5.2 CHANCROID REPORTABLE

ETIOLOGY

Chancroid is an acute bacterial infection caused by *Haemophilus ducreyi*, a gram-negative coccobacillus.

CASE DEFINITION

Laboratory-confirmed case:

- detection of *Haemophilus ducreyi* taken from an ulcerated lesion in the genital area.

CLINICAL FEATURES

- This ulcerative disease is generally found in the genital area.
- The infection begins as a tender erythematous papule 4 – 7 days after infection. The papule becomes pustular and breaks down over several days into a shallow painful ulcer with ragged edges and a red border or halo. One or more of the necrotizing ulcers may join together.
    - In males, lesions occur on the prepuce, coronal sulcus and shaft of the penis.
    - In females, lesions are rarely seen in the vagina or on the cervix but can occur anywhere on the external genitalia
- Lymph nodes in the area (usually unilateral) become swollen, painful, and matted together forming an abscess or bubo in the groin.
- Chancroid ulcers increase the risk of HIV infection.
- Co-infection with syphilis or herpes simplex virus is common.
- Chancroid can mimic other genital ulcer diseases, particularly syphilis; however, chancroid lesions are usually painful, and classic primary syphilis chancres are generally painless.

DIAGNOSIS

- Identification of the organism is made by isolating it from the base of the ulcer, or pus from the affected lymph nodes.
- Clinical etiologic diagnosis is frequently erroneous; in Canada, careful etiologic investigation of an ulcer should be carried out, since chancroid is not known to be endemic.
- There are no useful serologic tests for diagnosis of *H. ducreyi*.

Laboratory Tests

What to order:

- HSV/VZV DNA Panel, mnemonic HSVVZVDP

- If negative and further investigation is warranted call the PHL and ask them to send for H.ducreyi/T.pallidum molecular detection. This testing will be performed at NML. The same specimen can be used and will be available for several months.

Specimen Collection

- Universal Transport Medium (UTM)
    - viral transport media. This has a red top with pink liquid media inside
- Transport at 2 to 8 ºC, if going to be delayed over a weekend, or for any other reason, freeze.

For confirmation on laboratory specimens to collect go to the PHL website www.publichealthlab.ca or call (709)-777-6583.

EPIDEMIOLOGY

Occurrence

- **The risk of HIV transmission increases by 10–50-fold following sexual exposure to an individual with concomitant *H. ducreyi* and HIV infection**
- Chancroid is most prevalent in tropical and subtropical regions of the world.
- It is less common in temperate zones but is considered to have worldwide distribution.
- It is readily eliminated with control activities directed toward sex workers, treatment of men with genital ulcers and enhanced attention to STI-control efforts.
- Chancroid is transmitted only by individuals with ulcerations; no latent reservoir of transmissible chancroid without active disease is known.
- The last reported case in Newfoundland and Labrador was in 1992.

Reservoir

- Humans are the only known reservoir.
- Females (particularly sex workers) who have multiple partners in spite of genital ulceration are the usual reservoir.

Incubation

3-5 days, up to 14 days

Transmission

Exchange of infected secretions from open lesions during direct sexual contact can affect vaginal or rectal or urethral tracts. Auto-inoculation to non-genital sites may occur but is rare. *H. ducreyi* is often identified as a co-infection of HIV or syphilis.

Communicability

- The infection may be passed until lesions or buboes are healed.
- Without treatment, the infectious agent may persist in the lesion or discharging lymph nodes for several weeks or months.
- Treatment with antibiotics eradicates *H. ducreyi* and lesions heal in 1-2 weeks.

CONTROL MEASURES

Management of Cases

- Determine the presence or absence of symptoms.
- Assess risk factors for chancroid
- Offer testing for other STBBIs.
    - Patients suspected of having chancroid should also be considered for the following STIs:
        - Lymphogranuloma venereum
        - HSV
        - Syphilis
        - Donovanosis (granuloma inguinale)
    - All patients with presumed chancroid should also be tested for syphilis and HIV infection at presentation and 3 months later. Patients should also be tested appropriately for gonorrhea.
    - Immunization for hepatitis B should be offered to non-immune patients.

- Provide safer sex counselling
- Identify sexual partners requiring notification and collect locating information.

Treatment

- Appropriate antibiotic treatment is recommended according to the MOH/Designate or attending physician.

Table 1: Adult Treatment of Chancroid Infection

Antibiotic Regimen	Notes
Ciprofloxacin 500mg po single dose	Cure rate of >90%
Erythromycin 500mg po tid x7days	Cure rate >90% Poorer compliance
Azithromycin 1g po single dose	Cure rate >90%
Ceftriaxone 250mg IM single dose	Failure is common in HIV co-infection

Source: Canadian Guidelines on Sexually Transmitted Infections, 2013

- Treatment failures may occur, especially in HIV co-infected patients. All treatment failures should be carefully evaluated with respect to both the etiology and the possible co-existence of other pathogens.
- Chancroid buboes should be aspirated or incised to relieve pain and prevent

spontaneous rupture

- All cases should abstain from unprotected sex until the treatment is complete.
- All cases should be educated regarding infection transmission.
- All cases should be provided with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STI.
- Provide HB vaccine to susceptible individuals.

Pediatric Cases

- Neonates born to untreated, infected mothers must be tested and treated.
- If the case is in an infant, the mother and her sexual partner(s) should be examined and tested.
- Beyond the neonatal period sexual abuse must be considered and reported to CYFS as per the Children and Youth Care and Protection Act.

Management of Contacts

Definition of Contact:

- A person who has had sexual contact or some relevant exposure to the case within 14 days of symptom onset.
- Relevancy of risk would be directly related to the degree of precautions used during exposure.
- A contact that becomes a case is subsequently managed as case.

Notification

- Partner notification will identify those at risk, reduce transmission/re-infection and ultimately prevent disease sequelae
- Notification of partners and contacts is done in a confidential manner that protects the identity of the index case. This may be done by the index case or by the HCP
- All contacts should be screened for HIV and other STI.
- All contacts should be instructed about infection transmission.
- All contacts should be provided with individualized STI prevention education, targeted at developing knowledge, skills, attitudes and behaviors to reduce the risk and prevent recurrences of STIs
- Follow up on all out of town province/country referrals of cases and partners is done in collaboration with provincial office.

Management of Outbreaks

An outbreak management team should be established to address infection prevention and control measures.

PREVENTION

Follow-up Testing

Repeat diagnostic testing for the detection of *H. ducreyi* is not routinely indicated if a recommended treatment is given and taken AND symptoms and signs disappear AND there is no re-exposure to an untreated partner.

Education and Preventive Measures

- Ensure appropriate treatment for H. ducreyi cases.
- Make STI services culturally appropriate, accessible and acceptable.
- Interview case, identify and ensure appropriate treatment and follow-up of H. ducreyi for sexual partners.
- Educate the case, sexual partner(s), and the public about symptoms, transmission and prevention of infection including:
    - personal protective measures including the correct and consistent use of condoms
    - delaying onset of sexual activity
    - developing mutually monogamous relationships
    - reducing the numbers of sexual partners
    - minimize anonymous or casual sexual activity
    - make STI services culturally appropriate, and readily accessible and acceptable
    - provide information about risk of STIs when travelling.

DOCUMENTS

Reference: http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-5-1-eng.php