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Case Definition

Confirmed case—genital infections

Laboratory evidence of infection in genitourinary specimens:

- detection of *C. trachomatis* by culture
  or
- detection of *C. trachomatis* nucleic acid
  or
- detection of *C. trachomatis* antigen

Confirmed case—extra-genital infections

Laboratory evidence of infection in rectum, conjunctiva, pharynx and other extra-genital sites:

- detection of *C. trachomatis* by culture
  or
- detection of *C. trachomatis* nucleic acid
  or
- detection of *C. trachomatis* antigen

Confirmed case—perinatally acquired infections

Laboratory evidence of infection:

- Detection and confirmation of *C. trachomatis* in nasopharyngeal or other respiratory tract specimens from an infant in whom pneumonia developed in the first six months of life:
  - isolation of *C. trachomatis* by culture
    or
  - demonstration of *C. trachomatis* nucleic acid
    or
  - demonstration of *C. trachomatis* antigen

or

- Detection and confirmation of *C. trachomatis* in conjunctival specimens from an infant who developed conjunctivitis in the first month of life:

- isolation of *C. trachomatis* by culture
  or
- demonstration of *C. trachomatis* nucleic acid
  or
- demonstration of *C. trachomatis* antigen

Laboratory comments

IgM antibody detection is suitable for diagnosis of *C. trachomatis* pneumonia in infants < 3 months of age only.

Comments

Each case classification is mutually exclusive.

Individuals with more than one site of infection concurrently may fall under more than one case classification but will be counted as one case with multiple sites of infection identified to avoid duplicate counting of cases.

Reporting Requirements

Physicians, Health Practitioners and others

Physicians, health practitioners and others as listed in the *Public Health Act*, shall notify the Chief Public Health Officer (CPHO) (or designate) of all lab-confirmed cases by phone as soon as possible and once the client has been made aware of their diagnosis The information required will include:

- case name and MRN
- laboratory/clinical findings
- treatment details
- phone number for case

Although the lab sends positive results to the Chief Public Health Office (CPHO) (see Laboratories) this does not negate the responsibility of the ordering health care provider to report the case with the above information to the CPHO. Failure to notify CPHO will delay the follow up of the client by Public Health Nursing for contact tracing, education and immunization assessment.

Laboratories

The Provincial Laboratory shall in accordance with the Prince Edward Island *Public Health Act*, report all positive laboratory results by phone and mail, fax or electronic transfer as soon as the result is known to the Chief Public Health Officer (CPHO) (or designate).

Etiology

Chlamydia is a bacterial infection caused by *C. trachomatis* genotypes D to K.

Clinical Presentation

Approximately 50% of males and 70% of females with chlamydia infection are asymptomatic. The incubation period is usually two to three weeks but can be as long as six weeks. If not treated, chlamydia infection may persist for many months.

Chlamydia signs and symptoms

In symptomatic individuals, clinical presentation often reflects the site of infection.

Most common signs and symptoms (if present):

- Dysuria
- Inflammation of the lining of the rectum (proctitis)
- Excessive tearing, discharge, inflammation, swelling or redness of the conjunctivae (conjunctivitis)

People with female genetalia:

- Purulent or mucopurulent exudate in the endocervical canal or easily induced/sustained bleeding or friability at the endocervical os (cervicitis)
- Change in vaginal discharge
- Lower abdominal pain
- Abnormal vaginal bleeding
- Dyspareunia

People with male genetalia:

- Urethral discharge
- Inflammation of the urethra, with or without urethral discharge (urethritis)
- Urethral itch
- Testicular pain

Neonates and infants:

- Excessive tearing, discharge, inflammation, swelling or redness of the conjunctivae (conjunctivitis) (in neonates)
- Pneumonia (infants less than six months)

Complications of chlamydia infections

If not adequately treated, chlamydia can spread from a local site of inoculation and lead to serious complications and/or sequelae.

People with female genetalia:

- Pelvic inflammatory disease (PID)
- Ectopic pregnancy
- Infertility
- Chronic pelvic pain
- Reactive arthritis

People with Male genetalia:

- Epididymo-orchitis
- Reactive arthritis

Diagnosis/Testing

Diagnosis is made based on history, physical examination, and laboratory investigation. The diagnosis is confirmed by examination of genitourinary, rectal or conjunctival samples by culture or molecular diagnostic tests.

Specimens

Acceptable specimens for genitourinary infections include:

- For male genitalia – first stream urine. Urethral swab testing is not available in PEI.
- For female genitalia–clinician collected endocervial or vaginal swab, or self-collected vaginal swab. Urine can be used if necessary but the testing on female urine will miss 1 in 10 cases compared to vaginal testing.

See Appendix A for Collection and Order for Chlamydia Trachomatis, Neisseria Gonorrhea & Trichomonas Vaginalis.

Testing of the oral pharynx or rectum is collected using the same type of swab used for vaginal samples.

Culture is also possible but requires coordination in advance with the lab. Contact the provincial lab in advance of collecting the sample to arrange for culture.

For any specimen potentially associated with sexual assault, there is a chain of custody process that must be maintained in consultation with the microbiology lab.

The specimen for infants under six months of age is generally taken from the conjunctiva or nasopharynx for both culture and molecular testing with second molecular target confirmation.

Epidemiology

Reservoir

Humans are the only known reservoir.

Transmission

C. trachomatis is transmitted through vaginal, anal and oral sexual activity when there is contact with mucous membrane exudate from people infected with chlamydia.
Vertical transmission can occur if a pregnant person with chlamydia has not been screened and treated during the prenatal period. This can result in eye infections or pneumonia in the infant.

Autoinoculation may also occur from an infected genital site to the conjunctivae or the rectum.

Incubation Period

The incubation period is variable depending upon the type/site of infection. It is commonly 7 – 14 days but can be much longer.

Period of Communicability

Chlamydia trachomatis is communicable for as long as the person harbours the organism. This may be for many months in untreated individuals. Avoidance of sexual activity without using barrier protection should be practiced for 7 days after treatment, to prevent spreading the infection to partners.

Host susceptibility

All persons are susceptible to this disease if exposed. No acquired immunity has been demonstrated; the recurrent infection rate among young sexually active individuals is quite high.

Occurrence

General

Chlamydia is one of the most frequently reported sexually transmitted diseases worldwide. The World Health Organization estimated globally there were approximately 128.5 million persons (aged 15-49 yrs) infected in 2020[4]. This infection is the most common cause of urethritis and cervicitis in North America.

Chlamydia infections have been found in all population groups, but they are more common in young people. It affects both males and females in all age groups; however, females are affected more often than males. Sporadic cases of chlamydial conjunctivitis are reported throughout the world in sexually active adults.

Canada

The number and rate of reported chlamydia cases are increasing in Canada. In 2023, 129,626 cases of chlamydia were reported nationally, corresponding to a national rate of 323 cases per 100,000 population. From 1997 to 2019, national rates of reported chlamydia cases were steadily increasing, and in recent years, the reported rate of chlamydia increased by 22% from 2012 to 2019 (from 303 cases to 371 cases per 100,000 population). While a drop in rates was observed in 2020 with the arrival of COVID-19, post-pandemic the reported rates of chlamydia are once again starting to climb.[5] For more information regarding rates of Chlamydia in Canada visit Reported cases from 1924 to 2023 in Canada - Notifiable diseases on-line

Prince Edward Island

Chlamydia is the most frequently reported STI on Prince Edward Island. The rate of infection remains below the Canadian average but has an upward trend over the past decade.

Control

The effort to control chlamydia involves follow up of cases and their sexual partners as well as education of those at risk as well as the general public. It is hoped that along with contacting the case, partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.

Management of a case

Ordering Health Care Provider:

- Notification of the diagnosis to the infected client should be carried out by the ordering health care provider as soon as possible to prevent further transmission and to arrange treatment. For treatment direction please see Treatment section.
- If cost is a barrier for treatment the ordering provider can write “STI program” on the prescription and the client will be enrolled into the program at the pharmacy. The medication will be provided at **no cost to the client**.
- Test clients for HIV and other STBBI e.g., syphilis, HIV if not done recently.

- All clients should be instructed about infection transmission. Clients should be counselled about the **importance of refraining from unprotected sex until 7 days after completion of treatment of both the case and partner(s).**
- Test for cure is not routinely required; however, for pregnant women, if an alternative treatment regimen (erythromycin) is used, or any situation where treatment adherence is in doubt, a test for cure should be done 3-4 weeks after treatment completion (see Treatment section for more information).
- Clients should be notified that public health nursing (PHN) will be calling to provide further education, immunizations and to collect information for confidential partner follow up.
- Once the client is notified and treatment has been arranged, the ordering health care provider should contact the Chief Public Health Office using the communicable disease (CD) co-ordinator's confidential voice mail at 902 620 3886 or notify the physician on call to provide information regarding the *case name and MRN, the disease/lab findings,* the *medication prescribed* and the *phone number of the client.*
- **PHN follow-up will be delayed if ordering provider does not notify CPHO regarding the case.**

Chief Public Health Office:

- Sends the client information to the appropriate PHN clinical lead or designate for follow up once the ordering physician has notified the CD co-ordinator or designate of the treatment provided and a working phone number for the client.
- Initiates follow-up on all out of province/country referrals of cases and partner(s).

Public Health Nursing:

- Provide clients/partners with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI. See also Management of Contacts section
- Assess the immunization status and requirements for clients as per the *PEI Adult Immunization Guide*.
- Ask clients to provide contact information for sexual partners (all forms of sexual contacts, e.g. oral, anal or vaginal, sex toys etc.) in the past 60 days.
    - If no partners in the past 60 days, then follow up with the last sexual partner.
    - If all partners traced test negative notify the partner prior to the trace-back period.
- Complete case/partner report forms and return to CPHO.
- Provide information/linkages for other services as necessary e.g. sexual health clinic, mental health service, addictions services.

- Make every effort to contact clients and their partners. A minimum of 3 contact attempts on different days at different times should be made. These can be made by phone, text, email or letter.
- Consult with the CD co-ordinator at the CPHO for further options.
- Send the case/partner form back to CPHO if contact has not been made.

Treatment

Complete treatment guidelines are available here: *Canadian Guidelines on Sexually Transmitted Infections*

Anogenital and conjunctival chlamydia

Non-pregnant and non-lactating adults

Preferred Treatment

Doxycycline 100 mg PO BID for 7 days
or
Azithromycin 1 g PO in a single dose

Alternative Treatment

Levofloxacin 500 mg PO once a day for 7 days

Note: Azithromycin may be preferred when poor compliance is anticipated.

Pregnant and lactating people

- **Azithromycin** 1 g PO in a single dose
  or
- **Amoxicillin** 500 mg PO TID for 7 days
  or
- **Erythromycin** 2 g/day PO in divided doses for 7 days
  or
- **Erythromycin** 1g/day PO in divided doses for 14 days

Notes:

- Data are limited regarding the use of azithromycin in pregnancy; however, many experts believe it has an acceptable risk-benefit profile.

- Data on neonatal outcomes are limited.
- Erythromycin dosage refers to the use of erythromycin base. Equivalent dosages of other formulations may be substituted.
- Estolate formulation is contraindicated in pregnancy.
- Doxycycline and quinolones are contraindicated in pregnancy and in lactating people.

Nine (9) to 18 years of age

Preferred Treatment

Doxycycline 5 mg/kg/day PO in divided doses (max. 100 mg BID) for 7 days
or
Azithromycin 12–15 mg/kg (max. 1 g) PO in a single dose, if poor compliance is expected

Alternative treatment

Erythromycin base 40 mg/kg/day PO in divided doses (max. 500 mg QID for 7 days or 250 mg QID for 14 days)
or
Sulfamethoxazole 75 mg/kg/day PO in divided doses (max. 1 g BID) for 10 days

Notes:

- Erythromycin is associated with significantly higher gastrointestinal side effects than other treatment regimens.
- Equivalent dosages of other formulations may be substituted for erythromycin base.
- Topical therapy for conjunctivitis is inadequate, systemic treatment is sufficient.

Consult with a pediatric specialist or an experienced colleague and relevant clinical guidelines when chlamydia is diagnosed in a child. Perinatally acquired *C. trachomatis* can persist for up to three years. Consider sexual abuse when a chlamydial infection is diagnosed in any prepubertal child.
Note: Suspected sexual abuse of children must be reported to child protection services.

Management of contacts

Partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.

Health Care Providers will:

- Test and treat (as appropriate) contacts of a case of chlamydia

Public Health Nursing will:

- Initiate partner/contact follow up
- Instruct contacts about infection transmission.
- Provide contacts with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI.

CPHO will:

- CPHO will refer all out-of-province/country cases and partner(s) to the appropriate jurisdiction.

Follow up

- Pelvic inflammatory disease or epididymitis (complicated infections) require alternative courses of therapy.
- Test of cure for *C. trachomatis* is *not routinely* recommended when appropriate treatment is taken, signs and symptoms disappear and there is no re-exposure to an untreated partner.
- Test of cure *is* recommended when:
  - compliance to the prescribed treatment is sub-optimal
  - signs and symptoms persist post treatment
  - an alternative treatment regimen has been used
  - the person is prepubertal
  - the patient is a pregnant person,
  - non-genital site involved (e.g., eye, rectum, pharynx) or in cases of complicated infection (PID or epididymitis).
- If a test for cure is required:
  - NAAT should be performed 3-4 weeks after the completion of treatment to avoid detection of non-viable organisms and false-positive results.

Preventative measures

Preventative measures for chlamydia can be provided by the primary health care provider, public health nurse, and anyone else involved with the case and/or contacts.

- Heath Care Providers should include sexual health assessments in routine health visits and test accordingly.
- Include information about risk for STI during pre-travel health counselling.
- Make STI services culturally appropriate, and readily accessible and acceptable, regardless of economic status.

- Encourage clients to talk openly about STIs and safe sex with every partner. It is important in protecting both partners.
- Educate the case, sexual partner(s), and the public about symptoms**,** transmission and prevention of infection including tips on safer sex:
    - Carry condoms and dental dams, check the expiry date regularly
    - Be up to date on your vaccines against Hepatitis and HPV
    - Get tested for STIs routinely

Doxy PEP

Doxy PEP is another form of prevention for bacterial STIs such as chlamydia, syphilis and to a lesser degree gonorrhea. The National Advisory Committee on Sexually Transmitted and Blood-Borne Infections (NAC-STBBI) has provided guidance on the use of Doxy PEP (Appendix C) This will be updated as new guidance is released. The full document can be found here: Recommendations on the use of prophylactic doxycycline for the prevention of bacterial STI (chlamydia, gonorrhea, syphilis) - Canada.ca

Screening

- Should be done for anyone who requests it
- For persons with multiple sexual partners or a new partner since last tested, offer screening every three to six months
- Screen all sexually active persons under 30 years of age, at least annually.
- Screen all pregnant people:
    - at first prenatal visit
    - in third trimester
- Screen pregnant people at the time of labour in any of the following situations:
    - No prenatal screening has occurred (no valid results are available at the time of labour)
    - Third trimester screening has not occurred.
    - A positive test result was obtained for C. trachomatis during pregnancy without appropriate follow-up, including treatment and a test-of-cure
- Screen prior to insertion of an IUD, a therapeutic abortion, or a dilation and curettage (D & C).
- Screen person who experienced sexual assault.
- Screening for other STBBIs such as HIV, HBV, HCV, gonorrhea and syphilis should also be considered when testing for chlamydia.

Re-Screening

- Re-screening of all individuals diagnosed with chlamydia is recommended 6 months post-treatment.

References

CATIE (2023) Chlamydia Fact Sheet Found at: Chlamydia | CATIE - Canada's source for HIV and hepatitis C information

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Appendix A

Collection and Order for Chlamydia Trachomatis, Neisseria Gonorrhea & Trichomonas Vaginalis

Appendix B

Chlamydia Fact Sheet

Appendix C
Recommendations on the use of prophylactic doxycycline for the prevention of bacterial STI (chlamydia, gonorrhea, syphilis): a living guideline

An Advisory Committee Statement (ACS)

National Advisory Committee on Sexually Transmitted and Blood-Borne Infections (NAC-STBBI)

Recommendations on the use of prophylactic doxycycline for the prevention of bacterial STI (chlamydia, gonorrhea, syphilis)

Anticipated date of publication: November 28, 2025

Preamble

The National Advisory Committee on Sexually Transmitted and Blood-Borne Infections (NAC-STBBI) is an External Advisory Body that provides the Public Health Agency of Canada (PHAC) with ongoing scientific and public health advice and recommendations for the development of sexually transmitted and blood-borne infections (STBBI) guidance, in support of its mandate to prevent and control infectious diseases in Canada.

PHAC acknowledges that the advice and recommendations in this statement are based upon the best available scientific knowledge/evidence at the time of writing and is disseminating this document for information purposes to primary care providers and public health professionals. The NAC-STBBI Statement may also assist policy makers or serve as the basis for adaptation by other guideline developers. The NAC-STBBI members and liaison members conduct themselves within the context of PHAC's Policy on Conflict of Interest, including yearly declaration of interests and affiliations.

The recommendations in this statement do not supersede any provincial/territorial legislative, regulatory, policy and practice requirements or professional guidelines that govern the practice of health professionals in their respective jurisdictions, whose recommendations may differ due to local epidemiology or context. The recommendations in this statement may not reflect all the situations arising in professional practice and are not intended as a substitute for clinical judgment in consideration of individual circumstances and available resources.

Executive summary

Background

Chlamydia trachomatis (CT), *Neisseria gonorrhoeae* (NG), and *Treponema pallidum* (TP; syphilis) are bacterial sexually transmitted infections (STI) that are a significant public health concern in Canada. CT, NG and TP disproportionately impact certain groups and communities, such as GBMSM (gay, bisexual and other men who have sex have men) and TGW (transgender women). In recent years, rates of these infections have been trending upwards in Canada despite numerous public health interventions. Factors that may be contributing to these observed increases include: a true rise in incidence; the use of improved diagnostic methods; and more effective contact tracing and case-finding.
Rationale for the Guidelines

In the context of strong evidence for the prophylactic use of antiviral agents to prevent HIV, there is interest among health professionals and population disproportionately impacted by these infections for biomedical strategies for the prevention of CT, NG and TP. Evidence is emerging regarding the benefits and harms of prophylactic use of the antibiotic doxycycline for these infections, as pre-exposure prophylaxis (Doxy-PrEP) or post-exposure prophylaxis (Doxy-PEP). Importantly, the prevention and management of these infections occur within a broader context of antimicrobial use (AMU) and antimicrobial resistance (AMR). There is no current global consensus on the use of Doxy-PEP or Doxy-PrEP, prompting PHAC and the NAC-STBBI to prioritize the development of a Canadian recommendation in September 2023.

Objectives

The objectives of this work were to assess the following review questions to formulate recommendation(s) on the use of prophylactic doxycycline for the prevention of bacterial STI (CT, NG, TP):

1. What is the effectiveness of Doxy-PrEP and Doxy-PEP for the prevention of STI (*Chlamydia trachomatis, Neisseria gonorrhoeae* and *Treponema pallidum* [syphilis]) among people who are disproportionately affected by or deemed to be at high risk for STI as compared to no treatment, placebo, usual care, or any other intervention?
2. What are the possible antimicrobial resistance (AMR) consequences of the use of Doxy-PEP and Doxy-PrEP for the prevention of bacterial STI?

Methods

The recommendations were developed following the methods outlined in the 2014 "WHO handbook for guideline development" for STI experts, clinicians, researchers, and program managers. The Grading of Recommendations, Assessment, Development, and Evaluations (GRADE) methodology was applied to determine

the certainty of evidence and strength of the recommendations. The STBBI Secretariat at PHAC initiated a scoping exercise, including an environmental scan, evidence review, and evidence synthesis. A working group comprised of NAC-STBBI members, and subject matter experts (PHAC and external) was formed at the beginning of the project to undertake this work.

An environmental scan was conducted to identify existing guidelines from national, international and sub-national (i.e., provincial, state or local) public health organizations; seven guidelines were identified and assessed. The quality of these guidelines was assessed using the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument. Additionally, PROGRESS-Plus equity factors were identified in the guidelines to assess the range of social determinants and factors that contribute to health equity.

Broad research questions were developed for the evidence review in consultation with the working group. The key questions were approved with population, intervention, comparator and outcomes (PICO) elements by the NAC-STBBI and the working group. Ten guideline questions were prepared and four were prioritized for this phase of guideline development.

The four questions are:

1. Should Doxy-PEP or standard care be used in cisgender GBMSM TGW at risk of CT, NG or TP infection?
2. Should Doxy-PEP or standard care be used for sexually active adolescents and adults at risk of CT, NG or TP infection? [Forthcoming]
3. Should Doxy-PrEP or standard care be used in cisgender GBMSM and TGW at risk of CT, NG or TP infection? [Forthcoming]
4. Should Doxy-PrEP or standard care be used in sexually active adolescents and adults at risk of CT, NG or TP infection? [Forthcoming]

The **population** eligibility criteria were: cisgender GBMSM and TGW; sexually active adolescents and adults; cisgender heterosexual men; cisgender women; transgender men; all individuals assigned female at birth; individuals < 25 years of age. The **intervention** eligibility criteria were Doxy-PEP (200 mg within 72 hrs of condomless sex) and Doxy-PrEP (100 mg daily). The **comparators** included: standard care; consistent condom use; and STI screening and treatment per existing guidelines. **Outcomes of interest** were: STI incidence; STI-associated morbidity (including, for individuals assigned female at birth, infertility, pelvic inflammatory disease); total antimicrobial use (AMU); impact on microbiome; impact on AMR for target and non-target organisms; STI transmission; and quality of life. Multiple databases (PubMed, Embase, EBM Reviews, MedRxiv and ClinicalTrials.gov database) were searched using search strategies for any relevant publications up to September 15, 2023. Additional studies were identified by members of the working group up to September 30, 2024 and were included as appropriate.

A survey was conducted among stakeholders to assess the clarity of the recommendations for guideline question 1 and the feasibility of their implementation, including identifying any perceived barriers or facilitators. This feedback was presented to the working group before the recommendations were finalized.

Conflicts of interest were managed according to PHAC guidelines. At the beginning of each NAC-STBBI and working group meeting, the members disclosed their conflict of interests, if any. Some members of the group were selected due to their ongoing research on the topic and associated expertise. To manage any perceived conflict arising from these activities, those members were precluded from participating in discussions that examined the quality of their own work. After analysing each declaration of interest, it was concluded that no conflicts were identified by the working group and NAC-STBBI members that would prevent them from participating in the discussion and voting on the committee recommendations.

Justification for guideline 1 recommendations

Findings from 4 clinical studies that evaluated the efficacy of Doxy-PEP were considered. Clinical studies among cisgender GBMSM and TGW, including those taking HIV pre-exposure prophylaxis (HIV PrEP) and those living with HIV, have found Doxy-PEP to be efficacious over the short term (12-18 months) for preventing CT, TP, and, in some studies, NG infections. For CT and NG, findings varied between studies and by anatomical site of infection. Doxy-PEP users experienced large reductions in incident early TP infections. In these studies, Doxy-PEP was administered as a 200 mg oral dose, ingested between 24 and 72 hours following condomless sex. Doxy-PEP may have some benefits in reducing the risk of NG, but this benefit is expected to be lower than for CT or TP due to higher rates of tetracycline resistance in NG at baseline in Canada and globally. The durability of any benefit for NG will be highly dependent on the evolution of resistant strains. Widespread Doxy-PEP use among cisgender GBMSM and TGW may favour the spread of other AMR, multidrug-resistant (MDR) and extensively drug-resistant (XDR) pathogens. Evidence indicates that use of tetracycline-class antimicrobials, such as doxycycline, creates AMR selection pressure. Drug-resistant pathogens with tetracycline co-resistance disproportionately affect these populations (e.g., XDR Shigella, MDR *Neisseria gonorrhoeae*, *Mycoplasma genitalium, Staphylococcus aureus*).

The overall certainty of evidence of effects is moderate (based on only the evidence for effectiveness; appraisal of AMR evidence has not yet been completed). However, in considering related evidence for and understanding of the development of antimicrobial resistance and antimicrobial stewardship principles, as well as the lack of evidence on patient values and preferences, resources use/cost-effectiveness, feasibility in Canadian context and mixed evidence on acceptability, the working group members selected type of recommendation as conditional recommendation for the intervention. The votes were divided as strong recommendation for (1 vote), conditional recommendation for (4 votes)

and conditional recommendation against (2 votes) DoxyPEP use for cisgender gbMSM and TGW at risk of CT, NG or TP infection. During the June 2025 NAC-STBBI teleconference, all present members voted to approve the conditional recommendations for Doxy-PEP use for cisgender GBMSM and TGW at risk of CT, NG or TP infection. Thus, the majority decision proceeds with "suggest".

In conclusion, the working group acknowledged the effectiveness of Doxy-PEP in preventing the acquisition of STI; however, concerns were raised about the short follow-up interval for currently available evidence and the uncertainty about the long-term benefits and harms from the intervention. The potential to accelerate AMR and MDR in target and non-target organisms remains a potential factor requiring ongoing monitoring and further assessment as new evidence becomes available. When examining equity factors for GBMSM and TGW, the working group determined that the use of Doxy-PEP has the potential to ameliorate disparities in rates of STI that disproportionately affect these populations. At the same time, the potential AMR harms of Doxy-PEP use could exacerbate AMR inequities (e.g. in AMR/MDR NG). Ultimately, when the working group considered these factors, it was determined that on balance, the known benefits of the intervention currently outweigh the potential harms, supporting the intervention.

Summary recommendations for guideline question 1

There are two recommendations related to the **use of doxycycline prophylaxis for bacterial sexually transmitted infections (STI) prophylaxis in cisgender GBMSM and TGW**. Recommendation 1 focuses on offering Doxy-PEP and recommendation 2 focuses on counselling. Remarks are provided for healthcare providers to explain the recommendation and describe any relevant considerations.

Recommendation 1: Doxycycline post-exposure prophylaxis for cisgender gay, bisexual and other men who have sex with men (GBMSM), and transgender women (TGW)
The NAC-STBBI suggests offering doxycycline post-exposure prophylaxis (200 mg orally, taken within 72 hours of exposure) to cisgender GBMSM and TGW at increased risk of bacterial STI as a component of comprehensive STBBI services to reduce the risk of syphilis, chlamydia and possibly gonorrhea. (Conditional recommendation, moderate certainty of evidence)
Remarks • There is no consensus definition for "increased risk" at this time. Examples of behaviours that can increase an individual's risk of bacterial STI include, but are not limited to, elements such as: ○ recent prior bacterial STI(s),

  - those with 10 or more partners in the last 6 months or condomless sex with multiple partners,
  - those engaging in "chemsex" (using stimulants during sex e.g. crystal methamphetamine), and
  - individuals engaging in group sex.
- Users are advised to take no more than 1 dose (200 mg) in a 24-hour period.
- To minimize antimicrobial use, if a Doxy-PEP user has multiple sexual partners during a period of 2-3 consecutive days (e.g. a weekend), a single dose of 200 mg Doxy-PEP at the end of the 72-hour period (e.g. on Monday morning after the weekend) should adequately cover their STI risk.
- The use of Doxy-PEP should be reassessed every three to six months as an individual's risk may change over time.
- Clinicians should follow existing STI screening recommendations as outlined in PHAC's STBBI guides for health professionals. The optimal frequency of STI screening for individuals taking Doxy-PEP is not known. The NAC-STBBI recommends targeted "opt-out" syphilis, chlamydia and gonorrhea screening as frequently as every 3 months when serving population groups and/or communities experiencing high prevalence of syphilis (and other STBBI), including GBMSM.
- Given antimicrobial resistance concerns, when testing for NG, the NAC-STBBI recommends collecting specimens for both culture and NAAT in several scenarios, including for individuals with symptoms and when assessing NG contacts. For individuals who are diagnosed with NG using NAAT specimens only, collect a specimen for culture prior to administering treatment, as long as doing so does not delay treatment.
- To enable monitoring of tetracycline resistance, routine antimicrobial susceptibility testing by laboratories is recommended.
- Use of doxycycline as prophylaxis against bacterial sexually transmitted infections (STI) is an off-label indication.

Recommendation 2: Counselling on risks for shared decision making

To inform shared clinical decision-making about Doxy-PEP use, the NAC-STBBI recommends discussing personal, community (e.g., GBMSM) and population-level risks of antimicrobial resistance with individuals considering this intervention.
(Strong recommendation, moderate certainty of evidence)

Remarks

Clinicians are advised to discuss the following elements with individuals taking Doxy-PEP:

- Existing evidence raises concerns about the potential of Doxy-PEP to contribute to the acceleration of tetracycline resistance in NG and indicates that any initial benefit for the prevention of NG may not be sustained over the long term.
- Globally, high antimicrobial use among GBMSM has been linked to a disproportionate burden of emergent and circulating AMR pathogens. Extra consideration should be given to prudent use of antimicrobials with this population.

- To date, tetracycline resistance in *Chlamydia trachomatis* and *Treponema pallidum* subspecies pallidum has not been documented in humans, although TP has developed antimicrobial resistance to other antibiotic classes.
- Use of Doxy-PEP may be linked to increased rates of tetracycline resistance in *Staphylococcus aureus*.
- Clinicians should inform patients that only doxycycline has been proven effective for the prevention of bacterial STI. Individuals should be discouraged from taking other classes of antibiotics as prophylaxis to prevent these STI.

Contact us for full guidance

For the complete guidance on our recommendations on the use of prophylactic doxycycline for the prevention of bacterial STI (chlamydia, gonorrhea, syphilis), contact us at sti.secretariat-its@phac-aspc.gc.ca.