Public Health: Communicable Diseases, Sexually Transmitted Infections and Contact Tracing

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CANADIAN HEALTH CARE AGENCY
EXPERIENCE THE NORTH

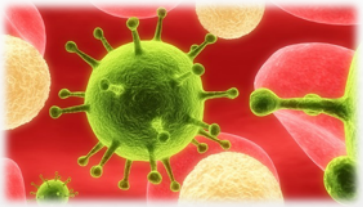
Module 8

1 of 82

1

Module 8 Objectives

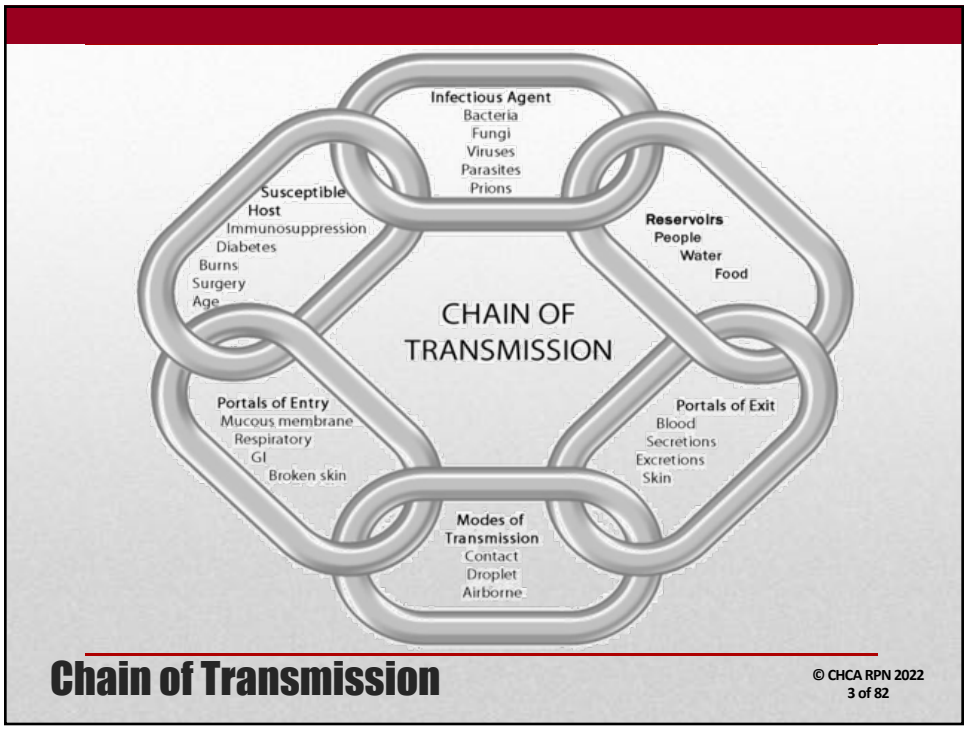
1. Assessment of communicable diseases
   - Chain of Transmission
   - Communicable Disease Control
2. Common communicable diseases
   - Reportable Disease Form
   - Case Study 1
   - Bacterial Gastroenteritis/ Giardiasis Gastroenteritis
   - Viral Hepatitis
   - HIV / AIDS
   - Case Study 2
   - Varicella (Chicken Pox)
   - Erythema Infectiosum (Fifth Disease)
   - Invasive Group A Streptococcus (iGAS)
     - streptococcal toxic shock
   - Mononucleosis
   - Rabies
   - Tuberculosis



3. Sexually Transmitted and Blood Borne Illnesses
   - History, Physical Exam, Differential Diagnoses
   - Blood Testing for STBBIs
   - Treatment and management of STBBI
   - Contact Tracing

2 of 82

2


Infectious Agent
Bacteria
Fungi
Viruses
Parasites
Prions
Susceptible Host
Immunosuppression
Diabetes
Burns
Surgery
Age
Reservoirs
People
Water
Food
CHAIN OF TRANSMISSION
Portals of Entry
Mucous membrane
Respiratory
GI
Broken skin
Portals of Exit
Blood
Secretions
Excretions
Skin
Modes of Transmission
Contact
Droplet
Airborne
Chain of Transmission
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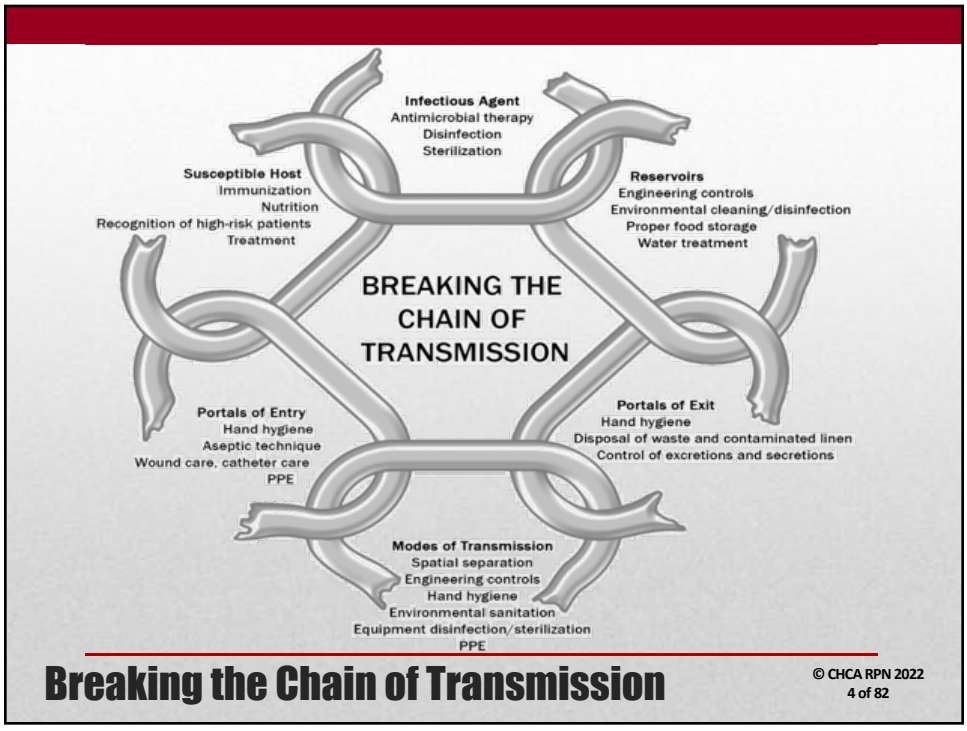
3 of 82

3


Infectious Agent
Antimicrobial therapy
Disinfection
Sterilization
Susceptible Host
Immunization
Nutrition
Recognition of high-risk patients
Treatment
Reservoirs
Engineering controls
Environmental cleaning/disinfection
Proper food storage
Water treatment
BREAKING THE CHAIN OF TRANSMISSION
Portals of Entry
Hand hygiene
Aseptic technique
Wound care, catheter care
PPE
Portals of Exit
Hand hygiene
Disposal of waste and contaminated linen
Control of excretions and secretions
Modes of Transmission
Spatial separation
Engineering controls
Hand hygiene
Environmental sanitation
Equipment disinfection/sterilization
PPE
Breaking the Chain of Transmission
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4 of 82

4

History:

- Onset of symptoms
- Presence of symptoms: e.g. fever, pain, rash, cough, vomiting, diarrhea
- Contact with ill persons
- Dietary history
- Recent travel

Assessment of Communicable Diseases

5 of 82

5

Physical Examination:

- Vital signs
- Inspection
- Palpation
- Auscultation

Assessment of Communicable Diseases

6 of 82

6

Communicable Disease Control and Management

Confirm Diagnosis	• Review lab slip • Review Appendix B (IDP) to confirm case definition and if reportable
Case Management	• Investigate history of the disease Counselling • Treatment of disease or symptoms if needed • Immunization or immunoglobulin
Contact Tracing	• Prepare list based on mode of transmission and incubation period • Recommend testing or treatment
Prevention Activities	• Community education • Targeted education Community immunization blitz Harm reduction
Outbreak Management	• Covered in subsequent presentation
Surveillance and Reporting	• Complete appropriate forms and submit to CD nurse • Monitor for increased cases in the community that may indicate an outbreak

Infection Prevention and Control

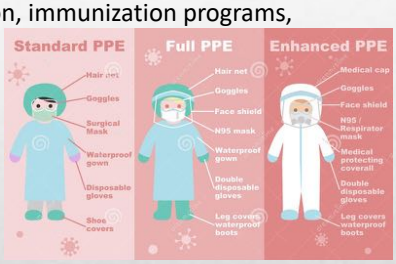
7 of 82

7

Control of the Environment
- cleaning equipment, sharps containers, PPE, hand hygiene, safety engineered medical devices

Administrative Controls
- Policies and Procedures, staff education, immunization programs, respiratory etiquette

Personal Protective Equipment
- prevent exposure by placing a barrier.
  - Gloves
  - Gowns
  - Masks
  - Eye protection
  - N95 Respirators (eg. mandatory mask fit testing)



Additional precautions
- signage, client isolation, dedicated equipment etc.

IPC – Routine Practices

8 of 82

8

VIDEO - Donning and Doffing Personal Protective Equipment

IPC – Routine Practices

9 of 82

9

- Gastroenteritis (Bacterial & Giardiasis)
- Varicella
- Viral Hepatitis
- Human Immunodeficiency Virus
- Fifth Disease
- Invasive Group A Streptococcal (GAS) Infection
- Streptococcal Toxic Shock Syndrome
- Mononucleosis (Infectious)
- Rabies Exposure
- Tuberculosis

Common Communicable Diseases

10 of 82

10

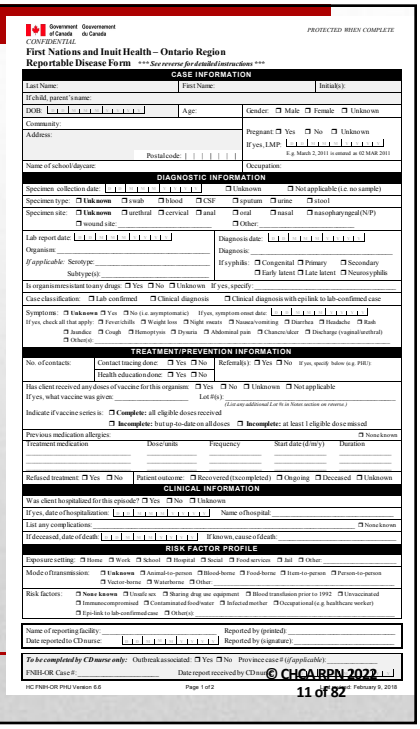
New Term:

"Diseases of Public Health Significance"

- Hepatitis and Tuberculosis are reported on a separate form
- Submitted by fax to the Communicable Disease Nurse.

Management of Clients with Reportable Diseases:

- Consult MD/NP
- Ensure early involvement of the Zone Communicable Disease Nurse and Public Health Unit.



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First Nations and Inuit Health – Ontario Region

Reportable Disease Form **** See reverse for detailed instructions ****

CASE INFORMATION

Last Name: | First Name: | Initial(s):

If child, parent's name:

DOB: | Age: | Gender: ❒ Male ❒ Female ❒ Unknown

Community:

Address: | Pregnant: ❒ Yes ❒ No ❒ Unknown

If yes, LMP: E.g. March 2, 2011 is entered as 02 MAR 2011

Postal code:

Name of school/daycare: | Occupation:

DIAGNOSTIC INFORMATION

Specimen collection date: ❒ Unknown ❒ Not applicable (i.e. no sample)

Specimen type: ❒ **Unknown** ❒ swab ❒ blood ❒ CSF ❒ sputum ❒ urine ❒ stool

Specimen site: ❒ **Unknown** ❒ urethral ❒ cervical ❒ anal ❒ oral ❒ nasal ❒ nasopharyngeal (N/P) ❒ wound site: ❒ Other:

Lab report date: | Diagnosis date:

Organism: | Diagnosis:

If applicable: Serotype: | If syphilis: ❒ Congenital ❒ Primary ❒ Secondary ❒ Early latent ❒ Late latent ❒ Neurosyphilis

Subtype(s):

Is organism resistant to any drugs: ❒ Yes ❒ No ❒ Unknown If yes, specify:

Case classification: ❒ Lab confirmed ❒ Clinical diagnosis ❒ Clinical diagnosis with epi link to lab-confirmed case

Symptoms: ❒ **Unknown** ❒ Yes ❒ No (i.e. asymptomatic) If yes, symptom onset date:

If yes, check all that apply: ❒ Fever/chills ❒ Weight loss ❒ Night sweats ❒ Nausea/vomiting ❒ Diarrhea ❒ Headache ❒ Rash ❒ Jaundice ❒ Cough ❒ Hemoptysis ❒ Dysuria ❒ Abdominal pain ❒ Chancre/ulcer ❒ Discharge (vaginal/urethral) ❒ Other(s):

TREATMENT/PREVENTION INFORMATION

No. of contacts: | Contact tracing done: ❒ Yes ❒ No | Referral(s): ❒ Yes ❒ No If yes, specify below (e.g. PHU):

Health education done: ❒ Yes ❒ No

Has client received any doses of vaccine for this organism: ❒ Yes ❒ No ❒ Unknown ❒ Not applicable

If yes, what vaccine was given: Lot #(s): *(List any additional Lot #s in Notes section on reverse.)*

Indicate if vaccine series is: ❒ **Complete:** all eligible doses received ❒ **Incomplete:** but up-to-date on all doses ❒ **Incomplete:** at least 1 eligible dose missed

Previous medication allergies: ❒ None known

Treatment medication	Dose/units	Frequency	Start date (d/m/y)	Duration

Refused treatment ❒ Yes ❒ No | Patient outcome: ❒ Recovered (/completed) ❒ Ongoing ❒ Deceased ❒ Unknown

CLINICAL INFORMATION

Was client hospitalized for this episode? ❒ Yes ❒ No ❒ Unknown

If yes, date of hospitalization: | Name of hospital:

List any complications: ❒ None known

If deceased, date of death: | If known, cause of death:

RISK FACTOR PROFILE

Exposure setting: ❒ Home ❒ Work ❒ School ❒ Hospital ❒ Social ❒ Food services ❒ Jail ❒ Other:

Mode of transmission: ❒ **Unknown** ❒ Animal-to-person ❒ Blood-borne ❒ Food-borne ❒ Item-to-person ❒ Person-to-person ❒ Vector-borne ❒ Waterborne ❒ Other:

Risk factors: ❒ **None known** ❒ Unsafe sex ❒ Sharing drug use equipment ❒ Blood transfusion prior to 1992 ❒ Unvaccinated ❒ Immunocompromised ❒ Contaminated food/water ❒ Infected mother ❒ Occupational (e.g. healthcare worker) ❒ Epi-link to lab-confirmed case ❒ Other(s):

Name of reporting facility: | Reported by (printed):

Date reported to CD nurse: | Reported by (signature):

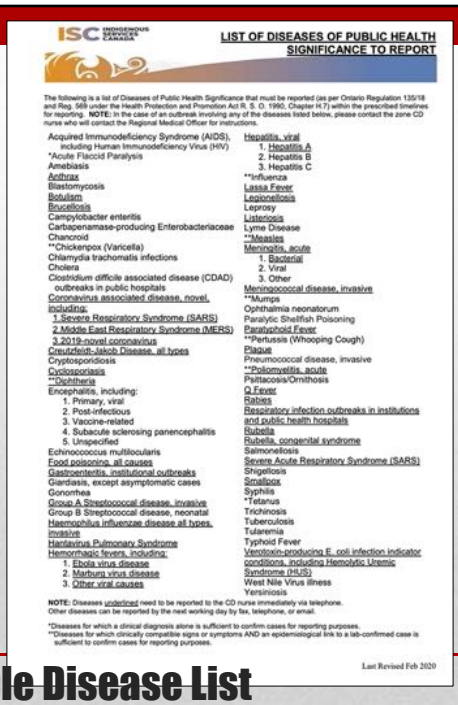
To be completed by CD nurse only: Outbreak associated: ❒ Yes ❒ No Province case # *(if applicable)*:

FNIH-OR Case #: | Date report received by CDnurse:

HC FNIH-OR PHU Version 6.6 | Page 1 of 2 | Effective February 9, 2018

Reportable Disease Form

11



ISC INDIGENOUS SERVICES CANADA

LIST OF DISEASES OF PUBLIC HEALTH SIGNIFICANCE TO REPORT

The following is a list of Diseases of Public Health Significance that must be reported (as per Ontario Regulation 135/18 and Reg. 569 under the Health Protection and Promotion Act R. S. O. 1990, Chapter H.7) within the prescribed timelines for reporting. **NOTE:** In the case of an outbreak involving any of the diseases listed below, please contact the zone CD nurse who will contact the Regional Medical Officer for instructions.

Acquired Immunodeficiency Syndrome (AIDS), including Human Immunodeficiency Virus (HIV)
*Acute Flaccid Paralysis
Amebiasis
Anthrax
Blastomycosis
Botulism
Brucellosis
Campylobacter enteritis
Carbapenamase-producing Enterobacteriaceae
Chancroid
**Chickenpox (Varicella)
Chlamydia trachomatis infections
Cholera
Clostridium difficile associated disease (CDAD) outbreaks in public hospitals
Coronavirus associated disease, novel, including:
1. Severe Respiratory Syndrome (SARS)
2. Middle East Respiratory Syndrome (MERS)
3. 2019-novel coronavirus
Creutzfeldt-Jakob Disease, all types
Cryptosporidiosis
Cyclosporiasis
**Diphtheria
Encephalitis, including:
1. Primary, viral
2. Post-infectious
3. Vaccine-related
4. Subacute sclerosing panencephalitis
5. Unspecified
Echinococcus multilocularis
Food poisoning, all causes
Gastroenteritis, institutional outbreaks
Giardiasis, except asymptomatic cases
Gonorrhea
Group A Streptococcal disease, invasive
Group B Streptococcal disease, neonatal
Haemophilus influenzae disease all types, invasive
Hantavirus Pulmonary Syndrome
Hemorrhagic fevers, including:
1. Ebola virus disease
2. Marburg virus disease
3. Other viral causes
Hepatitis, viral
1. Hepatitis A
2. Hepatitis B
3. Hepatitis C
**Influenza
Lassa Fever
Legionellosis
Leprosy
Listeriosis
Lyme Disease
**Measles
Meningitis, acute
1. Bacterial
2. Viral
3. Other
Meningococcal disease, invasive
**Mumps
Ophthalmia neonatorum
Paralytic Shellfish Poisoning
Paratyphoid Fever
**Pertussis (Whooping Cough)
Plague
Pneumococcal disease, invasive
**Poliomyelitis, acute
Psittacosis/Ornithosis
Q Fever
Rabies
Respiratory infection outbreaks in institutions and public health hospitals
Rubella
Rubella, congenital syndrome
Salmonellosis
Severe Acute Respiratory Syndrome (SARS)
Shigellosis
Smallpox
Syphilis
*Tetanus
Trichinosis
Tuberculosis
Tularemia
Typhoid Fever
Verotoxin-producing E. coli infection indicator conditions, including Hemolytic Uremic Syndrome (HUS)
West Nile Virus illness
Yersiniosis

NOTE: Diseases underlined need to be reported to the CD nurse immediately via telephone. Other diseases can be reported by the next working day by fax, telephone, or email.

*Diseases for which a clinical diagnosis alone is sufficient to confirm cases for reporting purposes.
**Diseases for which clinically compatible signs or symptoms AND an epidemiological link to a lab-confirmed case is sufficient to confirm cases for reporting purposes.

Last Revised Feb 2020

Reportable Disease List

12

- William Bear, a 23 year old male attended a community feast last night.
- He attends his appointment with complaints of sudden and frequent loose stools which started after the community feast.

Clinical presentation #1 - William

13 of 82

13

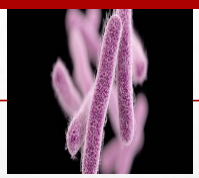
Bacterial gastroenteritis is a bacterial infection of the gastrointestinal tract. There are many different causes:

- E. Coli
- Campylobacter
- C. difficile (recent antibiotic use)
- Salmonella
- Shigella

Bacterial Gastroenteritis

14 of 82

14



OR

Salmonella

- Transmission by fecal-oral route
- Carried by domestic and wild animals (poultry and pets)
- Symptoms appear: 1-2 days
- Resolves: 3-6 days
- Symptoms: sudden colicky abdominal pain, watery brown stools and **may** contain blood and mucous, fever, N/V

Shigella

- Transmission by direct or indirect fecal-oral route
- Ingestion of contaminated food or water or contact with feces of infected humans
- Symptoms appear: 2-4 days
- Resolves: 4-8 days
- Symptoms: sudden fever, anorexia, vomiting, solid stools at first then watery brown **with mucous, blood and pus**

Bacterial Gastroenteritis

15 of 82

15

Differential Diagnoses:

- Viral gastroenteritis
- Parasitic gastroenteritis (eg, giardiasis)
- Ulcerative colitis

Bacterial Gastroenteritis

16 of 82

16

Clinical Diagnosis

- Treat based on clinical findings, particularly dehydration and consultation with MD/ NP
- Obtain stool sample (3 consecutive samples preferred) prior to initiating antibacterial treatment
- Repeat in 1-2 weeks to ensure clearance of infection
- Infection with Salmonella, Shigella and E. Coli are reportable communicable diseases.

Gastroenteritis

17

Red Flag Scenario:

- Monitor for dehydration, provide Small amounts of Oral Rehydration when possible, or initiate IV if moderate to severe.

Management:

Pharmacologic Intervention

- If nausea and vomiting are present:
  - dimenhydrinate (Gravol), 25–50 mg IM or IV STAT, then 50 mg PO or PR q4–6h PRN
- IMPORTANT: Do NOT give anti-diarrheal medication (Imodium/ loperamide) as this will slow bacterial clearance
- Consult MD/NP for clients who are immunocompromised and those who have severe symptoms/ dehydration prior to initiating antibacterial treatment.

Bacterial Gastroenteritis

18

Causes:

- *Giardia lamblia* parasite, transmitted by fecal-oral contact
- Person-to-person, ingestion of contaminated water, or ***venereal transmission by sexually active individuals (particularly homosexual men)***

Symptoms:

- Sudden onset of explosive, watery diarrhea, abdominal cramps, nausea/vomiting, foul flatus

Giardiasis Gastroenteritis

19 of 82

19

Differential Diagnoses:

- Gastroenteritis (viral, bacterial)
- Amebiasis
- Bacterial overgrowth syndromes
- Crohn's ileitis
- Irritable bowel syndrome

Clinical Diagnosis:

- Stool for C&S and Ova and Parasites (3 samples in 2-day intervals)

Management:

- Consult MD/NP generally not needed unless considering a community outbreak.
- Antibacterial, anti-protozoan to treat infection: metronidazole (Flagyl), 250 mg PO TID x 5 days
- Follow up daily for dehydrated patients

Giardiasis Gastroenteritis

20 of 82

20

Virus	Route of Transmission	Incubation Time (days)
Hepatitis A	Fecal-Oral	15-50
Hepatitis B	Parenteral, sexual, perinatal	45-180
Hepatitis C	Parenteral	14-180
Hepatitis D	Parenteral; only present with Hep B	14-56
Hepatitis E	Fecal-Oral	14-60

Symptoms:

- Fever (common in Hep A), nausea/vomiting, lethargy, dark urine, abdominal pain, jaundiced skin and sclera, tender liver on palpation.
- Clinical manifestation of Hepatitis Infection are similar and it is difficult to distinguish between symptoms to diagnose specific virus.
- Clinical History of risk factors may be helpful for diagnosis.
- Serologic testing needed for diagnosis.
- Also, Liver Function Tests, INR, Glucose and Bilirubin. (consult)

Viral Hepatitis

21 of 82

21

Differential Diagnoses:

- Hepatic cancer
- Cirrhosis
- Infectious mononucleosis
- Alcohol-induced hepatitis
- Drug-induced hepatitis

Viral Hepatitis

22 of 82

22

- Hepatitis is a reportable communicable disease. In most cases no specific therapy is indicated, and it usually resolves spontaneously in 4–8 weeks without complications or sequelae.
- Clients are most infective before the onset of jaundice. Virus may be shed for up to 1 week after jaundice appears.

Goals of Treatment

- Prevent disease
- Minimize liver damage
- Reduce spread of infection

Appropriate Consultation

- Consult MD/NP for all cases, except those that are clearly mild hepatitis A and for any client who is acutely ill at the time of presentation.

Viral Hepatitis

23 of 82

23

Hepatitis C

- often tested for when starting Suboxone, or during initial prenatal workup.
- Ensure the date of symptom onset is recorded (helps the epidemiologist determine if its newly acquired or older infection)

Management

- Acetaminophen (Tylenol), 325 mg 1–2 tabs PO q4h PRN.

Use with caution as acetaminophen is metabolized by liver

- Dimenhydrinate (Gravol), 50 mg PO q6h PRN

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HEPATITIS CASE MANAGEMENT FORM

First Nations and Inuit Health Branch – Ontario Region

CASE NUMBER ___ ___-___ ___ ___ ___ ___ ___ ☐ UPDATE

Hep B ☐ Hep C ☐

CLIENT DEMOGRAPHICS

Last Name: First Name:

Date of Birth: d d m m m y y y y Age:

Sex: ☐ Male ☐ Female ☐ Other Specify:

Pregnant: ☐ Yes ☐ No

Current residency: ☐ ON RESERVE ☐ OFF RESERVE

Current place of residence (community/ institution): _____

REASONS FOR TESTING *(Select ALL that apply)* ☐ UPDATE

☐ Symptomatic ☐ Risk factors ☐ Elevated liver enzymes ☐ Contact of Hep C case ☐ Contact of Hep B case ☐ Prenatal testing ☐ Treatment program (suboxone, detox) ☐ Other (*please specify*):

HISTORY OF HEPATITIS ☐ UPDATE

Symptomatic: ☐ Yes ☐ No *(If yes, select all that apply and place date of first symptom onset)* d d m m m y y y y

☐ Jaundice ☐ Nausea ☐ Dark urine ☐ Loss of appetite ☐ Abdominal discomfort ☐ Clay colour stools ☐ Malaise ☐ Fatigue ☐ Other (*please specify*):

RISK FACTORS HISTORY *(Select ALL that apply)* ☐ UPDATE

Infant of infected mother	☐ Yes ☐ No ☐ Unknown		Tissue/Organ transplantation	☐ Yes ☐ No ☐ Unknown	
Hemodialysis	☐ Yes ☐ No ☐ Unknown		Blood products prior to 1992	☐ Yes ☐ No ☐ Unknown	
Needle stick injury	☐ Yes ☐ No ☐ Unknown		Household contact of hep case	☐ Yes ☐ No ☐ Unknown	
Had blood/body-fluid contact as a result of an occupational exposure	☐ Yes ☐ No ☐ Unknown		Had blood/body-fluid contact as a result of a medical procedure	☐ Yes ☐ No ☐ Unknown	
Has been incarcerated	☐ Yes ☐ No ☐ Unknown	*If yes, duration:*			
Had unprotected sex	☐ Yes ☐ No ☐ Unknown	*If yes, how many partners:*			

EXPOSURE	Never	Within the last 3 months	Within the last 12 months	More than 12 months ago
Injected or snorted drugs	☐	☐	☐	☐
Shared needles, syringes, or other equipment used for injecting	☐	☐	☐	☐
How many partners did the client share them with	n/a			
Shared a straw, crack-pipe or other devices for inhalation	☐	☐	☐	☐
How many partners did the client share them with	n/a			
Body piercing/cutting/tattooing	☐	☐	☐	☐
Had sexual contact with a hepatitis B (HBV) positive person ☐ Unknown	☐	☐	☐	☐
Had sexual contact with a hepatitis C (HCV) positive person ☐ Unknown	☐	☐	☐	☐
Had sexual contact with an injection/snorting drug user (IDU) ☐ Unknown	☐	☐	☐	☐

Nurse's Signature: _____ Date: _____

Viral Hepatitis

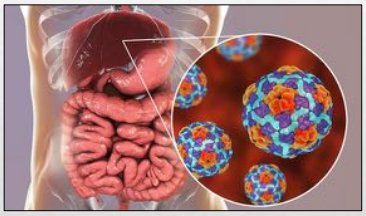
24 of 82

24

Advise community members about the following preventive measures:

- Water purification (boiling of water for 1 minute of a rolling boil) before drinking
- Impeccable hand-washing to reduce fecal-oral spread
- Sanitary disposal of fecal material
- Use of separate linens and dishes may be helpful but proper cleansing of these items is more important

(see CPG for guidance)



Hepatitis A Immunization is considered the first line of treatment in post-exposure prophylaxis in some jurisdictions.

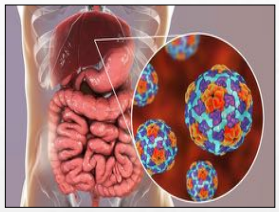
Community Outbreaks of Hepatitis A

25

- HIV attacks an individual's immune system until it grows weak
- Time that it takes to affect a person's immune system varies widely between people
- Can be managed as a chronic illness with antiretroviral medication

Human Immunodeficiency Virus (HIV)

26



Clinical characteristics:

- Insidious onset of disease, fever, diarrhea, weight loss, fatigue

May present with infections such as:

- *Pneumocystis jiroveci* pneumonia, Cryptosporidiosis, Toxoplasmosis
- May have unusual cancers or conditions like wasting syndrome, or encephalopathy

Acquired Immunodeficiency Syndrome (AIDS)

27 of 82

27

- Sierra Kakegamick, a 2 year old female attends the clinic with her grandmother and mother with history of fever for two days and complaints of a red, itchy rash on her torso starting this morning.
- Her family moved back to Ontario from Manitoba when she was 15 months old, and her immunizations were overlooked.
- She was recently in Thunder Bay with her parents.

Clinical presentation #2 - Sierra

28 of 82

28

Causes:

- Varicella Zoster Virus
- Direct contact or inhalation of airborne droplets
- Incubation: 13-17 days, up to 3 weeks

History:

- Slight fever, skin lesions, mild constitutional symptoms

Immunizations:

- Varicella immunizations received at 15 months and 4 years should provide lifelong immunity.

Varicella (Chicken Pox)

29 of 82

29

Differential Diagnosis:

- Scabies
- Impetigo
- Herpes Simplex
- Coxsackie Virus Infection

Varicella (Chicken Pox)

30 of 82

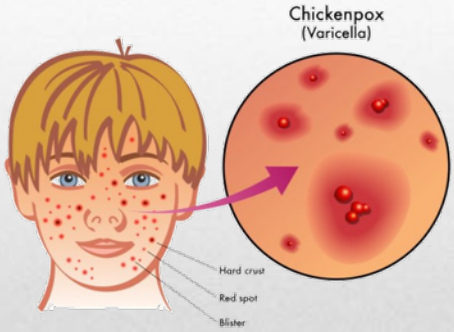
30

Management:

- Calamine Lotion or Oatmeal baths
- Acetaminophen 10-15mg/kg PO, q4-6hr PRN
- Diphenhydramine

Consult MD/NP for:

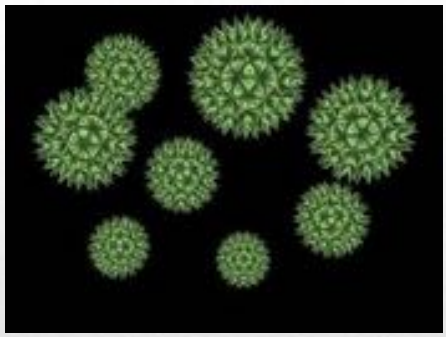
- Antiviral therapy
- Immuno-compromised hosts
- Varicella Zoster Immunoglobulin (VZIG)



Chicken pox is reportable in some jurisdictions, check with your CDC Nurse

Varicella (Chicken Pox)

31



Cause:

- Human parvovirus B19

Transmission:

- Respiratory secretions,

Incubation:

- 7-10 days, but can range from 4-21 days

Contagion:

- Once rash appears, no longer communicable

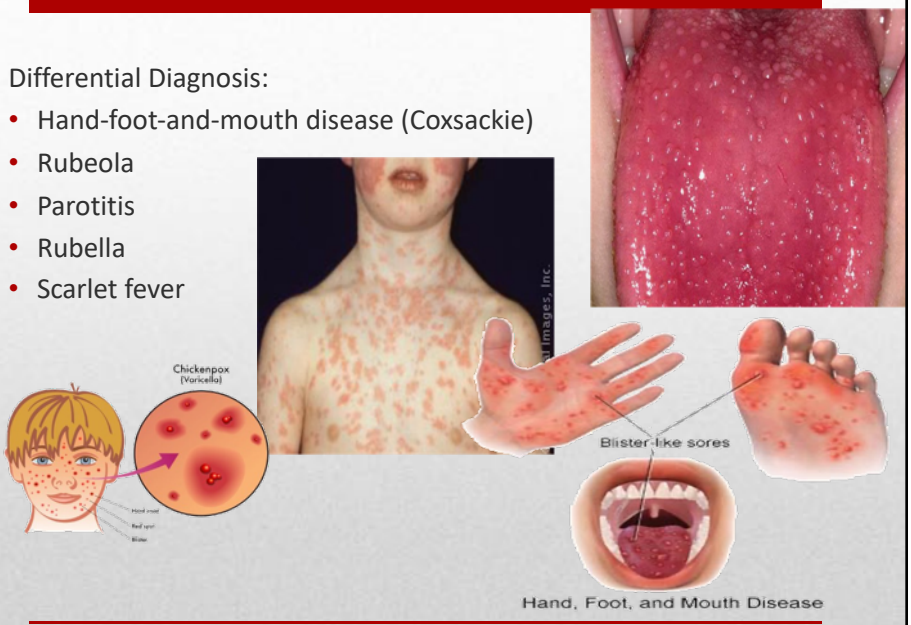
CAUTION: Pregnant Women

Erythema Infectiosum (Fifth Disease)

32

Differential Diagnosis:

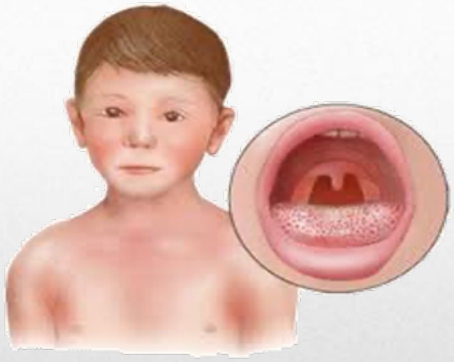
- Hand-foot-and-mouth disease (Coxsackie)
- Rubeola
- Parotitis
- Rubella
- Scarlet fever



Erythema Infectiosum (Fifth Disease)

33 of 82

33



Management:

- Avoid excessive heat or sunlight
- Acetaminophen 10-15mg/kg PO, q4-6hr PRN

Pregnant Women: Check Titre levels

Erythema Infectiosum (Fifth Disease)

34 of 82

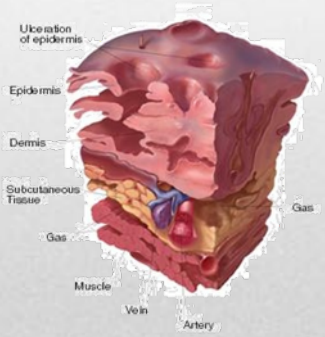
34

Causes

- Group A Streptococcus
- Risk increases with underlying disease such as diabetes mellitus, chronic heart, lung or kidney problems, and cancer

Symptoms

- Fever
- Severe pain around the injury site



Invasive Group A Streptococcal (iGAS)

35

Indigenous Services Canada / Services aux Autochtones Canada

INVASIVE GROUP A STREPTOCOCCUS (iGAS) ENHANCED SURVEILLANCE FORM
First Nations and Inuit Health Branch – Ontario Region

Please complete this form for all iGAS cases and submit by fax or email to the CD nurse

Attention: CDC Nurse
Fax #: 807-343-5348

All dates on these forms should be entered in DD/MMM/YY format.
For example, October 01, 2017 is entered as 01/OCT/17.

PART A: To be completed from the patient's medical chart before the interview (Part B)

Administrative Information

Date CHN initially notified of case: __/__/__ __/__/__
Initial and date each time form is updated and fixed:
Date CDC nurse notified: __/__/__ __/__/__
Initially interview by: _____ Date interviewed: __/__/__ __/__/__

Client Demographics

*Client Name: *Sex:
If child – Parents name: *Date of Birth:
*Client Address: *Name of Current Community:
Do you currently live ON RESERVE ☐Yes ☐No
Residency: (check all that apply in the last 1 month)
☐ ON RESERVE ☐ OFF RESERVE ☐ Home
☐ Psychiatric facility ☐ Correctional facility ☐ Other institution (e.g. nursing home)
☐ Rehab/ transition house ☐ Shelter ☐ Street
☐ Boarding house/motel ☐ Relative/friend's house ☐ Other _____
Postal Code: Home Phone #:
Physician/NP: Address: Telephone:

*Type ☐ Case ☐ Contact ☐ Both
*Case Classification: ☐ Confirmed case (sample from sterile site OR non-sterile site with evidence of clinical severity)
☐ Person under investigation ☐ Does not meet definition

The section below can be completed with information from the lab report:

Specimen collected for culture (i.e. blood, CSF, tissue), please specify:	Collection Date (YYYY/MM/DD)	Result

Emm type: _____

8 page document!!

Revised Sept 2018

Recent upsurge in Invasive Group A Strep (iGAS)

- Initially presents as impetigo, Scarlet fever etc.
- Becomes invasive GAS if Cardiac, Renal, or Neurological systems involved.
- Recent case of a group of several teens with increased BP, hematuria and edema, and all had a recent hx of strep throat.
- All developed acute post-strep glomerulonephritis – medevac'd to ICU.
- Comm Dx. and Public Health response: within 1 week, screened every child in the community for open sores, scabies, proteinuria, BP and Rapid Strep.

Invasive Group A Strep (iGAS)

36

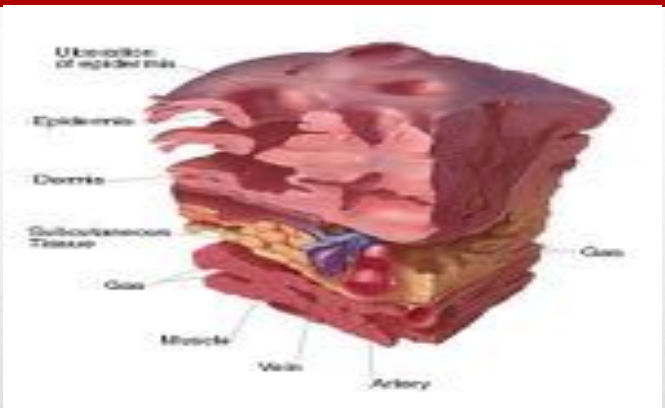
Must present with following clinical signs within 48 hours:

- Hypotension (SBP≤90 mmHg)
- 2 or more of:
  - Renal impairment
  - Coagulopathy
  - Liver involvement
  - Acute respiratory distress syndrome

Streptococcal Toxic Shock Syndrome

37 of 82

37



Differential Diagnoses:

- Cellulitis
- Sepsis
- Septic Shock

Streptococcal Toxic Shock Syndrome

38 of 82

38

Management:

- Oxygen 6 – 10 L/min or more prn
- Keep oxygen saturation > 97%
- Start IV therapy with normal saline TKVO
- Consult for Medevac and to initiate antibiotics

Streptococcal Toxic Shock Syndrome

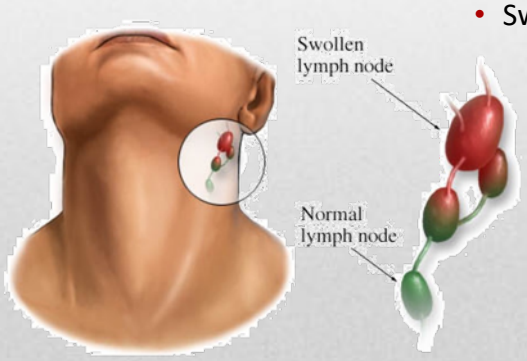
39

Causes:

- Epstein-Barr virus
- Oral transmission (saliva)

Symptoms:

- Fever
- Sore throat
- Fatigue
- Swollen lymph glands



Mononucleosis (Infectious)

40

Differential Diagnoses:

- Group A streptococcal (GAS) pharyngitis
- Hepatitis
- Viral pharyngitis
- Cytomegalovirus infection
- Toxoplasmosis

Bloodwork:

- CBC (increased WBC count)
- Monospot

Mononucleosis (Infectious)

41 of 82

41

Management:

- Ibuprofen (Motrin), 200 mg, 1–2 tabs PO q6h prn **OR**
- Acetaminophen (Tylenol), 325 mg, 1–2 tabs PO q4h prn

Mononucleosis (Infectious)

42 of 82

42

Causes:

- Transmitted by saliva from rabid animal bite that penetrates the skin

Initial Symptoms:

- Headache, fever, malaise, poor appetite, tingling or itching at the bite site

Symptoms after 2-10 days:

- Hyper excitability, anxiety, hyper salivation, muscle spasms, delirium, convulsions

Rabies Exposure

43

Differential Diagnoses:

- Delirium tremens
- Drug reaction
- Acute psychosis
- Tetanus
- Meningitis

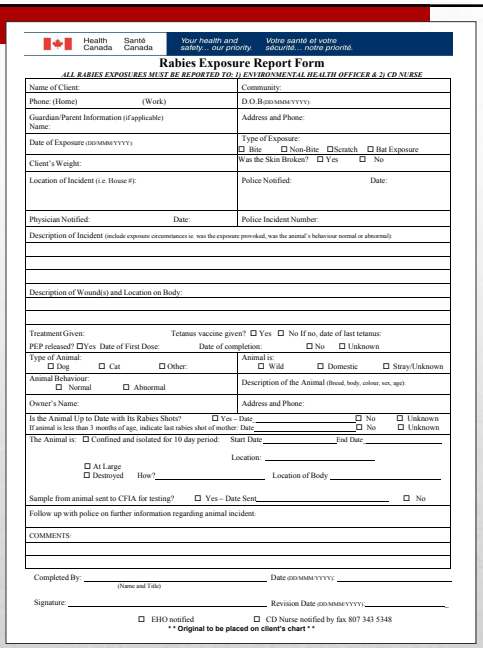
Important to complete and submit Rabies reporting form to Communicable Disease Nurse and Environmental Health Officer as soon as possible

Rabies Exposure

44

If animal is domestic:

- Band Environment Health Officer will f/u with owner to ensure quarantine animal x 10 days.
- *DO NOT KILL THE ANIMAL*
- Unable to conduct post-mortem assessments for rabies.
- Disease can be prevented through the use of Rabies Immune Globulin and Rabies Vaccine in exposed individuals prior to the virus spreading to the CNS.
- Make sure to include patient's weight as Post-Exposure prophylaxis dose is weight based.



Health Canada / Santé Canada — Your health and safety... our priority. / Votre santé et votre sécurité... notre priorité.

Rabies Exposure Report Form

ALL RABIES EXPOSURES MUST BE REPORTED TO: 1) ENVIRONMENTAL HEALTH OFFICER & 2) CD NURSE

Name of Client:	Community:
Phone: (Home) (Work)	D.O.B.(DD/MMM/YYYY):
Guardian/Parent Information (if applicable) Name:	Address and Phone:
Date of Exposure (DD/MMM/YYYY):	Type of Exposure: ☐ Bite ☐ Non-Bite ☐Scratch ☐ Bat Exposure
Client's Weight:	Was the Skin Broken? ☐ Yes ☐ No
Location of Incident (i.e. House #):	Police Notified: Date:
Physician Notified: Date:	Police Incident Number:

Description of Incident (include exposure circumstances ie. was the exposure provoked, was the animal's behaviour normal or abnormal):

Description of Wound(s) and Location on Body:

Treatment Given: Tetanus vaccine given? ☐ Yes ☐ No If no, date of last tetanus:

PEP released? ☐Yes Date of First Dose: Date of completion: ☐ No ☐ Unknown

Type of Animal: ☐ Dog ☐ Cat ☐ Other:	Animal is: ☐ Wild ☐ Domestic ☐ Stray/Unknown
Animal Behaviour: ☐ Normal ☐ Abnormal	Description of the Animal (Breed, body, colour, sex, age)
Owner's Name:	Address and Phone:

Is the Animal Up to Date with Its Rabies Shots? ☐ Yes – Date ☐ No ☐ Unknown
If animal is less than 3 months of age, indicate last rabies shot of mother: Date ☐ No ☐ Unknown

The Animal is: ☐ Confined and isolated for 10 day period: Start Date End Date:
Location:
☐ At Large
☐ Destroyed How? Location of Body:

Sample from animal sent to CFIA for testing? ☐ Yes – Date Sent ☐ No

Follow up with police on further information regarding animal incident:

COMMENTS:

Completed By: (Name and Title) Date (DD/MMM/YYYY):

Signature: Revision Date (DD/MMM/YYYY):

☐ EHO notified ☐ CD Nurse notified by fax 807 343 5348

** Original to be placed on client's chart **

Rabies Exposure

45 of 82

45

Management:

- Wash with soap and water, then rinse with antiseptic
- Consult a MD/NP immediately if rabies exposure is suspected or cannot be ruled out.
- The CD Nurse or Medical Officer of Health to determine if rabies vaccine and immune globulin necessary
- Do not suture the wound
- If required, Tetanus Vaccine IM (first day of treatment)

Rabies Exposure

46 of 82

46

Pharmacologic Intervention:

IMOVAX Rabies 1 mL IM on days 0, 3, 7, 14 and 28

AND

Rabies Immune Globulin (HyperRAB S/D) by pt. weight

- If anatomically feasible, the full dose of Rabies Immune Globulin should be infiltrated into area around and into exposed wounds
- Any remaining volume should be injected IM at a site distant from vaccine administration (eg. opposite limb).
- If multiple wounds, all sites should be infiltrated, if possible

Public Health Unit/ CDC Nurse will collaborate with CHN to ship the treatment into community ASAP. (not normally stocked in community)

The client should not have live vaccines within 4 months of being given Rabies Immune Globulin.

Rabies Exposure

47 of 82

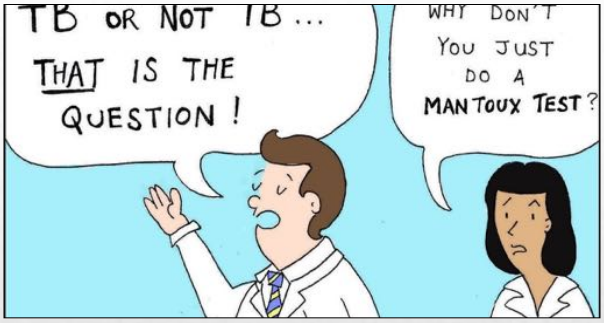
47

Cause:

- Mycobacterium tuberculosis bacterium

Symptoms:

- Chronic cough, lasting ≥3 weeks
- Hemoptysis
- Fever
- Night sweats
- Fatigue
- Weight loss



- Spread by droplet (talking, singing coughing)
- Multiplies in the alveoli
- LATENT: Immune system builds a wall around the infection
- ACTIVE: Immune system unable to supress = transmissible.
- 10% of Latent infections will develop into active, often when health declines or with aging.

Tuberculosis

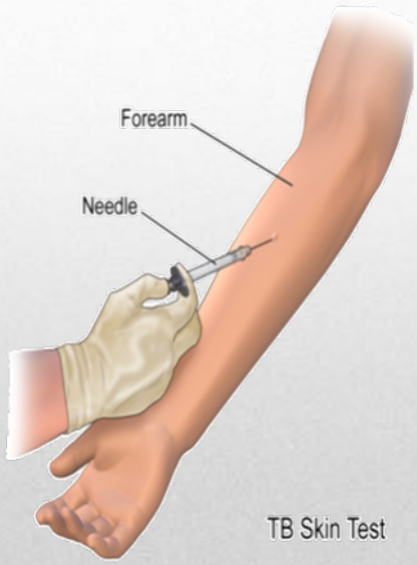
48 of 82

48

Delegated procedure

Recipient Client/Patients:

- Contacts of active TB cases
- Routine screening of 4 and 14 year olds in TBZ and MFZ
- Routine Screening of 4 year olds with no BCG History in Lac Seul, Pikangikum, Poplar Hill, Sandy Lake and Mishkeegogamang
- When required prior to giving BCG



Tuberculin Skin Test (TST)

49

Indigenous Services Canada / Services aux Autochtones Canada

Tuberculin Skin Test Form

Client Demographic Information * Indicates required information.

*Community Name:			
*Client's Name:			
	(Last Name, First Name, Middle Initial)	Alternate Name	
*Unique Identifier: (UNIP #)		*DOB: DD-MMM-YYYY	
Panorama Identifier:		*Gender: ☐ Male ☐ Female ☐ Undifferentiated	
Band Number:			

Tuberculin Screening Questions (to be completed by the Community Health Nurse- look in client chart for previous TSTs or TB history)

Please answer these screening questions by checking (√) where appropriate:

	YES	NO
1. Have you/has your child had tuberculosis?	☐	☐
2. Have you/has your child ever had a TB skin test **on their forearm** that caused a blister?	☐	☐
3. Have you/has your child ever had a TB skin test that caused a bump equal to or greater than 10 mm (size of a dime)?	☐	☐
4. Have you/has your child had a live vaccine in the past 4 weeks? (measles, mumps, & rubella, varicella, yellow fever, herpes zoster or live attenuated influenza vaccine [ie. Fluminst])?	☐	☐

If the client answers YES to ANY of the above 4 questions then they should NOT have a tuberculin skin test.

Consent for Tuberculin Skin Test (TST)

- ○ I have read or had explained to me information about the TST.
- ○ I have had the chance to ask questions, which were answered to my satisfaction.
- ○ I understand the risks and benefits associated with this test.
- ○ I am aware that personal health information collected on this form may be shared with another doctor or nurse if that is required for my care.
- ○ ***I consent to having the TST done and I am aware that I am required to return for reading of the test in 48-72 hours.***

*Form of Consent: ☐ Written ☐ Verbal

*Relationship: ☐ Parent ☐ Client ☐ Substitute Decision-Maker

Print Name of Person Giving Consent:

Signature of Person Giving Consent: | Date:

***Reason for Testing** (check (✔) one box only)

☐ Contact tracing ☐ Targeted Screening ☐ Other: _____

Test Specification		Test Results	
*Date of Test: DD-MMM-YYYY		*Date of Reading: DD-MMM-YYYY	
*Time of Test:	____ ____ : ____ ____	*Time of Reading	____ ____ : ____ ____
Dose:	Route: / Site: ☐ Inner aspect of Rt forearm ☐ Inner aspect of Lt forearm ☐ Other: _____	*Induration:	_____ mm (mm measurement is mandatory for all results) ***For interpretation of results refer to page 75 of the Canadian TB Standards, 7th Edition, or as current***
Lot # Expiry Date:		*Check only one: ☐ Positive → **Fill out LTBI Report Form** ☐ Negative ☐ Not Read	
Please note 2 step Mantoux requires a physician's order ☐ Step 1 of 2 ☐ Step 2 of 2 Ordering Physician Name: _____		Follow Up: ☐ No follow up required ☐ Inform TB/ CDC Nurse / Physician ☐ Repeat TST ☐ Chest X-Ray	
Print Name of Provider:	Signature of Provider:	Print Name of Provider:	Signature of Provider:

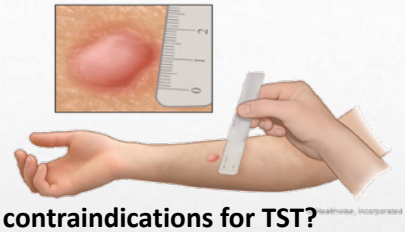
After reading and recording the test result, fax this page to the confidential number below, and place this form in the client's chart.

CD Nurse confidential fax line:	FAX: 1-807-343-5240

HC FNIH-OR PHU Version 14 Last Revised: June 2018 Page 1 of 2

TST Consent Form

50



What are some of the contraindications for TST?

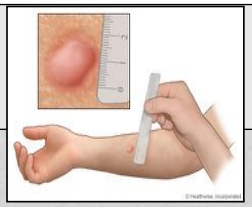
- History of a severe reaction to a TST such as blistering, necrosis, or ulceration
- Extensive eczema or burns at the TST testing site
- Documented active TB or documented history of adequate treatment (i.e. TST does not distinguish between prior and recent infection, and will not yield any useful information in this case)
- Diagnosed with major viral infections (e.g. mononucleosis, mumps)
- Documented previous positive reaction read by a healthcare professional
- Recent history of measles immunization within the past 4 weeks (although no data is available with other live vaccine – mumps, rubella, varicella, and yellow fever. There is a theoretical risk therefore prudent to follow the same 4 week guideline)

Tuberculin Skin Test - Contraindications

51 of 82

51

TST Reaction Size	Situation When Result is Considered Positive
0 - 4mm	In general this is considered negative and no tx is indicated Child less than 5 years and high risk of TB infection
5 - 9mm	HIV infection Contact with infectious TB within the past 2 years Fibronodular disease on chest x-ray (healed TB but not previously treated) Organ transplantation (related to immune suppressant therapy) TNF alpha inhibitors Other immunosuppressive drugs e.g. corticosteroids End-stage renal disease
≥ 10mm	TST conversion (within 2 years) Diabetes, malnutrition Silicosis Hematologic malignancies



TST interpretation

52 of 82

52

Latent Infection (LTBI)
- Primary infection but patient does not have active disease and cannot transmit the organism to others.
- The risk of active disease is high in certain groups of people with latent infection

Active Disease
- The person has active disease and is contagious when they have high numbers of tubercle bacilli with involvement of the respiratory tract.

Differential Diagnoses:
- Chronic or subacute pneumonia
- Chronic obstructive pulmonary disease (COPD)
- Bronchiectasis
- Lymphoma or other malignancy
- Fungal infection

Tuberculosis – Latent vs Active

53 of 82

53

Management - Active Infection*:*

Drug	Usually Daily Dosage (mg)	Adverse Reactions
Isoniazid	300	Hepatitis, paresthesia
Rifampin	600	Drug interactions, flu-like illness
Pyrazinamide	1500-2000	Hepatitis, elevated serum level of uric acid
Ethambutol	800-1600	Ocular toxicity
Streptomycin	1000	Vertigo, tinnitus, renal failure

Management - Latent Infection:
- Isoniazid (INH), 5 mg/kg to max 300 mg PO od for 6–12 months
- Pyridoxine (vitamin B6) 25 mg PO od as Directly Observed Therapy (DOT)

* See Canadian Tuberculosis Standards on LMS

Tuberculosis - Management

54 of 82

54

Sexually Transmitted and Blood-Borne Infections (STBBI) and Contact Tracing

CANADIAN HEALTH CARE AGENCY
EXPERIENCE THE NORTH

55 of 82

55

Objectives

Discuss and Describe

- History taking procedure
- Physical examination
- Differential diagnoses
- Diagnostic Tests
- Management

56 of 82

56

General History

- Site of sexual contact (vaginal, oral, anal)
- Sexual orientation
- Use of condoms
- Number of past sexual partners
- History of sex with injection drug users
- Present symptoms of STBBIs in client or his/her partner

History

57

Specific History

Men

- Urethral discharge (amount, colour and time of day)
- Dysuria
- Itch
- Pain or swelling in scrotum or inguinal region

Women

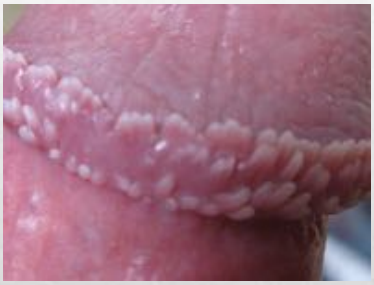
- Vaginal discharge (amount, colour, vaginal itch)
- Burning sensation with urination
- Painful intercourse with penetration
- Post-coital, mid-cycle or excessive menstrual bleeding

80-90% of patients with Chlamydia/ Gonorrhea are asymptomatic

History

58

Men



- Inspect and palpate the penis and glans for lesions
- Examine meatus for discharge
- Inspect and palpate scrotum for heat, tenderness, swelling and lesions
- Examine perianal area for lesions or discharge

Physical Examination - Men

59

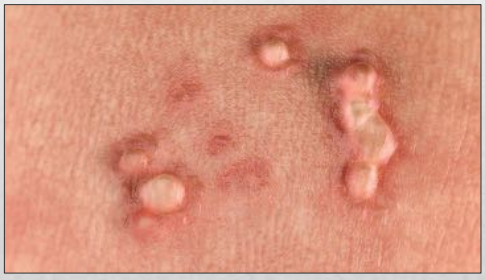
Women

- Inspect and palpate the external genitalia to detect lesions, swelling, discharge
- Observe amount and colour of vaginal discharge
- Examine and visualize the cervix via a speculum examination

Is a Pap due?

- Wait till after treatment

to conduct a pap test.



Physical Examination - Women

60

Men

Symptoms	Possible STI Syndrome
Urethral discharge, burning on urination, itch	Urethritis
Painful genital ulcers or lesions	Genital ulcer disease (eg. genital herpes, syphilis)
Acute onset of unilateral scrotal pain or swelling	Epididymitis

Differential Diagnosis

61 of 82

61

Women

Symptoms	Possible STI Syndrome
Vaginal discharge, odour, genital itch	Vulvovaginitis (eg. Trichomonas vaginalis)
Recent onset of abdominal pain, vaginal bleeding, deep dyspareunia	Cervicitis, pelvic inflammatory disease
Painful genital lesions or ulcers, painful inguinal lymphadenopathy	Genital ulcer disease (e.g. genital herpes, syphilis, cancroid)

Differential Diagnosis

62 of 82

62

- Consult for orders to test and treat
- Urine NAAT for GC/CT – first catch urine, 2 hrs post void
- Test and treat same day for symptomatic contacts
- Swabs including cervix, rectum and pharynx can be cultured
- Test for *Chlamydia*, *N. gonorrhoea, Trichomonas, Bacterial Vaginosis*
- Serology (blood serum) sample for VDRL test for syphilis, hepatitis B and C, and HIV.

Diagnostic Tests

63 of 82

63

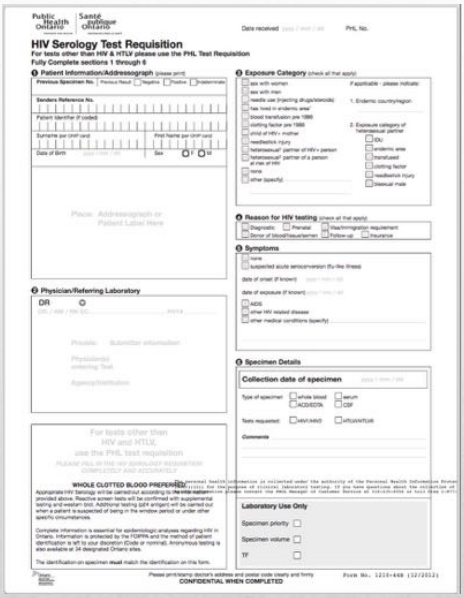
Non-Pharmacologic Interventions

- Advise client of appropriate administration of medications
- Counsel the client about abstinence x 1 week after treatment
- Teach client about barrier methods for protection during intercourse
- Provide condoms
- Test of cure only indicated for prenatal patients

Management

64 of 82

64


HIV Serology Test Requisition

For tests other than HIV & HTLV please use the PHL Test Requisition

Fully Complete sections 1 through 6

Patient Information/Addressograph

Exposure Category

Reason for HIV testing

Symptoms

Physician/Referring Laboratory

Specimen Details

Collection date of specimen

Laboratory Use Only

WHOLE CLOTTED BLOOD PREFERRED

CONFIDENTIAL WHEN COMPLETED

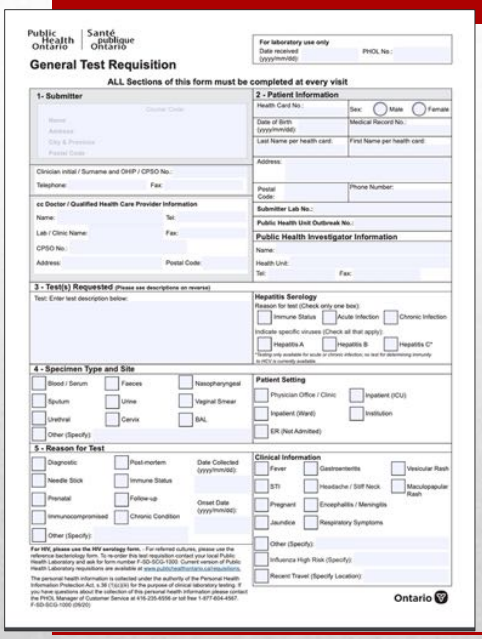
HIV Serology Test Requisition

- MD/ NP order for testing
- In Ontario can be nominal or anonymous.
- Anonymous testing at 50 sites in the province
- Prenatal women offered HIV testing at initial Prenatal workup.
- Offer HIV testing regularly, especially to IV drug users.

Blood Testing for STBBIs

65 of 82

65


General Test Requisition

ALL Sections of this form must be completed at every visit

1- Submitter

2 - Patient Information

3 - Test(s) Requested

Hepatitis Serology

4 - Specimen Type and Site

Patient Setting

5 - Reason for Test

Clinical Information

Public Health Investigator Information

Ontario

Ontario Public Health General test Requisition

- Syphilis (VDRL)
- Hepatitis B
- Hepatitis C

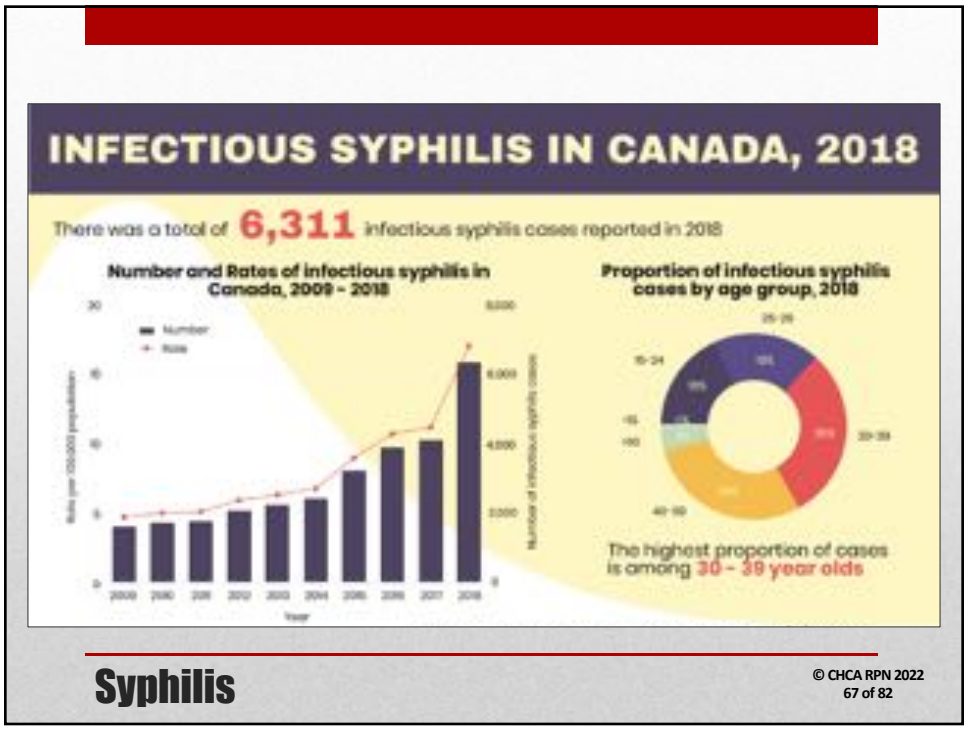
- This requisition is also used for Chlamydia and Gonorrhea
- MD/NP order for testing

www.sexualhealthontario.ca

Blood Testing for STBBIs

66 of 82

66


INFECTIOUS SYPHILIS IN CANADA, 2018
There was a total of 6,311 infectious syphilis cases reported in 2018
Number and Rates of infectious syphilis in Canada, 2009 - 2018
Proportion of infectious syphilis cases by age group, 2018
The highest proportion of cases is among 30 - 39 year olds
Syphilis
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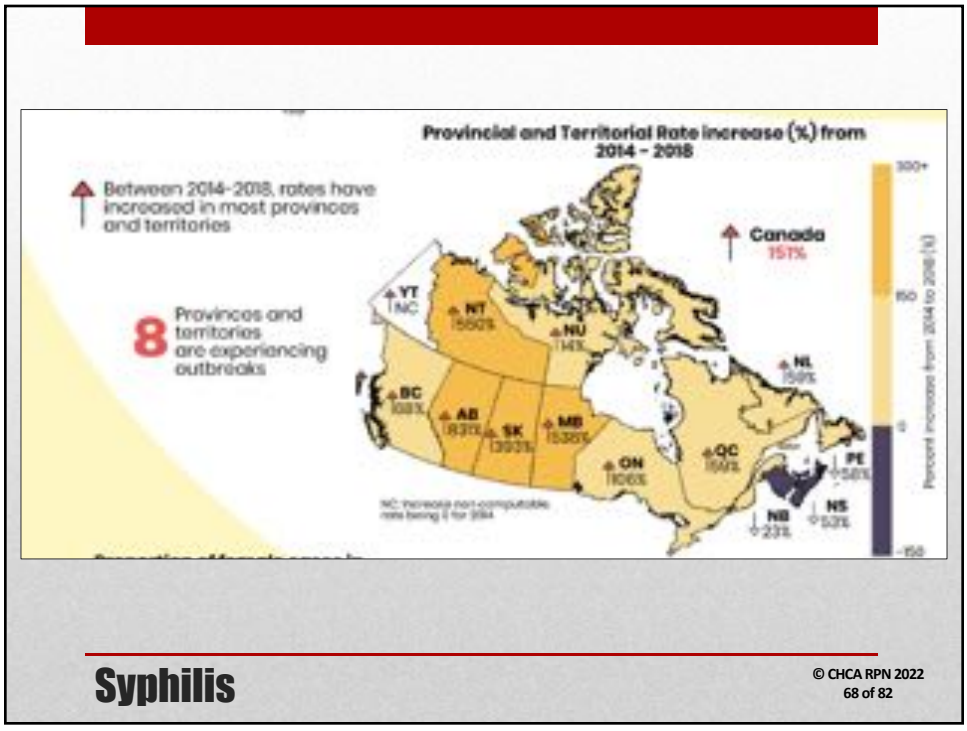
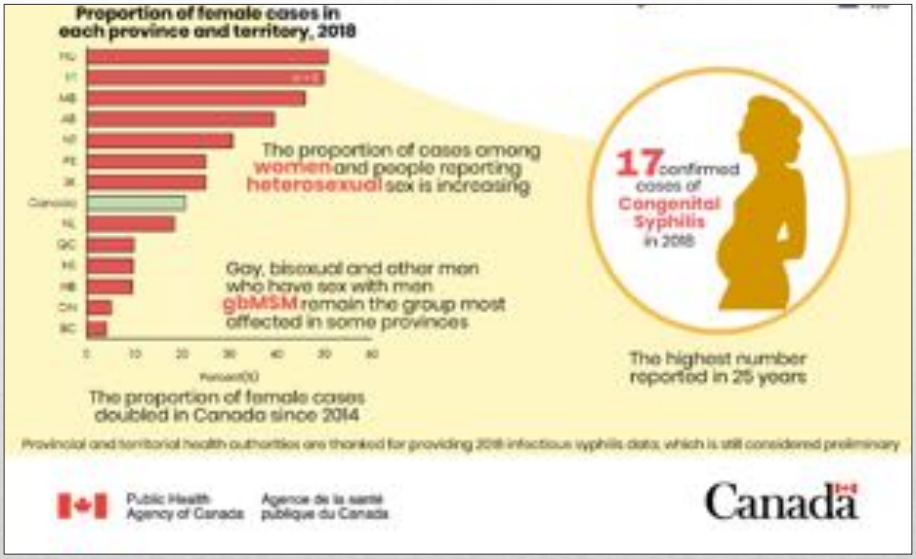
67 of 82

67


Provincial and Territorial Rate increase (%) from 2014 - 2018
Between 2014-2018, rates have increased in most provinces and territories
8 Provinces and territories are experiencing outbreaks
Canada 151%
Syphilis
© CHCA RPN 2022
68 of 82

68



69

- Steep increase in infection rates since 2014. Left untreated, syphilis has many associated complications.
- Gay, bisexual and other men who have sex with men (gbMSM) are disproportionately affected.
- Congenital syphilis is also re-emerging with the highest number of cases ever being reported in 2018 and 2019.
- Screening is of particular importance in pregnancy:
  - Universal screening is recommended at first prenatal visit.
  - Repeat screening at 28 to 32 weeks and again at delivery is recommended those at ongoing risk of infection or reinfection and in areas experiencing outbreaks of syphilis.
  - Screen all woman who deliver a stillborn infant after 20 weeks gestation.

Diagnostic testing

- Syphilis is usually diagnosed through serology regardless of suspected stage of infection.
- Interpretation of serology results can be complex, and different testing algorithms may be used by provinces and territories
- MD/ NP Order for testing

VIDEO - Syphilis

Syphilis

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70 of 82

70

Clinical manifestations

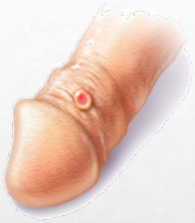
- usually described according to stage of disease:
  - primary,
  - secondary,
  - latent,
  - congenital,
  - neurosyphilis and
  - tertiary syphilis.

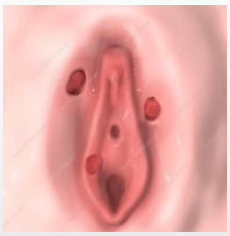
Note: Neurosyphilis may occur at any stage.

- Health care practitioners should consider syphilis in people presenting with rashes or genital ulcerative disease and/or proctitis.

Syphilis

71





- Usually occurs three (3) weeks after infection but can range from three (3) to 90 days.
- The primary manifestation is a painless lesion (chancre).
- In persons practicing receptive sex, the lesion(s) may be intra-anal, oral or on the internal genital tract and may go unnoticed.
- Regional lymphadenopathy may occur.

Primary Syphilis

72

Secondary syphilis

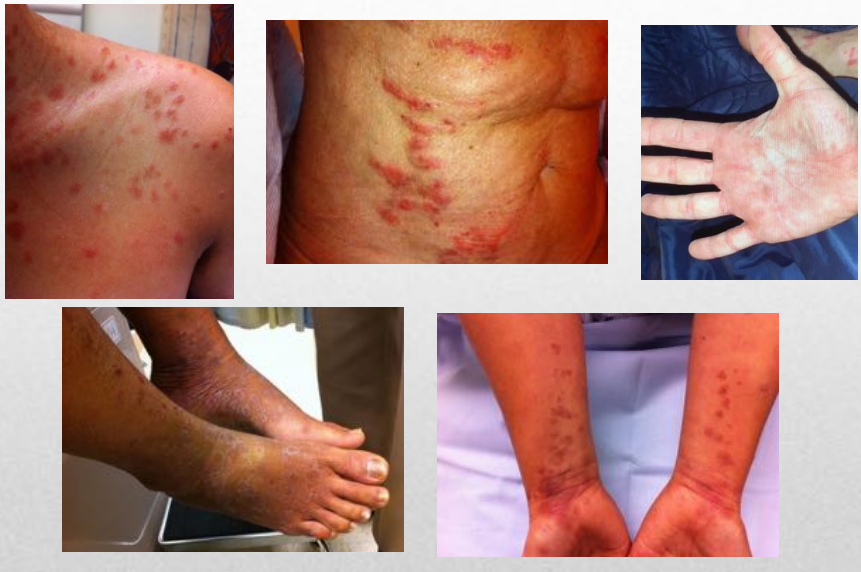
- Typically starts with the development of a rash.
- The characteristic rash of secondary syphilis may appear as rough, red, or reddish brown spots on the palms of the hands and the bottoms of the feet.
- Rashes with a different appearance may occur on other parts of the body and may be so faint that they are not noticed.
- Signs and symptoms usually occur between two (2) to 12 weeks, but can occur up to six (6) months after infection and may include:
  - Rash
  - Fever
  - Malaise
  - Headaches
  - Mucosal lesions
  - Condylomata lata
  - Lymphadenopathy
  - Patchy or diffuse alopecia

- Secondary syphilis can also manifest with signs and symptoms of:
  - meningitis (e.g. headaches),
  - uveitis/retinitis (e.g. blurred vision, eye redness, flashes or floaters) or
  - otic symptoms (e.g. hearing loss, tinnitus).

Secondary Syphilis

73 of 82

73



Secondary Syphilis

74 of 82

74

Early latent syphilis
- Asymptomatic infection of less than one (1) year duration.

Late latent syphilis
- Asymptomatic infection of more than one (1) year duration.

Secondary Syphilis

75

Treatment – Needs MD/ NP order

Infectious syphilis (primary, secondary and early latent stages)*:*
- Long-acting Benzathine Penicillin G
- 2.4 million units intramuscular as a single dose.

Longer duration syphilis (late latent and tertiary syphilis):
- Three (3) weekly doses of Benzathine penicillin G-LA 2.4 million units IM.

Neurosyphilis
- requires more aggressive treatment with intravenous antibiotics, and should be managed by, or in consultation with, an infectious disease specialist.

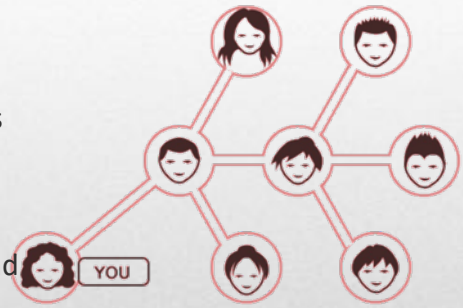
Follow-up
- Post treatment serologic testing is used to assess treatment response.
- It should be done at recommended intervals, which vary depending on stage of infection.

Syphilis

76

Contact Tracing

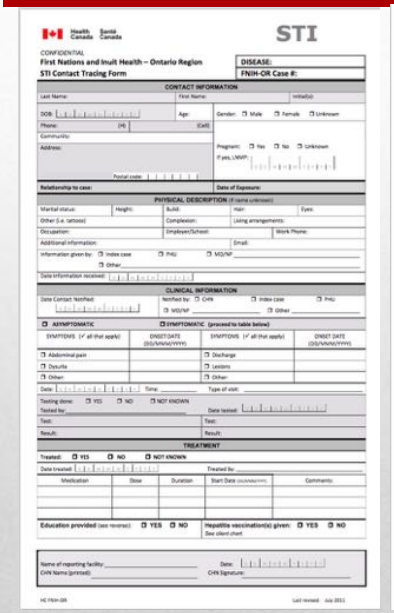
- Assume the presenting client is the index case until proven otherwise
- Obtain a list of all sexual partners in the past 3 months (or more) when samples are collected
- If test results are positive, all contacts must be reported and tested appropriately
- Determined by mode of transmission
  - Eg: measles – airborne vs. STI.

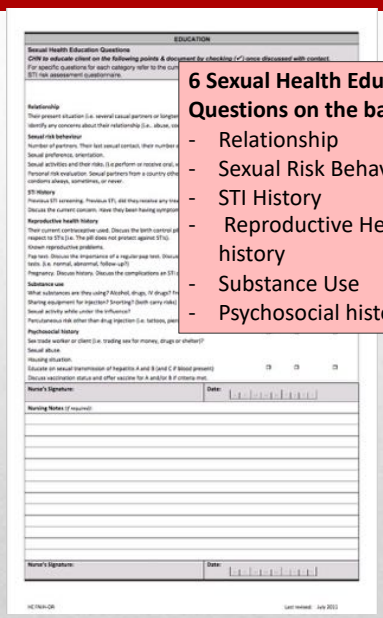


Management

77 of 82

77





6 Sexual Health Education Questions on the back:

- Relationship
- Sexual Risk Behaviour
- STI History
- Reproductive Health history
- Substance Use
- Psychosocial history

Individual Case Form

78 of 82

78

Contact Tracing Form

79

Follow up is essential when:

- Treatment has failed previously
- Compliance is uncertain
- Re-exposure to untreated partner is likely
- Infection occurs during pregnancy – test of cure

Management

80

Resource: sexandu.ca website

81

Canadian Guidelines on Sexually Transmitted Infections. Retrieved on Oct 14th 2014: http://www.cpha.ca/uploads/portals/idp/23384.pdf

www.sexandu.ca

References

82