STANDARDS, LIMITS and CONDITIONS for PRESCRIBING, ORDERING and ADMINISTERING DRUGS for SEXUALLY TRANSMITTED INFECTIONS

The following are the standards for midwives to independently prescribe, order, and administer drugs in the community, hospital or other sites of midwifery practice to treat sexually transmitted infections for clients in care, as designated under specialized practice certification. ***Midwives without specialized practice certification in sexually transmitted infections management are required to refer their clients to an appropriate health care practitioner for treatment.***

Standards, Limits and Conditions for Prescribing, Ordering and Administering Drugs for Sexually Transmitted Infections in Midwifery Practice

The standards below provide midwifery indications, routes of administration and upper dosage limits where appropriate, adverse effects and contraindications for the use of drugs to treat sexually transmitted infections approved for use in midwifery practice for midwives with specialized practice certification. Midwives may only prescribe, order or administer the following drugs within the standards set out in this document and to a client under their professional care where the drug is required for the purposes outlined below. This list is inclusive. Midwives may not independently prescribe, order, or administer any other controlled drugs unless, on the advice of the College's Multidisciplinary Standards of Practice Committee, these standards are amended to be consistent with the Schedule A and B of the Midwives Regulation or the government amends the Schedules to the Midwives Regulation.

Midwives who are certified in treating sexually transmitted infections can diagnose and treat the following infections:

Bacterial Vaginosis, Chlamydia Trachomatis, Neisseria Gonorrhea, Trichomoniasis.

Antibiotics

Choice of antibiotic – It is important to review the sensitivity patterns of bacteria in your local area or health authority. Also, please refer to updated Decision Support Tools (DSTs) and the following link for additional information for the treatment of sexually transmitted infections:

http://www.bccdc.ca/NR/rdonlyres/46AC4AC5-96CA-4063-A563-0BA9F4A0A6E9/0/CPS_BC_STI_Treatment_Guidelines_27082014.pdf

A) Antibiotics for Bacterial Vaginosis

First choice treatment is Metronidazole and second choice treatment is Clindamycin.

Metronidazole (Flagyl®)
Clindamycin (Dalacin C®)

Bacterial Vaginosis is an overgrowth of genital tract bacteria and a lack of lactobacilli.

Although bacterial vaginosis is not usually categorized as a sexually transmitted infection, it is commonly included as part of the list of sexually transmitted infections. Treatment is not recommended if asymptomatic unless a pregnancy is at high risk of pre-term birth, or if there is

any scheduled surgery such as a D & C or therapeutic abortion. Routine screening for BV at the time of IUD insertion if asymptomatic is not well supported by evidence.

Metronidazole (Flagyl®)

An oral antibiotic classified as an antiprotozoal with bactericidal, amebicidal and trichomonacidal action. Readily taken up by anaerobic organisms causing disruption of DNA helical structure and inhibition of protein synthesis and cell death.

Indications and Clinical Use:
Used for the treatment of Bacterial Vaginosis (BV) in pregnant or non-pregnant women. The Centre for Disease Control (CDC) recommends treatment of BV in all symptomatic pregnant women. Asymptomatic pregnant women at high risk for premature labour should be screened for BV and treated. Also used for the treatment of Trichomonas Vaginalis (please refer to write up on Trichomonas Vaginalis). The goal is to reduce the risk of preterm prelabour rupture of the membranes and low birth weight. BV during pregnancy is associated with premature rupture of the membranes, chorioamnionitis, preterm labour, preterm birth and post-cesarean delivery endometritis.

If symptoms persist after the prescribed course of treatment, a consultation with a physician is required.

Contraindications:
Hypersensitivity to metronidazole or other nitroimidazole derivatives.
Dose adjustments required in hepatic impairment and end stage renal disease.

Alcohol - Avoid alcohol for 12 hours before, while on drug therapy and for 24-48 hours after finishing. Drug therapy can cause headache, abdominal cramps, nausea, vomiting, flushing, and/or sweating (disulfiram like reaction).

Warnings and Precautions:
Use with caution in those with CNS disease; may cause seizures, encephalopathy, peripheral neuropathy (which may be characterized as numbness or paresthesia of an extremity), uticaria, pruritus, rash, flushing, nasal congestion, fever and/or transient joint pain. Metronidazole can also prolong the QTc interval.

To reduce the incidence of drug-resistant bacteria, use only for the treatment of confirmed infections. Candidiasis may present during metronidazole therapy, treatment with an appropriate antifungal is recommended.

Pregnancy:
Current data does not suggest Metronidazole poses an increased risk of anomalies when used in pregnancy or have other harmful effects on the fetus.

Lactation:
Limited Data - Probably Compatible - Although the relative infant dose is > 10% this medication is considered suitable in lactation as numerous reports have found few adverse effects in breastfed infants. This medication is also considered suitable for use in both the neonatal and pediatric population.

Adverse Reactions:

Headache, dizziness, changes in vision, dry mouth, metallic taste, furry tongue, glossitis, nausea, vomiting, diarrhea or constipation, abdominal pain, anorexia, changes in liver function, darkening of the urine and/or rash.

Drug Interactions
E.g. Alcohol, Lithium, Aripiprazole, certain SSRIs, Mebendazole, Warfarin, Phenytoin, or QTc prolonging medications. For more information, please consult drug interaction references.

Dosage and Administration:
Bacterial Vaginosis (BV)
Metronidazole: 500 mg orally twice daily for 7 days; or
250 mg orally3 times daily for 7 days

Alternate treatment – Metronidazole gel 0.75%, one applicator (5g) once a day intravaginally for 5 days.

With regular tablets or capsules, food decreases the rate of absorption and peak plasma concentrations. With extended release tablets, food increases rate of absorption and peak plasma concentrations. Food does not change the total amount of drug absorbed.

Onset of Action:
Peak plasma concentrations: 1-3 hours following dose.

Metabolism
Approximately 30–60% of an oral Metronidazole dose is metabolized in the liver by hydroxylation, side-chain oxidation, and glucuronide conjugation. The major metabolite, 2-hydroxy Metronidazole, has some antibacterial and antiprotozoal activity.

Duration of Action:
Half-life elimination: 6-8 hours
Excretion: Urine (60-80%), Feces (6-15%)

Clindamycin, (Dalacin C®)
Clindamycin is a lincosamide, a type of antibiotic that works by inhibiting bacterial protein synthesis.

Indications and Clinical Use:
Used for the treatment of Bacterial Vaginosis (BV) in pregnant or nonpregnant women. The Centre for Disease Control (CDC) recommends treatment of BV in all symptomatic pregnant women. Asymptomatic pregnant women at high risk for premature labour should be screened for BV and treated. The goal is to reduce the risk of preterm prelabour rupture of the membranes and low birth weight. BV during pregnancy is associated with premature rupture of the membranes, chorioamnionitis, preterm labour, preterm birth and post-cesarean delivery endometritis.

If symptoms persist after the prescribed course of treatment, a consultation with a physician is required.

Contraindications:
Known hypersensitivity or allergy to Clindamycin or Lincomycin.

Warnings and Precautions:
Prolonged use may result in fungal or bacterial superinfection, including *C. difficile*-associated diarrhea (CDAD) and pseudomembranous colitis. With any diarrhea after taking Clindamycin, maternal stool should be tested for *C. difficile*. A positive test for *C. difficile* is an indication for physician consult. CDAD has been observed >2 months post-antibiotic treatment.

To reduce the incidence of drug-resistant bacteria, use only for the treatment of confirmed infections. Candidiasis may present during Clindamycin therapy, treatment with an appropriate antifungal is recommended.

Pregnancy:
Compatible: No reports linking use of Clindamycin with congenital defects have been located.

Lactation
Limited Data- Probably Compatible- Clindamycin is considered suitable in lactation, as numerous reports have found few adverse effects in breastfed infants. The relative infant dose is 0.9-1.8% (less than 10% considered suitable). This medication is also considered suitable for use in both the neonatal and pediatric population.

Clindamycin, like all antibiotics, has the potential to cause adverse effects on the breastfed infant's gastrointestinal flora. If oral or intravenous Clindamycin is required by a nursing mother, it is not a reason to discontinue breastfeeding. Monitor the infant for possible effects on the gastrointestinal flora, such as diarrhea, candidiasis (thrush, diaper rash) or rarely, blood in the stool indicating possible antibiotic-associated colitis.

Adverse Reactions:
Nausea, vomiting, diarrhea, abnormal liver function, serious skin rashes and/or agranulocytosis.

The following side effects should be reported to a medical practitioner immediately: severe skin rash, itching, hives, difficulty breathing or swallowing, wheezing, unusual bleeding or bruising, sore throat, painful mouth or throat sores, jaundice and/or diarrhea.

Dosage and Administration:
Bacterial Vaginosis
Clindamycin: 300 mg orally twice daily for 7 days.
Alternate treatment – Clindamycin cream 2%, one applicator (5g) intravaginally once a day for 7 days.

Onset of Action:
Absorption is rapid; widely distributed into most body tissues and fluids, including gallbladder, liver, kidneys, bone, sputum, bile, and pleural and synovial fluids.

Onset of Action:
Peak plasma concentrations: 1 hour following dose.

Duration of Action:
Half-life elimination: 3 hours.

Excretion: Urine (10%), Feces (4%) as active drug and metabolites.

B) Antibiotics for Chlamydia Trachomatis

Doxycycline and Aazithromycin are first choice treatments however **Doxycycline is not to be used during pregnancy.** During pregnancy and lactation, treatments of choice are Amoxicillin, Azithromycin or Erythromycin.

Amoxicillin (Amoxil®, Polymox®, Trimox®),
Azithromycin (Zithromax®)
Erythromycin
Doxycycline

Chlamydia Trachomatis is a reportable infection and is the most common bacterial sexually transmitted infection in Canada. Chlamydia Trachomatis infection is commonly undiagnosed unless screened for as the majority of infected individuals are asymptomatic. Screening during pregnancy should occur at the first prenatal visit and if positive, a test of cure is required at 3-4 weeks post antibiotic completion of treatment for pregnant and/or breastfeeding clients. Timely treatment reduces the risk of symptomatic infection with its associated risks. Repeat screening is recommended at 6 months if client is at high risk of re-infection. Partners also need to be informed, and advised to see their health care provider for assessment, screening and treatment. Untreated Chlamydia Trachomatis can be associated with intestinal symptoms, mucopurulent cervicitis, increased vaginal discharge with or without odour, conjunctivitis in neonates and pneumonia in infants less than 6 months of age. Major sequelae may cause pelvic inflammatory disease, ectopic pregnancy, infertility, chronic pelvic pain and Reiter Syndrome.

Amoxicillin (Amoxil®, Polymox®, Trimox®)

Penicillin antibiotics act as a broad spectrum bactericidal against many gram-positive and gram-negative microorganisms. This is achieved through the inhibition of biosynthesis of cell wall mucopeptide.

Indications and Clinical Use:
For treatment of asymptomatic or symptomatic chlamydia trachomatis and neisseria gonorrhea in pregnancy and the postpartum. It is also for treatment of uncomplicated asymptomatic or symptomatic urinary tract infections (UTIs) in pregnancy and the postpartum caused by *Enterococcus faecalis*, *Escherichia coli,* or *Proteus mirabilis*.(Please refer to the *CMBC Standards, Limits and Conditions for Prescribing, Ordering and Administering Drugs*)

Contraindications:
Documented hypersensitivity or allergy to Amoxicillin or any other Penicillin antibiotic or component of the formulation.

Warnings and Precautions:
Reduces efficacy of oral contraceptives; adjust dose in renal impairment; may enhance chance of candidiasis. Prolonged use may result in fungal or bacterial superinfection, including *C. difficile*-associated diarrhea (CDAD) and pseudomembranous colitis; CDAD has been observed >2 months post-antibiotic treatment. Use with caution in asthmatic patients.

Breastfed infants may develop slightly looser stools than normal. Modification of bowel flora and allergic sensitization of the infant may occur.

Pregnancy:
Human Data Suggest Risk in the 1st and 3rd Trimesters. There is some evidence that exposure during organogenesis is associated with oral clefts and necrotizing enterocolitis when used in preterm labour however, the absolute risk is very low and requires confirmation.

Lactation:
Limited Data – compatible.
Less than 0.95% of the maternal dose is secreted into milk which is less than 0.5% of a typical infant dose of amoxicillin. There have been no harmful effects reported.

Adverse Reactions:
Upset stomach, diarrhea, vomiting, vaginal infection and/or mild skin rash. The following should be reported to a medical practitioner immediately: severe skin rash, itching, hives, difficulty breathing or swallowing, wheezing, unusual bleeding or bruising, sore throat, painful mouth or throat sores, jaundice and/or diarrhea.

Dosage and Administration:
Chlamydia Trachomatis:
Amoxicillin (Amoxil®, Polymox®, Trimox®): 500 mg orally every 8 hours (tid) for 7 days. May be taken with food.

Onset of Action:
Oral: Rapid; food does not interfere with absorption.

Duration of Action:
Peak serum concentrations usually attained within 1–2 hours.
Half-life: 1-1.4 hours.

Azithromycin (Zithromax®)

Azithromycin is a macrolide anti-infective antibiotic derived from erythromycin. Inhibits RNA dependent protein synthesis and binds to the 50S ribosomal subunit blocking transpeptidation.

Indications and Clinical Use:
For treatment of asymptomatic or symptomatic Chlamydia Trachomatis and neisseria gonorrhea in pregnancy and the postpartum.

Contraindications:
Documented hypersensitivity or allergy to azithromycin or any component of the formulation and if there is a history of cholestatic jaundice/hepatic dysfunction.

Warnings and Precautions:
Use with caution in those with liver disease. Use should be discontinued with nausea, vomiting and/or fever. Macrolides have been associated with rare QTc prolongation and ventricular arrhythmias. Prolonged use may result in fungal or bacterial superinfection, including *C. difficile*-associated diarrhea (CDAD) and pseudomembranous colitis; CDAD has been observed >2 months post-antibiotic treatment.

Breastfed infants may develop vomiting, diarrhea, and/or rash. Modification of bowel flora in the infant may occur.

Pregnancy:
Compatible
Human data does not suggest risk of toxicity during embryo-fetal development.

Lactation:
Limited Data – probably compatible.
No reported pediatric concerns for neonates exposed to breastmilk.

Adverse Reactions:
Diarrhea, loose stools, abdominal pain, nausea, vomiting.

Dosage and Administration:
Chlamydia Trachomatis:
Azithromycin (Zithromax®): 1 g orally in single dose.

Onset of Action:
Oral: Rapid; aluminum and magnesium containing antacids may slow absorption of azithromycin.

Duration of Action:
Peak serum concentrations usually attained within 3–4 hours.
Half-life: 48-68 hours.

Erythromycin

Erythromycin is a macrolide anti-infective antibiotic used in the treatment of gram-positive, gram-negative and other microorganisms. Erythromycin acts by inhibition of protein synthesis and binding susceptible organisms.

Indications and Clinical Use:
For treatment of asymptomatic or symptomatic chlamydia trachomatis in pregnancy and the postpartum. (Please refer to the *CMBC Standards, Limits and Conditions for Prescribing, Ordering and Administering Drugs*).

Contraindications:
Documented hypersensitivity or allergy to Erythromycin or any component of the formulation.

Warnings and Precautions:
Use with caution in those with liver disease. Use should be discontinued with nausea, vomiting or fever. Macrolides have been associated with rare QTc prolongation and ventricular arrhythmias. Prolonged use may result in fungal or bacterial superinfection, including *C. difficile*-associated diarrhea (CDAD) and pseudomembranous colitis; CDAD has been observed >2 months post-antibiotic treatment.

Breastfed infants may develop vomiting, diarrhea and/or rash. Modification of bowel flora and allergic sensitization of the infant may occur.

Pregnancy:

Compatible (Excludes Estolate Salt). No evidence of developmental toxicity with Erythromycin has been reported.

Lactation:
Limited Data – probably compatible.
This medication is considered suitable in lactation, the relative infant dose is less than 2%.

Adverse Reactions:
Upset stomach, nausea, vomiting, hepatitis, ototoxicity.

Dosage and Administration:
Chlamydia Trachomatis:
Erythromycin: 500 mg orally every 6 hours (qid) for 7 days or if not tolerated;
Erythromycin: 250 mg orally every 6 hours (qid) for 14 days.

Onset of Action:
Oral: Immediate release; may be taken with food to decrease gastrointestinal upset.

Duration of Action:
Peak serum concentrations usually attained within 2–4 hours.
Half-life: 1.5-2 hours.

Doxycycline

Doxycycline is a broad spectrum semisynthetic tetracycline antibiotic. Inhibits protein synthesis by binding with the 30S and possibly 50S ribosomal subunits of susceptible bacteria. May also cause cytoplasmic membrane alterations.

Indications and Clinical Use:
For treatment of asymptomatic or symptomatic chlamydia trachomatis and neisseria gonorrhea and uncomplicated sexually transmitted infections.

Contraindications:
Documented hypersensitivity or allergy to doxycycline, tetracycline or any other component of the formulation; severe renal or hepatic dysfunction; myasthenia gravis. **Contraindicated in pregnancy specifically during 2nd and 3rd trimesters.**

Warnings and Precautions:
Reduces efficacy of oral contraceptives; may enhance chance of candidiasis; to be used with caution in individuals with asthma, allergies, hay fever and/or urticaria.

Breastfed infants should be monitored for vomiting, diarrhea, changes in bowel flora and/or rash; prolonged exposure may lead to decreased bone growth and dental staining.

Pregnancy:
Tetracyclines cross the placenta and accumulate in developing teeth and bones; can cause maternal liver toxicity and congenital defects.

Lactation:
Limited Data – Probably Compatible
Doxycycline is the least of the tetracyclines to be bound to calcium when secreted into milk and may be better absorbed in a breastfeeding infant. Short term use (3-4 wks) is not

contraindicated although its use should be limited to cases where other antibiotic options are unavailable. No harmful effects have been reported.

Adverse Reactions:
Upset stomach, diarrhea, vomiting, vaginal monilial overgrowth and/or skin rash. The following should be reported to a medical practitioner immediately: severe skin rash, itching, hives, difficulty breathing or swallowing, wheezing, unusual bleeding or bruising, sore throat, painful mouth or throat sores, jaundice and/or diarrhea.

Dosage and Administration:
Chlamydia Trachomatis:
Doxycycline: 100 mg orally every 12 hours (bid) for 7 days If the client has missed 2 consecutive doses of doxycycline within the first 5 days of treatment, or has not completed a full five consecutive days of treatment, (Doxycycline at 100 mg po bid) then retreatment is indicated.

Onset of Action:
Oral: Administration on an empty stomach is not recommended.
Antacids may slow absorption of Doxycycline. Should be taken with a full glass of water.

Duration of Action:
Peak serum concentrations usually attained within 1.5-4 hours.
Half-life: 12-22 hours.

C) Antibiotics for Neisseria Gonorrhea

Cefixime as a single dose or Ceftriaxone plus amoxicillin or Azithromycin as a single dose are first choice treatments during pregnancy/lactation. If co-treatment for chlamydia is necessary, see section on chlamydia – pregnancy/lactation. Alternate treatment in pregnancy/lactation is Spectinomycin. Second choice treatments are Ceftriaxone and Azithromycin or Doxycycline.
Doxycycline is not to be used during pregnancy (see chlamydia trachomatis section)

Cefixime (Suprax®)
Ceftriaxone
Amoxicillin (Amoxil®, Polymox®, Trimox®)
Azithromycin (Zithromax®)
Doxycycline

Neisseria Gonorrhea is a reportable infection and is the second most common sexually transmitted bacterial infection in Canada. The infection may occur in the cervix, fallopian tubes, rectum, throat and urethra. Many individuals are asymptomatic and are unaware of infection. Early symptoms may be mild and may be mistaken for a bladder or mild vaginal infection. Screening during pregnancy should occur at the first prenatal visit and if positive, a test of cure should be repeated at 3-7 days post antibiotic completion of treatment for pregnant and/or breastfeeding clients. Timely treatment reduces the risk of symptomatic infection with its associated risks. Repeat screening is recommended at 6 months if client is at high risk of re-infection. Partners also need to be informed, and advised to see their health care provider for assessment, screening and treatment.

Untreated gonorrhea can lead to complications in the reproductive organs including difficulty getting pregnant, ectopic pregnancy or pelvic inflammatory disease. The infection if untreated can be passed to newborns during birth and may lead to blindness if untreated.

Cefixime

(Suprax®) An oral antibiotic of the cephalosporin class, related to penicillin. This drug has an extended spectrum of activity including about 95% coverage of E. Coli, which is the most common organism causing UTI in pregnancy.

Indications and Clinical Use:
Used for the treatment of asymptomatic or symptomatic Neisseira Gonorrhea in pregnancy and the postpartum as a first line treatment and as a single dose. Also used for the treatment of UTI in pregnancy as a second line for treatment of UTI in pregnancy due to concerns of developing resistance.

Contraindications:
Allergy to cephalosporin group of antibiotics.

Warnings and Precautions:
Chance of cross-reactivity is low (around 3%) if the patient is penicillin sensitive, however do not use it for highly allergic (eg. anaphylactic) patients. Use with caution in patients with colitis.

Alteration of GI flora may occur, as with all antibiotics, see *Probiotic Use with Antibiotic*s.

Pregnancy:
Compatible – Limited human pregnancy data do not suggest embryo or fetal risk.

Lactation:
No Data – probably compatible.

Adverse Reactions:
Diarrhea, gas, loose stools, nausea, and stomach upset.

Dosage and Administration:
Neisseria Gonorrhea:
Cefexime: 800mg orally as a single dose.
Administer with food if GI upset occurs.

Onset of Action:
Time to peak, serum: 2-6 hours; delayed with food.

Duration of Action:
Half-life elimination: 3-4 hours.

Ceftriaxone plus Amoxicillin (Amoxil®, Polymox®, Trimox®)

Ceftriaxone is an oral third generation broad spectrum semisynthetic cephalosporin antibiotic. Amoxicillin (refer to the Chlamydia Trachomatis section). See dosage below for treatment of Neisseira Gonorrhea.

Indications and Clinical Use:
Used for the treatment of asymptomatic or symptomatic Neisseira Gonorrhea in pregnancy and the postpartum in combination with Amoxicillin.

Contraindications:
Allergy to cephalosporin group of antibiotics.

Warnings and Precautions:
Chance of cross-reactivity is low (around 3%) if the patient is Penicillin sensitive, however do not use it for highly allergic (e.g., anaphylactic) patients. Use with caution in clients with colitis.

Alteration of GI flora may occur, as with all antibiotics, see *Probiotic Use with Antibiotic*s.

Pregnancy:
Compatible – Use during 1st trimester may be associated with cardiovascular defects.

Lactation:
Limited Data – compatible.

Adverse Reactions:
Adult - Diarrhea, allergic rash, thrush and/or colitis.
Breastfed infant – monitor for vomiting, diarrhea, rash and changes in gastrointestinal flora.

Dosage and Administration:
Neisseria Gonorrhea:
Ceftriaxone: 250 mg IM as a single dose plus
Amoxicillin: 500 mg orally every 8 hours (tid) for 7 days. (see write up on Amoxicillin in the Chlamydia Trachomatis section).

Onset of Action:
Time to peak, serum: 1 hour.

Duration of Action:
Half-life elimination: 7.3 hours.

Azithromycin (Zithromax®)

For medication details, please refer to write up for azithromycin in the chlamydia trachomatis section.

Dosage and Administration:
Neisseria Gonorrhea:
Azithromycin (Zithromax®) - if pregnant: 1 g orally in a single dose.
- if not pregnant: 2 g orally in a single dose.

Doxycycline

For medication details, please refer to Doxycycline in the Chlamydia Trachomatis section.

Dosage and Administration:
Neisseria Gonorrhea:
Doxycycline **-** if not pregnant: 100 mg orally every 12 hours (bid) for 7 days.

D) Antibiotics for Trichomoniasis

Metronidazole is the treatment of choice during pregnancy and lactation and is given orally in a single dose or over 7 days.

Trichomoniasis is a sexually transmitted infection caused by a protozoa called trichomonas vaginalis. Trichomoniasis may be associated with premature rupture of membranes, preterm birth and/or low birth weight. It is not known whether treatment will improve pregnancy outcomes however treatment should only be initiated during pregnancy if symptomatic. Follow up is not considered necessary unless recurring symptoms are likely due to re-infection. Partners also need to be informed, and advised to see their health care provider for treatment.

Metronidazole (Flagyl®)

For medication details, please refer to write up for metronidazole in the bacterial vaginosis section.

Dosage and Administration:

Tricomoniasis:

Metronidazole (Flagyl®): 2 g orally in a single dose or 500 mg orally every 12 hours (bid) for 7 days.

References

BC Centre for Disease Control, 2015, British Columbia Treatment Guidelines: Sexually Transmitted Infections in Adolescents and Adults 2014. [online]. 2015. [Accessed 22 September 2015]. Available from: http://www.bccdc.ca/NR/rdonlyres/46AC4AC5-96CA-4063-A563-0BA9F4A0A6E9/0/CPS_BC_STI_Treatment_Guidelines_27082014.pdf

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