

Sexually Transmitted Intestinal and Enteric Infections

Updated: January 2010

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SEXUALLY TRANSMITTED INTESTINAL AND ENTERIC INFECTIONS

Definitions

- **Proctitis:** Inflammation limited to the rectal mucosa, not extending beyond 10–12 cm of the anal verge. Transmission of the involved pathogens is usually due to direct inoculation into the rectum during anal intercourse.
- **Proctocolitis:** Inflammation of the rectal mucosa and of the colon extending above 10–12 cm of the anal verge; generally has an infectious etiology different from proctitis. Transmission is usually fecal-oral.
- **Enteritis:** Inflammation of the duodenum, jejunum and/or ileum. Transmission is usually fecal-oral.

Etiology¹

- Sexually transmitted intestinal syndromes involve a wide variety of pathogens at different sites of the gastrointestinal tract.
- The diversity of sexually transmissible pathogens responsible for intestinal disease remains a challenge for the clinician.
- Polymicrobial infection often occurs, causing an overlap of symptoms.
- Infections of the anus and rectum are often sexually transmitted and typically occur in men and women who engage in unprotected receptive anal intercourse.
- Sexually transmitted infections (STIs) should always be considered, but trauma and foreign bodies may result in findings suggestive of proctitis or proctocolitis.
- Some anorectal infections in women are secondary to the contiguous spread of the pathogens from the genitalia.
- Infections with pathogens traditionally associated with food- or water-borne acquisition are known to occur via sexual transmission, most often via the fecal-oral route.
- Infections are often more severe in persons infected with HIV, and the list of potential causes is greater.
- In persons with advanced HIV infection, consider cryptosporidium and microsporidium.

Table 1 lists the pathogens involved in the common sexually transmitted gastrointestinal syndromes and their modes of acquisition.

Table 1. Common sexually transmitted gastrointestinal syndromes¹

Syndrome	Pathogen(s)	Mode of acquisition
Proctitis	<ul style="list-style-type: none"> • <i>Neisseria gonorrhoeae</i> • <i>Chlamydia trachomatis</i> (LGV and non-LGV serovars) • <i>Treponema pallidum</i> • Herpes simplex virus 	Receptive anal intercourse in the majority of cases
Proctocolitis	<ul style="list-style-type: none"> • <i>Entamoeba histolytica</i> • <i>Campylobacter</i> species • <i>Salmonella</i> species • <i>Shigella</i> species • <i>C. trachomatis</i> (LGV serovars) 	Direct or indirect fecal-oral contact
Enteritis	<ul style="list-style-type: none"> • <i>Giardia lamblia</i> 	Direct or indirect fecal-oral contact

LGV=lymphogranuloma venereum

Epidemiology²

- Sexual practices of individuals often involve direct or indirect contact with the rectal mucosal membranes (i.e., sharing sex toys).
- Sexually transmitted intestinal syndromes occur commonly in men who have sex with men who engage in unprotected anal intercourse or oral-anal and oral-genital sexual activities.
- Heterosexual men and women can also be at risk for acquiring enteric infections by oral-anal sexual activities.
- Women can acquire sexually transmitted anorectal pathogens by unprotected anal intercourse.
- Unprotected anal intercourse is being reported more frequently among several subpopulations, such as sexually active adolescents and street youth.

Prevention and Control

- Since anal intercourse is the main mode of sexual transmission for pathogens that cause proctitis, clinicians should identify barriers to prevention practices and discuss means to overcome them.
- Since oral-anal sexual activities are the main mode of acquisition for sexually transmitted proctocolitis and enteritis, the risks of fecal-oral contamination should be discussed, particularly with sex trade workers and men who have sex with men.

Manifestations

- Typical presenting symptoms of the different sexually transmitted intestinal syndromes are listed in Table 2.
- Asymptomatic infections are also prevalent.

- Clinicians should routinely inquire about specific sexual activities, regardless of the patient's reported sexual preference (see *Primary Care and Sexually Transmitted Infections* chapter).

Table 2. Possible symptoms of sexually transmitted intestinal syndromes

Syndrome	List of possible symptoms
Proctitis	<ul style="list-style-type: none"> • Anorectal pain • Tenesmus • Constipation • Hematochezia (bloody stools) • Mucopurulent discharge
Proctocolitis	<ul style="list-style-type: none"> • Proctitis symptoms • Diarrhoea • Cramps • Abdominal pain • Fever
Enteritis	<ul style="list-style-type: none"> • Diarrhoea • Cramps • Bloating • Nausea

Diagnosis

- If a symptomatic patient reports any anorectal sexual activities, anoscopic evaluation should be a routine part of the physical examination.
- Specimen collection should be adapted to the clinical presentation and history, including possible exposure to lymphogranuloma venereum (LGV) (see *Lymphogranuloma Venereum* chapter). For example, in some cases of enteric infections, evaluation for sexually transmitted pathogens might not be relevant.
- Anoscopic examination for proctitis:
 - Obtain rectal swabs for culture, preferably under direct vision through an anoscope, for appropriate diagnostic testing for *Neisseria gonorrhoeae*, *Chlamydia trachomatis* (further testing is required for positive cultures to differentiate between Chlamydia and LGV infections), and herpes simplex virus (HSV).
 - A specimen from the lesions should also be collected for a diagnostic test for HSV.
 - Syphilis serology should also be performed in all patients (see *Syphilis* chapter).
 - Although nucleic acid amplification tests (NAATs) are available for detection of gonococcal and chlamydial infections in urogenital specimens, they have not been extensively studied for rectal specimens.
- If indicated by clinical presentation and/or history: collect stool specimen for culture for enteric pathogens and examination for ova and parasites.

Management and Treatment

- Treatment of sexually transmitted intestinal infections should be based on physical findings.
- A high index of suspicion concerning the different etiological agents should be maintained by the clinician.
- Most often, treatment of suspected proctitis will be empirical and should not await test results.

Table 3A. Recommended treatment regimens according to suspected or proven diagnosis²

Suspected or proven diagnosis	Preferred treatment regimens*	Alternative treatment regimens*
<p>If an anorectal exudate is found on examination, treat for proctitis due to <i>N. gonorrhoeae</i>[†] and <i>C. trachomatis</i></p> <p>(see <i>Gonococcal Infections</i> chapter and <i>Chlamydial Infections</i> chapter for alternative treatment recommendations; see <i>Lymphogranuloma Venereum</i> chapter for treatment recommendations for LGV serovars of <i>C. trachomatis</i>)</p>	<ul style="list-style-type: none"> • Cefixime 400 mg PO in a single dose^{¥§} [A-I] <p>PLUS</p> <ul style="list-style-type: none"> • Doxycycline 100 mg PO bid for 7–10 days [A-I] <p>OR</p> <ul style="list-style-type: none"> • Azithromycin 1 g PO in a single dose if poor compliance is expected [A-I] 	<ul style="list-style-type: none"> • Ciprofloxacin 500 mg PO in a single dose[†] [A-I] <p>OR</p> <ul style="list-style-type: none"> • Ofloxacin 400 mg PO in a single dose[†] [A-I] <p>OR</p> <ul style="list-style-type: none"> • Ceftriaxone 125 mg IM in a single dose[§] [A-I] <p>PLUS</p> <ul style="list-style-type: none"> • Doxycycline 100 mg PO bid for 7–10 days [A-I] <p>OR</p> <ul style="list-style-type: none"> • Azithromycin 1 g PO in a single dose if poor compliance is expected [A-I]

[†] Due to the rapid increase in quinolone resistant *Neisseria gonorrhoeae*, quinolones such as ciprofloxacin and ofloxacin are no longer preferred drugs for the treatment of gonococcal infections in Canada.

Quinolones may be considered as an alternative treatment option ONLY IF:

– antimicrobial susceptibility testing is available and quinolone susceptibility is demonstrated;

OR

– where antimicrobial testing is not available, a test of cure is essential.

[§] Cefixime and ceftriaxone should not be given to persons with a cephalosporin allergy or a history of immediate and/or anaphylactic reactions to penicillins.

[¥] Cefixime is preferred over ceftriaxone as a factor of cost and ease of administration.

^{||} The preferred diluent for ceftriaxone is 1% lidocaine without epinephrine (0.9 mL/250 mg, 0.45 mL/125 mg) to reduce discomfort.

* For references associated with the treatment recommendations, see *Chlamydial Infections*, *Gonococcal Infections*, *Genital Herpes Simplex Virus Infections* and *Lymphogranuloma Venereum* chapters.

Table 3B. Recommended treatment regimens according to suspected or proven diagnosis²

Suspected or proven diagnosis	Recommended treatment regimens*
If patient is suspected or proven to have HSV infection	Treat with antiviral regimens according to genital HSV infection recommendations (see <i>Genital Herpes Simplex Virus Infections</i> chapter)
If patient is suspected or proven to have <i>T. pallidum</i> infection	<ul style="list-style-type: none"> • Benzathine penicillin G 2.4 million units IM in a single dose (primary and secondary syphilis) [A-I] OR <ul style="list-style-type: none"> • Treat according to syphilis treatment recommendations for other suspected stages of syphilis or in HIV-infected individuals or in pregnant women (see <i>Syphilis</i> chapter)
If patient is suspected or proven to have an enteric pathogen other than those listed above	Treat according to the specific pathogen management and treatment recommendations

HSV=herpes simplex virus

LGV=lymphogranuloma venereum

* For references associated with the treatment recommendations, see *Chlamydial Infections*, *Gonococcal Infections*, *Genital Herpes Simplex Virus Infections* and *Lymphogranuloma Venereum* chapters.

Consideration for Other STIs

- Proctitis is associated with specific high-risk sexual activities; therefore, patients presenting with symptoms should be evaluated for other STIs.
- Counselling and testing for HIV are recommended.
- Screening for hepatitis B markers may be considered in certain high-risk individuals before considering immunization.
- Immunization against hepatitis A and B is recommended.
- Serologic testing for syphilis should be strongly considered in all individuals presenting with proctitis.
- For women, discuss HPV vaccine as per the recommendations outlined in the Canada Communicable Disease Report, Volume 33 ACS-2, (2007) *National Advisory Committee on Immunization (NACI) statement on Human papillomavirus vaccine*.

Reporting and Partner Notification

- Patients with conditions that are notifiable according to provincial and territorial laws and regulations should be reported to the local public health authority.
- When treatment for proctitis is indicated, sexual partners should be traced 60 days prior to symptom onset or date of specimen collection (if asymptomatic).
 - The length of time for the trace-back period should be extended:
 - 1) to include additional time up to the date of treatment
 - 2) if the index case states that there were no partners during the recommended trace-back period, then the last partner should be notified
 - 3) if all partners traced (according to recommended trace-back period) test negative, then the partner prior to the trace-back period should be notified.
- Partners should be located, clinically evaluated and treated with the same regimen as the index case regardless of clinical findings and without waiting for test results.
- Local public health authorities are available to assist with partner notification and help with appropriate referral for clinical evaluation, testing, treatment and health education.

Follow-up

- Follow-up should be arranged for every patient. If a recommended treatment regimen has been given and properly taken, symptoms and signs have disappeared and there has been no re-exposure to any untreated partner, then repeat diagnostic testing for *N. gonorrhoeae* and *C. trachomatis* is not routinely recommended.
- In cases of confirmed syphilis, appropriate serological follow-up according to syphilis recommendations should be carried out.

Special Considerations

- **Despite movement toward more social consciousness and awareness of STIs and diversity in sexual practices, real and perceived prejudice on the part of some clinicians against anorectal activities may contribute to a reluctance to seek medical care or to disclose sexual behaviours.**

Children

- **All persons named as suspects in child sexual abuse cases should be located and clinically evaluated; prophylactic treatment may or may not be offered and the decision to treat or not should be based on history, clinical findings and test results (see *Sexual abuse in Peripubertal and Prepubertal Children* chapter).**