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Highlights

**1998 Edition of the
Canadian STD Guidelines**

*Our mission is to help the people of Canada
maintain and improve their health.*

Health Canada

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Transmitted Diseases

Highlights: 1998 Edition of the Canadian STD Guidelines

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About This Document

- These highlights of Canadian guidelines for sexually transmitted disease (STD) are a summary presentation of the main STDs from the Canadian STD Guidelines, 1998 Edition.

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Introduction

Highlights of the Canadian STD Guidelines, presenting a syndromic approach to the diagnosis and management of STD, have been written for primary health care providers, especially physicians and nurses. They are intended to assist in the prevention and appropriate management of sexually transmitted disease (STD) in Canada.

Shaded blue areas identify clinical issues where consultation with more experienced colleagues could be sought.

Prevention:

- Primary prevention of STD is vastly more effective than treating STD and their sequelae. Discuss STD risk and prevention issues with each patient as appropriate.
- Direct advice to *ALWAYS* use condoms, or to abstain from intercourse, together with discussion of plans for reaching and maintaining these goals, may be the safest STD prevention information that can be provided.

Sexual Abuse and Sexual Assault:

- When an STD is detected in a prepubertal child or a youth who is not sexually active, evaluation for sexual abuse is required.
- Great sensitivity is needed in assessing a person (child, youth, or adult) who has been sexually assaulted.

Issues in Pregnancy:

- All pregnant women should be offered HIV testing and counselling.
- Any pregnant woman whose current or past history reveals STD risk behaviours should be screened for chlamydial and gonococcal infections.
- Pregnant women at increased risk for syphilis include: youth < 25 years of age, injection drug users, commercial sex workers, street involved women, and women originating from or who have had sex with a person from a syphilis endemic area.
- Screening for HBsAg is strongly recommended for all pregnant women, especially those at risk, and all children born to HBsAg positive mothers should be actively AND passively immunized.
- Initiation of antiretroviral therapy during pregnancy is critical for the survival of infants born to mothers infected with HIV because it markedly reduces the risk of maternal-fetal transmission (by 80%).

Syndrome	Who	Organisms & Etiology	Symptoms & Signs	Diagnostic Features	Specimens & Testing	Treatment	Contact Management
No Symptoms But At Risk	<p>At risk:</p> <ul style="list-style-type: none"> sexually active males and females < 25 years of age 	<p><i>Chlamydia trachomatis</i></p> <p><i>Neisseria gonorrhoeae</i></p> <p>Herpes simplex virus (HSV)</p> <p>Human papillomavirus</p> <p>Human Immuno-deficiency virus (HIV)</p> <p>Hepatitis A virus, especially in MSM</p> <p>Hepatitis B virus</p> <p>Hepatitis C virus, mostly in injection drug user (IDU)</p> <p>Others: (syphilis)</p>	<p>None</p> <p>OR</p> <p>Subtle</p>	<p>If sexual contact occurred < 1 week previously, tests may not yet be positive.</p> <p>NOTE: HIV antibody window period could be as long as 3 months.</p>	<p>Cervical/urethral swabs OR urine for <i>C. trachomatis</i></p> <p>Cervical/urethral swabs for <i>N. gonorrhoeae</i> and serology for syphilis if Most at Risk</p> <p>Exam for ulcers/papules</p> <p>Test for HSV if lesions</p> <p>HIV testing and counselling</p> <p>Females:</p> <ul style="list-style-type: none"> exam for abdominal tenderness Pap smear if > 1 year since previous one pregnancy test if missed period 	<p>If known contact to STD, same treatment as index patient. Otherwise, treat on results of screening.</p> <p>Consider immunization against hepatitis B for all At Risk and immunization against hepatitis A for MSM.</p>	<p>If tests are positive, for the index case manage contact according to the guidelines for index diagnosis.</p>
	<p>Most at risk:</p> <ul style="list-style-type: none"> contact to known case of STD street involved and/or substance use unprotected sex new or > 2 partners in past 6 months men who have sex with men (MSM) previous STD 						
Urethritis and Cervicitis	<p>At risk:</p> <ul style="list-style-type: none"> sexually active males and females < 25 years 	<p><i>Chlamydia trachomatis</i></p> <p><i>Neisseria gonorrhoeae</i></p> <p><i>Trichomonas vaginalis</i></p> <p>Herpes simplex virus (HSV)</p> <p>Others</p> <p>Cause urethritis but not cervicitis:</p> <p><i>Mycoplasma hominis</i></p> <p><i>Ureaplasma urealyticum</i></p>	<p>Males:</p> <ul style="list-style-type: none"> urethral discharge burning on urination irritation in the distal urethra or meatus unexplained pyuria <p>Females:</p> <ul style="list-style-type: none"> genital discharge lower abdominal pain of recent onset intermenstrual bleeding purulent or mucopurulent cervical discharge <p>Check for abdominal tenderness</p>	<p>Males:</p> <ul style="list-style-type: none"> ≥ 4 polymorphonuclear (PMN) cells per oil immersion field on Gram stain of discharge* <p>Females:</p> <ul style="list-style-type: none"> signs are best detected during a non-menstrual phase mucopurulent endocervical discharge in women Most at Risk (OR when follow-up is uncertain) may be sufficient for presumptive treatment 	<p>Males:</p> <p><i>Urethral swabs for:</i></p> <ul style="list-style-type: none"> Gram stain, culture for <i>N. gonorrhoeae</i>, test for <i>C. trachomatis</i> <p>Alternative for <i>C. trachomatis</i>: nucleic acid amplification test (e.g. urine PCR)</p> <p>Females:</p> <p><i>Vaginal swab for:</i></p> <ul style="list-style-type: none"> pH test, amine odour whiff* test, wet mount, Gram stain <p><i>Endocervical swab for:</i></p> <ul style="list-style-type: none"> culture for <i>N. gonorrhoeae</i>, test for <i>C. trachomatis</i> <p>Alternative for <i>C. trachomatis</i>: nucleic acid amplification test (e.g. cervical PCR)</p>	<p>≥ 9 years:</p> <ul style="list-style-type: none"> cefixime 400 mg orally in a single dose PLUS azithromycin 1 g orally in a single dose OR doxycycline 100 mg orally bid for 7 days <p>Males < 9 years (<i>cervicitis does not occur in prepubertal girls</i>):</p> <ul style="list-style-type: none"> cefixime 8 mg/kg orally in a single dose (max. 400 mg) PLUS azithromycin 10-15 mg/kg orally in a single dose (max. 1 g) 	<p>Treat all partners who have had sexual contact with the index case at least 60 days prior to the onset of symptoms with:</p> <ul style="list-style-type: none"> cefixime 400 mg PLUS azithromycin 1 g in a single dose. <p>Patients and contacts should abstain from unprotected sex until 7 days after/treatment of both partners is complete.</p>
	<p>Most at risk:</p> <ul style="list-style-type: none"> sexually active AND contact to known case of STD street involved substance use new or > 2 partners in past 6 months 						

* Slide = wet mount/Gram stain. KOH test = whiff test.

⇒ You have not treated an STD patient until you have ensured management of the partners.

Syndrome	Who	Organisms & Etiology	Symptoms & Signs	Diagnostic Features	Specimens & Testing	Treatment	Contact Management
Pelvic Inflammatory Disease (PID)	At risk: <ul style="list-style-type: none"> sexually active females 	<i>Neisseria gonorrhoeae</i>	Mostly subtle <ul style="list-style-type: none"> lower abdominal pain deep dyspareunia abnormal bleeding cervical motion tenderness or adnexal tenderness right upper quadrant pain may be present cervicitis in 30% or less fever in severe cases only (< 40%) adnexal mass in complicated cases 	Keep a high index of suspicion. Adnexal or cervical motion tenderness is sufficient to make diagnosis but is not specific. Do not rely on negative ultrasound to rule out. Hospitalize if: <ul style="list-style-type: none"> cannot rule out surgical emergency tubo-ovarian abscess severe illness failed oral therapy follow-up is uncertain Consider for hospitalization if: HIV infection, youth (if compliance is uncertain), pregnancy	Urine ± serum pregnancy test to rule out ectopic pregnancy Vaginal swab for: <ul style="list-style-type: none"> pH test, amine odour whiff test, wet mount, Gram stain* Endocervical swab for: <ul style="list-style-type: none"> culture for <i>N. gonorrhoeae</i>, test for <i>C. trachomatis</i> Alternative for <i>C. trachomatis</i> : nucleic acid amplification test (e.g. cervical PCR) Consider endometrial biopsy White blood cell count may be elevated if febrile Ultrasound if tubo-ovarian abscess is suspected	Most compliant patients require only oral therapy. Re-assess all patients on day 3 of treatment. If not improving, consult with a colleague experienced in this area. IV therapy: <ul style="list-style-type: none"> cefoxitin 2 g IV 8 hourly PLUS doxycycline 100 mg IV or orally bid (both for at least 48 hours) Step down from IV therapy: <ul style="list-style-type: none"> cefixime 400 mg orally bid PLUS doxycycline 100 mg orally bid to complete 14 days of total therapy Oral therapy: <ul style="list-style-type: none"> cefixime 800 mg orally in a single dose PLUS doxycycline 100 mg orally bid for 14 days See <i>Canadian STD Guidelines</i> for alternative regimens.	Treat all partners who have had sexual contact with the index case within at least 60 days prior to the onset of symptoms with: <ul style="list-style-type: none"> cefixime 400 mg PLUS azithromycin 1 g orally in a single dose. Patients and contacts should abstain from unprotected sex until 7 days after treatment of both partners has been completed.
	Most at risk: <ul style="list-style-type: none"> youth < 25 years previous PID recent upper genital tract instrumentation presence of an intrauterine device (IUD) 	<i>Chlamydia trachomatis</i> Gram-negative rods complicated by anaerobes					
Epididymitis	Most at risk: <ul style="list-style-type: none"> males > 35 years 	Gram-negatives (increase in males > 35 years) <i>Chlamydia trachomatis</i> <i>Neisseria gonorrhoeae</i>	<ul style="list-style-type: none"> unilateral scrotal swelling and/or tenderness, maximal over the head of the epididymis, occasionally bilateral may have erythema and edema of the overlying skin with/without discharge redness, swelling and fever only in severe cases 	Sudden onset: if torsion of the testicle is a possibility, this is a surgical emergency	Urethral swab for: <ul style="list-style-type: none"> Gram stain, culture for <i>N. gonorrhoeae</i>, test for <i>C. trachomatis</i> Alternative for <i>C. trachomatis</i> : urine PCR Mid-stream urine for bacterial culture and sensitivity (to look for urinary tract pathogens)	Due to <i>N. gonorrhoeae</i>/<i>C. trachomatis</i>: <ul style="list-style-type: none"> cefixime 800 mg orally in a single dose PLUS doxycycline 100 mg bid for 10 days Due to enteric organism: <ul style="list-style-type: none"> ofloxacin 300 mg orally bid for 10 days 	Treat all partners of case sexually transmitted within at least 60 days prior to the onset of symptoms with: <ul style="list-style-type: none"> cefixime 400 mg orally in a single dose PLUS azithromycin 1 g orally in a single dose. Patients and contacts should abstain from unprotected sex (if sexually transmitted) until 7 days after treatment of both partners has been completed.

* Slide = wet mount/Gram stain. KOH test = whiff test.

➡ You have not treated an STD patient until you have ensured management of the partners.

Syndrome	Who	Organisms & Etiology	Symptoms & Signs	Diagnostic Features	Specimens & Testing	Treatment	Contact Management
Genital Ulcer Disease	<p>Most at risk:</p> <ul style="list-style-type: none"> previous genital lesion or STD contact with commercial sex workers new partner in past 6 months sex with person from or in countries where syphilis or chancroid is endemic contact to known case of genital ulcer disease 	<p>Herpes simplex virus (HSV)</p> <p><i>Treponema pallidum</i> (syphilis)</p> <p><i>Haemophilus ducreyi</i> (chancroid)</p> <p><i>Lymphoma-granuloma venereum</i> (LGV) and <i>Granuloma inguinale</i> are very rare unless sex with person from or in endemic country</p> <p>Non-infectious ulcers</p> <p>Neoplasia</p>	<p>Genital herpes:</p> <p>Majority of HSV cases may have subtle or unrecognized symptoms/signs.</p> <p>Keep a high index of suspicion.</p> <ul style="list-style-type: none"> grouped multiple vesicles → superficial circular ulcers smooth margin and erythematous base shallow <p>If atypical see <i>Decision Tree 4</i> for Genital Ulcers on page 10.</p>	<p>Genital herpes:</p> <ul style="list-style-type: none"> typical ulcers usually painful genital pain inguinal lymph nodes enlarged, non-fluctuant and tender fever and malaise (especially in primary infection) 	<p>Genital herpes:</p> <ul style="list-style-type: none"> swab base of freshly unroofed vesicle or fresh ulcer for HSV culture non-culture diagnoses are less accurate always test for syphilis 	<p>Genital herpes:</p> <p>Topical treatment of no value.</p> <p>First episode:</p> <ul style="list-style-type: none"> acyclovir 400 mg tid for 5 to 7 days OR famciclovir 250 mg tid for 5 to 7 days OR valacyclovir 500-1000 mg bid for 5 to 7 days <p>Recurrent episode with prodrome:</p> <ul style="list-style-type: none"> acyclovir 400 mg tid for 5 days OR famciclovir 125 mg bid for 5 days OR valacyclovir 500 mg bid for 5 days <p>Chronic suppressive therapy:</p> <p>Daily.</p> <ul style="list-style-type: none"> acyclovir 400 mg bid orally OR famciclovir 250 mg bid orally OR valacyclovir 500 mg orally in 1 or 2 doses 	<p>Genital herpes:</p> <p>Patients and contacts should abstain from sexual activity while lesions are present, and inform their sex partner(s) that they have genital ulcers.</p> <ul style="list-style-type: none"> provide counselling and explain natural history of disease discuss asymptomatic shedding, sexual transmission, and risk of neonatal infection
			<p>Syphilis:</p> <ul style="list-style-type: none"> papule → chancre indurated with serous exudate single in 70% of cases smooth margin and base 	<p>Syphilis:</p> <ul style="list-style-type: none"> ulcers often painless firm, enlarged, non-fluctuant, non-tender lymphadenopathy common 	<p>Syphilis:</p> <ul style="list-style-type: none"> syphilis serology to include non-treponemal (e.g. RPR, VDRL) and treponemal-specific tests (e.g. TP-PA, MHA +/- FTA) obtain serous exudate for darkfield or FA exam 	<p>Syphilis:</p> <ul style="list-style-type: none"> benzathine penicillin G 2.4 to 7.2 million U. IM (depending on stage of disease) 	<p>Syphilis:</p> <p>All partners who have had sexual contact with the index case within 3 to 12 months (depending on stage of disease), must be located, tested and treated appropriately.</p>

⇒ You have not treated an STD patient until you have ensured management of the partner.

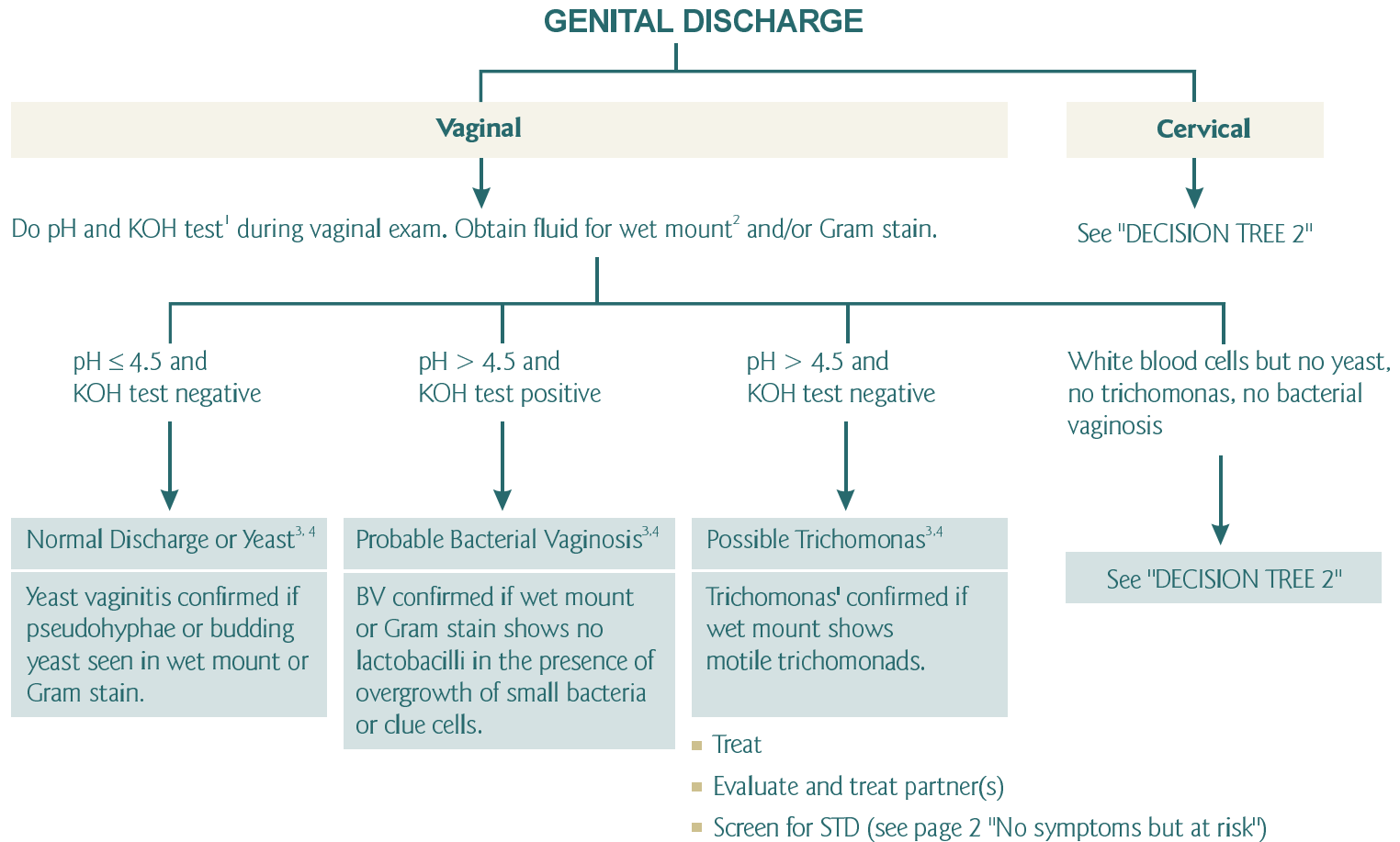
Syndrome	Who	Organisms & Etiology	Symptoms & Signs	Diagnostic Features	Specimens & Testing	Treatment	Contact Management
Papular Genital Lesions	<p>At risk:</p> <ul style="list-style-type: none"> sexually active males and females 	<p>Human papillomavirus (HPV)</p> <p><i>Molluscum contagiosum</i></p> <p>Skin tags</p> <p>Cancer</p>	<ul style="list-style-type: none"> growths on ano-genital and/or mucous membranes (<i>Condyloma acuminata</i>), frequently multiple and polymorphic molluscum lesions may heal spontaneously with or without scarring within 2 to 3 months; infection may last longer and warrant treatment 	<p>Often subclinical or clinically apparent but asymptomatic.</p> <p>Warts: (HPV)</p> <ul style="list-style-type: none"> cauliflower-like usually asymptomatic can cause bleeding, pruritus <p>Molluscum:</p> <ul style="list-style-type: none"> round umbilicated papules <p>Cancer:</p> <ul style="list-style-type: none"> chronic lesion especially associated with ulceration or irregular pigmentation 	<p>Direct examination of external genitalia, magnification by hand lens or colposcope.</p> <p>Females:</p> <ul style="list-style-type: none"> Pap smear if > 1 year since previous one <p>If abnormal, refer to knowledgeable colleague.</p> <p>Biopsy if cancer suspected.</p>	<p>HPV:</p> <ul style="list-style-type: none"> primarily for cosmetic reasons or for relief of symptoms. Treatment does not eliminate carriage, recurrences, or contagiousness of HPV <p>Conservative:</p> <ul style="list-style-type: none"> local treatment with liquid nitrogen or podophyllotoxin <p>See <i>Canadian STD Guidelines</i> for equivalent alternative therapies.</p>	<p>All women should be reminded of need for regular Pap smear:</p> <ul style="list-style-type: none"> annually until 2 subsequent normal smears are obtained, then every 2 or 3 years according to local guidelines. <p>Patients and contacts should abstain from sexual activity while warts are present, and inform their sex partner(s) that they have genital warts.</p>
	Proctitis	<p>Most at risk:</p> <ul style="list-style-type: none"> men who have sex with men history of receptive anal and/or oral-anal sex 	<p><i>Chlamydia trachomatis</i></p> <p><i>Neisseria gonorrhoeae</i></p> <p>Herpes simplex virus (HSV)</p> <p><i>Treponema pallidum</i> (syphilis)</p> <p>Others</p>	<ul style="list-style-type: none"> anorectal pain with/without discharge tenesmus erythema and wall ulceration on anoscopy pus may be perianal herpetic lesions with inguinal adenopathy 	<p>Several pathogens are often present concurrently.</p> <p>If diarrhea or abdominal cramping is present, consult with a colleague experienced in this area.</p>	<p>Anal swab for <i>C. trachomatis</i>/<i>N. gonorrhoeae</i> (DFA/EIA testing technologies not recommended for anus.)</p> <p>Swab suspicious lesions for HSV diagnostic test.</p> <p>Syphilis serology.</p> <p>Anal swab for Gram stain.</p> <p>Attempt to minimize stool contamination of swabs.</p>	<p>If no indication of HSV:</p> <p>Treat for proctitis due to <i>N. gonorrhoeae</i>/<i>C. trachomatis</i>:</p> <ul style="list-style-type: none"> cefixime 400 mg PLUS azithromycin 1 g orally in a single dose <p>If indication of HSV:</p> <ul style="list-style-type: none"> treat as for HSV (see <i>Genital Ulcer Disease</i>, page 4.)

➡ You have not treated an STD patient until you have ensured management of the partners.

Syndrome	Who	Organisms & Etiology	Symptoms & Signs	Diagnostic Features	Specimens & Testing	Treatment	Contact Management
Human Immuno-Deficiency Virus (HIV) Infection	All pregnant women should be offered HIV testing and counselling.	Human immuno-deficiency virus (HIV)	Most cases are asymptomatic.	Seroconversion illness may present with flu-like symptoms, rash and lymphadenopathy. Symptomatic infection may include: <ul style="list-style-type: none"> unexplained and persistent fever, diarrhea, dry cough, weight loss, fatigue generalized lymphadenopathy recurrent mucocutaneous candidiasis new red/purple nodular skin or mucosal lesions (KS) encephalopathy herpes zoster failure to thrive in an infant 	All requests for HIV testing should be honored. HIV antibody testing should only be carried out with the consent of the person being tested and with appropriate pre-test information and post-test counselling. Infants and children: <ul style="list-style-type: none"> the need for testing the child and the implications of a positive result for the mother should be clearly explained direct demonstration of HIV (e.g., PCR) is required to diagnose HIV infection in infants < 18 months born to HIV-positive mothers 	This is an increasingly complex area with rapid changes in optimal therapy. Recommendations for a given patient should be made in collaboration with a knowledgeable colleague. Antiretroviral therapy: <ul style="list-style-type: none"> three or more drugs are desirable (avoid monotherapy) Prophylaxis: Primary prophylaxis <ul style="list-style-type: none"> <i>Pneumocystis carinii</i> pneumonia (PCP) <i>Mycobacterium avium</i> complex (MAC) Immunization Secondary infections	Sexual and injection drug use contacts should be counselled and tested.
	Most at risk: Infants born to mothers with HIV infection. Youth and adults who have: <ul style="list-style-type: none"> unprotected sex sex with person known to be HIV infected sex with multiple partners anal intercourse shared needle-syringe history of hepatitis B or other STD street involvement Persons from endemic countries.						
Vaginal Discharge	Most at risk: <ul style="list-style-type: none"> any post-pubertal woman 	Bacterial vaginosis (BV) Yeast <i>Trichomonas vaginalis</i> (now less common) Physiologic discharge Other	BV: <ul style="list-style-type: none"> amine odour (fishy), worse after intercourse discharge Yeast: <ul style="list-style-type: none"> itching/redness clumpy white discharge T. vaginalis: <ul style="list-style-type: none"> itching/redness discharge 	If recurrent or all tests negative, refer to a knowledgeable colleague. BV: <ul style="list-style-type: none"> pH > 4.5 whiff test* positive slide*: clue cells foul discharge Yeast: <ul style="list-style-type: none"> pH < 4.5 whiff test* negative slide*: yeast or hyphae T. vaginalis <ul style="list-style-type: none"> pH > 4.5 slide*: trichomonads motile 	Vaginal swab for: <ul style="list-style-type: none"> pH test/amine odour whiff test/wet mount/Gram stain Endocervical swab for: <ul style="list-style-type: none"> culture for <i>N. gonorrhoeae</i> and test for <i>C. trachomatis</i> OR urine for <i>C. trachomatis</i> Fungal cultures are unnecessary in acute infection. Cultures for <i>Gardnerella vaginalis</i> are never useful in diagnosis.	BV: <ul style="list-style-type: none"> metronidazole 500 mg orally bid for 7 days Yeast: <ul style="list-style-type: none"> over the counter topical treatment, imidazole OR fluconazole 150 mg orally in a single dose T. vaginalis <ul style="list-style-type: none"> metronidazole 2 g orally in a single dose 	BV: <ul style="list-style-type: none"> not required Yeast: <ul style="list-style-type: none"> only if symptomatic T. vaginalis <ul style="list-style-type: none"> test all contacts back at least 60 days and treat same as index patient

* Slide = wet mount/Gram stain. Whiff test = KOH test.

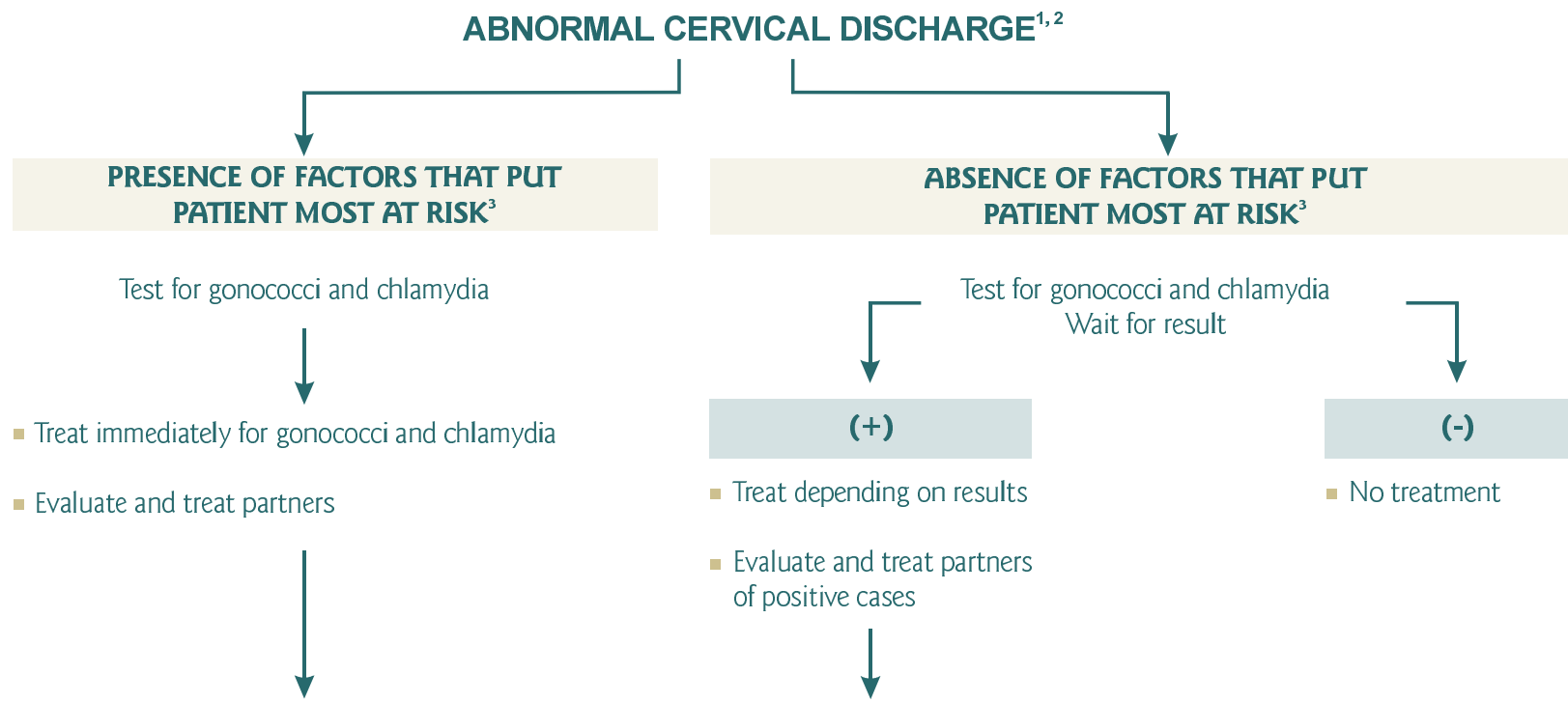
Decision Tree 1: Genital Discharge in Women



NOTES:

1. **KOH test:** 1 drop 10% KOH to reveal amine odour ("fishy").
2. **Wet mount:** smear on slide with 1 drop of saline; view at 400 X.
3. Treat depending on clinical presentation; screen for other STD depending on history.
4. Confirmation by microscopy is advisable.

Decision Tree 2: Abnormal Cervical Discharge



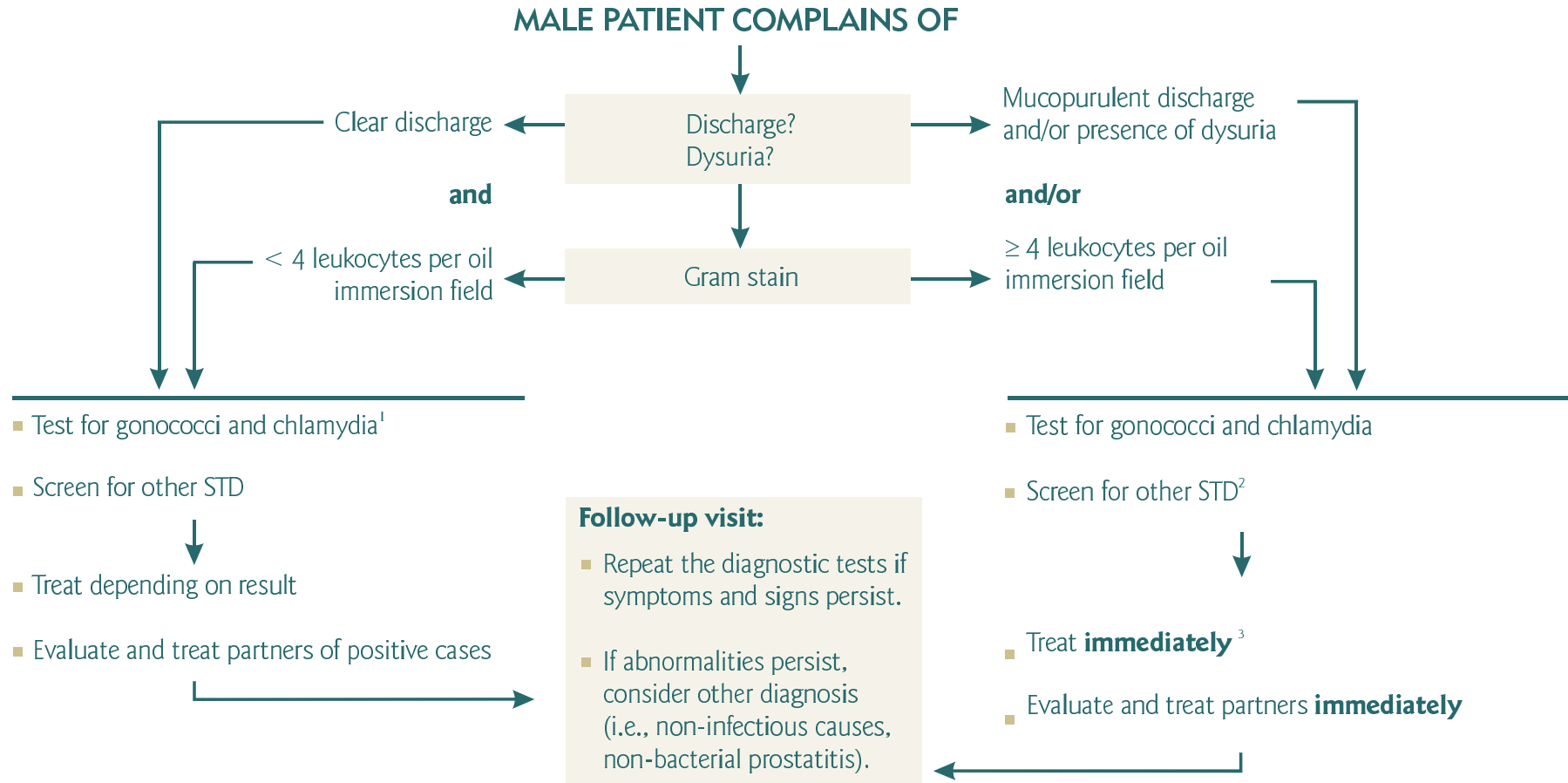
Follow-up visit:

- Follow-up should be arranged, but if a recommended treatment is given and taken, symptoms and signs disappear and there is no re-exposure to an untreated partner, repeat diagnostic testing for *N. gonorrhoeae* and *C. trachomatis* is not routinely recommended.
- If abnormalities persist, consider other diagnosis (i.e., non-infectious causes).

NOTES:

1. One that is cloudy, yellow or green.
2. One method to make the diagnosis is a **Swab test**: a swab of endocervical discharge appears green or yellow when held against a white background. A positive swab test in the presence of abnormal cervical discharge is grounds for presumptive therapy. If found in a low risk patient who will return for test results, presumptive treatment can be withheld as the finding is associated with a poor positive predictive value in this population.
3. As defined in page 2 under "No symptoms but at risk".

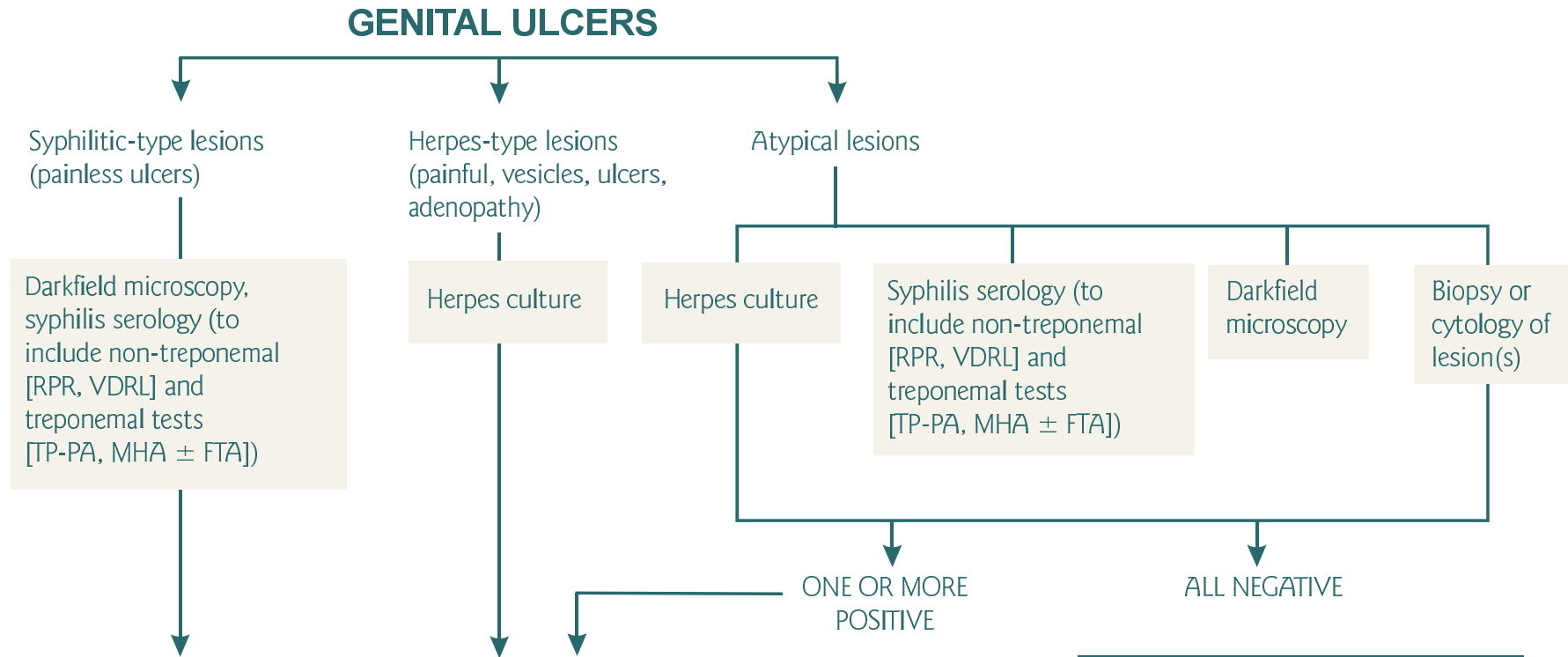
Decision Tree 3: Urethritis in Men



NOTES:

1. Collect first 10 to 15 ml of any micturion for *C. trachomatis* if amplified nucleic acid tests are available (e.g., PCR, LCR).
2. See page 2 "No symptoms but at risk".
3. If ≥ 4 leukocytes per oil immersion field and PRESENCE of Gram negative intracellular diplococci \rightarrow treat for gonococci and chlamydia.
If ≥ 4 leukocytes per oil immersion field and NO intracellular diplococci \rightarrow treat for chlamydia only.

Decision Tree 4: Genital Lesions



- Apply appropriate treatment and follow-up measures
- Screen for other STD
- Evaluate and treat partners of positive cases

NOTE:

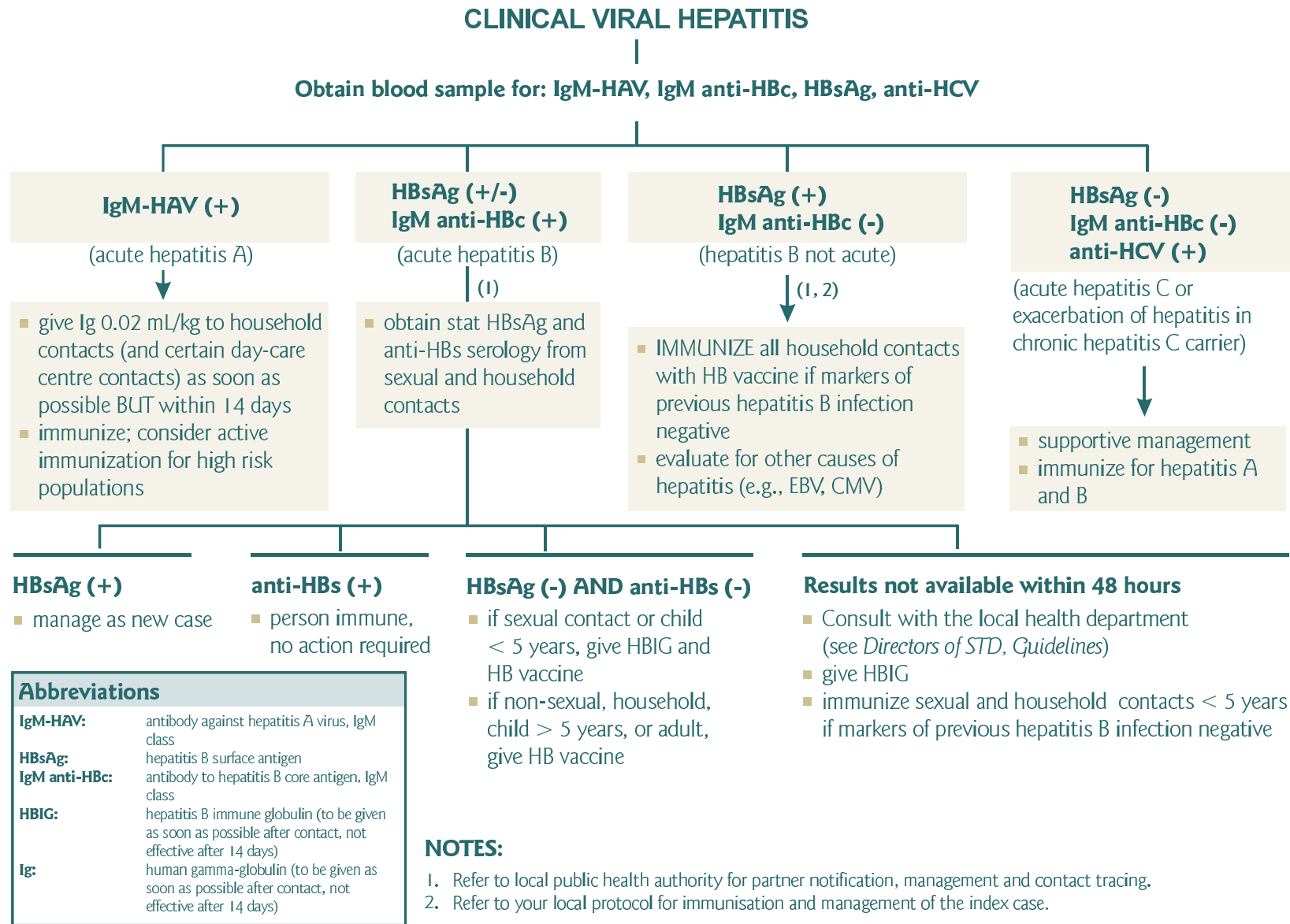
1. Contact the laboratory for specimen collection and transport instructions.

Re-evaluate for:

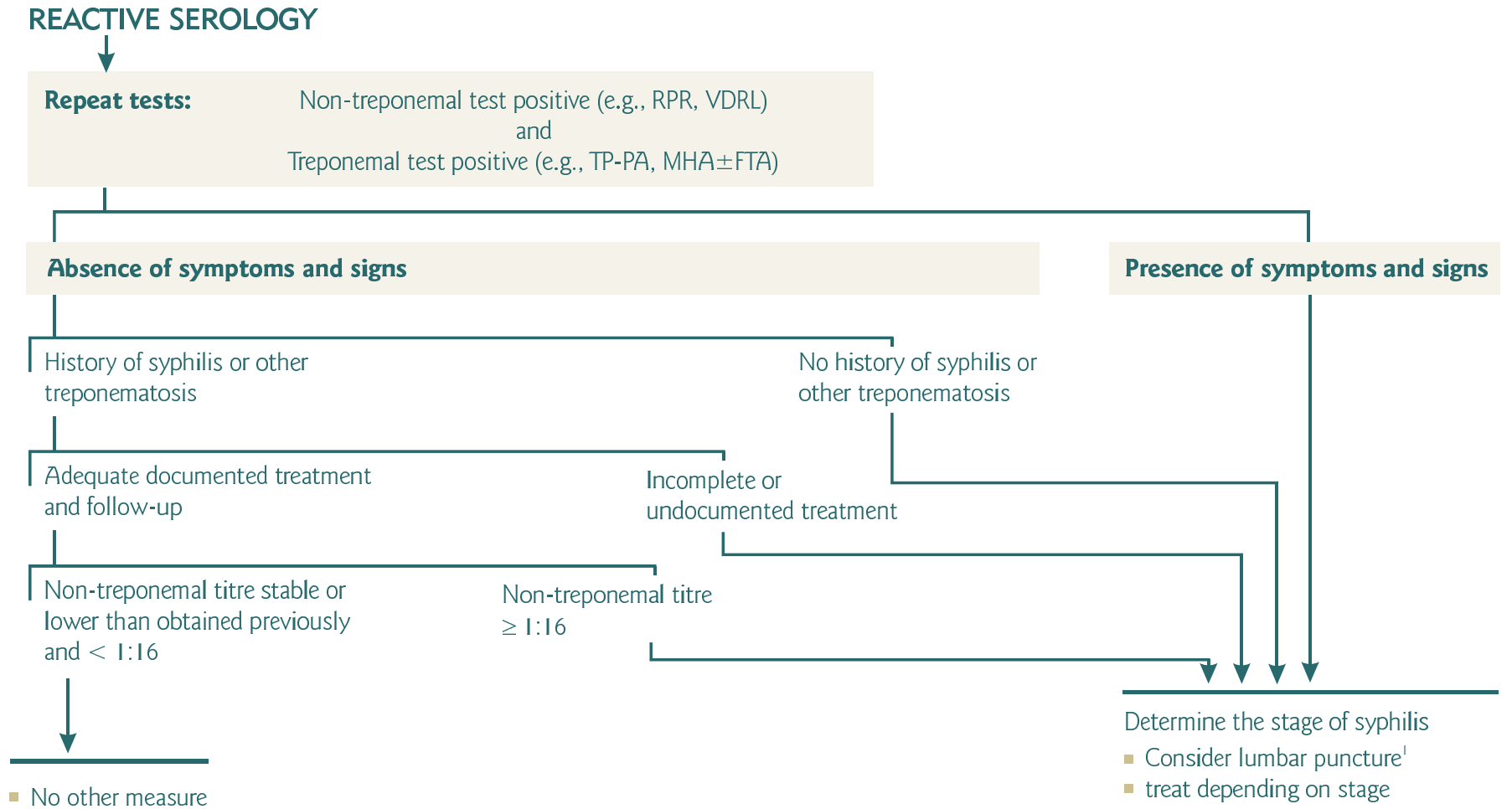
- ulcer associated with tropical disease
- ulcer associated with rarer STD (e.g. chancroid¹, *lymphogranuloma venerum*, granuloma inguinale)
- ulcer of non-infectious origin. (e.g. neoplasia)

Refer immediately

Decision Tree 5: Viral Hepatitis



Decision Tree 6: Serologic Tests for Syphilis



NOTE:

- I. Lumbar puncture is recommended in cases of:
 - congenital syphilis, tertiary syphilis with neurological symptoms/signs
 - latent syphilis with non-treponemal titre > 1:16
 - previously treated patients who fail to achieve an adequate serologic response
 - in HIV patients with neurological findings, or latent syphilis, or treated syphilis without decrease in RPR titre.

Interpretation of Serologic Tests for Syphilis

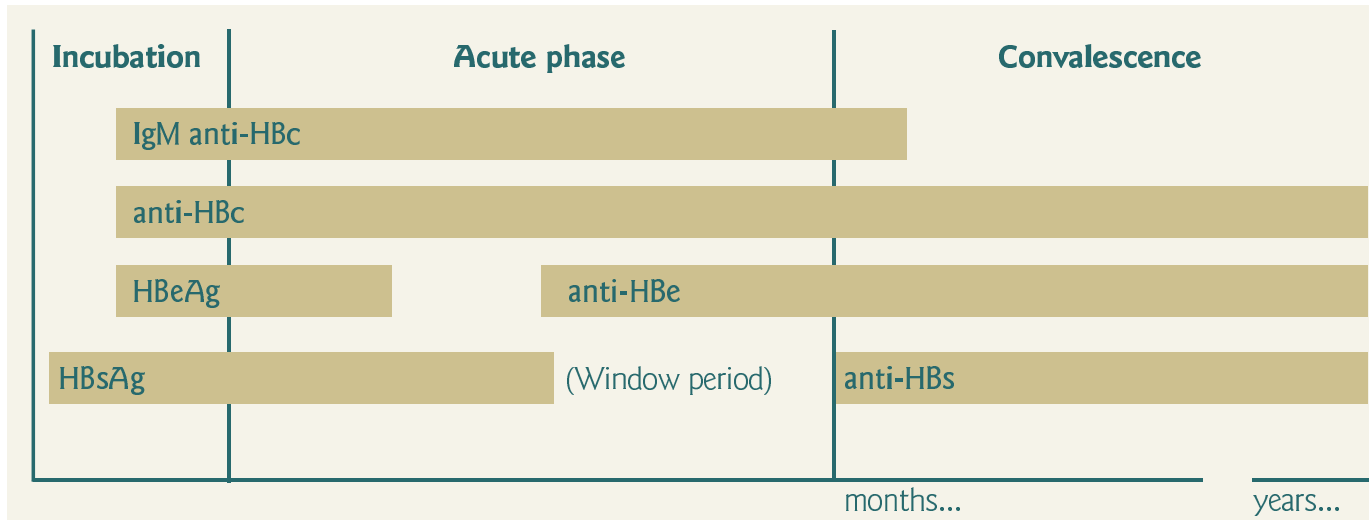
Non-Treponemal Test (VDRL, RPR, ART, TRUST, RST, EIA)	Treponemal Test (TP-PA, MHA-TP, FTA-ABS)	Possible Reason
+	+	<ul style="list-style-type: none"> ▪ syphilis – recent or previous ▪ yaws or pinta
+	-	<ul style="list-style-type: none"> ▪ no syphilis – false positive
-	+	<ul style="list-style-type: none"> ▪ consistent with syphilis, acute, previously treated or untreated ▪ yaws, pinta or Lyme disease
-	-	<ul style="list-style-type: none"> ▪ no syphilis or incubating disease

NOTES:

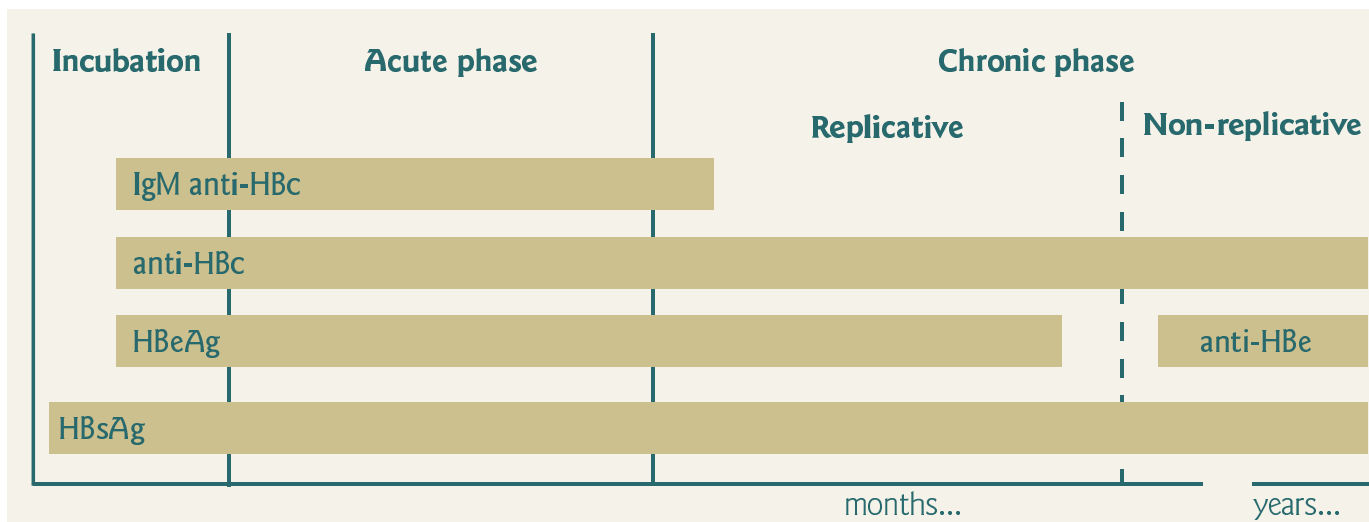
- The non-treponemal test is a good follow-up indicator because the titre reflects the activity of the disease. Following treatment, it should show a regular decline until it becomes negative or stabilizes at a low level ($\leq 1:8$).
- Serologic follow-up should be performed at the following intervals:
 - congenital syphilis, infectious syphilis (primary, secondary, early latent) or concomitant HIV infection: 1, 3, 6, 12, 24 months
 - non-infectious syphilis (late latent, tertiary): 12 and 24 months
(neurosyphilis): 6, 12, 24 months.
- Serology may remain positive for life in persons who have previously contracted syphilis and been adequately treated.
- The non-treponemal test may be falsely positive in certain clinical situations including viral infections (e.g., mononucleosis), bacterial infections (e.g., pneumonia, tuberculosis), chronic disease (e.g., collagen vascular disease), and in the elderly.
- A period of 1 to 4 weeks may elapse between the appearance of the primary chancre and the detection of a non-treponemal reaction. Treponemal reactions become positive before non-treponemal reactions.
- Treponemal tests may be falsely positive in certain situations, including viral infections and collagen vascular disease.

Interpretation of Serologic Course of Viral Hepatitis B

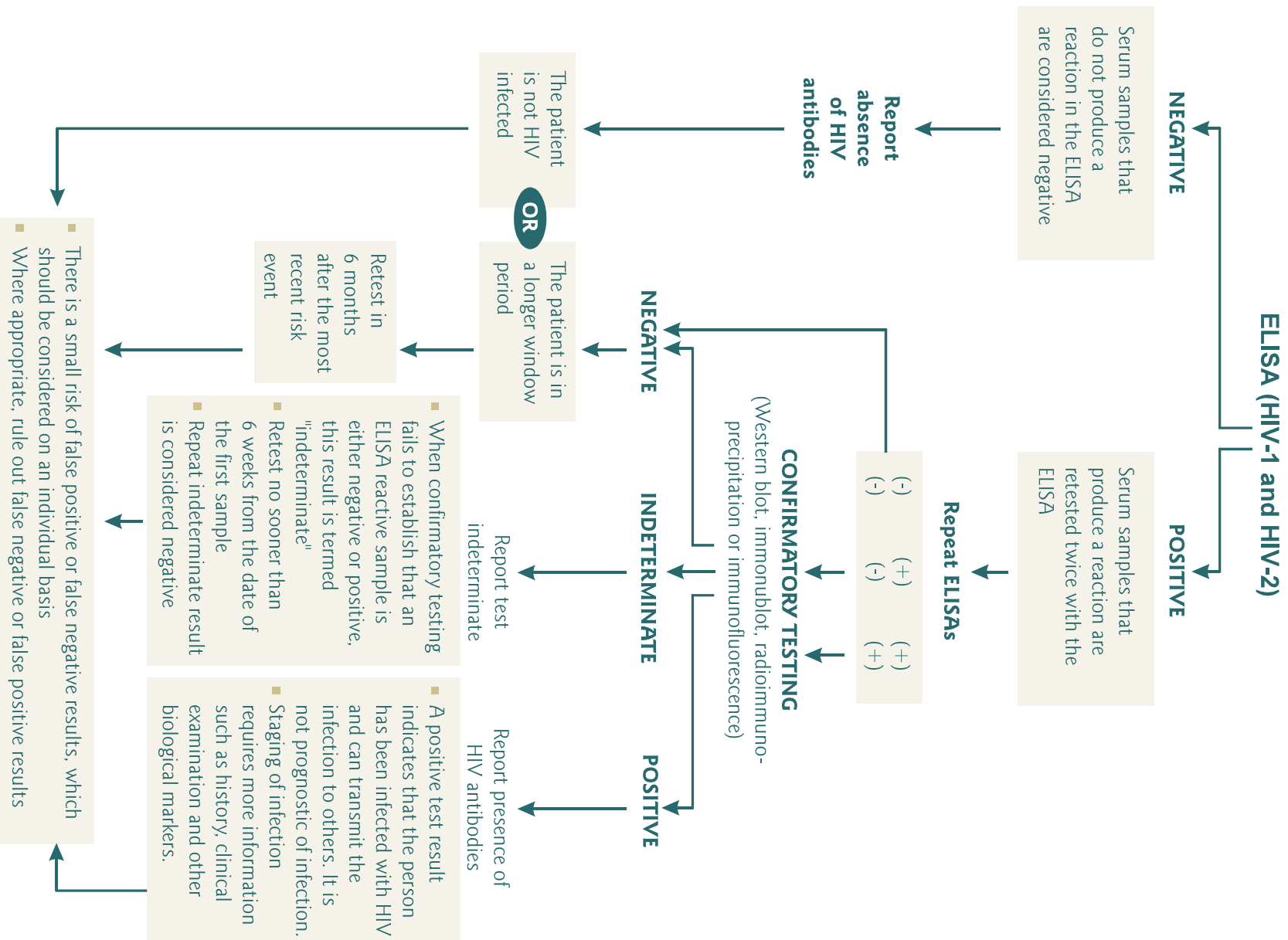
ACUTE HEPATITIS B



CHRONIC HEPATITIS B



Interpretation of HIV-Antibody Test Results



From: *Counselling Guidelines for HIV Testing*. Canadian Medical Association. 1995.

POST-TEST COUNSELLING DISCUSSION

Top 20 Changes of the New STD Guidelines

1. There is now a difference between people who are at risk and most at risk which is important in selecting screening tests (i.e. it is no longer recommended to do syphilis and/or gonorrhea screening on everyone).
2. Hepatitis A vaccine is now recommended for gay men.
3. Single dose drug treatments are preferred (if available), but are only proven effective for uncomplicated STDs.
4. Cefixime 400 mg is the first choice for uncomplicated gonorrhea.
5. Azithromycin 1 g is the first choice for uncomplicated chlamydial infections.
6. Both cefixime and azithromycin are also preferred for contact management, even in the absence of positive tests and symptoms.
7. Polymerase chain reaction and ligase chain reaction of first-catch urine are options for *Chlamydia trachomatis* screening and testing for both males and females - especially the young male when sexual abuse is suspected.
8. Gram stain is the first-line test for urethritis.
9. Leucocyte count for cervicitis is not useful - instead, chlamydia testing and gonorrhea culture should be done.
10. Pelvic inflammatory disease is most often subtle in presentation, therefore a proactive role should be taken in treatment and reevaluation.
11. For epididymitis, do STD testing, but also do a midstream urine specimen for routine culture.
12. Human papillomavirus treatment is primarily for cosmetic and symptom relief; it does not guarantee against transmission or eliminate the risk of cancer by disappearance of the lesions.
13. Herpes is often subtle in presentation, so physicians should watch the site for recurrence of symptoms, and see the patient within 48 hours of symptom recurrence.
14. Topical treatment for genital herpes should not be used. Oral therapy is the proper route.
15. There is no clear difference between herpes therapies due to the absence of head-to-head comparisons of these drugs.
16. For vulvovaginal candidiasis (VVC), there is no value in vaginal culture.
17. pH and KOH (10%) are the major clinical tools in the diagnosis of vulvo-vaginitis.
18. There is a new section on reproductive issues and pregnancy and all treatment aspects in the same section.
19. Prenatal HIV testing should be offered to all pregnant women in Canada.
20. Topical bacterial vaginosis treatment is of no value in preventing pregnancy complications.

Get to Know Your STD Resources

- Knowing available STD resources, expertise and support facilities is an essential component of the health care provider's job. Know your local resources and list them below for future reference.

<p>Colleague experienced in _____</p> <p>Name: _____</p> <p>Telephone: _____</p> <p>Colleague experienced in _____</p> <p>Name: _____</p> <p>Telephone: _____</p>	<p>Colleague experienced in _____</p> <p>Name: _____</p> <p>Telephone: _____</p> <p>Colleague experienced in _____</p> <p>Name: _____</p> <p>Telephone: _____</p>
<p>Laboratory</p> <p>Contact: _____</p> <p>Telephone: _____</p>	<p>Public health unit</p> <p>Contact: _____</p> <p>Telephone: _____</p>
<p>Rape crisis centre</p> <p>Contact: _____</p> <p>Telephone: _____</p>	<p>Anonymous HIV test site</p> <p>Contact: _____</p> <p>Telephone: _____</p>
<p>Child abuse treatment centre</p> <p>Contact: _____</p> <p>Telephone: _____</p>	<p>Needle-exchange site</p> <p>Contact: _____</p> <p>Telephone: _____</p>
<p>Other resource</p> <p>Contact: _____</p> <p>Telephone: _____</p>	<p>Other resource</p> <p>Contact: _____</p> <p>Telephone: _____</p>