

# Laboratory Test: Gonorrhea (GC) Culture

Standing Order in N.C. Board of Nursing Format

## INSTRUCTIONS FOR LOCAL HEALTH DEPARTMENT STAFF ONLY

Use the approved language in this standing order to create a customized standing order exclusively for your agency.

Print the customized standing order on agency letterhead. Review standing order at least annually and obtain Medical Director's signature.

Standing order must include the effective start date and the expiration date.

## Assessment

### Subjective Findings

The following subjective criteria meet the requirement for an STD Enhanced Role Registered Nurse (STD ERRN) to collect a GC culture by standing order:

- Urethral or Vaginal discharge
- Dysuria
- Intrameatal itching
- Asymptomatic but reports sexual exposure via oral, vaginal, penile or anal intercourse
- New or multiple sex partners
- Lack of condom use
- Anonymous sex
- Reports contact to: Chlamydia (CT), Gonorrhea (GC), Non-Gonococcal Urethritis (NGU), Pelvic Inflammatory Disease (PID), Mucopurulent Cervicitis (MPC), or Trichomonas vaginalis (TV)

### Objective Findings

If one or more of these clinical findings are present, the STD ERRN should collect a GC culture by standing order:

1. male client with penile discharge or complaint of penile discharge, dysuria, or intrameatal itching  
*Note: Before swabbing, if a discharge is not present on the examination, ask the client to milk the penis to increase the yield of available organisms.*
2. male client reports dysuria, intrameatal itching or penile exposure within last 60 days and cannot produce a discharge during the clinic visit.  
*Note: If available, offer urine-based NAAT (see CT/GC NAAT lab standing order.) If urine NAAT is NOT available, recommend Gram Stain and urethral GC culture.*
3. asymptomatic female client requesting a STD screen
4. verified contact to a person with GC at site(s) of exposure(s) within last 60 days, or exposure at the time of their last sexual encounter if greater than 60 days
5. male or female client with a history of sexual exposure to the mouth, penis, vagina, or rectum within last 60 days, it is best practice to collect extra genital testing based on exposure alone. However, it is strongly recommended to test MSM at all sites of reported sexual exposure (rectal, urethral and/or oropharyngeal) within the last 60 days.
6. male or female client with a history of sexual exposure of the mouth or rectum who is complaining of symptoms at the site or abnormal findings on exam at the site, should be tested
7. returning client needing a Test Of Cure (TOC) because (s)he recently received an alternative treatment for a previous pharyngeal GC infection  
\* TOC is not recommended for uncomplicated urogenital or rectal GC treated with first line or an alternative regimen.

## Plan of Care

### Implementation

A registered nurse or STD ERRN employed or contracted by the local health department may order a GC culture for any oral, vagina, penile or rectal specimen collected by the STD ERRN or other medical provider.

### Nursing Actions

- A. Specimen Collection by STD ERRN:
  1. To collect a pharyngeal culture specimen:

- a. culture plates must be at room temperature prior to use
  - b. place the client's data label and specimen collection site on the GC culture plate
  - c. use a Dacron® or rayon sterile swab with a plastic or wire shaft. Do not use cotton tips or wood shafts, as these may be toxic or inhibitory to GC growth. Gently swab the back of the throat and tonsillar crypts for 10 seconds, if the client can tolerate
  - d. inoculate the culture plate by rolling the swab in a large "Z" pattern on the culture plate. Dispose of collection swab.
  - e. cross streak the "Z" pattern using a sterile wire or disposable loop.  
*Note: Best practice for cross-streaking is performed by a trained laboratorian in a laboratory setting.*
  - f. place culture plate in a CO<sub>2</sub> enriched candle jar or directly into a CO<sub>2</sub> incubator set at 36°C ±1°C within 15 minutes of inoculation
  - g. if a candle jar is used, place the candle jar in an incubator set at 36°C ± 1°C within one (1) hour
2. To collect a male urethral GC culture:
- a. **if no discharge is present** at the meatal opening, wait at least one hour after client has urinated to collect specimen
  - b. culture plates must be at room temperature prior to use
  - c. place the client's data label and specimen collection site on the GC culture plate
  - d. use a sterile Calgiswab™ to collect a sample of the discharge
  - e. insert the tip of the swab 1-2 cm into the meatal opening and gently rotate for 3-5 seconds
  - f. **if discharge is present** at the meatal opening, use a Dacron® or rayon sterile swab with a plastic or wire shaft to collect discharge; thus avoiding the need to insert any swab into the urethra. Do not use cotton tips or wood shafts, as these may be toxic or inhibitory to GC growth
  - g. inoculate the culture plate by rolling the swab in a large "Z" pattern on the culture plate. Dispose of collection swab.
  - h. cross streak the "Z" pattern using a sterile wire or disposable loop  
*Note: Best practice for cross-streaking is performed by a trained laboratorian in a laboratory setting.*
  - i. place culture plate in a CO<sub>2</sub> enriched candle jar or directly into a CO<sub>2</sub> incubator set at 36°C ± 1°C within 15 minutes of inoculation
  - j. if a candle jar is used, place the candle jar in an incubator set at 36°C ± 1°C within one (1) hour  
*Note: You may use the same urethral swab to prepare both the Gram stain slide and gonorrhea culture plate. It is not necessary to collect individual swabs for each test. Gram stain should be prepared first and then inoculate the culture plate.*
3. To collect the endocervical gonorrhea culture specimen on a **NON-pregnant** client:  
*Note: Non-pregnant clients that meet the [NCSLPH criteria](#) are eligible for NAAT testing (vaginal swab is the preferred specimen type for NAAT). Use GC culture only when NAAT testing is not available or suspect treatment failure.*
- a. culture plates must be at room temperature prior to use
  - b. place the client's data label and specimen collection site on the GC culture plate
  - c. insert a Dacron® or rayon sterile swab with a plastic or wire shaft 1-2 cm into the endocervical canal followed by two or three rotations and allow 15-30 seconds to elapse to allow secretions to be absorbed. Do not use cotton tips or wood shafts, as these maybe toxic or inhibitory to GC growth  
*Note: Cleaning the cervix of mucus is not critical to collecting the gonorrhea culture specimen.*
  - d. remove swab and inoculate the culture plate by rolling the swab in a large "Z" pattern on the culture plate. Dispose of the collection swab.

- e. cross streak the "Z" pattern with a sterile wire or disposable loop.  
*Note: Best practice for cross-streaking is performed by a trained laboratorian in a laboratory setting.*
  - f. place culture plate in a CO<sub>2</sub> enriched candle jar or directly into a CO<sub>2</sub> incubator set at 36°C ± 1°C within 15 minutes of inoculation
  - g. if a candle jar is used, place the candle jar in an incubator set at 36°C ± 1°C within one (1) hour
4. To collect the endocervical gonorrhea culture specimen on a **PREGNANT or POSSIBLY PREGNANT** client requires consultation with an advanced practice provider (APP) or MD.
  5. To collect a rectal specimen:
    - a. culture plates must be at room temperature prior to use
    - b. place the client's data label and specimen collection site on the GC culture plate
    - c. insert sterile a Dacron® or rayon sterile swab with a plastic or wire shaft into the anal canal 2-3 cm, pressing laterally to avoid fecal matter. Do not use cotton tips or wood shafts, as these maybe toxic or inhibitory to GC growth
    - d. allow secretions to be absorbed for 15 - 30 seconds
    - e. remove swab and inoculate the culture plate by rolling the swab in a large "Z" pattern on the culture plate. Dispose of the collection swab.
    - f. cross streak the "Z" pattern with a sterile wire or disposable loop  
*Note: Best practice for cross-streaking is performed by a trained laboratorian in a laboratory setting.*
    - g. if there is significant fecal matter on the swab, discard and collect another specimen pressing laterally
    - h. place culture plate in a CO<sub>2</sub> enriched candle jar or directly into a CO<sub>2</sub> incubator set at 36°C ± 1°C within 15 minutes of inoculation
    - i. if a candle jar is used, place the candle jar in an incubator set at 36°C ± 1°C within one (1) hour

#### B. Interpretation of Lab Findings

1. Growth on urogenital (endocervical or urethral) cultures and on rectal cultures can be presumptively identified by qualified laboratory staff at the local health department  
*Note: All GC cultures presumptively identified as Neisseria gonorrhoeae must be confirmed by sending to NCSLPH or another qualified reference laboratory for confirmation and speciation.*
2. Any growth on pharyngeal cultures must be confirmed and speciated by a reference lab, qualified local lab staff or the NCSLPH
3. Presumptive Positive Findings – Isolation of typical Gram-negative, oxidase-positive diplococci (presumptive *Neisseria gonorrhoeae*) from a clinical specimen
4. Confirmed Positive Findings – Isolation of Gram-negative, oxidase-positive diplococci from a clinical specimen and confirmed using standard biochemical and/or molecular methods
5. Negative Findings – No growth, Not found or No *Neisseria gonorrhoeae* isolated

#### Criteria for Notifying the Medical Provider

- acute abdominal tenderness or rebound tenderness on exam
- adnexal tenderness on exam
- cervical motion tenderness on exam
- sustained cervical bleeding on exam or ANY reported vaginal spotting/bleeding by a pregnant client
- scrotal pain or swelling
- oral temperature ≥ 101° F.

- contact the medical director or medical provider, if there is any question about whether to carry out any provision of the standing order.
- contact the medical director or medical provider, if there is any concern of treatment failure. Special testing arrangements for drug resistance may be indicated. The medical provider should consult the state HIV/STD Medical Director to evaluate the need for resistance testing and the medical provider will be required to write an individual order for the retesting and treatment these client(s).

**Follow Up**

- Treatment should occur within 14 days of the positive culture report.
- Document all attempts of follow-up on clients who meet GC case definition in accordance with local policy and state guidelines.
- Gonorrhea is reportable in NC EDSS within 30 days of diagnosis.

Approved by: \_\_\_\_\_ Date approved: \_\_\_\_\_  
 Local Health Department Medical Director

Reviewed by: \_\_\_\_\_ Date reviewed: \_\_\_\_\_  
 Director of Nursing/Nursing Supervisor

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**Legal Authority:** Nurse Practice Act, N.C. General Statutes 90-171.20(7)(a)(e)(f)&(8)(c)