



This optimal usage guide is intended for health professionals. It is provided for information purposes only and should not replace the judgement of a clinician. The recommendations in this guide apply to persons aged 14 years and older<sup>1</sup>. They were developed using a systematic approach and are supported by the scientific literature and the knowledge and experience of Québec clinicians and experts. For more information, go to [iness.qc.ca](http://iness.qc.ca).

## GENERAL CONSIDERATIONS

- ▶ This optimal usage guide applies to persons in whom the appropriate microbiological tests have been performed **AND** indicate the presence of *C. trachomatis* or *N. gonorrhoeae*.
- ▶ For *C. trachomatis* or *N. gonorrhoeae* infection screening, consult the tool [Prélèvements et analyses recommandés en fonction de l'infection recherchée chez les personnes asymptomatiques](#).
- ▶ The management of an infection caused by *C. trachomatis* whose genotype is associated with lymphogranuloma venereum (LGV) is not covered in this guide. If necessary, consult the [clinical tool for LGV](#) produced by the MSSS.
- ▶ If the person has signs and symptoms associated with these STBBIs and the microbiological test results are not yet available, consult the [Optimal usage guide on the pharmacological treatment of STBBI – Syndromic approach](#).

## MANAGEMENT

### INTERVENTION WITH THE INFECTED PATIENT

#### Intervention should include:

- ▶ An appropriate treatment and a follow-up of the infected patient;
- ▶ 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 symptoms are resolved<sup>2</sup>:
  - ▷ 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 procedure.

### 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 tool [ITSS à rechercher selon les facteurs de risque décelés](#);
- ▶ 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 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 specified 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.

# CHLAMYDIA TRACHOMATIS INFECTION

## TREATMENT PRINCIPLES

- ▶ Adherence to treatment with doxycycline (BID x 7 days) is an issue to be considered when choosing a treatment.
- ▶ *C. trachomatis* infection is covered by the treatment for *N. gonorrhoeae* infection. However, if the person has a **rectal *C. trachomatis* infection together with an *N. gonorrhoeae* infection**, use **triple therapy** by adding doxycycline<sup>1</sup> (100 mg PO BID x 7 days) to the treatment recommended for *N. gonorrhoeae* infection.

## TREATMENT

	URETHRAL, ENDOCERVICAL OR PHARYNGEAL INFECTION <sup>2</sup>	RECTAL INFECTION
INDEX CASE	Azithromycin <sup>3</sup> 1 g PO as a single dose <b>OR</b> Doxycycline 100 mg PO BID x 7 days	<b>1<sup>st</sup> CHOICE</b> Doxycycline 100 mg PO BID x 7 days
		<b>2<sup>nd</sup> CHOICE</b> Azithromycin <sup>3</sup> 1 g PO as a single dose
	In the case of a positive result for <i>C. trachomatis</i> with an LGV genotype: initiate or continue the treatment with doxycycline <sup>1</sup> 100 mg PO BID for a total of 21 consecutive days. For further details, consult the <a href="#">clinical tool on LGV</a> .	
ASYMPTOMATIC PARTNER	ANY TYPE OF EXPOSURE	
	Azithromycin <sup>3</sup> 1 g PO as a single dose <b>OR</b> Doxycycline 100 mg PO BID x 7 days	
	<i>*Treatment with doxycycline may be preferred in certain cases where rectal exposure is reported.</i>	
PREGNANT OR BREASTFEEDING WOMAN	ANY SITE OF INFECTION (INDEX CASE) AND ANY TYPE OF EXPOSURE (ASYMPTOMATIC PARTNER)	
	<b>1<sup>st</sup> CHOICE</b> Azithromycin <sup>3</sup> 1 g PO as a single dose	
	<b>2<sup>nd</sup> CHOICE</b> Amoxicillin <sup>4</sup> 500 mg PO TID x 7 days	

1. Doxycycline is contraindicated in pregnant women. If required, it is compatible with breastfeeding for treatment under 3 weeks.
2. Although there is no indication for *C. trachomatis* screening in the throat, cases of pharyngeal *C. trachomatis* infection have been detected because most laboratories screen for *N. gonorrhoeae* using a NAAT that detects both *C. trachomatis* and *N. gonorrhoeae*.
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.

UNCOMPLICATED  
CHLAMYDIA TRACHOMATIS OR  
NEISSERIA GONORRHOEAE INFECTION


# NEISSERIA GONORRHOEAE INFECTION

## TREATMENT PRINCIPLES

- ▶ Dual therapy is recommended for treating *N. gonorrhoeae* infection. This therapy could:
  - Improve the treatment's effectiveness and may delay the increase in *N. gonorrhoeae* resistance;
  - Treat a possible co-infection with *C. trachomatis*, which is highly prevalent.
- ▶ In the presence of a **rectal *C. trachomatis* infection together with an *N. gonorrhoeae* infection**, use **triple therapy** by adding doxycycline<sup>1</sup> (100 mg PO BID x 7 days) to the treatment recommended for *N. gonorrhoeae* infection.

## TREATMENT<sup>2</sup>

(including pregnant or breastfeeding women)

INDEX CASE	URETHRAL, ENDOCERVICAL OR RECTAL INFECTION <sup>3</sup>	PHARYNGEAL INFECTION <sup>3</sup>	
	Cefixime 800 mg PO as a single dose <b>OR</b> Ceftriaxone <sup>4</sup> 250 mg IM as a single dose <b>AND</b> Azithromycin <sup>5</sup> 1 g PO as a single dose	Ceftriaxone <sup>4</sup> 250 mg IM as a single dose <b>AND</b> Azithromycin <sup>5</sup> 1 g PO as a single dose	
ASYMPTOMATIC PARTNER	NO ORAL EXPOSURE	ORAL EXPOSURE	
	Cefixime 800 mg PO as a single dose <b>AND</b> Azithromycin <sup>5</sup> 1 g PO as a single dose	<b>Option A</b> Ceftriaxone <sup>4</sup> 250 mg IM as a single dose <b>AND</b> Azithromycin <sup>5</sup> 1 g PO as a single dose	<b>Option B</b> Cefixime 800 mg PO as a single dose <b>AND</b> Azithromycin <sup>5</sup> 1 g PO as a single dose
<p><b>Option A:</b> the availability of ceftriaxone and the individual's acceptance of the IM route of administration.</p> <p><b>Option B:</b> it is expected that the person will attend the follow-up visit if the screening test is positive. Option B is appropriate only if throat specimens have been collected from the partner for a NAAT and a culture.</p>			
HISTORY OF ALLERGIC REACTION			
TO A PENICILLIN ANTIBIOTIC <sup>6</sup>		TO A CEPHALOSPORIN	
Click <a href="#">here</a>  to view the algorithm specific to <i>N. gonorrhoeae</i> infection for help in choosing the antibiotic therapy.		Refer to the treatment option presented below.	
Gentamicin <sup>7</sup> 240 mg IM (in two 3-ml injections) <b>AND</b> Azithromycin <sup>5</sup> 2 g PO as a single dose			

1. Doxycycline is contraindicated in pregnant women. If required, it is compatible with breastfeeding for treatment under 3 weeks.
2. In cases of allergy or resistance to azithromycin or resistance to cephalosporins, consult a medical specialist.
3. Consideration can be given to quinolones to treat adults aged 18 years and older (with the exception of pregnant or breastfeeding women) only if the strain's susceptibility to quinolones has been demonstrated by susceptibility testing. In such case, the recommended treatment is as follows: ciprofloxacin 500 mg PO as a single dose AND azithromycin 1 g PO as a single dose.
4. To reduce the discomfort associated with injection, the preferred diluent for ceftriaxone is 1% lidocaine without epinephrine.
5. If the person vomits within an hour after taking azithromycin, administer a prophylactic antiemetic and then another dose of azithromycin.
6. Penicillin G or V, ampicillin, amoxicillin, cloxacillin or piperacillin.
7. Not approved by Health Canada for this indication.

## TESTS OF CURE

	<i>C. TRACHOMATIS</i> INFECTION	<i>N. GONORRHOEAE</i> INFECTION
INDICATIONS	<p>A follow-up test <b>is not recommended</b> in cases of <i>C. trachomatis</i> infection, except in the following situations:</p> <ul style="list-style-type: none"> <li>▶ Persistence or appearance of signs or symptoms</li> <li>▶ Pregnancy</li> <li>▶ Treatment compliance problems are anticipated</li> <li>▶ An antimicrobial regimen other than those recommended is being used</li> <li>▶ <i>C. trachomatis</i> rectal infection treated with azithromycin</li> <li>▶ <i>C. trachomatis</i> infection of genotype L<sub>1-3</sub> (LGV)</li> </ul>	<p>A follow-up test <b>is recommended in all cases</b> of gonococcal infection, especially in the following situations:</p> <ul style="list-style-type: none"> <li>▶ Persistence or appearance of signs or symptoms</li> <li>▶ Pregnancy</li> <li>▶ Treatment compliance problems are anticipated</li> <li>▶ An antimicrobial regimen other than those recommended is being used, including monotherapy (including azithromycin 2 g, even if the strain is susceptible to azithromycin)</li> <li>▶ A pharyngeal infection (even if treated with ceftriaxone)</li> <li>▶ Known resistance to one of the antibiotics used</li> <li>▶ Partner of a person in whom resistance to one of the antibiotics used has been demonstrated</li> </ul>
SAMPLING AND TESTING	<p>NAAT performed as soon as possible, starting from 3 weeks after the end of treatment.</p>	<p><b>In case of pharyngeal infection<sup>1</sup>:</b> Culture<sup>2</sup> taken as soon as possible, from 3 days to 2 weeks after the completion of treatment; OR NAAT<sup>3</sup> and culture taken as soon as possible from 2 weeks after the completion of treatment.</p> <p><b>In case of non-pharyngeal infection<sup>1</sup>:</b> NAAT taken as soon as possible from 2 weeks after the completion of treatment<sup>4</sup>. 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 person 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.

## 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 antibiotics 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 cephalosporines 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 tests of cure, if indicated.

## 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:

- [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!](#)
- [Liste des dépliants et brochures à l'intention des patients](#) (e.g., [Entre caresses et baisers, une ITSS s'est faufilée... Il faut en parler](#))
- [Estimation du risque associé aux activités sexuelles](#)
- [Vaccination et ITSS](#)
- [Ressources – Intervention préventive relative aux ITSS](#)
- [Intervention préventive relative aux ITSS : outil d'aide à la pratique, visite initiale et visite subséquente](#)
- [Guide québécois de dépistage des ITSS](#)
- [Recrudescence de la lymphogranulomatose vénérienne au Québec: détection et traitement](#)

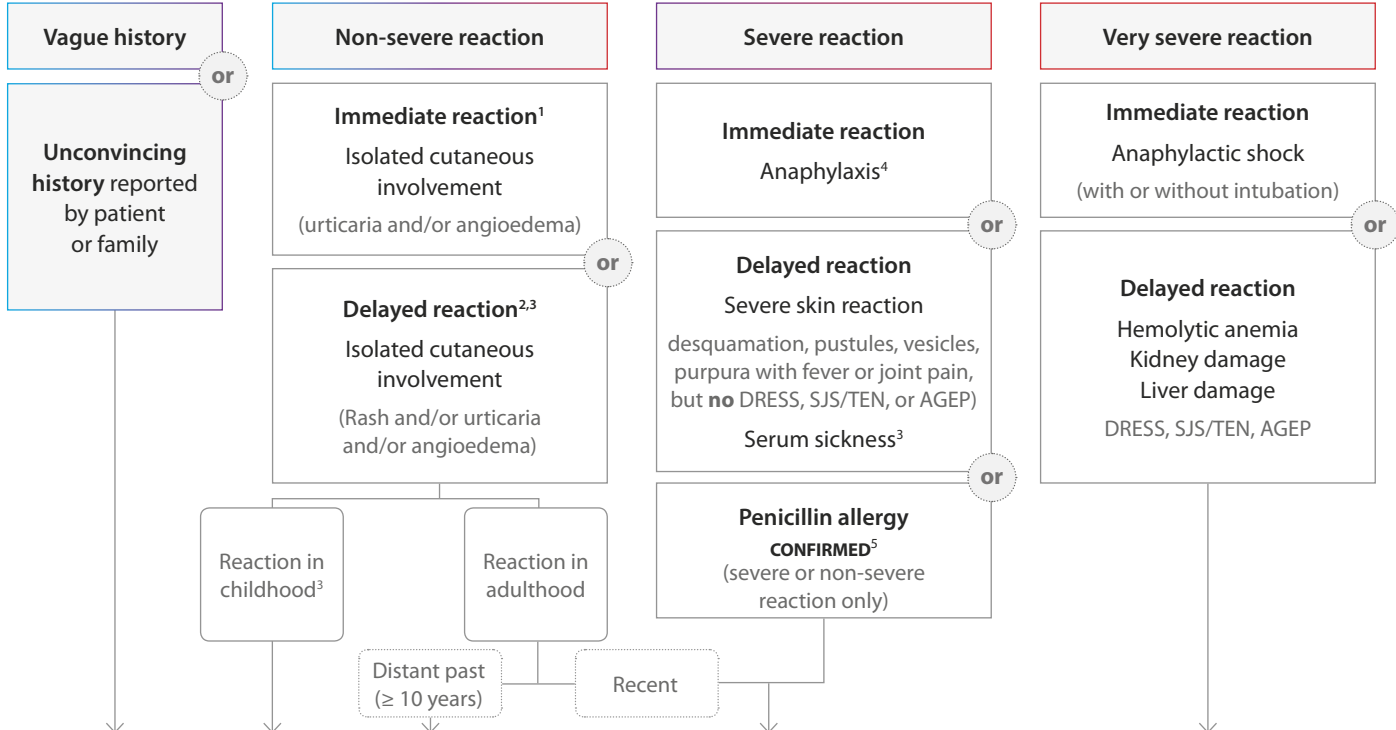
## REFERENCES

To consult the references, please refer to the [report in support of the OUG](#) and the [systematic review report](#).

# UNCOMPLICATED *NEISSERIA GONORRHOEAE* INFECTION

## 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 1<sup>st</sup> 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-LACTAM<sup>6</sup> 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-lactam<sup>6</sup>**  
 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 on the clinical manifestations, consult the [interactive tool](#).

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