BC Centre for Disease Control
An agency of the Provincial Health Services Authority

655 West 12th Avenue
Vancouver, BC V5Z 4R4

General Inquiries: 604.707.2400

Provincial STI/HIV Clinic Phone: 604.707.5600

Provincial STI/HIV Clinic Fax: 604.707.5604

www.bccdc.ca

British Columbia Treatment Guidelines

Sexually Transmitted Infections in Adolescents and Adults 2014

Prepared by:

Richard Lester, MD, FRCP(C), Medical Head, Provincial STI/HIV Clinic, Clinical Prevention Services (CPS)

Carolyn Montgomery, MB, BCh, Provincial STI/HIV Clinic Physician, CPS

Barbra Arnold, MD, CCFP, DTMH, Provincial STI/HIV Clinic Physician, CPS

Sylvia Makaroff, MD, CCFP, Provincial STI/HIV Clinic Physician, CPS

Avril Spencer, BScN, Provincial STI/HIV Clinic Educator, CPS

Gina Ogilvie, MD FCFP DrPH, Medical Director, CPS

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These guidelines are based on the Canadian Guidelines on Sexually Transmitted Infections (STI) 2010 Edition and online updates to 2014

This document contains treatment guidelines for clinicians and public health professionals regarding care and treatment of STIs in British Columbia and are based on the best available scientific knowledge and medical practices. These guidelines are for information purposes only and are not intended in any manner to replace clinical judgment or to establish the only approach to all patients. Clinicians and public health professionals must use their independent medical judgment in the context of the individual clinical circumstances to determine patient care or treatment. Clinicians and public health professionals are encouraged to consult other sources in order to confirm the information contained in these guidelines, including, but not limited to, individual product monograph(s), and standards or instructions provided by licensed manufacturers.

These guidelines may be updated as evidence and current practice regarding the management of STIs evolves. Clinicians and public health professionals must ensure the guidelines they have are current. Although all efforts are taken by BCCDC to ensure the completeness of the guidelines, BCCDC does not guarantee the completeness or accuracy of the information nor is the BCCDC responsible for damages resulting from the misuse of the information.

Look for this mark throughout the document to identify infections notifiable to the medical health officer

REPORTABLE

Include routine HIV screening with any other STI testing. With certain sexually transmitted infections, it is important to treat partners and contacts at the time of testing, before results are available.

Recommendations regarding treatment of paediatric infections are excluded from these guidelines. In general, children diagnosed with a STI should be managed in conjunction with a specialist and investigation of possible sexual abuse needs to be considered.

Contact the Provincial STI/HIV Clinic Physician for further management or the Child Protection Service Unit (a multidisciplinary team located at BC Children's Hospital) 604.875.2000 or 1.800.300.3088 (toll free in BC only).

Routine STI updates are communicated via admin circulars on the BCCDC website. To receive ongoing STI Updates, go to the BCCDC website: www.bccdc.ca - CDC Manual- **Admin Circulars**, enter your **Email address** and **SUBMIT**

To keep the guidelines concise, references are not published with the guidelines.

References are available on the BCCDC website, Chapter 5 - CDC Manual *http://www.bccdc.ca/dis-cond/comm-manual/CDManualChap5.htm* or the Public Health Agency of Canada website: *http://www.hc-sc.gc.ca/hc-ps/dc-ma/sti-its-eng.php*

The level of evidence and strength of recommendations are graded and summarized below.

Table 1. Levels of Recommendation

Recommendation: A	Strongly recommends that clinicians routinely provide the treatment to eligible individuals. Good evidence that the treatment improves important health outcomes and concludes that benefits substantially outweigh harms.
Recommendation: B	Recommends that clinicians routinely provide the treatment to eligible individuals. At least fair evidence that the treatment improves important health outcomes and concludes that benefits outweigh harms.
Recommendation: C	No recommendation for or against routine provision of the treatment. At least fair evidence that the treatment can improve health outcomes but concludes that the balance of the benefits and harms is too close to justify a general recommendation.
Recommendation: D	Recommends against routinely providing the treatment to asymptomatic individuals. At least fair evidence that the treatment is ineffective or that harms outweigh benefits.
Recommendation: I	Evidence is insufficient to recommend for or against routinely providing the treatment. Evidence that the treatment is effective is lacking, of poor quality or conflicting, and the balance of benefits and harms cannot be determined.

Table 2. Quality of Evidence

I	Evidence from at least one properly randomized, controlled trial.
II	Evidence from at least one well-designed clinical trial without randomization, from cohort or case-control analytic studies (preferably from more than one centre), from multiple time-series studies or from dramatic results in uncontrolled experiments.
III	Evidence from opinions of respected authorities based on clinical experience, descriptive studies or reports of expert committees.

For reportability of sexually transmitted infections refer to the Public Health Act of British Columbia (PHA): Health Act Communicable Disease Regulation
See: *http://www.health.gov.bc.ca/phact/*

To consult with the Provincial STI/HIV Clinic Physician call 604.707.5600

Chlamydia - *Chlamydia trachomatis* REPORTABLE

If Lymphogranuloma Venereum (LGV) is suspected please contact the Provinicial STI/HIV Clinic Physician and refer to LGV Section.

Recommended Regimen

Doxycycline 100 mg PO bid for 7 days (A-I)

OR

Azithromycin 1 g PO in a single dose (A-I)

(*If vomiting occurs more than one hour post-administration, a repeat dose is not required.)*

Alternate Treatment

Erythromycin 500 mg PO qid for 7 days (B-I)

OR

Erythromycin 250 mg PO qid for 14 days (B-I)

Considerations

- Assess for pelvic inflammatory disease (PID) or epididymitis and treat accordingly (See PID or Epididymitis Section)
- Gonorrhea is less common and has a shorter window period than chlamydia, therefore a negative gonorrhea test usually rules out a gonorrhea co-infection.

Pregnancy/Lactation

Recommended Regimen

Amoxicillin 500 mg PO tid for 7 days (A-I)

OR

Azithromycin 1g PO in a single dose (B-I)

(*If vomiting occurs more than one hour post-administration, a repeat dose is not required.)*

Considerations - Pregnancy/Lactation

- A test of cure (TOC) should be performed 3 - 4 weeks after initiation of treatment for all pregnant or lactating women.
- Fluoroquinolones, doxycycline and estolate preparations of erythromycin are contraindicated for pregnant and lactating women.

Partners/Contacts

All partners/contacts in the last 60 days, regardless of symptoms or signs, should be tested and treated with one of the recommended regimens. If there is no partner during this period, then the last partner should be tested and treated.

Patients and contacts should abstain from sexual activity for 7 days after initiation of treatment and should be advised to avoid exposure to any untreated partner(s).

Follow Up

A TOC for *C. trachomatis*

IS NOT RECOMMENDED when:

- the standard treatment regimen for chlamydia has been completed
- signs and symptoms have resolved
- there is no re-exposure to an untreated partner

A TOC for *C. trachomatis*

IS RECOMMENDED when:

- compliance is uncertain
- patient was not initially treated with a recommended regimen
- patient is pregnant

- Repeat screening is recommended at 6 months post-treatment as chlamydia re-infection risk is high.

Lymphogranuloma Venereum (LGV) *C. trachomatis* - Serovars L1,2,3 REPORTABLE

For suspected LGV cases, please contact the Provincial STI/HIV Clinic Physician for further management.

The diagnosis of LGV is not always straightforward and symptoms often overlap with other STIs. A diagnosis of LGV is often based on history and clinical presentation which is later confirmed by laboratory testing.

Considerations

LGV strains of *C. trachomatis* are more invasive, preferentially affecting the lymph tissue. If a patient presents with a painless genital papule, proctitis (especially hemorrhagic proctitis), painful inguinal/femoral lymphadenopathy AND has had a positive *C. trachomatis* CT/GC NAAT (nucleic acid amplification test) swab from a lesion or the rectum, please arrange for confirmatory LGV testing by contacting your laboratory or the Provincial STI/HIV Clinic Physician. Empiric treatment may be warranted.

Recommended Regimen

Doxycycline 100 mg PO bid for 21 days (B-II)

Alternate treatment

Azithromycin 1g PO in a single dose, once weekly for 3 weeks (C-III)

OR

Erythromycin 500 mg PO qid for 21 days (C-III)

(Patients are less likely to be compliant with Erthromycin x 3 weeks duration)

Partners/Contacts

All partners/contacts within 60 days prior to symptom initiation should be tested and treated as a contact. If there is no partner during this period, then the last partner should be tested and treated.

Patients should abstain from sexual activity until 3 weeks after initiation of treatment and should be advised to avoid exposure to any untreated partner(s).

Contacts should abstain from sexual activity for 7 days after initiation of treatment.

Treatment of Contacts to LGV

Doxycycline 100 mg PO bid for 7 days (A-I)

OR

Azithromycin 1g PO in a single dose (A-I)

Treatment of Contacts to LGV with symptoms and/or lab tests consistent with LGV

Doxycycline 100 mg PO bid x 21 days

Gonorrhea - *Neisseria gonorrhoeae* REPORTABLE

The treatment regimen recommended by BCCDC differs from the Canadian STI Guidelines treatment guidelines for Neisseria gonorrhoeae. BC recommendations continue to be updated according to provincial surveillance data.

Uncomplicated Infection (Urogenital/Rectal/Pharyngeal sites)

All regimens require concomitant empiric treatment for chlamydial and other non-gonococcal infections.

Recommended Regimen

Cefixime 800 mg PO in a single dose (A-I)

OR

Ceftriaxone 250 mg IM in a single dose (A-I)

(The preferred diluent for this dose of ceftriaxone is 0.9 mL of 1% lidocaine without epinephrine to reduce discomfort.)

PLUS

Azithromycin 1 g PO in a single dose (A-I)

(If vomiting occurs more than one hour post-administration, a repeat dose is not required.)

OR

Doxycycline 100 mg PO bid for 7 days (A-I)

Alternate Treatment

Azithromycin 2 g PO in a single dose (A-I)

(*Taking medication with food may minimize adverse effects.)*

OR

Spectinomycin 2 g IM in a single dose (A-I)

(*Consult Provincial STI/HIV Clinic Physician to order and access this medication. Test of cure (TOC) is recommended.)*

PLUS

Co-treatment for chlamydia

Considerations

- Assess for pelvic inflammatory disease (PID) or epididymitis and treat accordingly.
- Obtaining cultures for *N. gonorrhoeae* is important for monitoring antibiotic resistance. Clinicians are encouraged to perform a culture for *N. gonorrhoeae*, in addition to a CT/GC NAAT (nucleic acid amplification test) test, for any patient with obvious cervical, urethral or rectal discharge.
- Cultures for *N. gonorrhoeae* should be performed in all cases of:
  - suspected pelvic inflammatory disease (PID)
  - treatment failure
  - sexual contacts outside of Canada or from areas with recognized antimicrobial resistance
  - sexual assault

Pregnancy/Lactation

Recommended Regimen

Cefixime 800 mg PO as a single dose (A-I)

OR

Ceftriaxone 250 mg IM in a single dose (A-I)

PLUS

Amoxicillin 500 mg PO tid for 7 days (A-I)

OR

Azithromycin 1 g PO in a single dose (B-I)

Alternate Treatment

Spectinomycin 2 g IM in a single dose

(Consult Provincial STI/HIV Clinic Physician to access this medication.)

PLUS

Co-treatment for chlamydia

(See Chlamydia section: Recommended Regimen – Pregnancy/Lactation)

Considerations - Pregnancy/Lactation

- A test of cure (TOC) by culture is recommended for all pregnant and lactating patients at 3 - 7 days after initiation of treatment.

Partners/Contacts

All partners/contacts in the last 60 days, regardless of symptoms or signs should be tested and treated with one of the recommended regimens. If there is no partner during this period, then the last partner should be tested and treated.

Patients and contacts should abstain from sexual activity for 7 days after initiation of treatment and should be advised to avoid exposure to any untreated partner(s).

Follow Up

- TOC by culture is recommended for gonorrhea positive patients 3 – 7 days after initiation of treatment when:
  - patient is diagnosed with a gonococcal pharyngeal infection
  - patient is treated with a non-recommended regimen
  - treatment failure is suspected
  - antimicrobial resistance to therapy is documented
  - compliance is uncertain
  - re-exposure to an untreated partner is suspected
  - PID or disseminated gonococcal infection is diagnosed
  - patient is pregnant
- If NAAT is used for gonorrhea TOC, it should be done 2 -3 weeks after initiation of treatment.
- Repeat screening is recommended at 6 months for all *N. gonorrhoeae* positive cases.

Bacterial Vaginosis (BV)

Bacterial vaginosis is not usually considered a sexually transmitted infection.

Symptoms noted by either the clinician during a pelvic examination, or reported by the patient, may include abnormal vaginal discharge and/or abnormal vaginal odour (i.e., amine odour).

Abnormal vaginal odour may be noticeable with or without potassium hydroxide (KOH) assessment and vaginal pH is usually elevated greater than 4.5. An elevated vaginal pH in peri-menopausal or post menopausal women in the absence of other vaginal symptoms may not indicate a BV infection.

When the laboratory report (e.g., Nugent Score) is intermediate or positive and the client is asymptomatic, treatment would not be recommended unless:

- patient is pregnant and at high risk for pre-term delivery
- patient is scheduled to have any upper reproductive tract instrumentation (e.g., gynaecological surgery, D&C or therapeutic abortion)

There is not enough current evidence to support routine screening for BV at the time of IUD insertion in asymptomatic women.

Recommended Regimen

Metronidazole 500 mg PO bid for 7 days (A-I)

OR

Metronidazole gel 0.75% x one applicator (5 g) once a day intravaginally for 5 days (A-I)

OR

Clindamycin cream 2% x one applicator (5 g) intravaginally once a day for 7 days (A-I)

Alternate Treatment

Metronidazole 2 g PO in a single dose (A-I)

OR

Clindamycin 300 mg PO bid for 7 days (A-I)

Considerations

- Individuals taking metronidazole should not drink alcohol or take alcohol-based medications for 12 hours before and 24 – 48 hours after treatment because of possible disulfiram-like *(Antabuse)* reaction.
- Clindamycin cream is oil-based and may weaken latex condoms or diaphragms.
- Single dose oral metronidazole therapy has a higher relapse rate at one month.

Pregnancy/Lactation

Recommended Regimen

Metronidazole 500 mg PO bid for 7 days (A-I)

Alternate Treatment

Clindamycin 300 mg PO bid for 7 days (A-I)

Considerations - Pregnancy/Lactation

- Systemic rather than intravaginal treatment is recommended in pregnancy as intravaginal treatment alone has not been shown to decrease the risk of adverse pregnancy outcomes.
- Intravaginal clindamycin cream has been associated with adverse outcomes in the neonate and should only be used when alternatives are not possible.
- Test and treat symptomatic pregnant women.
- Routine screening for BV is not recommended during pregnancy unless it is a high risk pregnancy.
- If considered a high risk pregnancy, screen at 12 - 16 weeks.
- BV during pregnancy is associated with premature rupture of membranes, chorioamnionitis, preterm labour, preterm birth and post-cesarean endometritis.
- Testing should be repeated after one month to ensure therapy was effective.

Partners/Contacts

Treatment of male sexual partners is not indicated and does not prevent recurrence.

Offer female partners of women diagnosed with BV, assessment, testing, and possible treatment if the female partner(s) tests are positive. (D-**I**)

Follow Up

Follow up is not considered necessary unless symptoms recur.

Trichomoniasis - *Trichomonas vaginalis*

Recommended Regimen

Metronidazole 2 g PO in a single dose (A-I)

OR

Metronidazole 500 mg PO bid for 7 days (A-I)

Considerations

- Individuals taking metronidazole should not drink alcohol or take alcohol-based medications for 12 hours before and 24 – 48 hours after treatment because of possible disulfiram-like (i.e., Antabuse) reaction.

Pregnancy/Lactation

Trichomoniasis may be associated with premature rupture of membranes, preterm birth and low birth weight. It is not known whether treatment will improve pregnancy outcomes.

Asymptomatic pregnant women do not need to be treated (D-I).

Recommended Regimen - Symptomatic Pregnant Women

Metronidazole 2 g PO in a single dose for symptom relief (A-I)

Alternate Regimen - Symptomatic Pregnant Women

Metronidazole 500 mg PO bid for 7 days (A-I)

Partners/Contacts

Partners/contacts should be treated with the same therapy recommended for the patient. It is not necessary to screen sexual partners. The majority of men infected with *Trichomonas vaginalis* are asymptomatic, although occasionally men will report having mild urethritis.

Follow Up

Follow up is not considered necessary unless recurring symptoms are presumed to be due to re-infection.

Vulvovaginal Candidiasis - *Candida albicans*

Vulvovaginal candidiasis is not usually considered a sexually transmitted infection and treatment is not necessary for asymptomatic patients. (D-I)

Recommended Regimen

Over-the-counter (OTC) treatments:
Clotrimazole or miconazole, intravaginal azole ovules and/or creams (A-I)

OR

Fluconazole 150 mg PO in a single dose. (A-I)

Considerations:

- Oil based ovules and creams may weaken latex condoms or diaphragms.

Pregnancy/Lactation

Fluconazole is contraindicated in pregnancy. Only topical azoles are recommended for treatment of vulvovaginal candidiasis during pregnancy. Treatment for 7 days may be necessary.

Partners/Contacts

Routine screening and treatment of male partners is not indicated. (D-**I**) However, if *Candida* balanitis is present, consider treatment of male sexual partners with a topical azole cream twice a day for 7 – 14 days.

Follow Up

No follow up necessary unless symptoms persist or recur in which case repeat assessment is advised.

Pelvic Inflammatory Disease (PID) a polymicrobial infection with multiple etiologies.

The BCCDC recommended regimen differs from the Canadian STI Guidelines treatment guidelines for PID.

Outpatient Treatment

Recommended Regimen

Cefixime 800 mg PO in a single dose (A-I)

OR

Ceftriaxone 250 mg IM in a single dose (A-I)
(*The preferred diluent for this dose of ceftriaxone is 0.9 mL of 1% lidocaine without epinephrine to reduce discomfort.)*

PLUS

Doxycycline 100 mg PO bid for 10 – 14 days (A-II)

OR

Azithromycin 1g PO in a single dose, once weekly for 2 weeks

WITH or WITHOUT

Metronidazole 500 mg PO bid for 10 – 14 days (B-III)

Alternate Treatment

Levofloxacin 500 mg PO bid for 14 days (A-I)
(The alternate antibiotic treatment above will cover enteric organisms, but may not cover N.gonorrhoeae or C.trachomatis.)

WITH or WITHOUT

Metronidazole 500 mg PO bid for 14 days (A-I)

Considerations

- Metronidazole is recommended for additional anaerobic coverage and when bacterial vaginosis is suspected. (B-III)
- Individuals taking metronidazole should not drink alcohol or take alcohol-based medications for 12 hours before and 24 – 48 hours after treatment because of possible disulfiram-like (i.e., Antabuse) reaction.
- In treating mild to moderate PID, it is not necessary to remove the IUD during treatment unless there is no clinical improvement after 72 hours of recommended antibiotic treatment.
- Consider hospitalization when the patient:
  - is pregnant
  - is severely ill with nausea and vomiting and/or high fever
  - has a suspected tubo-ovarian abscess
  - cannot tolerate oral medication
  - May have a surgical emergency such as appendicitis or an ectopic pregnancy

Pregnancy/Lactation

Consultation with a obstetrical/gynaecology specialist is recommended.

Pregnant patients with suspected PID should be hospitalized for evaluation and treatment with parenteral therapy.

Fluroquinolones (e.g., levofloxacin), doxycycline and estolate preparations of erythromycin are contraindicated for pregnant and lactating women.

If patient is HIV positive a consultation with an HIV specialist is advised see:
BC Women's Hospital & Healthcare Centre
Oak Tree Clinic - Providing Care to Women & Families Living with HIV/AIDS
www.oaktreeclinic.bc.ca

Partners/Contacts

All partners/contacts in the last 60 days regardless of symptoms or signs should be tested and treated for gonorrhea and chlamydia. If there is no partner during this period, then the last partner should be tested, treated and advised to abstain from sexual activity for 7 days after initiation of treatment.

Patients should abstain from sexual activity until treatment is completed *(i.e., 10 – 14 days)* and should be advised to avoid exposure to any untreated partner(s).

Follow Up

Patients treated for PID as outpatients need careful follow-up and should be re-evaluated 48 – 72 hours after therapy has been initiated. If no clinical improvement has occurred, hospital admission for parenteral therapy and observation may be required.

Urethritis

Urethritis is a disgnosis based on presenting urethral symptoms in the absence of microscopic assessment. The recommended regimen covers both *N. gonorrhoeae* and *C. trachomatis.*

Recommended Regimen

Cefixime 800 mg PO as a single dose (A-I)

OR

Ceftriaxone 250 mg IM in a single dose (A-I)

(The preferred dliuent for this dose of ceftriaxone is 0.9 mL of 1% lidocaine without epinephrine to reduce discomfort)

PLUS

Doxycycline 100 mg PO bid for 7 days (A-I)

OR

Azithromycin 1 g PO as a single dose (A-I)

Considerations

- If a male patient presents with urethral symptoms (e.g., urethral discharge, dysuria, intermittent urethral itching/ tingling or meatal erythema) and Gram stain results are unavailable, test and treat empirically for both gonorrhea and chlamydia.
- Full resolution of symptoms can take up to 14 days or longer after therapy has been initiated.

Partners/Contacts

Patients and contacts should abstain from sexual activity for 7 days after initiation of treatment and should be advised to avoid exposure to any untreated partner(s).

Follow Up

If symptoms persist or recur after therapy has been completed, (i.e. 14 days or more after the initiation of treatment) the patient should be re-evaluated.

See Persistent or Recurrent Urethritis Section. Symptoms alone are not sufficient for re-treatment in the absence of laboratory findings or clinical signs.

Persistent or Recurrent Urethritis

Presistent or Recurrent Urethritis is defined as:

- persistent urethral symptoms
- co-treatment for *N. gonorrhoeae* and *C. trachomatis* was more than 2 weeks ago
- there has been no re-exposure to an untreated or new sexual partner

Recommended Regimen

If **Doxycycline** was the initial treatment consider

Azithromycin 1 g PO in a single dose (A-I)

OR

Erythromycin 500 mg PO qid for 7 - 14 days

If **Azithromycin** was the initial treatment consider

Doxycycline 100 mg PO bid for 7 days (A-I)

OR

Erythromycin 500 mg PO qid for 7 - 14 days

Considerations

- Other Potential Causes:
  - organisms not covered by the original treatment (e.g., *Trichomonas vaginalis*)
  - antimicrobial resistant organisms
  - prostatitis
  - non-infectious inflammatory syndromes
- Patients who have been appropriately treated for urethritis and continue to have urethral symptoms in the absence of a known STI infection may benefit from the anti-inflammatory properties of either doxycycline or erythromycin.
- If there is no resolution of symptoms after treatment, consider referring the patient to a urologist.

Nongonococcal Urethritis (NGU)

NGU is a diagnosis based on immediate laboratory microscopy (i.e.,urethral smear) showing inflammatory/pus cells as greater than or equal to 5 PMNs *(i.e., polymorphonuclear leukocytes)* in the absence of typical intracellular diplococci (i.e., *N. gonorrhoeae).*

Causative organisms may include:

- *Chlamydia trachomatis*
- *Mycoplasma genitalium*
- *Ureaplasma urelyticum*
- *Trichomonas vaginalis* (occasionally)
- Viruses: HSV, VZV, or Adenovirus

Recommended Regimen

Doxycycline 100 mg PO bid for 7 days (A-I)

OR

Azithromycin 1g PO as a single dose (A-I)

Partners/Contacts

All partners/contacts in the last 60 days should be tested and treated to cover for chlamydia.

Patients and their contacts should abstain form sexual activity until 7 days after initiation of treatment and be advised to avoid exposure to any untreated partner(s).

Epididymitis

The BCCDC recommended regimen differs from the Canadian STI Guidelines treatment guidelines for Epididymitis.

C. trachomatis and *N. gonorrhoeae* account for two-thirds of the epididymitis cases in men under 35 years of age.

Coliform bacteria account for many epididymitis cases in men 35 years of age or older.

Recommended Regimen

To cover *C. trachomatis* and *N. gonorrhoeae*
Cefixime 800 mg PO in a single dose (A-I)

OR

Ceftriaxone 250 mg IM in a single dose (A-I)
(The preferred diluent for this dose of ceftriaxone is 0.9 mL of 1% lidocaine without epinephrine to reduce discomfort)

PLUS

Doxycycline 100 mg PO bid for 10 – 14 days (A-I)

Alternate treatment

Levofloxacin 500 mg PO once daily for 10-14 days (B-II)

OR

Ciprofloxacin 500 mg PO bid x 10-14 days
(The alternate antibiotic treatments listed above will cover enteric organisms, but may not cover N. gonorrhoeae or C. trachomatis.)

Considerations

- Consider non-infectious causes of scrotal pain and swelling (i.e. trauma, tumors or testicular torsion).
- Testicular torsion is a surgical emergency and needs to be considered with acute onset of testicular pain.

Partners/Contacts

All partners in the last 60 days prior to symptom onset or date of diagnosis should be tested and treated for gonorrhea and chlamydia.

Patients and contacts should be advised to not have sexual activity for 7 days after initiation of treatment.

Follow Up

Patients should be advised to be reassessed within 48 to 72 hours after diagnosis to ensure there has been an adequate response to treatment. If there has been no clinical improvement, refer to a urologist.

Herpes Simplex Virus (Genital)

Recommended Regimen

Primary/First Episode

Acyclovir 400 mg PO tid for 7 – 10 days (A-I)

OR

Famciclovir 250 mg PO tid for 5 – 7 days (A-I)

OR

Valacyclovir 1 g PO bid for 7 – 10 days (A-I)

Recurrent Episodes (Episodic Therapy)

Acyclovir 400 mg PO tid for 5 days (A-I) or
Acyclovir 800 mg PO tid for 2 days (C-I)

OR

Famciclovir 125 mg PO bid for 5 days or
Famciclovir 1000 mg PO bid x 1 day (B-I)

OR

Valacyclovir 500 mg PO bid for 3 days or
Valacyclovir 1 g PO OD for 3 days (B-I)

Suppressive Therapy

Recurring outbreaks - 6 to 9 / year

Acyclovir 400 mg PO bid daily for 6 – 12 months (A-I)

OR

Famciclovir 250 mg PO bid daily for 6 – 12 months (A-I)

OR

Valacyclovir 500 mg PO once daily for 6 – 12 months (A-I)

Recurring outbreaks - more than 10 / year

Valacyclovir 1 g PO daily for 6 – 12 months (A-I)

Considerations

- Oral acyclovir, famciclovir and valacyclovir are comparatively efficacious.
- Topical acyclovir is not effective for systemic symptoms, and should not be used for that purpose.
- A shorter course of acyclovir 800 mg PO tid for 48 hours appears as efficacious as the approved 5 day regimen.
- Start famciclovir preferably less than 6 hours and valacyclovir preferably less than 12 hours after the first symptoms appear.
- Patient-initiated therapy at the onset of prodromal symptoms has been proven to be effective.
- It is recommended that individuals have medications on hand and be provided with specific information on when to initiate treatment.
- Having genital herpes simplex (HSV) can increase the risk of acquiring and transmitting HIV.
- Physicians may order HSV-TSS (type specific serology) via LifeLabs although this is not covered by BC Medical Services Plan.

Pregnancy/Lactation

Consultation with an obstetrician / gynaecologist experienced in the management of genital HSV infections is recommended.

Partners/Contacts

Herpes is not a reportable infection.

Supportive counseling is an essential part of management and patients will need guidance on how they will inform present and/or future sexual partners.

Patients should be advised that even though transmission can occur in the absence of a lesion (i.e., asymptomatic shedding), transmission is more likely to occur during an active outbreak.

Positive HSV education and public health messaging emphasizing genital herpes as a manageable, albeit a chronic infection, is important to help reduce stigma, lack of understanding and subsequent anxiety experienced by patients receiving a new genital herpes diagnosis.

Please refer to the following websites for genital HSV information:

- www.bccdc.ca
  CDC Manual, Chapter 5 – Non-certified STI DSTs
- www.smartsexresource.com

Syphilis - *Treponema pallidum* REPORTABLE

Contact the Provincial STI/HIV Physician for management, support and to order long acting (Bicillin LA) medication.

Early Syphilis

Primary
Symptoms can include chancre, and /or regional lymphadenopathy.

Secondary
Symptoms can include rash, fever, malaise, lymphadenopathy, mucus lesions, condylomata lata, and/or alopecia.

Early Latent
Asymptomatic and has had a negative syphilis test in the last year.

Recommended Regimen

Benzathine penicillin G (i.e., Bicillin LA)
2.4 million units in a single dose (A-I)

(Bicillin LA is administered in divided doses of 1.2 million units given IM into each buttock at the same visit.)

NOTE:
Long-acting benzathine penicillin G (Bicillin-LA) is the appropriate treatment for syphilis. It achieves detectable serum levels of penicillin for 2 - 4 weeks and is required to adequately treat infectious syphilis.

Short-acting benzathine penicillin G or benzyl penicillin G has a similar name to the long-acting penicillin (i.e., Bicillin-LA), but does not provide adequate treatment for syphilis.

Considerations

Jarisch-Herxheimer Reaction –
(i.e., fever, chills, headache, and myalgia) occurs 2 – 12 hour after treatment of early infectious syphilis and usually resolves within 24 hours. Antipyretics may be needed.

Partners/Contacts to Early Syphilis

All sexual contact/partners within 90 days of the patient's diagnosis and/or symptom onset, should be tested and treated with Bicillin 2.4 million units IM regardless of test results to treat incubating syphilis.

Sexual contacts/partners greater than 90 days only need to be tested or as per instructions from the BCCDC Provincial STI/HIV Clinic physician or syphilis nurse.

For partner/contact follow up, please consult Provincial STI/HIV Syphilis Nurse - 604.707.5607

Late Latent Syphilis

> 1 year duration or of unknown duration

OR

Tertiary Syphilis

(cardiovascular and other syphilis not involving the central nervous system)

Recommended Regimen

Benzathine penicillin G (Bicillin LA)
2.4 million units given weekly for 3 weeks to a total of 7.2 million units

(Bicillin LA is administered in divided doses of 1.2 million units given IM into each buttock at the same visit.)

Alternate treatment *(if allergic to Penicillin)*

Doxycycline 100 mg PO BID for 28 days (B-II)

Partners/Contacts to Late Syphilis

Test all long term sexual partners and children (i.e., 18 years of age or younger) of an infected mother.

Pregnancy/Lactation

- Please consult with Provincial STI/HIV Clinic Physician at 604.707.5606.
- All pregnant women should be screened for syphilis during the first trimester of pregnancy and repeated later in pregnancy for women with ongoing risk of syphilis exposure.

Recommended Regimen
Benzathine penicillin G (Bicillin LA)
2.4 million units in a single dose (A-I)

(Bicillin LA is administered in divided doses of 1.2 million units given IM into each buttock at the same visit.)

- Additional doses may be necessary depending on the duration of the infection.
- If there is a penicillin allergy, desensitization to penicillin is recommended as the recommended alternate treatment with doxycycline is contraindicated in pregnancy.

Follow Up

Syphilis serology should be monitored every 6 months after treatment until a suitable response is observed. A four fold drop in the RPR titre within 6-12 months and an RPR titire of less than 1:8 within one to two years after treatment, is considered adequate response to therapy.

Once adequate response to therapy has been achieved, a two-dilution rise in RPR titre may indicate re-infection.

HIV and Syphilis Co-infections

Syphilis positive patients co-infected with HIV require syphilis serology every 3 months.

Neurosyphilis

- Neurosyphilis symptoms can occur at any syphilis stage. It is usually seen in the late latent stage although recently some cases of neurosyphilis have been diagnosed in the secondary syphilis stage.
- When unexplained neurological symptoms are present (e.g., headaches, vertigo, ataxia, uveitis, retinitis, auditory symptoms such as hearing loss or tinnitus, meningitis, personality changes, and dementia), consider syphilis as a differential diagnosis and complete syphilis serology screening.
- Further testing and possible referral to an infectious disease specialist may be warranted.
- Please consult Provincial STI/HIV Clinic Physician at 604.707.5606 for management and treatment.

EIA Syphilis Serology Algorithm

- In July 2014 the BC Public Health Microbiology Reference Laboratory, (BC-PHMRL) switched the preliminary screening test for syphilis from the Rapid Plasma Reagin (RPR) antibody test to an Enzyme Immunoassay (EIA), a *Treponema pallidum* specific antibody test.
- In most cases, *Treponema pallidum* antibodies persist for the life of a patient and therefore the EIA test will detect a greater number of old syphilis cases.
- The EIA treponeme-specific test is similar to the TPPA and FTA-Abs tests used for confirmatory syphilis testing.
- Confirmatory tests will no longer need to be ordered by a physician as they will be automatically done by the BC-PHMRL as appropriate.
- EIA testing allows for automated, high volume syphilis screening for BC residents.
- For more information contact the Provincial STI/HIV Clinic Physician at 604.707.5606

HIV - Human Immunodeficiency Virus REPORTABLE

British Columbia guidelines on HIV testing are intended to support healthcare providers by offering routine HIV testing as well as enhanced HIV testing to priority populations.

HIV Testing Guidelines for the Province of British Columbia
Public Health recommends that healthcare providers be aware of the HIV status of all patients under their care.

Specifically it is recommend that providers offer an HIV test:

- Routinely, **every five years**, to all patients aged 18 – 70 years
- Routinely, **every year**, to all patients aged 18 – 70 years who belong to populations with a higher burden of HIV infection
- Once at age 70 or older if the patient's HIV status is not known
- Offer an HIV test to patients including **adults 18 – 70, youth and the elderly** whenever**:**
    - they present with a new or worsening medical condition that warrants laboratory investigation
    - they present with symptoms of HIV infection or advanced HIV disease
    - their providers identify a risk for HIV acquisition
    - they request an HIV test
    - they are pregnant

Considerations:

- Obtaining informed consent for HIV testing is the same as for any other diagnostic test.
- If the pretest probability of a positive HIV test is high, then a more extensive discussion may be warranted.

Partners/Contacts

Positive HIV results are reported to public health via the Medical Health Officer (MHO) or the HIV designate nurse (HIV-DN). An HIV-DN will contact the ordering clinician to offer assistance with reporting forms, partner notification, counseling and referrals.

Testing and Management of Potential HIV Exposures

Probable low risk HIV exposure,

- test at 6 weeks post exposure
- re-test at 3 months

Recent high risk exposures or when HIV seroconversion is suspected,

- test soon as the patient presents
- indicate '**Query Acute HIV**' on requisition as the laboratory may perform specific HIV tests if indicated

Point-of-care (POC) rapid tests for HIV antibodies are widely available.

- All positive HIV POC tests require confirmatory HIV testing

Post-exposure prophylaxis (PEP)
Antiretroviral therapy may be offered within 72 hours of a high risk exposure by contacting:

- **BC Centre for Excellence in HIV/AIDS St. Paul's Hospital Pharmacy Accidental Exposure Program** at 1.888.511.6222
  OR
- **St. Paul's Hospital** switchboard at 604.682.2344. Ask for the Infectious Disease physician on-call

Referral/Follow Up

Newly diagnosed HIV positive individuals often require specialized medical care including emotional and psychological support for their new diagnosis. Timely referral and follow up is recommended.

The MHO or the HIV-DN can provide assistance to clients and help arrange follow up and ongoing community suport when requested. Please contact your local public health department.

Medical support is also available through:

- BC Centre for Excellence in HIV/AIDS: www.cfenet.ubc.ca/healthcare-resources.ca
- REACH (Rapid Expert Advice & Consultation for HIV):
  Toll free at 1.800.665.7677 or
  www.hivguide.ca
- BC Women's Hospital & Healthcare Centre Oak Tree Clinic - Providing Care to Women & Families Living with HIV/AIDS
  www.oaktreeclinic.bc.ca

Benefits of HIV Treatment

- Individuals may benefit from initiation of HIV as early as possible.
- Benefits include improvement to patient health and decreased risk of HIV transmission to sexual partners, known in BC as 'Treatment as Prevention' or TasP.
- Acute HIV infection is diagnosed by special laboratory testing and is supported by the BC Public Health Microbiology and Reference Laboratory (BC-PHMRL) at BCCDC.
- For questions please contact the Provincial STI/HIV Clinic Physician at 604.707.5606.
- HIV treatment and primary care resources can be found at the BC Centre for Excellence in HIV/AIDS www.cfenet.ubc.ca/therapeutic-guidelines

Pregnancy/Lactation

- HIV testing should be offered to all pregnant women as part of routine prenatal care.
- Antiretroviral therapy (ARV) is available, and significantly decreases the risk of mother-to-child transmission.
- Repeat testing later in pregnancy may be recommended if risk of exposure is high.
- HIV positive women are advised not to breastfeed, but rather to use formula or donated breast milk.

BC Centre for Disease Control
An agency of the Provincial Health Services Authority

STI/HIV Resources

BCCDC Provincial STI/HIV Clinic
Clinical Prevention Services
655 West 12th Avenue
Vancouver, BC V5Z 4R4

General Inquires: 604.707.2400

Provincial STI/HIV Clinic Phone: 604.707.5600

Provincial STI/HIV Clinic Fax: 604.707.5604

Provincial STI/HIV Physician: 604.707.5606

Provincial STI/HIV Nurse: 604.707.5603

BC STI Treatment Guidelines and the
BC Physician STI Treatment Guideline Summary
(printable copy or updates) available at:

www.bccdc.ca

Public Health STI clinics, services, programs and health files are available at:

www.bccdc.ca
www.smartsexresource.com

Health Authorities in BC

Fraser Health Authority
www.fraserhealth.ca

Interior Health Authority
www.interiorhealth.ca

Northern Health Authority
www.northernhealth.ca

Island Health Authority
www.viha.ca

Vancouver Coastal Health Authority
www.vch.ca

Provincial Health Services Authority
www.phsa.ca

First Nations Health Authority
www.fnha.ca