Alberta Treatment Guidelines for Sexually Transmitted Infections (STI) in Adolescents and Adults 2018

General Considerations for STI

- Given the high rates of STI in Alberta, **it is appropriate to assess for risk of and screen for STI at routine medical appointments**. This is particularly important in individuals at higher risk for STI* or in individuals where the risk of consequences of STI are high (e.g., adolescents, pregnant women).
- All insertive and receptive sexual practices (oral, vaginal and anal) put individuals at risk for STI. In addition, intimate skin to skin contact may result in transmission of some STI, including herpes simplex virus and human papillomavirus infections.
- Treatment of STI is necessary to mitigate sequelae of infection and to prevent further transmission.
- Drugs for the treatment of notifiable STI are provided free of charge and are replaced following submission of an STI Notification Form.
- Some STI are NOTIFIABLE under the Alberta *Public Health Act* (for copies of Notification of Sexually Transmitted Infections forms, see STI Resources on back page).
- Partner notification is a critical component of STI control and important in preventing further spread and re-infection. Assistance with partner notification is available from public health staff (see section on Partner Notification on back page).
- Counselling about safer sex practices is important in individuals with or at risk for STI. This can in turn prevent re-infection and acquisition of new infections. Safer sex options include use of barrier contraceptives, reducing numbers of sexual partners, delaying onset of sexual debut and abstinence.
- Patients and contacts should abstain from unprotected sexual intercourse until treatment for both is completed and for 7 days after single dose therapy.
- Hepatitis B immunization should be offered to all individuals with an STI who have not already been immunized. In some situations, hepatitis A and/or Human Papillomavirus (HPV) immunization may be recommended.
- Having one STI puts one at risk for other STI. Therefore, all individuals with an STI should be screened for syphilis, HIV, gonorrhea and chlamydia.

NEW!

***The Notification of Sexually Transmitted Infections (STI) form* is now available in a fillable pdf format at:**

www.alberta.ca/notifiable-disease-guidelines.aspx

Individuals at higher risk for STI include but are not limited to those having sexual contact with person(s) with a known STI, sexually active under 25 years of age, a new sexual partner or ≥2 sexual partners in the past year, use of non-barrier contraception, persons who inject drugs or other substance users, sex workers and their clients, street involved/homeless, anonymous sexual partnering, previous STI, victims of sexual assault/abuse, men who have sex with men (MSM).

Alberta Health Services

Alberta Government

The *Alberta Treatment Guidelines for Sexually Transmitted Infections (STI) in Adolescents and Adults 2018* has been adapted from the *Canadian Guidelines on Sexually Transmitted Infections* for provincial use with permission from the Public Health Agency of Canada. The Canadian Guidelines are available online at: www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines/sexually-transmitted-infections.html

Recommendations regarding treatment of pediatric infections are excluded from these guidelines. In general, children diagnosed with an STI should be managed in conjunction with a Pediatric Infectious diseases specialist at a referral center and be reported to Alberta Child and Family Services Division or appropriate law enforcement agency for investigation of possible sexual abuse (see section on back page on Considerations in Persons Under 18 Years of Age).

This guideline includes the level of recommendation and quality of evidence indicators for the treatment recommendations. The indicators reflect a combination of the methodologies from the U.S. Preventive Services Task Force and the Canadian Task Force on Preventive Health Care and have been modified and simplified for use as outlined below (re-printed with permission from the Canadian Guidelines on Sexually Transmitted Infections). Levels of recommendation and quality of evidence were adapted from the Canadian Guidelines for Sexually Transmitted Infections; if Alberta guidelines differ from the Canadian Guidelines for Sexually Transmitted Infections levels of recommendation and quality of evidence are based on a comprehensive literature review.

LEVELS OF RECOMMENDATION

A **Strongly recommends** that clinicians routinely provide the treatment to eligible patients. **Good evidence** that the treatment improves important health outcomes and concludes that benefits substantially outweigh harms.

B Recommends that clinicians routinely provide the treatment to eligible patients. At least **fair evidence** that the treatment improves important health outcomes and concludes that benefits outweigh harms.

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**.

D Recommends against routinely providing the treatment to asymptomatic patients. At least fair evidence that the treatment is **ineffective** or that harms outweigh benefits.

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.

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.

CHLAMYDIA NOTIFIABLE

Urethral, cervical, pharyngeal, conjunctival infection

Non-Pregnant/Non-Lactating Adults

Preferred
azithromycin 1 g PO as a single dose (A-I; A-II for eye)

Alternate
doxycycline 100 mg PO BID for 7 days (A-I; A-II for eye)

Pregnant/Breastfeeding Women

Preferred
azithromycin* 1 g PO as a single dose (B-I)
or
amoxicillin 500 mg PO TID for 7 days (A-I)

*Available data suggests that azithromycin is safe and effective in pregnant women. Azithromycin is the preferred treatment for conjunctival infections in pregnancy.

Rectal Infection

Preferred
doxycycline 100 mg PO BID for 7 days (A-II)

Alternate
azithromycin 1 g PO as a single dose (A-II)

Considerations

- All patients with extragenital infections should also have genitourinary specimens submitted for *C. trachomatis and N. gonorrhoeae* nucleic acid amplification test (NAAT).
- Co-treatment for gonorrhea (GC) (see relevant section) should be provided if there is a positive test for GC or if treatment is being provided before test results are available.
- If vomiting occurs > 1 hour post administration of azithromycin, a repeat dose is not required.
- Doxycycline is contraindicated in pregnant women.

Contacts (all chlamydia cases)

All contacts in the last 60 days, regardless of symptoms or signs, must be located, examined, tested and treated. It may be necessary to extend this time period until a sexual contact is identified.

Follow-Up (all chlamydia cases)

- Test of cure (**TOC**) is not routinely indicated if recommended treatment is administered, symptoms and signs disappear and there is no re-exposure to an untreated partner unless:
  - compliance is sub-optimal or uncertain
  - patient is pre-pubertal
  - patient is pregnant
  - non-genital site involved (e.g., eye, rectum, pharynx)
  - the treatment agent used is not listed as the preferred or alternate treatment in this guideline
- **TOC** using NAAT, should be performed 3-4 weeks after the completion of treatment.
- Re-screening of all individuals diagnosed with chlamydia (CT) is recommended after 6 months.
- Neonates born to women with untreated CT need to be closely monitored for signs of CT(e.g., conjunctivitis, pneumonitis). Prophylactic treatment is not recommended unless follow-up cannot be guaranteed.

SYPHILIS NOTIFIABLE

Treatment and follow-up testing of all suspected or confirmed cases of syphilis should be done in consultation with STI Centralized Services.

Non-Pregnant Adults (All cases including HIV-infected)

Primary, Secondary, Early Latent

Preferred
Long-acting benzathine penicillin G 2.4 mu (Bicillin L-A) IM as a single dose (A-II;C-II for HIV-infected)

Alternate (Only for penicillin allergic patients)
doxycycline 100 mg PO BID for 14 days (B-II; C-III for HIV-infected)

Late Latent

Preferred
Long-acting benzathine penicillin G 2.4 mu (Bicillin L-A) IM weekly for 3 consecutive weeks (A-II;C-II for HIV-infected)

Alternate (Only for penicillin allergic patients)
doxycycline 100 mg PO BID for 28 days (B-II; C-III for HIV-infected)

Pregnant Women

Primary, Secondary, Early Latent
Long-acting benzathine penicillin G 2.4 mu (Bicillin L-A) IM weekly for 2 doses (C-III)

Late Latent
Long-acting benzathine penicillin G 2.4 mu (Bicillin L-A) IM weekly for 3 consecutive weeks (A-II)

Considerations

- All clients screened for syphilis should also be tested for HIV at the same time.
- All pregnant women should be screened for syphilis during pregnancy. Screening should be performed in the first trimester and again at the time of delivery. In women at high risk of acquisition or re-infection with STI/syphilis in their current pregnancy, more frequent screening is recommended.
- For pregnant women with reactive serology consultation with STI Centralized Services is recommended. Consultation will identify if the woman is a known case, and has a history of prior treatment or stable serology.
- All pregnant women with infectious syphilis should be managed in conjunction with an STI specialist. If the mother is >20 weeks gestation, a detailed fetal ultrasound should be performed and she should be managed together with a materno-fetal specialist.
- Treatment of infectious syphilis in pregnancy may precipitate a Jarisch-Herxheimer reaction which may cause fetal distress or premature labor; therefore all patients > 20 weeks gestation should undergo fetal monitoring for 24 hours after administration of benzathine penicillin.
- Doxycycline is not recommended for use during pregnancy. There is no satisfactory alternative to penicillin in pregnancy. Penicillin allergic pregnant women should be considered for desensitization followed by treatment with benzathine penicillin.

All Adults

Neurosyphilis

Preferred
crystalline penicillin G 4 mu IV q4h for 10-14 days (A-II)

Alternate
Strongly consider **penicillin desensitization** followed by treatment with penicillin

OR
ceftriaxone 2g IV daily for 10-14 days (B-II)

Considerations (all neurosyphilis)

- CSF examination for cell count and differential, protein, VDRL and FTA-ABS is recommended to establish a diagnosis of neurosyphilis and is indicated in all patients with neurologic, auditory or ophthalmic symptoms or signs.

Considerations (all syphilis cases)

- Even after adequate treatment, syphilis treponemal tests usually remain positive for life. Therefore, not everyone with positive serology will require treatment. Past history of treatment for syphilis may be available from STI Centralized Services and may help to guide current management.

Contacts (all syphilis cases)

- All sexual contacts of infectious syphilis (primary, secondary and early latent) must be located, tested and treated. Minimum trace back periods are as follows: primary syphilis: 3 months, secondary syphilis: 6 months, early latent: 1 year. Trace back periods may be extended if no partners are identified or if partners test negative.
- Regarding late latent syphilis: children of female cases and regular partners of all cases should be tested and treated if found to be infected.

Follow-Up (all syphilis cases)

- Follow-up with serial RPR is recommended at 1, 3, 6, 12 months after treatment in infectious (primary, secondary and early latent) cases. For late latent syphilis, serology should be repeated at 12 and at 24 months post therapy unless RPR is non-reactive. Follow-up is extended to 24 months for those who are HIV co-infected, regardless of RPR result.
- HIV testing should be done at baseline and at 1 and 3 months after diagnosis of infectious syphilis.
- For pregnant women with reactive syphilis serology and infants born to mothers with reactive serology, follow up will depend on maternal and neonatal history; advice should be sought from an STI specialist.

GONORRHEA NOTIFIABLE

Heterosexual Adults/Pregnant Women (urethral, cervical, rectal infection)

Preferred
cefixime 800 mg PO as a single dose (A-I)
PLUS **azithromycin 1g** PO as a single dose (B-II)

Alternate
ceftriaxone 250 mg IM as a single dose (A-I)
PLUS **azithromycin 1 g** PO as a single dose (B-II)

OR (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (AI)
PLUS **gentamicin≠ 240 mg** IM in 2 separate 3-mL injections of 40 mg/mL solution (B-II)

OR (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gemifloxacin# 320 mg** PO in a single dose (B-II)

Men who have sex with men (MSM) or Pharyngeal infections

Preferred
ceftriaxone 250 mg IM as a single dose (A-I)
PLUS **azithromycin 1 g** PO as a single dose (BII), (B-III for pharyngeal infections)

Alternate
cefixime 800 mg PO as a single dose (A-I for MSM, B-III for pharyngeal infections) PLUS **azithromycin 1 g** PO as a single dose (B-II for MSM), (B-III) for pharyngeal infections

OR (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (AI)
PLUS **gentamicin≠240 mg** IM in 2 separate 3 - mL injections of 40 mg/mL solution (B-II)

OR (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gemifloxacin# 320 mg** PO in a single dose (BII)

* Since azithromycin resistance has been reported, this agent should not be used as monotherapy.
≠ Gentamicin 240 mg IV infused over 30 minutes may be considered as an alternative route of administration when the IM route is not feasible.
At the time of printing of these guidelines, gemifloxacin is not available in Canada but has been included due to the potential for future availability.

Eye Infection

Preferred
ceftriaxone 2 g IV/IM as a single dose (A-II)
PLUS **azithromycin 1 g** PO as a single dose (B-II)

Considerations

- GC treatment using combination therapy with 2 agents should be given simultaneously.
- Treatment and follow up of all cases of GC eye infection and disseminated GC infection should be done in consultation with STI Centralized Services; a longer duration of therapy with ceftriaxone may be required with severe eye involvement or disseminated infection.
- Available data suggests that azithromycin is safe and effective in pregnant women.
- Due to higher sensitivity of NAAT over culture for *N. gonorrhoeae,* NAAT should be used for STI screening.
- Depending on the clinical situation, both culture and NAAT may be appropriate. Antimicrobial susceptibility testing can only be conducted on culture specimens. Culture is recommended in all cases with sexual contact outside of Canada, presumed treatment failure, sexual assault/abuse cases and symptomatic MSM.

Contacts

- All contacts in the last 60 days, regardless of symptoms or signs, must be located, examined, tested and treated. It may be necessary to extend this time period until a sexual contact is identified.

Follow-Up

- **TOC is recommended for all cases of GC.**
- TOC using NAAT, should be performed 3-4 weeks after the completion of treatment.
- Re-screening of all individuals diagnosed with GC is recommended after 6 months.
- Neonates born to women with untreated GC should be given a single dose of ceftriaxone 25-50mg/kg IM not to exceed 125 mg IM in a single dose (A-III); consultation with a pediatric specialist is recommended. Prophylactic co-treatment for CT infection is not recommended unless follow-up cannot be guaranteed.

GENITAL HERPES SIMPLEX

Counseling is an essential part of management.

First Episode*

valacyclovir 1 g PO BID for 10 days (A-I)
OR
famciclovir 250 mg PO TID for 5 days (A-I)
OR
acyclovir 400 mg PO TID for 7-10 days (A-III)

* Note that duration of therapy depends on severity of outbreak

Recurrent Lesions

Episodic Therapy

valacyclovir 500 mg PO BID for 3 days (B-I)
OR
valacyclovir 1 g PO QD for 3 days (B-I)
OR
famciclovir 125 mg PO BID for 5 days (B-I)
OR
acyclovir 800 mg PO TID x 2 days

Suppressive Therapy (non-pregnant)

valacyclovir 500 mg PO QD (A-I) [for patients with ≤ 9 recurrences per year]
OR
valacyclovir 500 mg PO BID or **1 g** PO QD (A-I) [for patients with > 9 recurrences per year]
OR
famciclovir 250 mg PO BID (A-I)
OR
acyclovir 400 mg PO BID (A-I)

Suppressive Therapy (pregnant)

Suppressive therapy in late pregnancy* is the "standard of care" and is highly recommended to reduce possible transmission to the neonate.

valacyclovir 500 mg PO BID initiated at 36 weeks until parturition (B-I)
OR
acyclovir 400 mg PO TID initiated at 36 weeks until parturition (A-I)

* Antiviral therapy may be initiated earlier in pregnancy in patients experiencing symptomatic outbreaks.

Considerations

- Topical acyclovir does not alleviate symptoms or signs and should not be used.
- Management options are three fold: No treatment, episodic or suppressive therapy.
  - ◊ **No Treatment:** Antiviral therapy is not necessary in all cases, particularly when recurrences are both mild and infrequent and in cases where sexual transmission is not a concern.
  - ◊ **Episodic therapy** may be an option for patients with infrequent (less than 6-9 outbreaks per year) but significant symptomatic outbreaks. For episodic therapy, treatment should be started as soon as possible, preferably during the prodromal symptoms or within hours of the development of a lesion.
  - ◊ **Suppressive therapy** may be an **option** for patients with more than 9 symptomatic outbreaks a year or in those who are concerned with disease transmission. Suppressive therapy reduces recurrence rates, as well as asymptomatic shedding and sexual transmission.

NON-GONOCOCCAL URETHRITIS (NGU)

NOTIFIABLE

Case Definition:

- Urethritis is a clinical syndrome defined as mucoid, mucopurulent or purulent urethral discharge on examination.
- Non-gonococcal urethritis (NGU) is defined as the presence of urethritis,
- **and/or**: ≥5 polymorphonuclear leukocytes per oil immersion field (x1000) in >5 non adjacent, randomly selected fields in a smear of urethral secretions (if point of care microscopy available),
- **and** absent gram-negative intracellular diplococci on gram stain of urethral secretions (if point of care microscopy available),
- **and** negative tests or no tests performed for GC and CT.

Empiric treatment for NGU
(no STI testing done or specimens collected but test results not available)

Heterosexual

Preferred
cefixime 800 mg PO as a single dose (A-I)
PLUS **azithromycin 1 g** PO as a single dose (B-II)

Alternate
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gentamicin[≠] 240 mg** IM in 2 separate 3-mL injections of 40 mg/mL solution (B-II)

OR
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gemifloxacin[#] 320 mg** PO in a single dose (B-II)

Men who have sex with men (MSM)

Preferred
ceftriaxone 250 mg IM as a single dose (A-I)
PLUS **azithromycin 1 g** PO as a single dose (B-II)

Alternate
cefixime 800 mg PO as a single dose (A-I)
PLUS **azithromycin 1g** PO as a single dose (B-II)

OR
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gentamicin[≠] 240 mg** IM in 2 separate 3-mL injections of 40 mg/mL solution (B-II)

OR
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gemifloxacin[#] 320 mg** PO in a single dose (B-II)

* Since azithromycin resistance has been reported, this agent should not be used as monotherapy.

[≠] Gentamicin 240 mg IV infused over 30 minutes may be considered as an alternative route of administration when the IM route is not feasible.

[#] At the time of printing of these guidelines, gemifloxacin is not available in Canada but has been included due to the potential for future availability.

Empiric treatment for NGU
(negative tests for GC and chlamydia)

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

Alternate
doxycycline 100 mg PO BID for 7 days (A-I)

Considerations

- All patients with urethritis should be tested for GC and CT.
- If urethritis is diagnosed clinically, immediate treatment is recommended. Treat presumptively for GC and CT pending laboratory results (see treatment for CT and GC).
- Patients who remain persistently symptomatic 3-4 weeks after treatment for GC and CT and in whom a diagnosis of NGU has been made *and* persistent or repeat infection with GC has been ruled out should be treated with doxycycline 100 mg PO BID x 7 days. Patients who have persistent symptoms after doxycycline should be referred to an STI specialist for further management.

Contacts

- All contacts in the last 60 days, regardless of symptoms or signs, must be located, examined, tested and treated. It may be necessary to extend this time period until a sexual contact is identified.

Follow-Up

- Patients should return for re-evaluation if symptoms persist or recur.

MUCO-PURULENT CERVICITIS (MPC)

NOTIFIABLE

Case Definition:

- Cervicitis is a clinical syndrome defined as inflammation of the cervix with a visible muco-purulent or purulent cervical discharge from the cervical os and/or cervical bleeding on insertion of an endocervical swab.
- **Mucopurulent cervicitis is defined as cervicitis and** negative test results or no tests performed from genitourinary specimens for CT and GC.

Empiric treatment for MPC
(no STI testing done or specimens collected but test results not available)

Preferred
cefixime 800 mg PO as a single dose (A-I)
PLUS **azithromycin 1 g** PO as a single dose (B-II)

Alternate (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gentamicin[≠] 240 mg** IM in 2 separate 3-mL injections of 40 mg/mL solution (B-II)

OR (not recommended in pregnancy)
azithromycin* 2 g PO as a single dose (A-I)
PLUS **gemifloxacin[#] 320 mg** PO in a single dose (B-II)

* Since azithromycin resistance has been reported, this agent should not be used as monotherapy.
[≠]Gentamicin 240 mg IV infused over 30 minutes may be considered as an alternative route of administration when the IM route is not feasible.
[#]At the time of printing of these guidelines, gemifloxacin is not available in Canada but has been included due to the potential for future availability.

Empiric treatment for MPC
(negative tests for GC and CT)

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

Alternate (not recommended in pregnancy)
doxycycline 100 mg PO BID for 7 days (A-I)

Considerations

- **Diagnosis of MPC is difficult to make in pregnancy** due to poor positive predictive value of any criteria for defining MPC in pregnant women.
- Speculum examination is required to make this diagnosis.
- All patients should be tested for GC and CT.
- If cervicitis is diagnosed clinically, immediate treatment is recommended. Treat presumptively for GC and CT pending laboratory results.
- Patients who remain persistently symptomatic and in whom a diagnosis of MPC has been made and persistent or repeat infection with GC has been ruled out should be treated with doxycycline 100 mg PO BID x 7 days. Patients who have persistent symptoms after doxycycline should be referred to an STI specialist for further management.

Contacts

- All contacts in the last 60 days, regardless of symptoms or signs, must be located, examined, tested and treated. It may be necessary to extend this time period until a sexual contact is identified.

Follow-Up

- Patients should return for re-evaluation if symptoms persist or recur.

EPIDIDYMO-ORCHITIS

Preferred
ceftriaxone 250 mg IM in a single dose (A-I) PLUS **doxycycline 100 mg** PO BID for 14 days (A-I)

Alternate
levofloxacin* 500 mg PO once daily for 14 days (C-III)

Considerations

- *Levofloxacin may be used if test results are negative for GC. If positive for GC, a **TOC** must be obtained.
- Bed rest, scrotal elevation and support and analgesics are also recommended.

Contacts

- When treatment is indicated for the index case, and they are presumed to have sexually acquired epididymitis, all sexual partners from 60 days prior to symptom onset or the date of diagnosis (if asymptomatic) should be located, clinically evaluated and treated with an appropriate regimen regardless of clinical findings and without waiting for test results.

Follow-Up

- Follow-up should be arranged to evaluate the response to treatment. If a recommended regimen has been given and correctly taken and the patient has failed to improve after 48-72 hours, they should be assessed for an alternate diagnosis.

PELVIC INFLAMMATORY DISEASE (PID)

Outpatients

Non-Pregnant/Non-Lactating Women

Preferred
ceftriaxone 250 mg IM as a single dose PLUS **doxycycline 100 mg** PO BID for 14 days (A-II)
WITH OR WITHOUT **metronidazole 500 mg** PO BID for 14 days (B-III)

Alternate
levofloxacin 500 mg PO once daily for 14 days (A-II)
WITH or WITHOUT **metronidazole 500 mg** PO BID for 14 days (A-I)

Considerations

- Addition of metronidazole is recommended when concurrent anaerobic infection is a concern (e.g., bacterial vaginosis, presence of tubo-ovarian abscess and/or HIV co-infection). Since ceftriaxone and levofloxacin are limited in the coverage of anaerobes, the addition of metronidazole to all regimens should be considered.
- Levofloxacin may be used if test results negative for GC or if positive for GC, a **TOC** must be obtained.
- Patients on metronidazole should be advised not to take alcohol for the duration of treatment and for 24 hours after because of possible disulfiram-like (Antabuse) reaction.
- Removal of an IUD is no longer routinely recommended in PID; consultation should occur with the practitioner who inserted the device and/or an STI expert.

Contacts

- All contacts of PID cases with positive tests for CT and GC or a clinical diagnosis of cervicitis with no tests conducted for GC/CT in the last 60 days, regardless of symptoms or signs, must be located, examined, tested and treated. It may be necessary to extend this time period until a sexual contact is identified.

Follow-Up

- Individuals treated as outpatients need careful follow-up and should be re-evaluated 2-3 days after treatment is initiated.
- Refer to a specialist for consideration of hospitalization and discussion of treatment options if the individual:
  - is pregnant or breastfeeding
  - does not respond clinically to oral antimicrobial therapy
  - is unable to follow or tolerate an outpatient oral regimen
  - has severe illness, nausea and vomiting, or high fever
  - has a tubo-ovarian abscess
  - is immunocompromised, such as with HIV infection
  - is a youth/adolescent (particularly if compliance is an issue)

  And/or
  - surgical emergencies such as appendicitis cannot be excluded.

HIV/AIDS

NOTIFIABLE

(Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome)

- All individuals having unprotected sexual intercourse (oral, vaginal or anal), injecting drugs, sharing needles and other injection drug use equipment, and/or infected with other STI are at risk of HIV infection.
- The presence of STI increases the risk of acquisition and transmission of HIV.

Testing and Results

- It is recommended that the consideration and discussion of HIV testing be made a component of routine medical care in order to normalize HIV testing.
- In addition, there may be circumstances where HIV testing is indicated based on patient history.
- In-depth behaviour-based risk assessments and extensive pre- and post-test counselling are **not** requirements for offering an HIV test. **An assessment that the individual understands how HIV is transmitted, the implications of testing (advantages and disadvantages), and how to interpret the test results is sufficient.**
- It is strongly recommended that positive test results are given in person if possible, to facilitate post-test counseling and referrals) to appropriate resource(s).

HIV Testing In Pregnancy

- HIV testing in pregnancy is part of routine prenatal care.

Referral

- Newly diagnosed HIV positive individuals should be referred to appropriate support agencies including local HIV/AIDS support groups (see STI Resources on back page) and to an HIV specialist. All confirmed and probable cases of HIV should be reported to the Zone Medical Officer of Health and Alberta Health using the *HIV/AIDS Case Report* form.
- All HIV positive persons who have previously received or donated blood should be reported in confidence to the local Canadian Blood Services.

Contacts

- Partner notification must be undertaken in all cases of AIDS and HIV infection.
- Identification and contact tracing of all known sexual and needle-sharing partners of HIV infected patients must be undertaken. It may be necessary to go back several years. Knowledge of a previous negative test can assist in determining the time frame for contact identification.
- A partner notification nurse (PNN) will assist with the partner tracing and notification process.

VAGINITIS

Bacterial Vaginosis

Non-Pregnant/Lactating Women

Preferred
metronidazole* 500 mg PO BID for 7 days (A-I)

OR
metronidazole gel (**Nidagel®)** 0.75%, one applicator (5 g) intravaginally once daily for 5 days (A-I)

OR
clindamycin cream 2%, one applicator (5 g) intravaginally once daily for 7 days (A-I)

Alternate
clindamycin 300 mg PO BID for 7 days (A-I)

OR
metronidazole* 2 g PO in a single dose (A-I)

* The effect of oral metronidazole on the nursing infant is unknown but no adverse effects have been reported in numerous studies; infants should be observed for diarrhea.

Pregnant Women

Preferred
metronidazole 500 mg PO BID for 7 days (A-I)

Alternate
clindamycin 300 mg PO BID **for 7 days** (A-I)

Treatment for recurrent BV

(Pregnant and Non-Pregnant)

Preferred
metronidazole 500 mg PO BID x 10-14 days (B-III)

OR
metronidazole gel (Nidagel®)* 0.75%, one applicator (5g) once a day intravaginally x 10 days (B-III), followed by suppressive therapy of **metronidazole gel twice a week** for 4-6 months (B-III).

Considerations

- For therapy with metronidazole, a 7 day oral course and a 5 day course of gel are equally efficacious (cure rate 75–85%). A single oral dose also has a cure rate of 85% but a higher relapse rate at 1 month (35–50% vs. 20–33%).
- Patients on metronidazole should be advised not to take alcohol for the duration of treatment and for 24 hours after because of possible disulfiram-like (Antabuse) reaction.
- Clindamycin cream is oil-based and may cause latex condoms or diaphragms to fail.
- Treatment of male sexual partners is not indicated and does not prevent recurrence.

Asymptomatic:

Treatment is unnecessary except in cases of:

- pregnant women with history of high-risk pregnancy (previous preterm delivery)
- prior to IUD insertion
- prior to gynecologic surgery or upper genitourinary tract instrumentation
- prior to therapeutic abortion

Pregnant Women:

- Low risk, asymptomatic pregnant women do not need to be screened and/or treated for BV.
- Treatment with an oral agent in asymptomatic pregnant women with a history or pre-term delivery may reduce the risk of preterm rupture of membranes and stillbirth.
- Intravaginal agents are not recommended in pregnancy as they have not been shown to decrease the risk of adverse pregnancy outcomes.
- Based on multiple studies, data supports the safety and lack of teratogenicity of systemic metronidazole in pregnancy.

Vulvovaginal Candidiasis

Non-Pregnant/Non-Lactating Women

Preferred
Topical Agents
Intravaginal, over-the-counter azole ovules and creams (e.g., clotrimazole, miconazole) (A-I)

OR
Oral Agents
fluconazole 150 mg PO as a single dose (B-III)

Pregnant/Breastfeeding Women

Preferred
Topical azole for 7 days (A-1)

Considerations

- Treatment is unnecessary for asymptomatic infection.
- Many topical/intravaginal agents are oil based and might weaken latex condoms and diaphragms.
- Treatment of sexual partners is not routinely recommended unless male partner has candida balanitis. In males, use a topical azole cream twice a day for 7 days.
- Some effective topical azole agents are: butoconazole, clotrimazole, miconazole and terconazole.
- Fluconazole is contraindicated in pregnancy but considered an option in breastfeeding women, if benefits outweigh risks.

Trichomoniasis

Non-Pregnant/Non-Lactating Women

Preferred
metronidazole 500 mg PO BID for 7 days (A-I)

Alternate
metronidazole 2 g PO as a single dose (A-I)

Pregnant/Breastfeeding Women

Preferred
metronidazole* 2 g PO as a single dose (A-I)

* The effect of oral metronidazole on the nursing infant is unknown but no adverse effects have been reported in numerous studies; infants should be observed for diarrhea.

Considerations

HIV negative women:

- **Pregnant women:** Treatment is recommended only if symptomatic.

HIV infected women:

- Routine screening at entry to care, during pregnancy and then at least annually is recommended.
- Screening at the first prenatal visit and prompt treatment are recommended for pregnant women with HIV, because *T. vaginalis* infection is a risk factor for vertical transmission of HIV. Pregnant women with HIV who are treated for *T. vaginalis* infection should be retested 3 months after treatment.

All women:

- Based on multiple studies, data supports the safety and lack of teratogenicity of systemic metronidazole use in pregnancy.
- Intravaginal metronidazole gel is not effective.
- Patients on metronidazole should be advised not to take alcohol for the duration of treatment and for 24 hours after because of possible disulfiram-like (Antabuse) reaction.
- Sexual partners should be treated simultaneously.

Partner Notification for STI

- Partner notification will identify those at risk, reduce disease transmission/re-infection and ultimately prevent disease sequelae.
- **It is mandated under the *Public Health Act* that every attempt be made to identify, locate, examine and treat partners/contacts of all cases of notifiable STI.**
- All healthcare providers are required to provide partner names and locating information and treatment on the *Notification of Sexually Transmitted Infections* form and forward to STI Centralized Services.
- If treatment of partners is not confirmed on the STI Notification Form, STI Centralized Services will initiate follow up by a Partner Notification Nurse (PNN).
  - PNNs are specially trained to conduct notification of partners/contacts in a confidential manner that protects the identity of the index case.
  - The phone number for your designated PNN is available by calling STI Centralized Services at: toll-free 1-855-945-6700, option 4. **NOTE NEW NUMBER**
- Out of province/country cases and partners are sent to Alberta Health to be forwarded on to the appropriate jurisdiction for follow-up and reporting.

STI Resources

- Medical and case consultation for STI/HIV is available through STI Centralized Services by calling: toll-free **1-855-945-6700, option 4.** or through an STI Clinic or PNN.
- To obtain copies of the Notification of Sexually Transmitted Infections form contact STI Centralized Services by calling as above or faxing: 780-670-3624.
- Information for the general public can be obtained through Health Link at 811.
- The Alberta STI Treatment Guidelines for STI in Adolescents and Adults, may also be reviewed
- Canadian Guidelines on Sexually Transmitted Infections, Public Health Agency of Canada, are available at https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/canadian-guidelines.html

Considerations in Persons Under 18 Years of Age

In all cases, where a person under 18 is suspected or confirmed to have an STI, an assessment should be carried out by the clinician to determine if additional reporting is required.

- **To Alberta Child and Family Services**
  - The clinician should determine whether there are reasonable and probable grounds to believe that they are in contact with "a child in need of intervention" (as per Section 1(2) of
  - the *Child, Youth and Family Enhancement Act [CYFEA]*) and shall report to a director pursuant to Section 4 of the *CYFEA*.
    Reporting is done by contacting the local Child and Family Services office or calling the **CHILD ABUSE HOTLINE: 1-800-387-5437 (KIDS)**. For local office contact information see: www.humanservices.alberta.ca/services-near-you/15010.html
- **To Law Enforcement Agency**
  - Consent is a key factor in determining whether any form of sexual activity is a criminal offence. Children under 12 do not have the legal capacity to consent to any form of sexual activity. The law recognizes that the age of consent for sexual activity is 16. However, the law identifies the exception for minors between 12 and 16 years as having the ability to consent, in "close in age" or "peer group" situations.
  - Reporting is done by contacting your local City Police Detachment or RCMP Detachment at www.rcmp-grc.gc.ca/detach/en/find/AB.

For additional information see:

- Alberta Child, Youth and Family Enhancement Act: www.canlii.org/en/ab/laws/stat/rsa-2000-c-c-12/latest/rsa-2000-c-c-12.html
- Age of Consent to Sexual Activity at: canada.justice.gc.ca/eng/rp-pr/other-autre/clp/faq.html
- The Canadian Criminal Code at: laws-lois.justice.gc.ca/eng/acts/C-46/

It is recommended that all children under 14 years of age (except for congenitally acquired infections) be managed in consultation with a referral centre in either:

Edmonton:
Child and Adolescent Protection Centre
Stollery Children's Hospital, 1C4.24
Mackenzie Health Sciences Centre
8440.-.112 Street, Edmonton, AB T6G 2B7
Tel: 780-407-1240

Calgary:
Child Abuse Service
Child Development Centre
Suite 200, 3820.-.24 Avenue NW
Calgary, AB T2N IN4
Tel: 403-955-5959

NOTE NEW NUMBERS

STI Centralized Services

2nd Floor, South Tower, 10030 107 Street
Edmonton, Alberta T5J 3E4
Toll-free: 1-855-945-6700, option 4
Fax: 780-670-3624

STI Clinics

Calgary STI Clinic
5th Floor, Sheldon M. Chumir Health Centre 1213 4th Street SW, Calgary, AB T2R 0X7
Toll-free: 1-855-945-6700, option 1
Fax: 403-955-6722

Edmonton STI Clinic
Edmonton General Hospital Site 11111 Jasper Avenue, Room 3B20 Edmonton, Alberta T5K 0L4
Toll-free: 1-855-945-6700, option 2
Fax: 780-425-2194

Fort McMurray STI Clinic
113 Thickwood Blvd
Fort McMurray, Alberta T9H 5E5
Toll-free: 1-855-945-6700, option 3
Fax: 780-791-6282

Free Replacement Drugs

The following drugs are supplied and replaced following submission of an STI form.

- **amoxicillin 500 mg** PO TID for 7 days
- **azithromycin 1 g and 2 g** PO as a single dose
- ***long acting benzathine penicillin (Bicillin L-A) 2.4 MU** injection
- **cefixime 800 mg** PO as a single dose
- **ceftriaxone 250 mg** injection
- **doxycycline 100 mg** PO BID for 7, 14 or 28 days
- **gemifloxacin[#] 320 mg** PO in a single dose
- **gentamicin 240 mg** IM injections
- **levofloxacin 500 mg** PO once daily for 14 days
- **metronidazole 500 mg** PO BID for 14 days (for treatment of PID only)

*These drugs are available by special request through STI Centralized Services for treatment of STI as per these guidelines. STI Centralized Services, STI Clinics and PNNs can provide assistance in acquiring these medications.

*At the time of printing these guidelines, gemifloxacin is not available in Canada but has been included due to the potential for future availabilty.

NEW!

***The Notification of Sexually Transmitted Infections (STI) form* is now available in a fillable pdf format at:**
www.alberta.ca/notifiable-disease-guidelines.aspx