells                |  |  |
| 8 | Squamous cell cancer, Adenocarcinoma, Grossly malignant lesion  | Refer to Gyn-Oncologist immediately.   |  |  |
| 9 | UNSATISFACTORY  | Correct cause—ex. Inadequate sampling, air drying, and/or excessive red or white blood cells   | Repeat in 4 months   |  |

\*\*See Expertise of Colposcopist

### Expertise of Colposcopist

Clients presenting for colposcopy exam may require differing levels of expertise on the part of the colposcopist. Clinics should be aware of the training and experience of their colposcopist. When a more experienced, "expert" colposcopist is needed, appropriate referral should be made. Recommendations below are based on B&CC guidelines (8/01).

| Diagnosis                                       | Expertise of colposcopist  | Comments   |
|---|--|--|
| ASC-US or LSIL                                  | Any provider trained in colposcopy whose training included some supervised practice.   | It is recognized that CIN II and III as well as invasive cancer may present initially with only a low grade Pap. |
| HSIL or worse                                   | Colposcopist with additional experience or expertise. This may include a gynecologist trained in colposcopy during residency, or a family physician, nurse practitioner, nurse midwife, or physician assistant with an active colposcopy practice or several years of experience and additional training beyond a basic colposcopy course. |  |
| Adenocarcinoma of the cervix<br>Invasive cancer | Gynecologic oncologist   |  |

#### D. PROCEDURE:

The Physician, CNM, PA or CNP will determine appropriate follow-up based on the cytology report, clinical findings, and the woman's ability to follow-up. The PHN in charge of family planning in the local health office is responsible for the follow-up of the client with an abnormal Pap smear. The following procedure is recommended:

#### Staff Roles

1. Upon receipt of a report of an abnormal Pap smear, the PHN will present the abnormal report with the client's chart to the Family Planning clinic Physician, CNP, CNM, or PA. Wherever possible, the clinician who performed the Pap smear should review the cytological findings.

This should be accomplished as promptly as possible and should never exceed 4 weeks from the time the pap smear was reported. Any client with high grade SIL or invasive cancer is to be referred to a gynecologist within one week, and noted in the clients record. Reasons for exceptions to this must be recorded on the client's chart.

2. The clinician will assess the client's problem and follow the appropriate steps. This assessment and follow-up shall be based on the current Pap Test Algorithm. Remember to refer clients needing colposcopy to the Breast and Cervical Cancer Detection and Control Program (B&CC) if appropriate. Refer to B&CC Program Manual for questions regarding eligibility criteria. You may also contact your District B&CC Nurse Coordinator or call 841-5860. Treat STIs according to current CDC guidelines.

### **Notifying Client:**

1. The PHN telephones or sends a letter to all clients with abnormal Pap results.
2. A note is made in client's chart regarding the method of attempted contact and recommendations given. All attempts should be made to discreetly contact clients requesting "no mail" through whatever means appropriate without breaching confidentiality.
3. If the client does not respond, she should be contacted a second time within two weeks, and third time within two weeks after the second attempt.
4. When clients do not keep their appointments, reasonable efforts to contact the client should be made.
5. In case of high grade SIL or invasive cancer, every effort should be made to locate the client. Consider a home or school visit from the PHN or other authorized staff. If personal or telephone contact is not made within 8 weeks after Pap was taken, a certified letter is recommended. The return receipt should be placed in client's chart.

### **Records and Forms**

1. The PHN will list the client on the abnormal Pap smear log (or card file), which is to be the record of program follow-up. List "Abnormal Pap smear" as a problem on the client's chart as well. Record all notes about follow-up in Encounter Notes.
2. Unless the clinician has charted instructions for handling the Pap result, charts with follow-up Pap results should be given to a clinician before they are filed.
3. If a client's chart lacks returned Pap results for more than thirty days, the PHN should call Cyto-Specialty Lab (1-800-298-2986) for results and a copy of the report. The Pap should be repeated if results are not found within two weeks.
4. All efforts to contact the client should be recorded in the client's chart and on the log (or card file). Each clinic should keep a tickler system reminding PHNs when to contact clients for repeat Paps. After referring a client to an outside provider, the PHN should document in Encounter Notes that follow-up occurred before closing the case.
5. After education about the abnormal Pap or any other condition requiring referral, the client should sign the "Client Acknowledgment of Abnormal Medical Condition" form, which should be filed in the chart (encounter notes).
6. When a Pap problem is resolved, indicate this on the log (or card file) and on the problem list. NOTE: Once the recommended number of normal Paps have been obtained, the problem, "abnormal Pap smear" is "resolved". A repeat episode of an abnormal Pap smear at a later date is to be given a new entry on the problem list.
7. A client has the right to refuse treatment or referral for treatment. Use the form, "Client Acknowledgment of Abnormal Medical Condition". Place in client record with appropriate documentation on the encounter notes and problem list. The form is included in following pages.
8. For clients who are referred out of the PHD clinic for follow-up, the Referral Form should be sent to the physician or clinic along with a copy of the abnormal pap(s). (See NMPHD Clinic Records Manual). All HIPAA rules regarding release of client medial information must be followed.

Offices which cannot meet this standard need to present their problem in writing to the Family Planning Program.

## REFERRAL FORM:

The following information must be included:

1. On the "Clients Name" line, add Medicaid or private insurance coverage. If the client does not have either, write "Title X client" so that B&CC Program staff may determine if she is eligible for their funds.
2. Please evaluate the client for: (Reason for referral)

Example: "For colposcopy - Pap smear of   (date)  , slide # (  ), results (          ).  
Previous abnormal Paps (if any):  
  (date)  , (slide #), (results), (treatment if any).

3. Copies of all abnormal Paps
4. From Referral Source: request for information to be returned to us on:
  - colposcopy findings
  - biopsy/path report
  - treatment
  - surgery
  - recommended follow-up (orders must be signed by physician)

### 4.6 Evaluation and Management of Nipple Discharge

Nipple discharge, either unilateral or bilateral, is a common problem among women of reproductive age. Galactorrhea can be determined at clinic by expression of breast discharge. Please note that the NM Family Planning Program does not pay for lab cytology costs of breast discharge sent to lab on slides. Refer client to a local primary care provider for further workup of breast discharge. A differential diagnosis for nongalactorrhea discharge includes intraductal papilloma, papillomatosis, mammary duct ectasia, fibrocystic breast disease, and breast cancer.

#### Galactorrhea

Galactorrhea represents "inappropriate" lactation and occurs in approximately 20-25% of women. Use of OCPs containing estrogen, which suppresses prolactin-inhibiting factor, has been noted to cause galactorrhea in 9% of 100 women in one study (Holtz, 1982) who had been using COCs for at least 6 months. Thus, taking a careful history of a client's breast discharge is very important, asking about the following factors: OCP use, recent breast stimulation, including breastfeeding, intense exercise while wearing sports bras, or breast suckling during sexual activity; characteristics of milk flow, including duration and quantity; past galactorrhea, pregnancy symptoms, pituitary tumor symptoms such as headache or vision changes, amenorrhea or oligomenorrhea; unilateral vs. bilateral nipple discharge; spontaneous vs. non-spontaneous nipple discharge; and last but not least, current medicines, including over-the-counter and illicit substances.

Physical examination of a woman with galactorrhea includes evaluation of the thyroid gland, breasts, skin (noting hirsutism vs. sparse hair/dry skin), and visual fields (refer for eye exam if indicated).

A differential diagnosis of galactorrhea is extensive and includes physiologic conditions (ex. fluctuating hormone levels, pregnancy, nipple stimulation), neoplastic processes (ex. pituitary tumors such as prolactinomas), hypothalamic-pituitary disorders (ex. empty-sella syndrome or anything else which results in increased prolactin secretion), systemic diseases (ex. hypothyroidism), medications (ex. SSRI antidepressants, antihypertensives, and many others), chest wall irritation (ex. herpes zoster, GERD, breast surgery), and idiopathic galactorrhea (ex. hyperprolactinemia).

Following a thorough history and physical examination, consider referral for lab testing (ex. TSH and prolactin), follow-up imaging (breast, head MRI), and treatment as indicated. Remember that blood draws for lab testing must be done at least one day after a clinical breast exam because breast exams elevate serum prolactin levels, thereby confounding prolactin lab testing.

If the client with galactorrhea is on COCs and more serious causes of galactorrhea have been ruled out, there are three management options:

- 1) Continue COCs and provide reassurance.
- 2) Stop COCs if galactorrhea is excessive to the client and this is her choice. If galactorrhea is due to COCs, it will typically disappear within 3-6 months of stopping COCs.
- 3) Recommend decreased breast stimulation during intercourse, or during exercise if tight fitting sports bras are believed to be the galactorrhea etiology.

#### References

California Department of Health Services. "Workup of Spontaneous, Unilateral Nipple Discharge in a Non-Lactating Woman" reprinted in national Contraceptive Technology 2002 syllabus, p. 181.  
Hatcher R et al. Contraceptive Technology—Seventeenth Revised Edition. New York: Ardent Media, pp. 443-4.  
Pena KS, Rosenfeld JA. Evaluation and treatment of galactorrhea. American Family Physician 2001 May 1; 63 (9): 1763-70.

If referring the client out for evaluation, follow steps 1-6 in previous section regarding "Referral Form".

Client Acknowledgment of Abnormal Medical Condition

I acknowledge that I have been told by the Health Department that I have a medical condition called \_\_\_\_\_ that requires medical treatment. This service is not provided by the Health Department. I understand I must go see a private physician as soon as possible. The Health Department has given me a list of doctors in my area who handle my kind of medical problem.

\_\_\_\_\_  
Client's Signature

\_\_\_\_\_  
Date

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Documento firmado por el/la cliente mediante  
el cual reconoce que adolece de una problema de salud anormal

Por la presente reconozco que el personal del Departamento de Salud de Nuevo México me ha dicho que adolezco de una enfermedad identificada con el nombre \_\_\_\_\_ que requiere tratamiento por un médico. El Departamento de Salud de Nuevo México no provee ese tratamiento. Entiendo que tan pronto como sea posible tendré que consultar a un médico particular. El personal del Departamento de Salud de Nuevo México me proporcionó una lista de médicos particulares que tienen sus consultorios en la zona donde yo vivo que proveen tratamiento para el tipo de enfermedad identificada más arriba.

\_\_\_\_\_  
Firma del/la cliente

\_\_\_\_\_  
Fecha

#### 4.7 VAGINITIS: DIFFERENTIAL DIAGNOSIS

|                          | NORMAL                     | BACTERIAL VAGINOSIS  | CANDIDIASIS  | TRICHOMONIASIS   | ATROPHIC VAGINITIS   | CHEMICAL OR ALLERGIC VAGINITIS  | LACTOBACILLOSIS                | CYTOLYTIC VAGINITIS  |
|--------------------------|----------------------------|--|--|--|--|---|--------------------------------|--|
| Color of discharge       | Slate gray/White/Clear     | Gray/White   | White/Yellow   | Yellow-green<br>Green/gray/Yellow  | Gray/Yellow  | Normal  | White/Yellow                   | White  |
| Odor of discharge        | Normal body odor           | Fishy  | None/Yeasty/Musty  | Foul   | Normal   | Normal  |                                |  |
| Consistency of discharge | Thin homogeneous<br>Mucoid | Thin/<br>*homogeneous<br>/ Milky/frothy                                      | Thick plaques, may be adherent to vaginal walls/creamy/thin, watery                          | Thin/frothy/may be nonfrothy   | Watery homogeneous/purulent/serosanguineous/sticky   | Normal  |                                | Cheesy or Frothy   |
| Presenting complaints    | None                       | Odor, increased discharge, minimal or no pruritus, occasional irritation     | Pruritus, burning, Dyspareunia, external dysuria, increased discharge or dryness             | Pruritus, burning, dyspareunia, external dysuria, increased discharge  | Spotting, burning, dyspareunia. pruritis, external dysuria. increased discharge  | Pruritis, tenderness/pain, burning. external dysuria, dyspareunia   | Pruritis, burning, dyspareunia | Pruritis, dyspareunia, vulvar dysuria and cyclic increase in symptoms. |
| Physical findings        | Absence of abnormality     | Absence of inflammation, Pooling of discharge at introitus, *Positive whiff. | Erythema of vulva. Vagina; Excoriations secondary to scratching; Possible tissue friability. | Erythema; Petechiae especially of cervix; Cervical friability. Occasional lower abdominal pain, inguinal lymphadenopathy | Pale, pink vaginal, cervical mucosa/absence of rugation Sparse, brittle pubic hair; Inflammation; Ecchymosis; Petechiae; Excoriation | Erythema; Edema; Vesicles or blisters; Oozing; Ulcerations Thickened skin, White patches, Lymphadenopathy | Erythema                       | Erythema   |
| PH                       | ≤ 4.5                      | *≥ 4.5   | ≤ 4.5 or slightly ?  | 5.2-7.0  | 5.5-7.0  | ≤ 4.5   |                                | 3.8  |

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|------------------------------------|---|--|---|--|--|--------------------------------|--|---|
| Microscopic findings               | Squamous epithelial cells;<br>Lactobacilli;<br>Few WBCs | Rare WBCs;<br>*Clue cells,<br>Decreased lactobacilli,<br>Increased bacteria, especially thin, curved, crescent-shaped rods | Pseudohyphae;<br>Yeast buds; WBCs<br>Lactobacilli                       | Motile trichomonads with flagellae/WBCs      | Decreased lactobacilli;<br>Increased WBCs and bacteria/RBCs;<br>Absence of pathogens;<br>Increased number of parabasal cells on maturation index | Absence of pathogens/WBCs      | Lactobacilli is 6 times longer than normal. No fungi. WBCs | Evidence of Cytolysis with bare intermediate nuclei;<br>overgrowth of lactobacilli, often adherent to epithelial cells                                    |
| Relationship of symptoms to menses | Increases around ovulation                              | Not applicable   | Increased before menses. Relief with after menses                       | Increased during, after menses               | Not applicable   | Not applicable                 | Not applicable   | Increased before and after menses   |
| Treatment                          | None  | 3 out of 4 * criteria should be present before treatment.<br>Metronidazole 500 mg tabs<br>1 tab po bid x 7 days            | Clotrimazole Cream/1applicator hs x 7 days OR<br>Diflucan 150 mg po x 1 | Metronidazole 2 gms po x1. Partner needs Tx. | Consider script for Estrogen Cream or refer to PMD to consider HRT   | Remove Culprit                 | Doxycycline 100 mg po tid x 7 days                         | Sodium Bicarbonate Douches/ 1 - 2 TBSP Sodium Bicarb to 1 liter warm H2O 3 x wk x1 wk. Then weekly until symptoms gone OR Doxycycline 100 po BID x 7 days |

Table from Gynecology-Well-women Care by Ronnie Lichtman and Susan Papera with the added columns for lactobacillosis and cytolytic vaginitis