BCCDC Certified Practice Decision Support Tool:
Mucopurulent Cervicitis (MPC)

The BCCDC decision support tool (DST) aims to provide more equitable, inclusive, and affirming care for all people, particularly for transgender, gender-diverse, sexually diverse, and Two-Spirit peoples. While anatomy and site-specific testing language are used throughout this document, nurses should always strive to foster safer conversations and gender-affirming care by using an individual's chosen terminology when providing STI assessment and management.

Scope

Registered Nurses with **Reproductive Health – Sexually Transmitted Infections** Certified Practice designation (RN[C]) are authorized to manage, diagnose, and treat individuals with **mucopurulent** cervicitis.[1]

Etiology [2-10]

Bacterial:

- *Chlamydia trachomatis* (CT)
- *Neisseria gonorrhoeae* (GC)
- *Mycoplasma Genitalium*

Viral:

- Herpes simplex virus (HSV)

Protozoan:

- *Trichomonas vaginalis* (TV)

Non-STI

- Chemical irritants
- Vaginal douching
- Persistent disruption of vaginal flora

Epidemiology

The exact prevalence of MPC is difficult to determine as there is no standard reporting mechanism in addition to clinical presentations varying widely.

Risk Factors [2-4]

- Sexual contact where there is transmission through the exchange of body fluids
- Sexual contact with at least one partner
- Sexual contact with someone with confirmed positive laboratory test for STI
- Incomplete STI medication treatment
- Previous STI

Clinical Presentation [2-10]

- Change in normal vaginal discharge to thick yellow/green purulent discharge
- Dyspareunia
- Bleeding after sex or between menstrual cycles
- External or internal genital lesions may be present with HSV infection
- Cervical lesions suspicious for or consistent with cervical cancer
- Lower abdominal or pelvic pain

Physical Assessment [2-11]

Offer a speculum examination to evaluate the cervix and vaginal wall. Assess for signs of PID as cervicitis may indicate upper genital tract infection.

Cardinal Signs

- Mucopurulent discharge seen **from the cervical os** (i.e. thick yellow or green pus) and/or **friability** of the cervix (sustained bleeding after swabbing gently)

The following may also be present:

- Cervical erythema/edema

Other Signs

- Cervicitis associated with HSV infection is to be referred to a physician or nurse practitioner (NP) for further assessment
    - Cervical lesions usually present
    - May have external genital lesions with swollen inguinal nodes
- If cervicitis is noted that is not mucopurulent, refer to physician or NP for consult/further assessment as other etiology which may cause cervicitis are out of scope for RN(C).

Notes:

1) Individuals may experience mild to moderate bleeding during cervical screening with spatula, cytobrush and/or endocervical nucleic acid amplification testing (NAAT) for gonorrhea (GC) and chlamydia (CT). This is common and does not necessarily indicate mucopurulent cervicitis (MPC). Friability, which includes frank and sustained bleeding post-cervical screening, is a potential sign of MPC.
2) Individuals who present with symptoms of MPC should also be assessed for signs of pelvic inflammatory disease (PID) through bimanual exam for tenderness. If PID is present, consult with or refer to a physician or NP for further assessment.
3) A bimanual exam may be too uncomfortable for individuals with cervical lesions due to HSV infection; they should be referred to a physician or NP for further assessment and treatment.

Diagnostic & Screening Tests [2-5]

Full STI screening is recommended, including:

- Vaginal swabs for:
    - Yeast
    - Bacterial vaginosis
    - GC/CT/trichomonas NAAT

AND

- Cervical swabs for:
    - GC culture and sensitivity (C&S)
    - GC/CT NAAT – if vaginal specimen not collected
    - HSV polymerase chain reaction (PCR), and syphilis PCR if lesions are present on the cervix
- First void urine for Gonorrhea and Chlamydia NAAT is also appropriate for specimen collection

Management

Diagnosis & Clinical Evaluation [2-14]

- Treat all individuals with mucopurulent discharge (i.e. thick yellow or green pus) visible from the cervical os, even when no laboratory results are available.
- If test results positive for STI, refer to appropriate STI DST for monitoring, follow-up and treatment of contacts.
- If PID or HSV is clinically suspected; see BCCDC Non-certified Practice Decision Support Tool: Pelvic Inflammatory Disease or BCCDC Non-certified Practice Decision Support Tool: Herpes Simplex Virus

Consultation & Referral

Consult with or refer to a physician or NP in the following situations:

- Assessment indicates PID
- HSV infection is suspected
- Cervical lesions suspicious for or consistent with cervical cancer
- Another etiology is suspected, potential need for screening or follow-up for cervical cancer
- Syphilis infection is suspected
- Individual is pregnant and/or breast/chest feeding
- Recurrent MPC is suspected
- Symptoms persist following MPC treatment completion

Treatment [2-14]

Treatment	Notes
First Choice Ceftriaxone 500 mg intramuscular in a single dose AND Doxycycline 100 mg, orally twice a day for 7 days OR	**General** 1. Treatment covers both gonorrhea and chlamydia as etiology is unknown. 2. Preference is to use Doxycycline over Azithromycin when the choice is available. 3. Future GC Treatment regimens will continue to reflect national recommendations in association with local GC antimicrobial resistance trends (AMR) trends.

Treatment	Notes
Azithromycin 1 g orally in a single dose **Alternate** Cefixime 800 mg orally in a single dose AND Azithromycin 1 g orally in a single dose OR Doxycycline 100 mg orally twice a day for 7 days	4. Retreatment is indicated if the individual has missed 2 consecutive doses of doxycycline or has not completed a full 5 days of treatment 5. Consult physician or NP if individual is unable to use cefixime, ceftriaxone or azithromycin. 6. See BCCDC STI Medication Handouts for further medication reconciliation and individual information. 7. See Monitoring and Follow-up section for test-of-cure (TOC) requirements. **Allergy and Administration:** 1. DO NOT USE ceftriaxone or cefixime if history of allergy or anaphylaxis to cephalosporins. 2. DO NOT USE azithromycin if history of allergy to macrolides. 3. DO NOT USE doxycycline if pregnant and/or allergic to doxycycline or other tetracyclines. 4. If history of penicillin reaction, refer to Beta-Lactam Cross Reactivity Chart, consult physician or NP if needed. 5. If azithromycin or doxycycline allergy or contraindication exists, consult with/refer to a physician or NP for alternate treatment. 6. Azithromycin and doxycycline are sometimes associated with gastrointestinal adverse effects. Taking medication with food and plenty of water may minimize adverse effects. 7. The preferred diluent for ceftriaxone IM is 3.3 ml lidocaine 1% (without epinephrine) to minimize discomfort. 8. DO NOT USE lidocaine if history of allergy to lidocaine or other local anesthetics. Use cefixime PO as alternate treatment. 9. For IM injections of ceftriaxone the ventrogluteal site is preferred. 10. Advise the individual to remain in the clinic for at least 15 minutes-post IM injection in case of anaphylactic reaction to treatment. Provide anaphylaxis treatment as required, using BCCDC CDC Manual- Chapter 2: Immunization – Part 3:

Treatment	Notes
	Management of Anaphylaxis in a NonHospital Setting, November 2016. 11. If serious allergic reaction develops including difficulty breathing, severe itchiness, have the individual inform clinic staff immediately. If symptoms develop after leaving the clinic, advise the individual to seek immediate emergency care. 12. Advise individual they may experience pain redness and swelling at the injection site. If any of these effects persist or worsen advise to contact health care provider. 13. Recent data has emerged regarding azithromycin and QT prolongation. Although rare, it is more significant in older populations, those with pre-existing heart conditions, arrhythmias, or electrolyte disturbances. It is unclear how significant these findings are in young to mid-age healthy adults consuming a one-time dose of azithromycin; however, please use the following precautions: Consult with or refer to an NP or physician if the individual: • Has a history of congenital or documented QT prolongation. • Has a history of electrolyte disturbance in particular hypokalemia, hypomagnesaemia. • Has a clinically relevant bradycardia, cardiac arrhythmia or cardiac insufficiency. • Is on any of the following medications: ○ Antipsychotics: pimozide (Orap®), ziprasidone (Zeldox®) ○ Cardiac: dronedarone (Multaq®) ○ Migraine: dihydroergotamine (Migranal®), ergotamine (Cafergot®)

Monitoring & Follow-up

Follow-up is based on test results or recurrence of symptoms. If test results positive for STI, refer to corresponding DST.

Partner Notification[2-10]

- **Reportable:** No. If test results are positive, refer to corresponding DST for reporting and follow-up.

Potential Complications[2-10, 15-18]

- Pelvic inflammatory disease (PID)
- Infertility
- Ectopic pregnancy
- Chronic pelvic pain
- Sexually-acquired reactive arthritis
- Disseminated gonococcal infection (DGI)

Additional Education

- Abstaining from sexual activity during the 7-day course treatment or for 7 days post-single-dose therapy for individual and their contacts
- The importance of revisiting a health care provider if symptoms persist
- Sexually Transmitted & Blood-Borne Infections: Standard Education

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