

This guide is provided for information purposes only and should not replace the clinician's judgement. The recommendations in this guide are intended for individuals aged 14 and over¹. They were developed using a systematic process and are supported by scientific literature and the knowledge and experience of Québec clinicians and experts. For more details, refer to the report *Traitement pharmacologique des infections transmissibles sexuellement et par le sang - Approche syndromique*.

GENERAL CONSIDERATIONS

- ▶ This guide is a tool intended to support decision making when clinical evaluation makes it possible to identify syndromes, and it focuses exclusively on the management of clinical symptoms potentially associated with STBBIs prior to obtaining laboratory analysis results (syndromic approach).
- ▶ Appropriate laboratory analysis must be completed for all exposed sites. Culture analysis to check for *Neisseria gonorrhoeae* is still a preferred test when signs and symptoms are present, in addition to taking a sample to check for *Chlamydia trachomatis* and *N. gonorrhoeae* using a nucleic acid amplification test (NAAT).

SYNDROME MANAGEMENT

INTERVENTION WITH THE INFECTED PATIENT

Intervention should include:

- ▶ A clinical assessment including a physical examination, identification of STBBI risk factors and a check for STBBIs according to risk factors and clinical manifestations;
- ▶ A recommendation to abstain from sexual contact for up to 7 days following a single-dose treatment OR until the end of a multi-dose treatment AND until the symptoms are resolved²;
 - ▷ In case of doubt regarding abstinence, a recommendation to use barrier methods for all types of sexual contact (genital, oral-genital, anal or oral-anal);
- ▶ Support for the infected patient and a procedure to notify and treat sexual partners. The [regional public health department \(DSP\)](#) can provide support in this regard.

INTERVENTION WITH SEXUAL PARTNERS

Please refer to the tool [Les partenaires sexuels, il faut s'en occuper!](#) for additional information.

Partners should be contacted if they have had sexual contact with the infected patient:

- ▶ Within the 60 days preceding the onset of symptoms or diagnosis; OR
- ▶ While the patient had symptoms; OR
- ▶ Before the completion of multi-dose treatment or within 7 days of a single-dose treatment.

In certain situations, it can be justified to check for partners over a longer period.

Intervention should include:

- ▶ Clinical assessment, including identification of STBBI risk factors;
- ▶ STBBI screening according to the [Guide québécois de dépistage des ITSS](#);
- ▶ If there are no signs or symptoms, an epidemiological treatment without waiting for the screening test results: [decision algorithm](#);
- ▶ If there are signs or symptoms: [a syndromic approach](#);
- ▶ Notification of this person's partners if the screening results are positive.

NOTIFIABLE DISEASE (MADO)

Laboratory-confirmed cases of *C. trachomatis*, *N. gonorrhoeae* and of lymphogranuloma venereum (LGV) must be reported to the regional [DSP](#).

MEDICATION FREE OF CHARGE

For persons registered with the Quebec health insurance plan (RAMQ) and who have a valid health insurance card, claim slip or temporary proof of eligibility for medication: enter on the prescription the code **K** (for the infected patient) or **L** (for partners). The cost of 1% lidocaine without epinephrine is covered by the free program in the context of treating sexually transmitted infections or associated syndrome when "diluent for ceftriaxone" is noted on the prescription.

1. For cases of suspected sexual abuse, refer to the [Guide d'intervention médicosociale pour répondre aux besoins des victimes d'agression sexuelle](#).
2. If the individual does not comply with the abstinence instructions, consult an experienced colleague to determine the appropriate management.

CERVICITIS AND URETHRITIS

CLINICAL MANIFESTATIONS¹

CERVICITIS:

- ▶ Abnormal vaginal discharge;
- ▶ Intermenstrual or post-coital vaginal bleeding;
- ▶ Purulent or mucopurulent endocervical exudate.

URETHRITIS:

- ▶ Dysuria;
- ▶ Urethral discomfort;
- ▶ Urethral discharge;
- ▶ Pollakiuria, hematuria, vesical tenesmus and urinary frequency are rarely associated with urethritis. More in-depth assessment is required if one of these symptoms is identified.

ETIOLOGY

- ▶ *C. trachomatis* and *N. gonorrhoeae*;
- ▶ If screening results are negative and symptoms persist, consider the possibility that other pathogens, such as *Mycoplasma genitalium* or *Trichomonas vaginalis*, are present and consult an experienced colleague;
- ▶ Signs and symptoms indicative of cervicitis can also be associated with other causes, including contraceptive methods;
- ▶ Cervical ectropion is not cervicitis.

TREATMENT

1ST CHOICE:


Cefixime 800 mg PO in a single dose OR ceftriaxone² 250 mg IM in a single dose
AND
 Azithromycin³ 1 g PO in a single dose

2ND CHOICE:

Cefixime 800 mg PO in a single dose OR ceftriaxone² 250 mg IM in a single dose
AND
 Doxycycline⁴ 100 mg PO BID for 7 days

HISTORY OF ALLERGIC REACTION

TO A PENICILLIN ANTIBIOTIC⁵

Click [here](#)  to consult the antibiotic therapy decision support algorithm.

TO A CEPHALOSPORIN

See the treatment option below.

Gentamicin⁶ 240 mg IM (in two 3-ml injections)
AND
 Azithromycin³ 2 g PO in a single dose

FOLLOW-UP

CERVICITIS:

- ▶ Investigate further or consult an experienced colleague if symptoms persist beyond 48 to 72 hours or reappear after completion of antimicrobial therapy;
- ▶ Tests of cure are recommended depending on the identified pathogens.

URETHRITIS:

- ▶ It can take up to 7 days for symptoms to disappear;
- ▶ Investigate further or consult an experienced colleague if symptoms persist or reappear;
- ▶ Tests of cure are recommended depending on the identified pathogens.

1. Syndromes do not always present all of the possible clinical manifestations.

2. To reduce the discomfort associated with injection, the preferred diluent for ceftriaxone is 1% lidocaine without epinephrine.

3. If the person vomits within an hour after taking azithromycin, administer a prophylactic antiemetic and then another dose of azithromycin.

4. Doxycycline is contraindicated in pregnant women. If required, it is compatible with breastfeeding for treatment under 3 weeks.

5. Penicillin G or V, ampicillin, amoxicillin, cloxacillin or piperacillin.

6. Not approved by Health Canada for this indication.

EPIDIDYMITIS/EPIDIDYMO-ORCHITIS

CLINICAL MANIFESTATIONS¹


- ▶ Progressive typically unilateral testicular pain²;
- ▶ Tenderness of the epididymis or the testicle upon palpation;
- ▶ Palpable swelling of the epididymis;
- ▶ Urethral discharge;
- ▶ Hydrocele;
- ▶ Erythema or swelling of the scrotum on the affected side;
- ▶ Fever.

Consultation with an experienced colleague and hospitalization should be considered when severe pain or fever suggests other diagnosis (testicular torsion, testicular infarction, abscess, necrotizing fasciitis). High fever is unusual and indicates a complicated infection; further assessment is recommended.

ETIOLOGY AND TREATMENT

<i>C. trachomatis</i> or <i>N. gonorrhoeae</i> in men with STBBI risk factors	Gram-negative rods acquired through urological procedures or unprotected penetrative anal intercourse	A combination of the 2 previous etiologies
With STBBI risk factors AND without risk of infection via Gram-negative rods	Without STBBI risk factors AND with risk of infection via Gram-negative rods⁵	With STBBI risk factors AND with risk of infection via Gram-negative rods⁵
Ceftriaxone ^{3,4} 250 mg IM in a single dose AND Doxycycline ³ 100 mg PO BID for 10 to 14 days	Initiate treatment with ciprofloxacin ^{3,6} 500 mg PO BID for 10 to 14 days AND reassess the treatment upon the results of the antibiogram carried out on the isolated strain from the urine culture	Ceftriaxone ^{3,4} 250 IM in a single dose AND Levofloxacin ^{3,6} 500 mg PO daily for 10 days

HISTORY OF ALLERGIC REACTION

TO A PENICILLIN ANTIBIOTIC ⁷	A CEPHALOSPORIN
Click here  to consult the antibiotic therapy decision support algorithm.	See the treatment option below.

Consult an experienced colleague.

FOLLOW-UP

- ▶ Reassessment of diagnosis and treatment required if there is no clinical improvement within 48 to 72 hours after the treatment initiation;
- ▶ Re-examination approximately 1 month after the completion of antimicrobial therapy to ensure there are no persistent testicular abnormalities;
- ▶ Tests of cure are recommended depending on the identified pathogens.

1. Syndromes do not always present all of the possible clinical manifestations.
2. Testicular torsion should be considered if there is acute pain (more common in men under 20 years of age). It is a surgical emergency.
3. Not approved by Health Canada for this indication.
4. To reduce the discomfort associated with injection, the preferred diluent for ceftriaxone is 1% lidocaine without epinephrine.
5. Samples to check for *C. trachomatis* and *N. gonorrhoeae* (NAAT and culture) as well as a urine culture should be taken before the initiation of treatment.
6. A warning has been issued about the use of quinolones in patients under 18 years of age. Consult an experienced colleague.
7. Penicillin G or V, ampicillin, amoxicillin, cloxacillin or piperacillin.

PELVIC INFLAMMATORY DISEASE (PID)

CLINICAL MANIFESTATIONS¹

The following manifestations, associated or not with cervicitis, are indicative of a pelvic inflammatory disease diagnosis:

- ▶ Deep dyspareunia;
- ▶ Fever;
- ▶ Lower abdominal tenderness, adnexal tenderness (unilateral or bilateral) or cervical motion tenderness.

Failure to detect *C. trachomatis* or *N. gonorrhoeae* in samples taken during clinical assessment does not exclude the diagnosis of pelvic inflammatory disease.

ETIOLOGY

Treatment regimens must cover a broad spectrum of likely pathogens, including STBBI agents, in addition to accounting for the polymicrobial nature of pelvic inflammatory diseases.

TREATMENT PRINCIPLES

- ▶ This guide presents only orally and intramuscularly administered treatments. For intravenous treatments, consult an experienced colleague;
- ▶ Rule out the possibility of pregnancy;
- ▶ Intrauterine device (IUD): Immediate removal is not required. Assessment is recommended 48 to 72 hours following the start of antibiotic therapy. However, this must have been started prior to the possible removal of the IUD;
- ▶ If antibiotic therapy is initiated on an inpatient basis, outpatient therapy should continue until the completion of 14 days of therapy.

Criteria for hospitalization or referral to an experienced colleague:


- ▶ Suspected surgical emergency (e.g., appendicitis or ectopic pregnancy);
- ▶ Severe impairment of general condition, nausea, vomiting or high fever;
- ▶ Suspected tubo-ovarian abscess;
- ▶ Pregnancy;
- ▶ Moderate or severe immunosuppression;
- ▶ Anticipated treatment compliance problem;
- ▶ Intolerance to outpatient regimen;
- ▶ No clinical response after 3 days of antimicrobial therapy.

Traitement

Ceftriaxone^{2,3} 250 mg IM in a single dose
AND
Doxycycline^{2,4} 100 mg PO BID for 14 days
AND
Metronidazole^{2,5} 500 mg PO BID for 14 days

HISTORY OF ALLERGIC REACTION

TO A PENICILLIN ANTIBIOTIC⁶

Click [here](#)  to consult the antibiotic therapy decision support algorithm.

A CEPHALOSPORIN

See the treatment option below.

Consult an experienced colleague.

FOLLOW-UP

- ▶ Patients must be closely monitored and be re-examined 3 days after treatment initiation to check for clinical improvement;
- ▶ Tests of cure are recommended, depending on the identified pathogens.

1. Syndromes do not always present all of the possible clinical manifestations.

2. Not approved by Health Canada for this indication.

3. To reduce the discomfort associated with injection, the preferred diluent for ceftriaxone is 1% lidocaine without epinephrine.

4. Doxycycline is contraindicated in pregnant women. If required, it is compatible with breastfeeding for treatment under 3 weeks.

5. In case of incapacitating nausea or vomiting, recommend that metronidazole be discontinued in favour of doxycycline.

6. Penicillin G or V, ampicillin, amoxicillin, cloxacillin or piperacillin.

PROCTITIS

CLINICAL MANIFESTATIONS¹

- ▶ Mucopurulent rectal discharge;
- ▶ Anorectal pain;
- ▶ Bloody stool;
- ▶ Tenesmus;
- ▶ Constipation.

ETIOLOGY

- ▶ *N. gonorrhoeae*, *C. trachomatis* (LGV* and non-LGV genotypes), *Treponema pallidum* (syphilis) and the herpes simplex virus;
- ▶ Inflammatory bowel disease;
- ▶ Tissue damage caused by the insertion of foreign bodies.

If diarrhea and abdominal cramping occur, consider an infection by enteropathogens like *Shigella spp.* or *Campylobacter spp.*, which can be transmitted by oral-anal contact.

* For LGV, proctitis can also be accompanied by painful inguinal or femoral lymphadenopathy, bubo or ulcerations.

TREATMENT PRINCIPLES


In addition to screening for *N. gonorrhoeae* through culture and NAAT and *C. trachomatis* through rectal NAAT, it is strongly recommended to test all patients with proctitis for syphilis and human immunodeficiency virus (HIV).

TREATMENT IF STBBI ETIOLOGY

Cefixime 800 mg PO in a single dose OR ceftriaxone² 250 mg IM in a single dose
AND
Azithromycin^{3,4} 1 g PO in a single dose OR doxycycline^{4,5} 100 mg PO BID for 7 days

HISTORY OF ALLERGIC REACTION

TO A PENICILLIN ANTIBIOTIC⁶

Click [here](#)  to consult the antibiotic therapy decision support algorithm.

A CEPHALOSPORIN

See the treatment option below.

Gentamicin⁴ 240 mg IM (in two 3-ml injections)
AND
Azithromycin^{3,4} 2 g PO in a single dose

FOLLOW-UP

- ▶ Clinical follow-up is required until symptom are resolved;
- ▶ In the case of a positive result for *C. trachomatis* with an LGV genotype, initiate or continue treatment with doxycycline^{4,5} 100 mg PO BID for a total of 21 consecutive days;
- ▶ Tests of cure are recommended depending on the identified pathogens.

1. Syndromes do not always present all of the possible clinical manifestations.
2. To reduce the discomfort associated with injection, the preferred diluent for ceftriaxone is 1% lidocaine without epinephrine.
3. If the person vomits within an hour after taking azithromycin, administer a prophylactic antiemetic and then another dose of azithromycin.
4. Not approved by Health Canada for this indication.
5. Doxycycline is contraindicated in pregnant women. If required, it is compatible with breastfeeding for treatment under 3 weeks.
6. Penicillin G or V, ampicillin, amoxicillin, cloxacillin or piperacillin.

ANTIBIOTIC RESISTANCE

N. gonorrhoeae resistance to the different antibiotics is increasing rapidly, and the recommended treatments may be modified according to changing susceptibility to these drugs. Close vigilance is required from all professionals. Here is a summary of *N. gonorrhoeae* resistance to antibiotic in Québec. For further details, consult the [LSPQ Web site](#).

- ▶ Resistance to quinolones and tetracyclines is well established.
- ▶ Resistance to azithromycin is on the increase.
- ▶ Resistance to third-generation cephalosporins is emergent.

REINFECTION

In order to ensure there is no reinfection, recommend to all persons infected with *C. trachomatis* or *N. gonorrhoeae* that they have a screening test 3 to 6 months after the treatment of the initial infection. Screening following a documented infection is in addition to the previously performed test of cure, if indicated.

TESTS OF CURE

- ▶ When laboratory analysis (culture or NAAT) results show the presence of *C. trachomatis* or *N. gonorrhoeae*, verify whether a test of cure is indicated.

	C. TRACHOMATIS INFECTION	N. GONORRHOEAE INFECTION
INDICATIONS	<p>A test of cure is not recommended in cases of <i>C. trachomatis</i> infection, except in the following situations:</p> <ul style="list-style-type: none"> ▶ Persistence or appearance of signs or symptoms ▶ Pregnancy ▶ Treatment compliance problems are anticipated ▶ An antimicrobial regimen other than those recommended is being used ▶ <i>C. trachomatis</i> rectal infection treated with azithromycin ▶ <i>C. trachomatis</i> infection of genotype L₁₋₃ (LGV) 	<p>A test of cure is recommended in all cases of gonococcal infection, especially in the following situations:</p> <ul style="list-style-type: none"> ▶ Persistence or appearance of signs or symptoms ▶ Pregnancy ▶ Treatment compliance problems are anticipated ▶ An antimicrobial regimen other than those recommended is being used, including monotherapy (including azithromycin 2 g, even if the strain is susceptible to azithromycin) ▶ A pharyngeal infection (even if treated with ceftriaxone) ▶ Known resistance to one of the antibiotics used ▶ Partner of a person in whom resistance to one of the antibiotics used has been demonstrated
SAMPLING AND TESTING	<p>NAAT performed as soon as possible, starting from 3 weeks after the end of treatment</p>	<p>In case of a pharyngeal infection¹: Culture² taken as soon as possible, from 3 days to 2 weeks after the completion of treatment; OR NAAT³ and culture taken as soon as possible from 2 weeks after the completion of treatment.</p> <p>In case of a non-pharyngeal infection¹: NAAT taken as soon as possible from 2 weeks after the completion of treatment⁴. If the patient presents with symptoms at the follow-up visit, also take a sample for culture.</p>

1. If a follow-up appointment is scheduled for 2 weeks after completion of treatment, the patient should be advised to come back earlier if symptoms persist or appear. In this case, culture specimens should be obtained.
2. An additional sample for NAAT can be taken, starting from 2 weeks, based on the professional's judgement.
3. A NAAT performed from a throat specimen may be associated with false-positive results.
4. If the follow-up NAAT gives a positive result, it is advisable to obtain a specimen for culture, provided this does not delay treatment.

STBBI-RELATED PREVENTIVE INTERVENTIONS

When a person consults a medical practitioner, for instance about STBBIs, contraception or a routine examination, the practitioner should:

- ▶ Assess risk factors for STBBIs and screen as necessary, as many people are asymptomatic and ignore that they are infected;
- ▶ Inform the person about safer sexual practices and encourage consistent use;
- ▶ Vaccinate against hepatitis A and B and the human papillomavirus as indicated in the [Protocole d'immunisation du Québec](#) (Chapter 10.4).

Preexposure prophylaxis (PrEP) may be considered in certain groups of people at risk for contracting HIV. When appropriate, consult the MSSS tool [Guide PPrE pour les professionnels de la santé du Québec](#).

A variety of STBBI-related tools are available for health professionals on the [MSSS's website](#), such as:

- ▶ [Guide québécois de dépistage des ITSS](#)
- ▶ [ITSS à rechercher selon les facteurs de risque décelés](#)
- ▶ [Prélèvements et analyses recommandés en fonction de l'infection recherchée chez les personnes asymptomatiques](#)
- ▶ [Les partenaires sexuels, il faut s'en occuper!](#)
- ▶ [Estimation du risque associé aux activités sexuelles](#)
- ▶ [Vaccination et ITSS](#)

REFERENCES

To consult the references, please refer to the following report:

[Traitement pharmacologique des infections transmissibles sexuellement et par le sang - Approche syndromique](#)

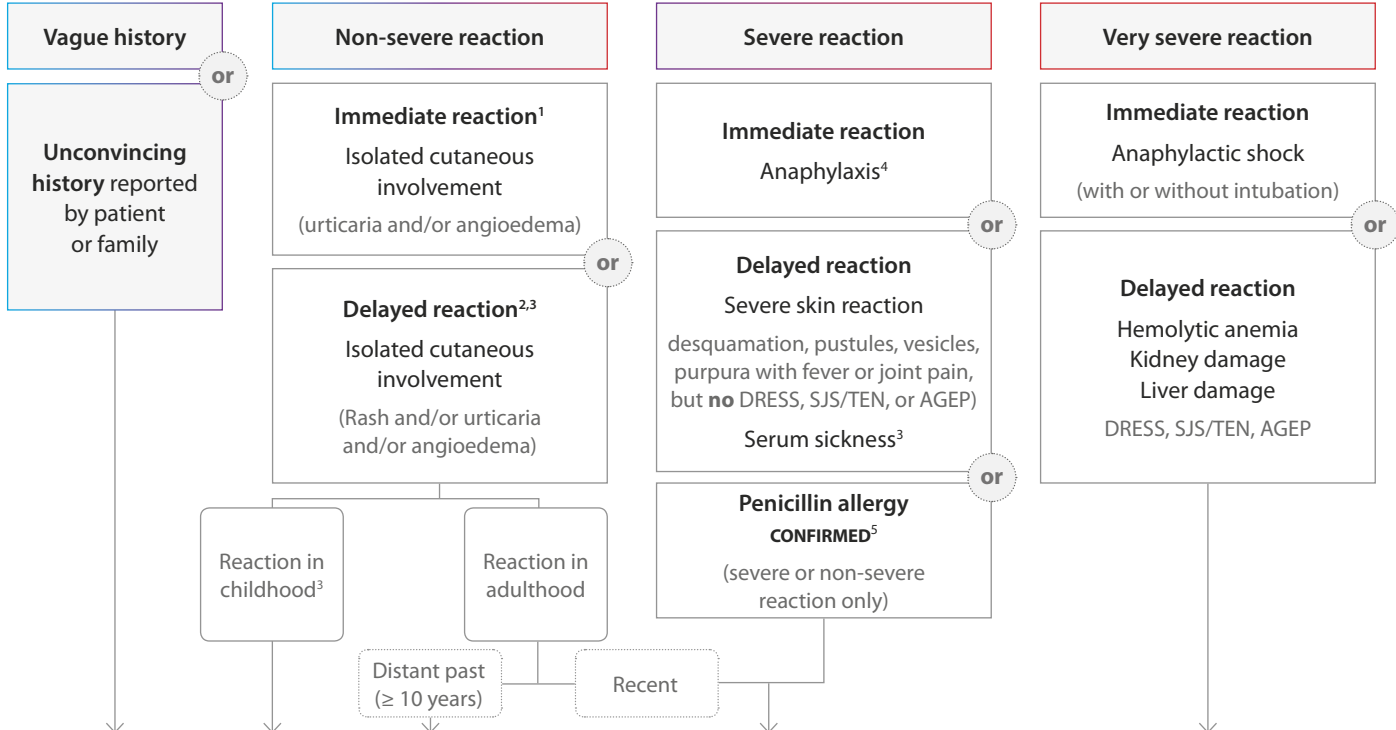
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Québec



SEVERITY OF PREVIOUS ALLERGIC REACTION TO PENICILLIN ANTIBIOTICS

ASSESS THE SEVERITY OF THE INITIAL REACTION



THE FOLLOWING CAN BE PRESCRIBED SAFELY

DISSIMILAR cephalosporins
Cefixime OR Ceftriaxone according to treatment recommendations

PRESCRIBE THE FOLLOWING WITH CAUTION

DISSIMILAR cephalosporins
Cefixime OR Ceftriaxone according to treatment recommendations

The 1st dose should **always** be administered under medical supervision.

If history of :

- Immediate reactions**, a drug provocation test should be performed;
- Delayed reactions**, the patient or his/her family should be informed of the possible risk of recurrence in the days following initiation of the antibiotic.

IF A BETA-LACTAM⁶ CANNOT BE ADMINISTERED, THE FOLLOWING CAN BE PRESCRIBED...

according to the treatment recommendation in case of a history of allergic reaction

AVOID PRESCRIBING

A beta-lactam⁶
Choose another class of antibiotics.

PRESCRIBE THE FOLLOWING

according to the treatment recommendation in case of a history of allergic reaction

1. Immediate reaction (type I or IgE-mediated): generally occurs within 1 hour following the **first dose** of an antibiotic.
2. Delayed reaction (type II, III or IV): can occur at any time, starting 1 hour following the administration of an antibiotic.
3. The delayed skin reactions and serum sickness-like reactions that appear in children receiving antibiotic therapy are generally non-allergic and can be of viral origin.
4. Anaphylaxis without shock or intubation: requires increased vigilance.
5. With no recommendations concerning other beta-lactams.
6. Penicillins, cephalosporins and carbapenems.

AGEP : acute generalized exanthematous pustulosis;
DRESS : drug reaction with eosinophilia and systemic symptoms;
SJS : Stevens–Johnson syndrome;
TEN : toxic epidermal necrolysis.

For further information, see [the interactive tool](#) and [the decision-making tool](#).

DECISION-MAKING FOR CHOOSING A BETA-LACTAM AND THE CONDITIONS OF ADMINISTRATION