Managing STDs in the Correctional Setting:

A Guide for Clinicians

2nd Edition

Hsu • Jolin • Miller Lincoln • Lubelczyk • Nijhawan



Sylvie Ratelle STD/HIV Prevention Training Center of New England

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This guide was developed to assist clinicians in the prevention and management of STDs in correctional settings. It is meant to be a quick resource guide. We encourage users to consult additional references for more complete information.

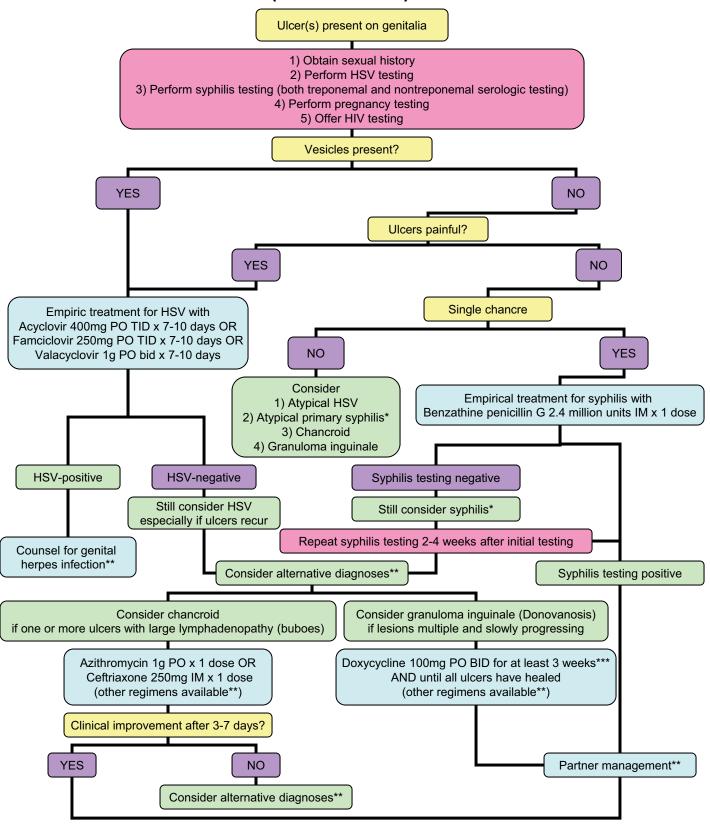
We welcome your feedback on this guide. Please send your comments to PTCBoston@state.ma.us.

Chapter Three:

Algorithms of Diagnostic Assessment and Management of Syndromes

- Genital Ulcer Disease (Male/Female) –
 Darkfield Unavailable
- Urethritis Gram Stain Unavailable
- Cervicitis
- Pelvic Inflammatory Disease
- Proctitis
- Vaginal Discharge
- Differential Diagnosis of Vaginitis

Genital Ulcer Disease (Male/Female) - Darkfield Unavailable



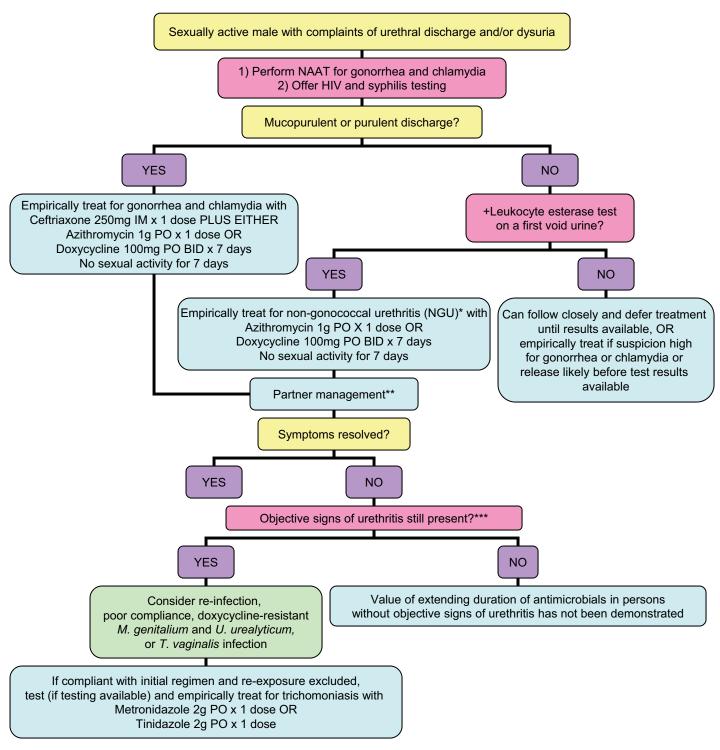
^{*}Especially if MSM or other high-risk sexual history. Up to 25% of primary syphilis cases initially have negative nontreponemal (e.g. RPR) testing.

Although this algorithm implies patients have mutually exclusive diagnoses, some patients have more than one diagnosis.

^{**}See 2010 CDC STD Treatment Guidelines for further details.

^{***}Doxycycline not for use in pregnancy.

Urethritis – Gram Stain Unavailable

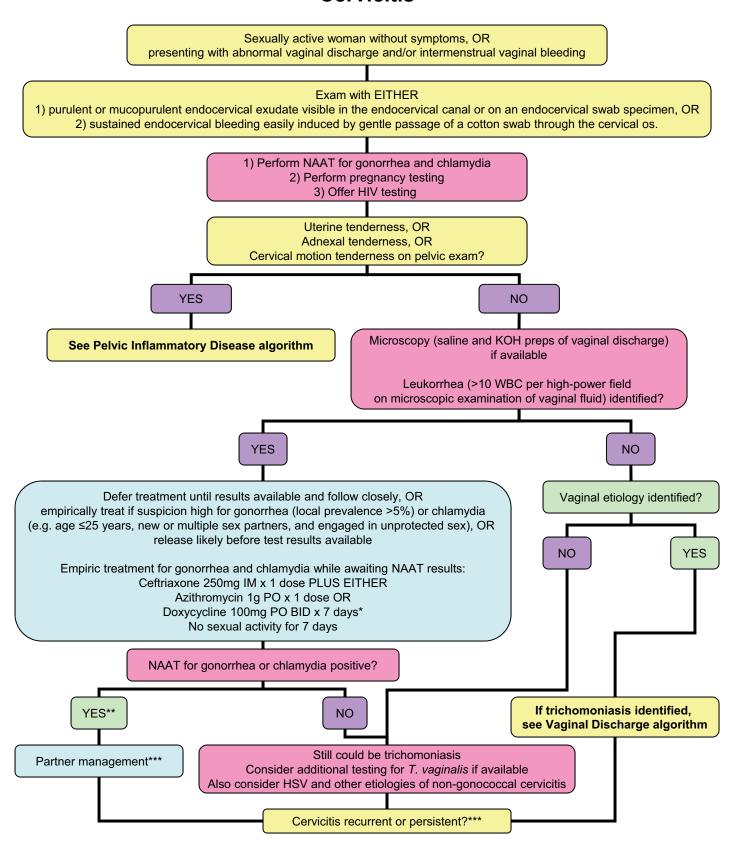


^{*}C. trachomatis causes 15-40% of cases of NGU, and M. genitalium causes 15-25% of NGU. T. vaginalis, HSV, and adenovirus can also cause NGU, but data supporting U. urealyticum are inconsistent. Most patients with urethritis due to genital herpes infection will have obvious herpetic penile lesions or severe dysuria or meatitis, and many with urethritis due to T. vaginalis will have sex partners with trichomonal vaginitis. Enteric bacteria have been identified as an uncommon cause of NGU and might be associated with insertive anal intercourse.

^{**}See 2010 CDC STD Treatment Guidelines for further details.

^{***}Objective signs of urethritis include mucopurulent or purulent discharge on exam, positive leukocyte esterase test on first void urine, or gram stain of urethral secretions with >5 WBCs per oil immersion field.

Cervicitis

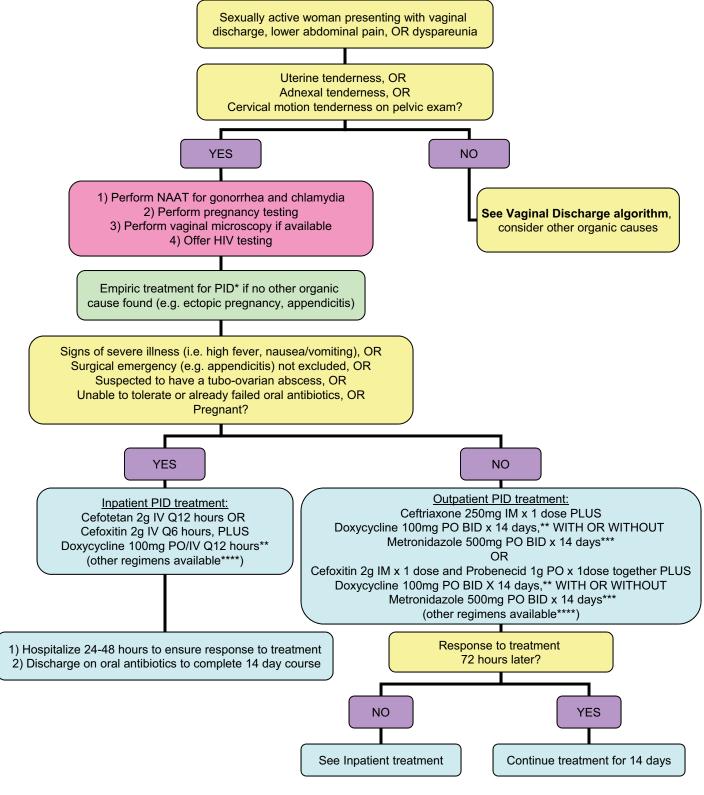


^{*}Doxycycline not for use in pregnancy.

^{**}If gc or chl NAAT is positive, patient should have repeat screening (test of reinfection) in 3-6 months.

^{***}See 2010 CDC STD Treatment Guidelines for further details.

Pelvic Inflammatory Disease



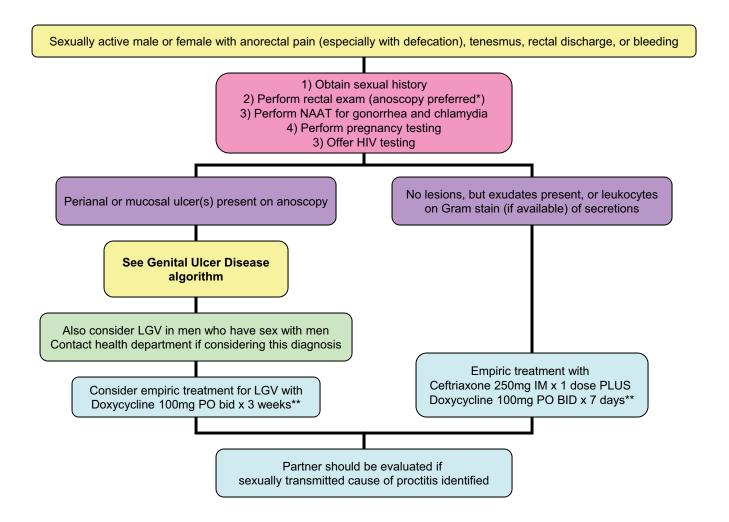
^{*}Sex partners in past 60 days should be examined and treated empirically for gonorrhea and chlamydia, regardless of results of gonorrhea or chlamydia testing in index patient. If gonorrhea or chlamydia NAAT is positive, patient should have repeat screening (test of reinfection) in 3-6 months.

^{**}Doxycycline not for use in pregnancy.

^{***}Add metronidazole if bacterial vaginosis documented or unable to do vaginal microscopy.

^{****}See 2010 CDC STD Treatment Guidelines for further details.

Proctitis



N. gonorrhoeae, C. trachomatis (including LGV serovars), T. pallidum, and HSV are the most common sexually transmitted pathogens involved in proctitis.

^{*}Anoscopes are cheap, disposable, and easy to use.

^{**}Doxycycline not for use in pregnancy.

Vaginal Discharge 1) Ask about douching (predisposes to BV, some STDs, and HIV) 2) Assess amount, color, consistency of vaginal discharge 3) Look for mucopurulent endocervical discharge Mucopurulent endocervical discharge, 1) Perform NAAT for gonorrhea and chlamydia See Cervicitis algorithm 2) Perform vaginal pH testing 3) Perform pregnancy testing 4) Offer HIV testing pH ≤ 4.5 pH > 4.5Amine test negative Amine test negative or positive (no fishy odor when KOH applied to vaginal fluid) (fishy odor when KOH applied to vaginal fluid) Discharge scant, clumped, and/or Discharge profuse, Discharge increased, Discharge appears normal or thin, white or gray, may be gray or yellow-green, vulvovaginal edema/erythema, none is present fissures, excoriations present frothy, and malodorous with a fishy odor If microscopy available, Saline prep with normal epithelial cells, lactobacilli predominate If microscopy available, WBCs usually present Saline prep with clue cells >20% of epithelial cells, rare WBCs, lactobacilli outnumbered by mixed bacteria Yeast buds or pseudohyphae seen on EITHER saline OR KOH prep? NO YES Bacterial vaginosis diagnosed if Still could be yeast vaginitis; OR Yeast vaginitis at least 3 of following 4 criteria satisfied: normal vagina, search for other cause (e.g. 1) Homogenous discharge chemical vulvovaginitis (douche), Is it uncomplicated or complicated 2) pH >4.5 irritative vulvovaginitis (foreign body), or (recurrent, severe, pregnant, 3) Amine test positive atrophic vaginitis) non-C. albicans, immunocompromised)? 4) Clue cells >20% of epithelial cells Metronidazole 500mg PO BID x 7 days* OR UNCOMPLICATED COMPLICATED Metronidazole gel 0.75% 5g QD x 5 days intravaginally OR Clindamycin cream 2% 5g QHS x 7 days intravaginally (other regimens available**) Any intravaginal imidazole QHS x 1-7 days OR Fluconazole 150 mg PO x 1 dose Not necessary to treat partner Recurrent (>4x/year): Any intravaginal imidazole QHS x 7-14 days OR If microscopy available, Fluconazole 150 mg PO Q72hours x 3 doses motile trichomonads present? Severe (i.e. extensive vulvar erythema, edema, excoriation, fissure formation): Any intravaginal imidazole QHS x 7-14 days OR Fluconazole 150 mg PO Q72hours x 2 doses NO YES Pregnant: Still could be trichomoniasis. Any intravaginal imidazole QHS x 7 days Consider sending additional testing **Trichomoniasis** for T. vaginalis if available. Immunocompromised: Any intravaginal imidazole QHS x 7-14 days Metronidazole 2g PO x 1 dose OR Tinidazole 2g PO X 1 dose; If no response to treatment, consider *C. glabrata*; HIV-infected: consider treat with 7-14 days of a nonfluconazole azole drug Metronidazole 500mg PO BID x 7 days

Not necessary to treat partner

(see 2010 CDC STD Treatment guidelines)

Although this algorithm implies patients have mutually exclusive diagnoses, some patients have more than one diagnosis.

Partner management**

^{*}Oral therapy preferred for pregnant women with BV, because of possibility of subclinical upper genital tract disease.

^{**}See 2010 CDC STD Treatment Guidelines for further details.

Differential Diagnosis of Vaginitis

	Normal	Bacterial Vaginosis	<i>Candida</i> Vulvovaginitis	<i>Trichomonas</i> Vaginitis
Patient Complaints	None	Thin discharge, odor, itch, 50% asymptomatic	Itch, burning, dysuria, thick discharge	Odor, itch, discharge, dysuria
Exam Findings	Normal	Thin discharge, fishy smell	Vulvar/vaginal edema/erythema, fissures, excoriations, satellite papules	Cervical petechiae ("strawberry cervix")
Vaginal Discharge	Clear to white, colorless, odorless	Increased, homogenous, thin, white to gray, adherent, fishy smell	Thick, clumpy, white, "cottage cheese," increased	Gray or yellow- green, frothy, adherent, increased
Vaginal pH	≤4.5	>4.5	Usually ≤4.5	Usually >4.5
KOH "whiff test"	Negative	Positive	Negative	Often positive
Saline Wet Mount	Normal epithelial cells, numerous lactobacilli	Clue cells (≥ 20%), no/few WBCs	Normal epithelial cells, >1:1 ratio of WBCs:epithelial cells, pseudohyphae or budding yeast	Motile flagellated protozoa, >1:1 ratio of WBC:epithelial cell
KOH Preparation	Epithelial cell "ghosts"	Epithelial cell "ghosts"	Pseudohyphae or budding yeast	Epithelial cell "ghosts"