Assessment and Diagnostic Guideline: Sexually Transmitted Infections (STI)

Registered Nurses who hold Certified Practice designation (RN(C)) in **Reproductive Health (Sexually Transmitted Infections)** are authorized to manage, diagnose, and/or treat the following STI conditions:

- Chlamydia Trachomatis
- Neisseria Gonorrhea
- Mucopurulent Cervicitis
- Trichomoniasis
- Bacterial Vaginosis
- Urethritis
- Recurrent Urethritis
- Lower Urinary Tract Infection
- Genital Warts

In addition to the above conditions, RN(c)s with **Reproductive Health (Sexually Transmitted Infections)**, are authorized to treat contacts of sexually transmitted infections. This Guideline supports RN(C)s in conducting assessments and screening and/or diagnostic tests to manage, diagnose, and treat STI conditions under the Certified Practice framework. A glossary of terms can be found in *Appendix A*.

RN(C)s must ensure they complete and document their clinical reasoning through assessments according to regulatory practice standards and their practice setting requirements.

Within the scope of nursing practice with clients of all genders experiencing or at risk for STI, comprehensive assessment includes a sexual health history, a risk assessment, a physical assessment, and screening and/or diagnostic tests. Use of an interpreter is recommended in instances where the clinician does not adequately speak the language of the client.

Guided by three foundational principles, this document applies an equity lens to STI assessment. Through these three principles, the DST takes a new direction towards accommodating and providing more equitable, inclusive, and affirming care for all clients, especially for transgender, gender-diverse, sexually diverse and two-spirit peoples. This is of particular importance as inequities are associated with negative stereotypes often leading to higher rates of STIs and non-disclosure of information. As a consequence, this may hinder relevant testing, diagnosis, treatment, and the provision of targeted client education. The principles below aim to direct clinician-consideration of the diversity in bodies, of the client, their culture, their gender, their sexuality, and their context-specific needs when providing services.

- Cultural safety that is trauma- and violence-informed
- Knowledge and understanding of the burden of disease as it relates to the social determinants of health (SDOH) and syndemics
- Creative and flexible service provision

The decision to perform a sexual health history may be client-initiated (e.g., client-request, client-reported symptoms, or concerns) or clinician-initiated. If a pelvic examination is required as part of the physical assessment, RN(C)s must follow PHSA's *Pelvic Exam DST* (indicated for clients aged 14 years and up). The following criteria apply when providing STI certified practice care:

- Consultation and/or referral with a physician or nurse practitioner (NP) is required for:
  - All clients 11 years and under
  - Symptomatic clients aged 12-13 years
  - All pregnant clients
  - All breast/chest-feeding clients, depending on required and recommended treatment (see *Consultation and/or Referral* section of the applicable DST)

Visual Summary of Guideline

1

STI History (pages 3-5)

- Factors associated with STI acquisition
- Signs and symptoms associated with STIs
- Sexual health history
- Risk assessment

2

Physical Assessment (when indicated) (page 6)

- Head to toe
- Additional physical assessments

3

Screening and Diagnostic Tests (pages 6-12)

- Methods of specimen collections
- Site-based STI testing options

STI History

Factors Associated with STI Acquisition

Listed below are factors associated with STI acquisition based on syndemic and epidemiological data, and/or social conditions that sustain vulnerability and likelihood of exposure to STI.

- Any sexual activity with blood and/or body fluid exchange
- Any sexual activity with skin-to-skin contact
- Non-use or failure of barriers for oral, genital, and/or anal sex (e.g., condoms, dental dams, etc.)
- Sharing sex toys without condoms and/or not cleaning between use
- Sexual activity where there is possibility of oral-fecal transmission (e.g., rimming, anal play, etc.)
- Previous history of STI
- Sexual contact with someone with an STI
- Anonymous sexual partner(s) (e.g., internet, bath house, play parties, etc.)
- Trade of money, goods, drugs, food, and/or shelter for sex
- Rough sex causing mucosal tearing
- Survivors of sexual assault and sexual abuse
- Sexually active youth under 25 years of age
- Substance use, such as alcohol or chemicals, in association with having sex
- Sharing drug use paraphernalia: pipes, intra-nasal, and injecting equipment

Signs and Symptoms Associated with STIs

- Often asymptomatic presentation
- Abnormal urethral, genital and/or rectal discharge
- Pain with intercourse (dyspareunia)
- Urinary abnormality – dysuria, frequency, urgency, colour, odour
- Anogenital irritation and inflammation
- Anogenital lesions
- Bleeding with intercourse or between menstrual cycles
- Fever, lower back pain, deep dyspareunia

Sexual Health History

A sexual health history is the first component of a comprehensive assessment. When conducting a sexual health history, it is necessary to consider the potential for past and present experiences of bias, judgement, violence, and trauma, both from an interpersonal and a systemic perspective. Assessments are tailored-based on the information a client discloses (implicit or explicit) about their experiences, exposures, sexual activities, and other risk identifiers.

The sexual health history focuses on information relevant to sexual health, and may include:

- Client concerns
- Demographic information and methods of contacting client
- Assessment of signs and symptoms
- Onset
- Duration and frequency
- Location
- Symptom radiation to adjacent areas

- Severity
- Precipitating and aggravating factors
- Relieving factors
- Associated symptoms
- Effects on daily activities
- Previous diagnosis of similar episodes and/or infections (STI, HBV, HCV, HIV, etc.)
- Previous treatments and outcomes
- Immunization history (e.g., hepatitis A, B and HPV)
- Recent antibiotic use (i.e., date of last dose, reason for use)
- Other medications: prescription and over the counter (OTC)
- Allergies (e.g., latex, antibiotics, and other medications)
- Medical conditions (i.e., renal or liver diseases, GI disease, cardiac, etc.)
- Sexual contact(s)
- Barrier use (e.g., condoms, dental dams, etc.)
- Body sites of possible exposure
- Sexual partners (number, sites of exposure, gender, and most recent sexual contact)
- Previous STI testing and results
- Previous HIV testing and results
- Drug and alcohol use/practices
- Named as an STI contact
- Surgical history (e.g., hysterectomy, vaginoplasty, metoidioplasty, genital cutting, etc.)
- Use of gender-affirming hormones
- Recent (within 28 days) history of sexual assault (refer to PHSA's *Prophylaxis Post Sexual Assault DST*)
- Previous and/or current use and/or knowledge of HIV post-exposure prophylaxis (PEP) and/or pre-exposure prophylaxis (PrEP)
- Reproductive health history
- Pap/cervical screening and results
- Date of last menstrual period
- Regularity of menses, signs and symptoms associated with menses, was last menses normal?
- Pregnancy (risk, intent or current)
- Contraception and emergency contraception (including satisfaction with contraception)
- Testicular health
- Breast/chest health

Risk Assessment

Building on information collected in the sexual health history, risk assessments provide information regarding the likelihood of exposure to STI. This type of assessment supports clinical judgment regarding:

- Screening and diagnostic tests
- Body sites for specimen collection
- Partner notification and referral services
- Client education
    - Risk assessments draw from essential knowledge regarding modes of STI transmission, and in particular, the relationships between modes of transmission, sites of exposure (e.g., rectum, oropharynx, genitals), and syndemic

evidence for specific populations. While sexual orientation and/or gender may be helpful to clarify sexual behaviours and sites of exposure, they should not be the primary means by which to inform clinical judgement. In and of themselves, they are not risk factors for STI acquisition.

In addition to sexual health history, components of the risk assessment include:

- Date of last sexual contact (to inform window periods and potential need for future testing) and whether this was consensual or not
- Frequency of partners and nature of relationship (e.g., casual, regular, anonymous, etc.)
- Gender of contacts (e.g., male, female, transgender, two-spirit, gender-diverse, unsure/questioning, prefer not to answer, etc.)
- Feasibility of contacting sexual partners should they require notification, testing and/or treatment
- How sexual contacts are met (e.g., internet, commercial sex establishments, mobile phone apps, bath houses, etc.) and safety measures when meeting
- Sexual and drug use practices of sexual contacts (if known)
- STI and HIV status of sexual contacts (if known)
- Possible exposure to blood borne infections (e.g., needle stick, shared drug paraphenalia) and/or accidental exposures (i.e., exposure to blood during a fight)
- Candidate for and/or client-request for HIV PrEP (see https://www.bccfe.ca/hiv-pre-exposure-prophylaxis-prep)
- Candidate for PEP with high-risk exposure within past 72 hours (see https://www.bccfe.ca/post-exposure-prophylaxis)

Physical Assessment (when indicated)

The physical assessment is a head-to-toe approach in which the clinician uses inspection and palpation to assess potential sites of infection. Physical assessment may include:

- Inspection of the mouth and throat (e.g., for lesions, redness, swelling)
- Inspection of the trunk, forearms and palms (e.g., for signs of rash, lesions)
- Inspection of external genital, pubic, and perianal areas (e.g., for bleeding, discharge, irritation, lesions, rash, etc.)
- Palpation of the inguinal nodes (for swelling/tenderness)

Additional Physical Assessments

Penile and Scrotal Anatomy (if applicable)

- Inspection of urinary meatus for:
  - Redness and/or swelling
  - Discharge (e.g., mucoid, mucopurulent, purulent)
- Palpation of testicles for tenderness or abnormal lumps
- If the client is symptomatic or urethral discharge is noted at the meatus, refer to applicable *Care and Treatment Plan* and the Site-based STI Testing Options table in this document.

Vulvar and Vaginal Anatomy (if applicable)

For internal pelvic exams, refer to PHSA's *Pelvic Exam DST.*

- Inspect vulva (e.g., redness, swelling, lesions, etc.), introitus, and vagina (e.g., redness, swelling, lesions, hypergranulation)
- Assess vaginal discharge for:
  - Amount, consistency, colour, and odour (e.g., copious, mucoid, purulent, thick, frothy, malodorous, amine odour)
  - pH if indicated
  - Presence of foreign object (i.e., tampon, condom, drugs, etc.)
- Bimanual exam:
  - Cervical motion tenderness (CMT)
  - Adnexal tenderness and or masses
  - Fundal tenderness and or fullness

Screening and Diagnostic Tests

As part of routine screening, all clients should be offered gonorrhea, chlamydia, syphilis, and HIV testing. In addition to this routine screening, further diagnostic testing is completed based on a client's sexual health history, risk assessment, and presentation of symptoms, such as abnormal genital/urethral symptoms (e.g., discharge, irritation), genital ulcers, lesions, and the sites of the body potentially exposed to infection.

For hepatitis serology refer to *Appendix B: Hepatitis A, B, & C Serology*.

Methods of Specimen Collections

1. Throat swabs

- Clinician- or client-collected

2. Urine specimens

GC/CT and/or trichomonas vaginalis (T. vaginalis or TV) (for further information on testing requirements, refer to *DST 909: Care and Treatment Plan – Trichomoniasis)*

- Client should not have voided in the previous 1-2 hours
- Collect approximately 10-20ml of first-pass urine
- Used when cervical or vaginal specimens are not desired or appropriate
- Preferred for clients who have undergone vaginoplasty or hysterectomy
- Urine dipstick, urinalysis (micro and/or macroscopic), and/or urine culture & sensitivity (C&S) as indicated by the *DST 910: Care and Treatment Plan – Uncomplicated Lower UTI*
- Urine pregnancy test if indicated

3. Urethral specimens

- When visible discharge is present at the meatus, collect discharge (ask client to *milk* if necessary); insertion of the swab into the urethra is not required

Collect smear for typical intracellular diplococci (TID) and polymorphonuclear leukocytes (PMNs) (if immediate microscopy available) and GC C&S, for symptomatic clients with visible meatal discharge

4. Vaginal specimens

- Clinician- or client-collected
- Depending on agency lab kits, validation, and facility guidelines, any of the following diagnostic tests may be used for vaginal specimens:
  - Nugent score/gram stain for bacterial vaginosis (BV)
  - Vaginal smear for BV and yeast
  - Gram stain or culture for yeast and/or *T. vaginalis*
  - *T. vaginalis* NAAT
  - *T. vaginalis* antigen detection (if available)
  - *T. vaginalis* C&S (if applicable)
  - Wet-mount of *T. vaginalis*; wet-mount and/or clue cells, BV, and/or yeast if immediate microscopy available
  - GC/CT NAAT
  - Vaginal pH
  - Vaginal KOH whiff test (if available, see *Safe Use of 10% Potassium Hydroxide in STI Screening* located in the *BCCDC Communicable Disease (CD) Manual Chapter 5: Sexually Transmitted Infections*)
- Vaginal specimens are indicated with any of the following:
  - Abnormal odour

- Abnormal vaginal discharge
- Vaginal irritation and/or inflammation
- Symptoms of pelvic inflammatory disease (PID)
- Clients determined to be at potential higher risk (based on risk assessment)

5. Cervical Specimens

- May be indicated in the following:
  - Pap/cervical screening test
  - Symptoms (e.g., lesion)
  - GC C&S
  - Pelvic or internal exam

6. Rectal Swabs

- Clinician- or client-collected

Site-Based STI Testing Options

Certified Practice Testing Options for Site-Based STI Screening

All clients testing for STIs should be offered tests for the following:

- Gonorrhea (GC)
- Chlamydia (CT)
- syphilis
- HIV

Site	Asymptomatic	Symptomatic	Notes
Throat	GC/CT NAAT (when indicated; see notes)	GC C&S	Collect C&S first, then NAAT for contacts to GC (asymptomatic and symptomatic clients).
		GC/CT NAAT	Indicated for clients who have given oral sex on a penis.
Site	**Asymptomatic**	**Symptomatic**	**Notes**
Penile urethra (with or without phalloplasty or metoidioplasty with urethral lengthening)	GC/CT NAAT urine	GC C&S	Collect visible discharge from the meatus (ask client to *milk* if necessary); insertion of the swab into the urethra is *not* required.
		Smear (of meatal discharge) for TID and PMN	Recommended but may not be offered in all clinical settings (only where immediate microscopy is available).
		GC/CT NAAT urine	

Site	Asymptomatic	Symptomatic	Notes
Vagina with cervix Refer to PHSA's non-certified practice, *Pelvic Exam DST.*	GC/CT/Trich NAAT: vaginal (Preferred) OR cervical OR urine Pap/cervical screening if indicated	GC C&S: cervical (preferred) OR vaginal	Collect C&S first, then NAAT for contacts to GC (asymptomatic and symptomatic clients).
		GC/CT/Trich NAAT vaginal (preferred) OR cervical OR urine	
		T. vaginalis NAAT vaginal (preferred) OR cervical OR urine	Samples that are obtained for *T. vaginalis* NAAT and processed by the BCCDC Public Health Laboratory (BCCDC PHL), will be done using the same sample (cervical/vaginal swab or urine) submitted for GC and CT testing. NB: refer to *DST 909: Care and Treatment Plan: Trichomoniasis* for further testing options if indicated
		Vaginal smear for BV and yeast	*If on testosterone*: Refer for comprehensive yeast and bacterial culture. *If not on testosterone*: Nugent score/gram stain or clue cells (Amsel's Criteria).
		Vaginal pH	pH strips are ineffective in the presence of blood.
		Vaginal KOH whiff test	For BV, clinical diagnosis can be by either a positive KOH whiff test OR if obvious amine odour in the absence of such a test.
		Testing options if applicable/indicated:	
		Urine dipstick and/or urinalysis with suspected lower UTI	Refer to *DST 910: Care and Treatment Plan: Uncomplicated Lower UTI* to rule-out complicated lower UTI for consultation/referral information. If pt is menstruating, RBCs will be inaccurate.
		Pap/cervical screening	Cannot do when patient is menstruating.
		Urine pregnancy test	Consider window periods. Possible false positive within 4 weeks of therapeutic abortion, spontaneous abortion, and delivery.

Site	Asymptomatic	Symptomatic	Notes
Vaginal after total hysterectomy (no cervix) Refer to PHSA's non-certified practice *Pelvic Exam DST* and the *BCCA Screening for Cancer of the Cervix* to determine recommendations for clients with removal of cervix.	GC/CT/Trich NAAT: urine (preferred) OR vaginal	GC C&S: vaginal	Collect C&S first, then NAAT for contacts to GC (asymptomatic and symptomatic clients).
		GC/CT/Trich NAAT: urine (preferred) or vaginal	
		T. vaginalis NAAT (if not done with GC/CT) vaginal OR urine	Samples obtained for *T. vaginalis* NAAT, and processed by the BCCDC PHL, will be done using the same sample (cervical/vaginal swab or urine) submitted for GC and CT testing. NB: Refer to the *DST 909:Care and Treatment Plan: Trichomoniasis* for further testing options.
		Vaginal smear for BV and yeast	*If on testosterone*: Refer for comprehensive yeast and bacterial culture. *If not on testosterone*: Nugent score/gram stain or clue cells (Amsel's Criteria).
		Vaginal pH	pH strips are ineffective in the presence of blood.
		Vaginal KOH whiff test	For BV, clinical diagnosis can be by either a positive KOH whiff test OR obvious amine odour in the absence of such a test.
		Testing options if applicable/indicated	
		Urine dipstick and/or urinalysis with suspected lower UTI	Refer to *DST 910: Care and Treatment Plan: Uncomplicated Lower UTI* to rule-out complicated lower UTI for consultation/referral information.
Site	**Asymptomatic**	**Symptomatic**	**Notes**
Vagina after vaginoplasty If pain, discharge, or bleeding occur in the early post-operative period, consult with an experienced clinician:	GC/CT/Trich NAAT urine	GC/CT/Trich NAAT urine	
		T. vaginalis NAAT (if not done with GC/CT NAAT) urine	Samples that are obtained for *T. vaginalis* NAAT, and processed by the BCCDC PHL, will be done using the same sample (urine) submitted for GC and CT testing.

• **RACE line**: 604.696.2131 or toll-free 1.877.696.2131; select "Transgender Health" • **Trans Care BC**: 1.866.999.1514 or transcareteam@phsa.ca		**Testing options if applicable/indicated**	
		Urine dipstick and/or urinalysis with suspected lower UTI	Refer to *DST 910: Care and Treatment Plan: Uncomplicated Lower UTI* to rule-out complicated lower UTI for consultation/referral information.
		Refer and/or consult for comprehensive yeast and bacterial culture	Clients who have had vaginoplasty require a comprehensive yeast and bacterial culture to diagnose bacterial vaginosis.
Site	**Asymptomatic**	**Symptomatic**	**Notes**
Rectum	GC/CT NAAT	GC C&S	Collect C&S first, then NAAT for contacts to GC (asymptomatic and symptomatic clients).
		GC/CT NAAT	Indicated for clients who have had receptive anal penetration (including penetrative sex with toys).
		HSV PCR	
Site	**Asymptomatic**	**Symptomatic**	**Notes**
Genital and/or oral ulcers or lesions Note: All syphilis lesion specimens should be accompanied by serology (see below).		HSV PCR swab of the lesions(s)	
		CT NAAT for LGV	Refer to a physician or NP for all clients who present with suspected LGV.
		Syphilis PCR (for oral or genital lesions) swab of the lesion(s)	Write "for T. Pallidum PCR" on the requisition.
		Direct fluorescent antibody testing (DFA) (not appropriate for oral lesions)	Secretions from a lesion mounted onto a slide and sent to the lab for examination.
		Dark-field microscopy	Only available at specific sites.
Site	**Asymptomatic**	**Symptomatic**	**Notes**
Venipuncture (blood draw)	Syphilis EIA	Syphilis EIA	Serology for syphilis screening is indicated on the lab requisition as syphilis (non-prenatal), syphilis antibody TPE. The diagnostic platform is an enzyme immune assay (EIA). If the EIA is reactive, further

			confirmatory testing will be automatically completed by the lab.
	HIV Ag/Ab (4th generation)	HIV (Ag/Ab 4th generation)	If acute HIV infection is suspected, contact the medical microbiologist on call at BCCDC (604.661.7033) to discuss if HIV RNA testing is an option.
	HIV point-of-care (POC) (Ab 3rd generation)	HIV POC (Ab 3rd generation)	POC involves finger-prick blood specimen (not venipuncture per se); see *BC Point of Care HIV Testing Program* website for further information.
		HSV IgG; HSV type-specific serology (TSS)	Please refer to the *Herpes Simplex Virus (HSV) DST* for more information and specific indications in serologic screening for the following: HSV IgG: Indicates HSV antibodies only and does not differentiate between HSV 1 and HSV 2 HSV TSS: some areas may have access to HSV TSS through their local labs (generally there is a fee charged to clients by the lab for this test).

References

More recent editions of any of the items in the References List may have been published since this DST was published. If you have a newer version, please use it.

Atashili, J., Poole, C., Ndumbe, P.M., Adimora, A.A. & Smith, J.S. (2008). Bacterial vaginosis and HIV acquisition: A mete-analysis of published studies. *AIDS*, 22(12), pp.1493-1501.

Australasian Sexual Health Alliance (ASHA). (n.d.). *Australian STI management guidelines for use in primary care*.

Australasian Sexual Health Alliance (ASHA). (2016). Australian STI management guidelines for use in primary care: Bacterial vaginosis

Australasian Sexual Heatlh Alliance (ASHA). Chlamydia. 2016. In: *Australian STI Management Guidelines*

Australasian Sexual Heatlh Alliance (ASHA). (2016). Cervicitis. In: *Australian STI Management Guidelines for Use in Primary Care* [Internet].

Bachmann, L.H., Johnson, R. E., Chen, H., Markowitz, L., Papp, J. R., Palella, J., Hook, E. W. (2010). Nucleic acid amplification tests for diagnosis of Neissieria gonorrhoeae and Chlamydia trachomatis rectal infections. *Journal of Clinical Microbiology*. 48(5):1827.

Barbee, L.A., Kerani, R.P., Dombrowski, J.C., Soge, O. & Golden, M.R. (2013). A retrospective comparative study of 2-drug oral and intramuscular cephalosporin treatment regimens for pharyngeal gonorrhea. *Clinical Infectious Diseases*, 56(11), pp.1539-1545.

Bauer, G. R., Hammond, R., Travers, R., Kaay, M., Hohenadel, K. M., & Boyce, M. (2009). "I don't think this is theoretical; this is our lives": How erasure impacts health care for transgender people. *Journal of the Association of Nurses in AIDS Care, 20*(5), pp.348-361.

Baumann, L.S. (2016). Update on green tea. *Dermatology News,* 47, p.26.

Bauman, D. (2012). Diagnostic methods in pediatric and adolescent gynecology. *Endocrine Development, 22*, p. 2240-2255. doi: 10.1159/000326633.

Bradshaw, C.S., Chen, M.Y., et al. (2008). Persistence of *Mycoplasma genitalium* following azithromycin therapy. *PLoS One,* 3(11), p.e3618.

Bradshaw, C.S. & Brotman, R.M. (2015). Making inroads into improving treatment of bacterial vaginosis: Striving for long-term cure. BMC Infectious Diseases.15; p.292.

Bell, C., Hough, E., Smith, A., Greene, L. (2007). Targeted screening for *Trichomonas vaginalis* in women, a pH-based approach. *International Journal of STD & AIDS.* (18) pp.402-403.

British Columbia Centre for Disease Control (BCCDC). (2014). *British Columbia treatment guidelines. Sexually transmitted infections in adolescent and adults*. STI/HIV Prevention and Control Division, B.C. Centre for Disease Control.

BCCDC. (2009). *Communicable Disease Manual: Chapter 2: Immunization Program.* Vancouver: BCCDC.

BCCDC. (2011). Safe Use of 10% Potassium Hydroxide in STI Screening. In: *BCCDC Communicable Disease Manual: Chapter 5*.

BCCDC. (2013). BCCDC's videos on injection landmarking and technique. BCCDC.

BCCDC. (2013). *Vaccine administration*. BCCDC.

BCCDC. (2014). *British Columbia treatment guidelines: Sexually transmitted infections in adolescent and adults*. STI/HIV Prevention and Control Division, BCCDC.

BCCDC. (2016). Management of specific infections. Hepatitis C. *Communicable Disease Control Manual*.

BCCDC. (2015). *Antimicrobial Resistance Trends in the Province of British Columbia 2014*.

BCCDC. (2017). Management of specific infections. Hepatitis B. *Communicable Disease Control Manual*.

BCCDC. (2018). Management of specific infections. Hepatitis A. *Communicable Disease Control Manual*. Not yet released.

BCCDC Public Health Laboratory (BCCDC PHL). (2016). *PHSA Laboratories Guide to Programs and Services*. Vancouver, BC.

BCCDC Public Health Laboratory (BCCDC PHL). (2016). *Laboratory trends*. Vancouver, BC.

British Columbia Centre for Excellence in HIV/AIDS (BC-CfE). (2017a). *HIV post-exposure prophylaxis (PEP) Guidelines*.

BC-CfE. (2017b). *Guidance for the use of pre-exposure prophylaxis (PrEP) for the prevention of HIV acquisition in British Columbia*.

British Columbia Public Health Microbiology & Reference Laboratory (BPHMRL). (2014). *Automated Syphilis Screening Implementation*.

British Columbia Medical Association & BC Ministry of Health Services. (2009). Macroscopic and microscopic urinalysis and the investigation of UTI. In: *BC Guidelines.* BC Ministry of Health Guidelines and Protocols Advisory Committee.

BCCNP. (2018). *Scope of Practice Standards for Registered Nurses*.

British Columbia College of Nursing Professionals (BCCNP). (2014). *Competencies for CRNBC Certified Practice: Reproductive Health – Sexually Transmitted Infections*.

British Association for Sexual Health and HIV (BASHH). (n.d.). *BASHH guidelines*.

British Association for Sexual Health and HIV (BASHH). (2012). UK national guideline for the management of bacterial vaginosis

British Association for Sexual Health and HIV (BASHH). (2015). *UK National guidelines on the management of anogenital warts*. pp.1-24.

Briggs, G.G., Freeman, R.K. & Yaffe, S.J. (2001). *Drugs in pregnancy and lactation: A reference guide to fetal and neonatal risk*. 6th ed. Philadelphia: Lippincott Williams & Wilkins.

Brook, G. et al. (2013). 2013 UK national guideline for consultations requiring sexual history taking. *International Journal of STD & AIDS, 0*(0), p. 1-14.

Blondel-Hill, E., & Fryters, S. (2006). *Bugs & Drugs*. Capital Health.

Brunk, D. (2016). Expert shares treatment tips for molluscum contagiosum and warts. *Pediatric News, 50,* p.S12+.

Car, J. (2006). Urinary tract infections in women: diagnosis and management in primary care. *BMJ,* 332, pp.94-97

CDC. (2013). *Human papillomavirus (HPV) and oropharyngeal cancer*.

CDC. (2015). *Sexually transmitted diseases treatment guidelines*.

CDC. (2015). Anogenital warts. In 2*015 Sexually Transmitted Diseases Treatment Guidelines*.

CDC. (2015). Chlamydia infections. In: 2*015 Sexually Transmitted Diseases Treatment Guidelines*. Atlanta, GA; [55-9].

CDC. (2015). HPV-associated cancers and precancers. In *2015 Sexually Transmitted Diseases Treatment Guidelines.*

CDC. (2015). Human papillomavirus (HPV) infection. In *2015 Sexually Transmitted Diseases Treatment Guidelines*.

CDC. (2015). Urethritis. *2015 Sexually Transmitted Diseases Treatment Guidelines*. Atlanta, GA.

CDC. (2015). Trichomoniasis - diseases characterized by vaginal discharge. In: *2015 Sexually Transmitted Diseases Treatment Guidelines.*

Centre of Excellence for Transgender Health (CoE). (2016). *Guidelines for the primary and gender-affirming care of transgender and gender nonbinary people*.

Centers for Disease Control (CDC). (2015). Diseases characterized by urethritis and cervicitis. In: *2015 Sexually Transmitted Diseases Treatment Guidelines [Internet]*. Atlanta, GA.

Cervical Cancer Screening Program & BC Cancer Agency. (2017). *Screening for cancer of the cervix: An office manual for health care providers*.

Coleman, J.S., Gaydos, C.A. & Witter, F. (2013). *Trichomonas vaginalis*: Vaginitis in obstetrics and genecology practice: New concepts and controversies. *Obstet Gynecol Surv*, 68(1), pp.43-50.

Cheikhelard. A., Chaktoura, Z., Thibaud, E. (2012). Gynecologic clinical examination of the child and adolescent. Endocrine Development, 221-10.

Christiaens, T., De Meyere, M., Verscdhraegan, G. Peersman, W., Heytens, S., & De Maeseneer, J. (2002). Randomized controlled trial of nitrofurantoin versus placebo in the treatment of uncomplicated urinary tract infection in women. *British Journal of General Practice,* pp.729-734.

Denny, L. (2016). Epidemiology and burden of disease associated with HPV infection. *Current Obstetrics and Gynecology Reports, 5*(3), pp.189-195. doi: 10.1007/s13669-016-0174-y.

Dorland, W.A. (1994). Cystitis. In: *Dorland's Illustrated Medical Dictionary* (28th ed). W.B. Saunders Company.

Forcey, D.S., Vodstrcil, L.A., Hocking, J.S., Fairley, M.L., McNair, R.P. & Bradshaw, C.S. (2015). Factors associated with bacterial vaginosis among women who have sex with women: A systematic review. *PLoS One* **10**(12): e0141905-e0141905.

Fihn, S. (2003). Acute uncomplicated urinary tract infection in women. *The New England Journal of Medicine,* 349, pp.259-26.

Gravitt, P.E. (2011). The known unknowns of HPV natural history. *Journal of Clinical Investigation*, 121(12), pp.4593-4599. doi: 10.1172/JCI57149.

Grennan, T. (2017). *Update on syphilis testing via polymerase chain reaction (PCR)*. Email distribution of practitioner alert, BC Centre for Disease Control.

Grude, N., Tveten, Y., Jenkins, A., & Kristiansen, B. (2005). Uncomplicated urinary tract infections: Bacterial findings and efficacy of empirical antibacterial treatment. *Scandinavian Journal of Primary Health Care, (23)*, pp.115-119.

Gupta, K., Hooton, T., Naber, K., Wullt, B., Colgan, R., Miller, L., Moran, G., Nicolle, L., Schaeffer, A., & Soper, D. (2011). *International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases*

Hanno, P. M., Erickson, D., Moldwin, R., Faraday, M. M., & American Urological Association. (2015). Diagnosis and treatment of interstitial Cystitis/Bladder pain syndrome: AUA guideline amendment. *Journal of Urology, the, 193*(5), 1545-1553

Hathorn, E., Ng, Andrea., Page, M., Hodson, J., Gaydos, C., Ross, J.D. (2015). A service evaluation of the Gen-Probe Aptima nuclei acid amplification test for *Trichomonas vaginalis*: should it change whom we screen for infection? *Sexually Transmitted Infections 91*(2); pp.81-86.

Heczk, P.B., Tomusiak, A., Adamski, P., Jakimiuk, A.J., Stefański, G., Mikołajczyk-Cichońska, A., Suda-Szczurek, M. & Strus, M. (2015). Supplementation of standard antibiotic therapy with oral probiotics for bacterial vaginosis and aerobic vaginitis: A randomised, double-blind, placebo controlled trial. BMC Women's Health. 15:115.

Heng, M., & Greenwald, J. (2007). *The Toronto note 2007 clinical management handbook*. Toronto, Canada; Toronto Notes for Medical Students, Inc.

Hegazy, M.M., El-Tantawy, N.L., Soliman M.M., El-Sadeek, E.S. & El-Nagar, H.S. (2012). Performance of rapid immunochromatographic assay in the diagnosis of *Trichomonas vaginalis*. *Diagnostic Microbiology Infectious Disease*, 74(1), pp.49-53.

Helms, D. J., Mosure, D. J., Metcalf, C. A., Douglas, J. M., Malotte, C. K., Paul, S. M., Peterman, T. A. (2007). Risk factors for prevalent and incident *Trichomonas vaginalis* among women attending three sexually transmitted disease clinics. *Sexually Transmitted Diseases*. (35) 5 pp.484-488.

Hoebeke, P., Selvaggi, G., Ceulemans, P., De Cuypere, G., T'Sjoen, G., Weyers, S., & Monstrey, S. (2005). Impact of sex reassignment surgery on lower urinary tract function. *European Urology, 47*(3), p. 398-402.

Hooton, T., & Stamm, W. (2009). *Acute cystitis in women*.

Hooton, T. M., & Gupta, K. (2013). Recurrent urinary tract infection in women. In: *D.S. Basow (Ed.)*. UpToDate.

Horner, P.J., Blee, K., O'Mahony, C., Muir, P., Evans, C. & Radcliffe, K. (2015). UK national guideline on the management of non-gonococcal urethritis. *Int J STD AIDS*, pp.1-12.

Hottes, T.S., Lester, R.T., Hoang, L., McKay, R., Gilbert, M., Patrick, D.M., Wong, T., Martin, R. & Ogilvie, G. (2013). Cephalosporin and azithromycin susceptibility in *Neissieria gonorrheoeae* isolates by site of infection, British Columbia, 2006 to 2011. *Sexually Transmitted Diseases*, 40(1), pp.46-51.

Holmes, K., Sparling, P., Stamm, W., Piot, P., Wasserheit, J., Corey, L., Cohen, M. & Watts, H. (2008). Sexually transmitted disease (4th ed). Toronto, ON: McGraw Hill Medical.

Hutter, J. & Decker, C. (2016). Human papillomavirus infection. *Disease-a-Month, 62*, pp.294-300. doi: 10.1016/j.disamonth.2016.03.014.

Huppert, J.S., Joel, E., Mortensen, J.L., Reed, J.K., Kimberly, D., William, R., Miller, C. & Hobbs, M. (2007). Rapid antigen testing compares favourably with transcription-mediated amplification assay for the detection of *Trichomonas vaginalis* in young women. *Clinical Infectious Diseases*, (45), pp.194-198.

Jain, A. & Bradbeer, C. (2007). Recurrent bacterial vaginosis of neovagina after gender reassignment surgery. *International Journal of STD & AIDS, 18*, pp.140-141.

Jackson, M. (2007). Evidence-based practice for evaluation and management of female urinary tract infection. *Urologic Nursing, 27(2),* pp.133-136.

Jensen, B., & Regier, L. (2008). *The Rx Files. Drug Comparison Charts*. 7th Edition. Rx Files.

Katchman, M., Christiaens, T., Baerheim, A., & Leibovici, L. (2009). Duration of antibacterial treatment for uncomplicated urinary tract infection in women (Review). *The Cochrane Library* (3). The Cochrane Collaboration. John Wiley & Sons Ltd.

Klebanoff, M.A., Carey, J.C., Hauth, J.C., et al. (2001). Failure of metronidazole to prevent preterm delivery among pregnant women with asymptomatic *Trichomonas vaginalis* infection. *N Engl J Med*, 345, pp.487–493.

Lindroth, M. (2016). 'Competent persons who can treat you with competence, as simples as that' – An interview study with transgender people on their experiences of meeting health care professionals. *Journal of Clinical Nursing, 25,* pp.3511-3521.

Lunny, C., Taylor, D., Hoang, L., Wong, T., Gilbert, M., Lester, R. & Greub, G. (2014). Self-collected versus clinician-collected sampling for chlamydia and gonorrhoea screening: A systemic review and meta-analysis. *PLoS ONE*, 10(7), pp.1-23.

Machado, D., Castro, J. & Palmei, A. (2016). Bacterial vaginosis biofilms: Challenges to current therapies and emerging solutions. Frontiers in Microbiology. 6:1528

Madden, T., Grentzer, J.M., Secura, G.M., Allsworth, J.E., & Peipert, J.F. (2012). Risk of bacterial vaginosis in users of the intrauterine device: A longitudinal study. Sexually Transmitted Diseases. 39(3); pp.217-222.

Manhart, L.E., Gillespie, C.W., Lowens, M.S., Khosropour, C.M., Colombrara, D.V., Golden, M.R., Hakhu, N.R., Thomas, K.K. Hughes, J.P., Jensen, N.L. & Totten, P.A. (2013). Standard treatment regimens for nongonoccoccal urethritis have similar but declining cure rates: A randomized controlled trial. *Clinical Infectious Diseases*, 56(7), pp.934-942.

Marrazzo, J.M., & Martin, D.H. (2007). Management of women with cervicitis. *Clinical Infectious Diseases*, 44, pp.S102-S110.

Marrazzo, J., Wiesenfeld, H., Murray, P., Busse, B., Meyn, L., Krohn, M. & Hillier, S. (2006). Risk factors for cervicitis among women with bacterial vaginosis. *The Journal of Infectious Diseases*, *193*(5), pp.617-624.

Marrazzo, J. (2005). Mucopurulent cervicitis: no longer ignored, but still misunderstood. *Infectious Disease Clinics of North America*, 19(2), p.333.

Mehnert-Kay, S. (2005). Diagnosis and management of uncomplicated urinary tract infections. *American Family Physician,*72(3), pp.451-456.

Mullins, M.Z. & Trouton, K.M. (2015). BASIC study: is intravaginal boric acid non-inferior to metronidazole in symptomatic bacterial vaginosis? Study protocol for a randomized controlled trial. Mullins and Trouton Trials (2015). 16:315 DOI 10.1186/s13063-015-0852-5.

Nicolle, L., Anderson, P., Conly, J., Mainprize, T., Meuser, J., Nickel, J., Senikas, V., & Zhanel, G. (2006). Uncomplicated urinary tract infection in women. *Canadian Family Physician,* (52), pp.612-618.

Nosseir, S. B., Lind, L. R., & Winkler, H. A. (2012). Recurrent uncomplicated urinary uract infections in women: A review. *Journal of Women's Health,* (15409996), 21(3), pp.347-354.

Nyirjesy, P. (2014). Management of persistent vaginitis. Obstetrics and Gynecology. 124:6

Papp, J. et al. (2014). Recommendations for the laboratory-based detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae. Morbidity and Mortality Weekly Report*, 63(1).

Pattman, R., Snow, M., Handy, P., Sankar, K.N. & Elawad, B. (2005). *Oxford Handbook of Genitourinary Medicine, HIV, and AIDS*, 1st Edition, Copyright (c) 2005 Oxford University Press.

Park, I., Introcaso, C. & Dunne, E. (2015). Human papillomavirus and genital warts: a review of the evidence for the 2015 Centers for Disease Control and Prevention sexually transmitted diseases treatment guidelines. *Clinical Infectious Diseases*, 61(suppl 8), pp.S849-S855. doi: 10.1093/cid/civ813.

Passmore, J. & Williamson, A. (2016). Host immune responses associated with clearance or persistence of human papillomavirus infections. *Current Obstetrics and Gynecology Reports*, 5(3), pp.177-188. doi: 10.1007/s13669-016-0163-1.

Petrosky, E., Bocchini Jr., J.A., Hariri, S., Chesson, H., Curtis, C.R., Saraiya, M. & Markowitz, L.E. (2015). Use of 9-valent human papillomavirus (HPV) vaccine: Updated HPV: vaccination recommendations of the advisory committee on immunization practices. *Morbidity and Mortality Weekly Report*, 64(11), p.300.

Petricevic, L., Kaufmann, U., Domig,K., Kraler, M., Marschalek, J., Kneifel W. & Kiss, H. (2014). Molecular detection of *lactobacillus* species in the neovagina of male-to-female transsexual women. *Scientific reports, 4*(3746), pp.1-4.

PHAC. (2010). Vaginal discharge (bacterial vaginosis, vulvovaginal candidiasis, trichomoniasis). In: Canadian guidelines on sexually transmitted infections

PHAC. (2010). Section 4 – Management and treatment of specific syndromes: Urethritis. In: *Canadian guidelines on sexually transmitted infections*

PHAC. (2013). Urethritis. In: *Canadian guidelines on sexually transmitted infections*

PHAC. (2013). Gonococcal infections. In: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2013). Chlamydial infections. In: *Canadian Guidelines on Sexually Transmitted Infections*.

PHAC. (2014). Supplementary statement for recommendations related to the diagnosis, management, and follow-up of vaginal discharge. In: Canadian guidelines on sexually transmitted infections.

PHAC. (2014). Supplementary statement for recommendations related to the diagnosis, management, and follow-up of urethritis. In: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2014). *Canadian guidelines on sexually transmitted infections* (Revised October, 2014). Section 6 - Specific Populations.

PHAC. (2014). Human papillomavirus (HPV) infections. In: *Canadian Guidelines on Sexually Transmitted Infections*. Ottawa, ON.

PHAC. 2016 updates summary in: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2016). *Canadian guidelines on sexually transmitted infections* (Revised December, 2016).

PHAC. 2016. Laboratory Diagnosis of Sexually Transmitted Infections – Revised December 2016. In *Canadian guidelines on sexually transmitted infections*.

PHAC. (2017). 2016 Updates Summary. In*: Canadian guidelines on sexually transmitted infections*.

PHAC. (2017). Treatment of N. gonorrhoeae in response to the discontinuation of spectinomycin: Alternative treatment guidance statement. In: *Canadian guidelines on sexually transmitted infections*.

PHAC. (2017). Supplementary statement for the management of Lymphogranuloma venereum (LGV) cases and contacts. In: *Canadian guidelines on sexually transmitted infections*.

Provincial Health Services Authority. (2017). *Caring for trans and gender diverse clients in BC: A primary care toolkit*.

Reichman O, Akins R & Sobel J (2009). Boric acid addition to suppressive antimicrobial therapy for recurrent bacterial vaginosis. Sexually Transmitted Diseases. 36:11.

Rich, A., et al. (2017). Sexual HIV risk among gay, bisexual and queer transgender men: Findings from interviews in Vancouver, Canada. *Culture, Health and Sexuality, 19*(11), pp.1197-1209.

Seyferth, E., Bratic, J. & Bocchini Jr., J. (2016). Human papillomavirus epidemiology and vaccine recommendations: selected review of the recent literature. *Current Opinion in Pediatrics*, 28(3), pp.400-406. doi: 10.1097/MOP.0000000000000354.

Stanley, M. (2016). Preventing cervical cancer and genital warts - How much protection is enough for HPV vaccines? *Journal of Infection*, 72, pp.S23-S28. doi: 10.1016/j.jinf.2016.04.018.

Stewart, C.M., Shoeman, S.A., Booth, A.R., Smith, S.D., Wilcox M.H., & Wilson, J.D. (2012). Assessment of self-taken swabs versus clinician taken swab cultures for diagnosing gonorrhoea in women: single centre, diagnostic accuracy study. *BMJ*, 34, p.e8107.

Shafer, M., Moncada, J., Boyer, C.B., Betsinger, K., Flinn, S.D. & Schachter, J. (2003). Comparing first-void urine specimens, self-collected vaginal swabs, and endocervical specimens to detect *Chlamydia trachomatis* and *Neisseria gonorrheoeae* by a nucleic acid amplification test. *Journal of Clinical Microbiology*, 41(9), pp 4395-4399.

Schacter, J., Moncada, J., Liska, S., Shayevich, C., Klausner, J. D. (2008). Nucleic acid amplification tests in the diagnosis of chlamydial and gonococcal infections of the oropharynx and rectum in men who have sex with men. *Sexually Transmitted Diseases, 35*(7), pp.637-642.

Schacter, J., McCormack, W.W., Chernesky, M.A., Martin, D. H., Van Der Pol, B., Rice, P., Chow, J.M. (2003). Vaginal Swabs are appropriate specimens for diagnosis of genital tract infection with *Chlamydia trachomatis*. *Journal of Clinical Microbiology*, *41*(8), pp.3784-3789.

Sherrard, J., Ison, C., Moody, J., Wainwright, E., Wilson, J., Sullivan, A. (2014). United Kingdom national guideline on the management of *Trichomonas vaginalis. International Journal of STI & AIDS, 25*(8), pp.541-549.

Shafer, M., Moncada, J., Boyer, C. B., Betsinger, K., Flinn, S. D., Schachter, J., (2003). Comparing first-void urine specimens, self-collected vaginal swabs, and endocervical specimens to detect *Chlamydia trachomatis* and *Neisseria gonorrheoeae* by a nucleic acid amplification test. *Journal of Clinical Microbiology,* 41 (9). pp.4395-4399.

Singer, M. & Clair, S. (2003). Syndemics and public health: reconceptualizing disease in bio-social context. *Medical Anthropology Quarterly, 17*(4), pp.423-441.

Stewart, C.M., Shoeman, S.A., Booth, A.R., Smith, S. D., Wilcox M. H., Wilson, J. D. (2012). Assessment of self-taken swabs versus clinician taken swab cultures for diagnosing gonorrheoea in women: single centre, diagnostic accuracy study. *BMJ* 2012; 34; e8107.

Society of Obstetricians and Gynecologists. (SOGC). (2008). Screening and management of bacterial vaginosis in pregnancy. *JOGC*, 211, pp.702

Society of Obstetricians & Gynecologist of Canada (SOGC). (2014). Best practices to minimize risk of infection with intrauterine device insertion. J Obstet Gynaecol Can 2014; 36 (3); pp.266–274.

Sobel, R. & Sobel, J.D. (2015). Metronidazole for the treatment of vaginal infections. Expert Opinion on Pharmacotherapy. 16:7; pp.1109-1115-708

Taylor, S., Lensing, S., Schwebke, J., Lillis, R., Mena, L., Nelson, A. & Lee, J. (2013). Prevalence and treatment outcome of cervicitis of unknown etiology. *Sexually Transmitted Diseases*, 40(5), pp.379-385.

Tanagho, E. A., McAninch, J. W. (1995). Smith's general urology. 14th Edition. Appleton & Lange. Norwalk, CT.

University of California San Francisco (UCSF) (2016). *Center of Excellence for Transgender Health, Guidelines for the primary and gender-affirming care of transgender and gender non-binary people*.

University of Washington. (2013). *The Practitioner's handbook for the management of sexually transmitted diseases*.

van Liere G., Hoebe C., Wolffs P., & Dukers-Muijrers, N. (2014). High co-occurrence of anorectal chlamydia with urogenital chlamydia in women visiting an STI clinic revealed by routine universal testing in an observational study: A recommendation towards a better anorectal chlamydia control in women. *BMC Infectious Diseases*, *14*(274), pp.1-7.

van Schalkwyk, J. & Yudin, M.H. (2015). Vulvovaginitis: screening for and management of trichomoniasis, vulvovaginal candidiasis, and bacterial vaginosis. Journal of Obstetrics and Gynaecology of Canada. 37(3); pp.266–274.

Verteramo, R., Calzolari, E., Degener, A. M., Masciangelo, R., Patella, A. (2008). *Trichomonas vaginalis* infection: Risk indicators among women attending for routine gynecologic examination. *Japan Society of Obstetrics and Gynecology.* (34) 2, pp.233-237.

Weyers, S, Verstraelen, H., Gerris, J., Monstrey, S., Lopes Santiago, G.S., Saerens, B., Verhelst, R. (2009). Microflora of the penile skin-lined neovagina of transsexual women. *BMC Microbiology, 9*(102), pp.1-10.

World Professional Association for Transgender Health. (2011). *Standards of care for the health of transsexual, transgender, and gender-nonconforming people*, Version 7.

Yang, L., Zhu, D., Dang, Y. & Zhao, X. (2016). Treatment of condyloma acuminata in pregnant women with cryotherapy combined with proanthocyanidins: outcome and safety. *Experimental and Therapeutic Medicine*, 11, pp.2391-2394. doi: 10.3892/etm.2016.3207.

Yanofsky, V., Patel, R. & Goldenberg, G. (2012). Genital warts: A comprehensive review. *Journal of Clinical and Aesthetic Dermatology*, 5(6), pp.25-36.

Yong, M., Parkinson, K., Goenka, N. & O'Mahony, C. (2010). Diabetes and genital warts: an unhappy coalition. *International Journal of STD & AIDS*, 21(7), pp.457-459.

Appendix A

Glossary of Terms

Accommodation: A principle about structuring and designing for inclusiveness, adjustments made to policies, programs, and/or practices to enable individuals to benefit from and participate in the provision of services equally.

Equity: The practice of ensuring fair, inclusive, and respectful treatment of all peoples, with consideration of individual and group diversities. Equity honours and accommodates the specific needs of individuals/groups.

Gender: Socially and culturally constructed roles, behaviours, actions, expressions, roles, and identities linked to girls, women, boys, men, transgender, gender-diverse, and two-spirit peoples.

Gender-diverse: Gender roles and/or expressions that do not follow social and cultural expectations, norms, and stereotypes of gender. People who are gender-diverse may or may not identify as transgender; sometimes also referred to as gender non-conforming, gender-variant, etc.

Hypergranulation: Occurs when there is an extended inflammatory response and characterised by the appearance of light red or dark pink flesh that can be smooth, bumpy, or granular. Most commonly present beyond the surface of incision sites post-vaginoplasty.

Hysterectomy: A surgical procedure to remove all or part of the uterus, and sometimes the cervix; is also a gender-affirming, masculinizing lower surgery.

Inclusive: an approach that aims to reach-out to and include all people, honouring the diversity and uniqueness, talents, beliefs, backgrounds, capabilities, and ways of living of individuals and groups.

Metoidioplasty: A gender-affirming, masculinizing, lower surgery to create a penis and scrotum, done by cutting ligaments around the clitoris to add length to the shaft, grafting skin around the shaft to create added girth, lengthening the urethra so one can urinate from the shaft, and creating a scrotum.

Phalloplasty: A multi-phase gender-affirming, masculinizing, lower surgery to create a penis and scrotal sac, testicular implants, and implants to obtain rigidity/erection.

Syndemic: For the purpose of this guideline, syndemics is the presence of two or more epidemics interacting and creating an increase in disease burden based on social conditions that sustain vulnerability. Syndemics generally occur when health-related changes cluster by person, place, or time.

Transgender: An umbrella term used to describe anyone whose gender identity differs from the gender they were assigned at birth, including transgender people with binary and non-binary identities.

Two-spirit: Taken during colonization, two-spirit is being reclaimed as a term used within some Indigenous communities to encompass sexual, gender, cultural, and/or spiritual identities. It reflects complex understandings of gender and sexuality, and the long history of sexual- and gender-diversity that is specific to each nation. Two-spirit is different than identifying as LGBTQ+ and being indigenous due to the cultural, spiritual, and historical contexts of this identity.

Vaginoplasty: A gender-affirming, feminizing, lower surgery to create a vagina and vulva (mons, labia, clitoris, and urethral opening) by inverting the penis, scrotal sac, and testes.

Appendix B

The decision to test for acute or chronic infection or immunity should take into consideration past or current risk factors, risk for future exposure, and/or prior testing and vaccination history.

Hepatitis A, B & C Serology

Hepatitis A Serology: General Information

- HAV infection is primarily transmitted by the fecal-oral route. The most common transmission pathway is through the consumption of food or water contaminated with infected feces. Transmission can also occur through close physical contact resulting in the oral ingestion of contaminated feces (e.g., rimming).
- HAV serologic testing is only recommended in the following scenarios where there has been no prior hepatitis A vaccine series:
  - Presenting with signs and symptoms suggestive of acute hepatitis
  - Chronic hepatitis B or hepatitis C infection
  - Chronic liver disease (e.g., cirrhosis)
  - Individuals with haemophilia A or B receiving plasma-derived replacement clotting factors and testing negative for anti-HAV IgG
- Include the following serologic tests:
  - Signs and symptoms: anti-HAV Total and anti-HAV IgM
  - Screening: anti-HAV Total

For further information, see *BCCDC CDC Manual: Chapter 1 - Hepatitis A* and *BCCDC CDC Manual: Chapter 2 - Immunization*.

Hepatitis B Serology: General Information

- HBV is a blood-borne virus that is highly transmissible via perinatal, percutaneous or sexual exposure to a HBV infected person's blood and/or body fluids. HBV infection is most commonly acquired through sexual contact, injection drug use, and perinatal exposure from mother-to-infant.
- Indications for HBV serologic testing in the absence of a prior full hepatitis B vaccine series includes:
  - HIV or HCV infection
  - Individuals who engage in illicit drug use
  - Sexual partner or household contact of someone with acute or chronic HBV infection
  - Recent sexual assault (refer to PHSA's *Prophylaxis Post Sexual Assault DST*)
  - Unprotected sex and/or multiple sex partners
- Include the following serologic tests:
  - HBsAg
  - Anti-HBs
  - Anti-HBc Total

For further information or HBV screening, risk factors and/or laboratory and testing information, refer to the *BCCDC CDC Manual: Chapter 1 - Hepatitis B* and *BCCDC CDC Manual: Chapter 2 - Immunization*.

Hepatitis C Serology: General Information

- HCV is a blood-borne virus that is highly transmissible via percutaneous exposures to infectious blood. Permucosal transmission may occur if blood is present but is not as efficient.
- Indications for testing in a sexual health/harm reduction context may include:
  - Sharing of injection and/or non-injection drug equipment (e.g., crack pipes, cocaine straws)
  - Diagnosis of HBV (chronic or acute), HIV, or STIs where sores and lesions are present such as *Lymphogranuloma venereum* (LGV) and syphilis
  - Repeated condomless sexual contact with person(s) where there is a possibility of blood exchange (e.g., rough sex causing mucosal tearing)
  - Tattooing, body piercing, and/or acupuncture in unregulated premises where unsterile equipment and/or improper technique is used
  - Recent sexual assault (refer to PHSA's *Prophylaxis Post Sexual Assault DST*)
- For individuals with ongoing hepatitis C related risk factors, annual screening is recommended. Include the following serologic tests:
  - Anti-HCV
  - HCV RNA – only if previous anti-HCV positive

For further information on HCV, screening, risk factors and/or laboratory and testing information, refer to the *BCCDC CDC Manual: Chapter 1 - Hepatitis C*.