Presumptive Diagnosis and Treatment of Common STIs

OCTOBER 28TH 2020

Presented by the NYC STD Prevention Training Center (PTC) at Columbia University and the Michigan Department of Health and Human Services

The webinar will begin shortly

Housekeeping

- Please be sure to remain on mute during the webinar.

- Please send your **question(s)** in the chat box to “Q&A”. We will do our best to address questions during the webinar and will send key answers out after the webinar.

Continuing Education

- Continuing Education is available through the CDC Training and Education Online System. This is a **separate system from your registration**.
- Instructions for completing evaluation and obtaining CE will be emailed to participants after the webinar.
- Deadline for CE is **Monday, November 30th 2020.**
- Today's webinar is being recorded and you will receive a link to the presentation at a later date.

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™
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Today's Topics and Speakers

Speaker	Topic
Amy S. Peterson, MPH STD Interventions Unit Manager Michigan Department of Health and Human Services Division of HIV and STD Programs	Background and Test Kit Shortage
Natalie Neu, MD, MPH Medical Director, NYC STD PTC Professor of Pediatrics, Columbia University	Presumptive Diagnosis
Bianca C. Clarke RN, BSN Partner Health Improvement Coordinator Michigan Department of Health and Human Services Division of HIV and STD Programs	Expanded Use of Expedited Partner Therapy (EPT)

Special thanks to:
Malasha Duncan, MDHHS, and April Pavlish, NYC STD Prevention Training Center

EPT & COVID-19

- Dramatic changes in LHD and Health Clinics
  - Decreased clinic volume and appointments available
  - Decreased testing and overall diagnosing of STDs
  - Diverting of staff to contact trace for COVID cases
  - Prioritization of symptomatic clients over asymptomatic clients
  - People reluctant to visit ER/Urgent Care due to COVID
  - PCP/ ER/ Urgent Cares unable to handle lower acuity patients due to COVID (earlier in the pandemic)

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention

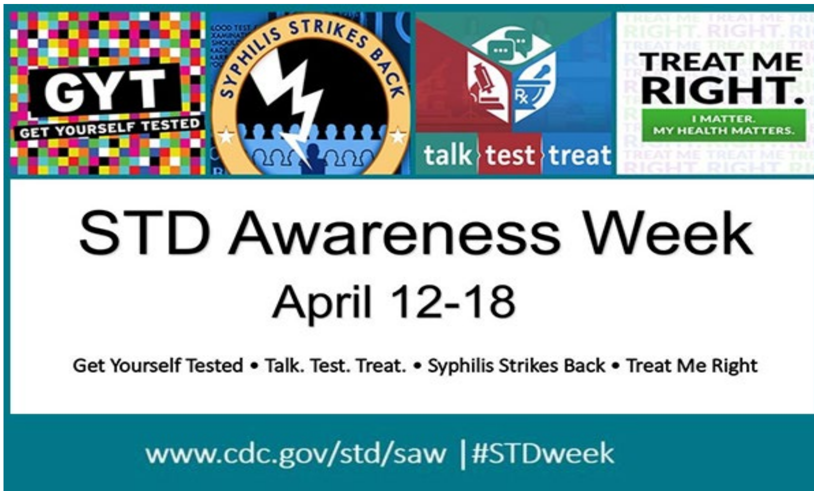
September 3, 2020

Dear Colleagues,

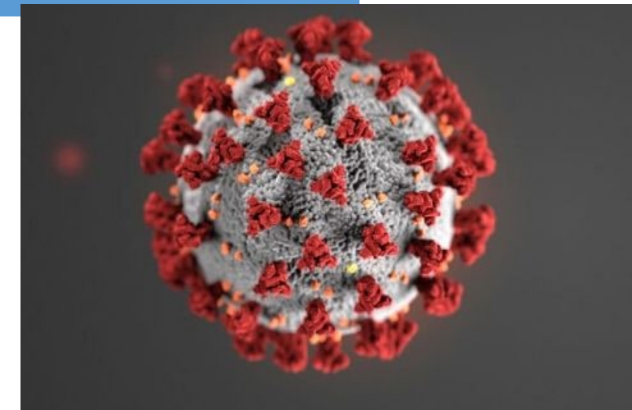
There is a current shortage of STI test kits and laboratory supplies, most notably for chlamydia and gonorrhea nucleic acid amplification tests (CT/GC NAAT). The shortages affect multiple diagnostic companies, public health and commercial laboratories. and impact several components of the specimen collection and testing process. CDC is working with state, local and territorial STD programs, the Association of Public Health Laboratories (APHL) and other laboratories, manufacturers of STI diagnostic supplies, and the U.S. Food and Drug Administration (FDA) to understand the scope of the shortages and determine possible solutions.

CDC Dear Colleague Letter - “Prioritizing testing when diagnostic kits are in short supply”

- **Men with symptomatic urethritis -**
  - Collect and run gram stain (GS) or methylene blue (MB) stain diagnostic test
    - If no access to this testing – empirically treat for gonorrhea and chlamydia
    - Reserve urine collection kits for men with persistent urethritis
- **Women with cervicitis syndrome or PID**
  - Empirically treat
  - Vaginal swab collection if possible
  - Cervical swab also ok
  - Prioritize tests to women <25
- **Systemic Proctitis**
  - Empirically treat
- **Contacts to chlamydia and/or gonorrhea**
  - Empirically treat
  - If test kits are in short supply consider forgoing testing



Presumptive Diagnosis and Treatment of Common STIs



Natalie Neu, MD, MPH

Medical Director, NYC STD PTC

Professor of Pediatrics, Columbia University

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What is Happening to Sexual Behavior?

Changes in Sexual Behaviors of Young Women and Men During the Coronavirus Disease 2019 Outbreak: A Convenience Sample From the Epidemic Area

Weiran Li [1], Guanjian Li [2], Cong Xin [1], Yaochi Wang [1], Sen Yang [3]

44% decrease number of partners, 37% reported decreased frequency

Effect of the COVID-19 pandemic on female sexua behavior

Bahar Yuksel
Faruk Ozgor
May 2020

International Journal of GYNECOLOGY & OBSTETRICS

Sexual desire increased; quality decreased; decreased in use contraception

• . 2020 May 14.

COVID-19 Social Distancing and Sexual Activity in a Sample of the British Public

Louis Jacob [1], Lee Smith [2], Laurie Butler [3], Yvonne Barnett [4], Igor Grabovac [5], Daragh McDermott [6], Nicola Armstrong [7], Annita Yakundi [8], Mark Tully [9]

40% reduction in sexual activity especially females, older adults, those not married, and those not drinking!

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CDC response to COVID Impacts on STD services

- April 2020: Treatment guidance letter for STDs in COVID
- May 2020: Expansion of EPT Letter
- September 2020: Shortage of Test Kit Letter

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April 6, 2020: CDC Releases Dear Colleague Letter

- Modifying CDC STD treatment guidelines due to COVID-19
- Goal:
  - Pragmatic, harm reduction approach
  - Jurisdictions flexibility
  - Responding to diminished resources and healthcare personnel
    - E.g. reduced testing capacity and reduced manpower

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Priorities Identified

- Patients with STD symptoms
- Patients reporting STD contact
- Individuals at risk for complications
  - Women with vaginal discharge and abdominal pain
  - Pregnant women
  - Individuals with symptoms concerning for neurosyphilis
- Deferred routine screening

September Dear Colleague Letter
Testing shortages and impact on STD services

- Focus on symptomatic patients
- Strategies for testing asymptomatic high risk populations
  - Asymptomatic women under 25 and over 25 years old with risks
    - Vaginal swabs
    - Defer extra-genital testing
  - Asymptomatic MSM
    - Rectal and pharyngeal chlamydia & gonorrhea testing-prioritized
    - Urethral swab a consideration
    - Limit urine testing

Extending testing intervals for those on PREP

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Tiers of Access to Testing and Treatment

Tier 1: Recommendations based on 2015 CDC STD treatment Guidelines. No Shortages of testing.

- Business as usual

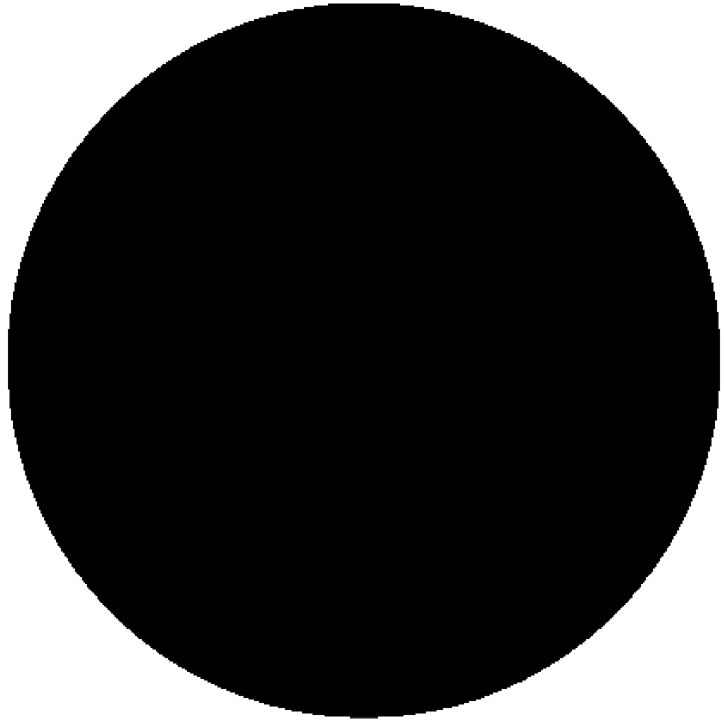
Tier 2: Approaches to consider when STI diagnostic test kids are limited

- Prioritizing testing body sites and populations

Tier 3: Approaches to take when STI diagnostic tests kits are severely limited or not available

- Syndromic management

Syndromic management protocols



- Urethritis
- Vaginitis
- Proctitis
- Suspected primary or secondary syphilis

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Urethritis: urethral inflammation: Gonoccocal (GC) vs Non- Gonococcal

- **Symptoms**
  - Dysuria
  - Urethral pruritus
  - Mucoid, mucopurulent or purulent discharge

- **Diagnosis: distinguishing between etiologies:**
  - GC vs Non-GC etiology

Urethritis Clinical Features

Clinical Features	NGU†	GU
Incubation	7-14 days	2-8 days
Onset	Gradual	Abrupt
Dysuria	Mild	Severe
Discharge -Quality	Mucoid	Purulent‡
-Quantity	Less	More

+ Non- gonococcal: e.g. chlamydia, mycoplasma, ureaplasma

Prioritizing diagnostic testing by Tiers of access to tests: MALES

Testing of Symptomatic Males:

- Tier 1: Test for CT and GC
- Tier 2:
  - Gram stain or methylene blue
  - Urinalysis or urine leukocyte esterase testing to confirm urethritis
  - Reserve testing for persistent urethritis
    - Nucleic acid amplification Test for CT and GC
- Tier 3:
  - Follow Dear Colleague letter for syndromic management and treat for GC and CT

COVID STI Empiric IM/PO Antibiotics

Male Urethritis Syndrome

- Ceftriaxone 250mg IM single dose PLUS Azithromycin 1 g oral single dose
  - If azithromycin not available, and patient not pregnant- doxycycline 100mg BID x 7 days

- If cephalosporin allergy
  - Gent 240mg IM PLUS azithromycin 2 g single doses

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Urethritis: Oral Alternatives

Male Urethritis Syndrome

- Cefixime 800mg **PLUS**

  Azithromycin 1 g (if not available and not pregnant doxycycline 100mg BID x 7 days)

Or

- Cefpodoxime 400mg Q12 x 2 doses PLUS

  Azithromycin 1 g (or doxy as above)

If cephalosporin not available or allergy:

Azithromycin 2 g oral single dose

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Symptomatic Females
Diagnostic testing by Tiers of access to tests

Tier 1: Test for CT and GC, Trichomonas vaginalis (TV) and bacterial vaginosis (BV)

Tier 2:

- Vaginal (preferred) or cervical swab for nucleic acid amplification test for CT and GC
- Wet prep for BV and TV testing (or TV by NAAT)

Tier 3: Syndromic management

- Follow Dear Colleague letter and treat for GC and CT
- Treat for other vaginitis if indicated

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Female Urethritis/Cervicitis: Testing priorities and EMPIRIC Therapy

Testing:

- Vaginal swabs CT/GC (availability); prioritizing <25 yo
- No extra-genital testing should be offered
- Testing for Trichomonas and Bacterial vaginosis

Therapy

- Empiric therapy according to treatment guidelines

COVID STI Empiric IM/PO Antibiotics

Female Urethritis/Cervicitis Syndrome

- Ceftriaxone 250mg IM single dose PLUS Azithromycin 1 g oral single dose
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Urethritis/Cervicitis: Oral Alternatives

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Vaginitis and Discharge: Differential Diagnosis

- Physiologic
- Vaginitis/vaginosis
- Cervicitis
- Herpes simplex virus
- Pelvic inflammatory disease
- Foreign body

	National	Anderson et al.
Yeast	20-25%	17-39%
BV	40-50%	22-50%
Trich	15-20%	4-35%
Undiagnosed	30%	7-72%

Anderson, M. R. et al. *JAMA* 2004;291:1368-1379

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Diagnostic Methods for Vaginitis

- **Testing for Trichomonas, Bacterial Vaginosis and Candida**
- **POC tests:**
  - **Saline wet mount**-One drop of 0.9% saline and a drop of vaginal discharge viewed under microscope at low (10x) and high (40x) high power within 10 minutes of collection

    -Clue cells suggest bacterial vaginosis

    -Motile trichomonad organisms suggest trichomoniasis
  - **Potassium Hydroxide (KOH) preparation and Whiff Test**-Sample of vaginal fluid is placed on a slide with 10% KOH

    -Strong amine "fishy" odor is consistent with a diagnosis of bacterial vaginosis

    -KOH kills clue cells and bacteria, making it easier to visualize yeasts or pseudohyphae suggestive of vulvovaginal candidiasis
  - **Litmus Testing for pH of Vaginal Fluid**

    -pH of greater than 4.5 indicates bacterial vaginosis

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Vaginal Discharge Management: Syndromic and Empiric Treatment

<table>
<tr><th>Syndrome: distinguish BV, trichomonas vs candida AND</th><th>When oral medications are only option</th></tr>
<tr><td rowspan="2">Vaginal discharge in women
• Without lower abdominal pain
• No dyspareunia
• No signs of pelvic inflammatory disease (PID)</td><td>Discharge suggestive of bacterial vaginosis or trichomoniasis (frothy, odor):
<u>Metronidazole 500mg BID x 7 days</u></td></tr>
<tr><td>Discharge cottage cheese-like with itching: Treat for candida: <u>Fluconazole or topical</u></td></tr>
</table>

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Proctitis: Differential Diagnosis and Tiers of Access to Testing and Treatment

Definition: Rectal discharge, pain, ulcerations, oth

- Tier 1:
  - Test for CT, GC, Syphilis and HSV
- Tier 2:
  - Rectal testing for CT and GC
- Tier 3:
  - Treat empirically for CT and GC but if ulcerations consider HSV therapy

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Proctitis: Oral Options

Preferred Treatment: Injections available	Alternative Treatment: only oral medications available
Ceftriaxone 250mg IM PLUS Doxycycline 100mg BID x 7 days If doxycycline not available, 1 g of azithromycin single dose	Cefixime 800mg PLUS doxycycline 100mg BID x 7 days If doxycycline not available or pregnant: use azithromycin 1 g Or Cefpodoxime 400mg BID x 2 doses plus doxycycline 100mg BID x 7 days (again azithromycin if pregnant or doxy not available).

CONSIDER adding therapy for Herpes Simplex Virus if pain present

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Genital Ulcerative Disease: Differential Diagnosis

https://www.nycptc.org/x/Syphilis_Monograph_2019_NYC_PTC_NYC_DOHMH.pdf

Causative agent	Incubation period	Initial lesion	Ulcerations	Other
Syphilis (T pallidum)	3 weeks	Papules	Painless, indurated ulcerations	Bilateral, firm non-tender nodes
Herpes	2-12 days	Multiple vesicles, papules or pustules	Multiple erosions, tender	Systemic symptoms, bilateral tender nodes
Lymphogranuloma venereum (LGV)	3 days- 6 weeks	Small, solitary papule, pustule, or vesicle	Tender ulcer	Unilateral nodes, genital edema (chronic), fistulas
Chancroid	1 week- 6 months	Multiple papules or pustules	Tender, soft, ulcerations, purulent and friable base	Painful nodes, suppurative nodes

Treatment for Genital Ulcer Disease:
Presumed Syphilis Based on History

Preferred Treatment (injections)	Alternative when only oral therapy available
Benzathine penicillin G, 2.4 million units IM in single dose	Males and non – pregnant females: Doxycycline 100mg oral BID x 14 days
	Pregnant: Benzathine penicillin G, 2.4 million units IM in single dose

Assess for pregnancy (must use injectable)
Assess for neurosyphilis (CNS dysfunction, auditory, meningitis, mental status changes)
THEY NEED TO BE SEEN- possible admission

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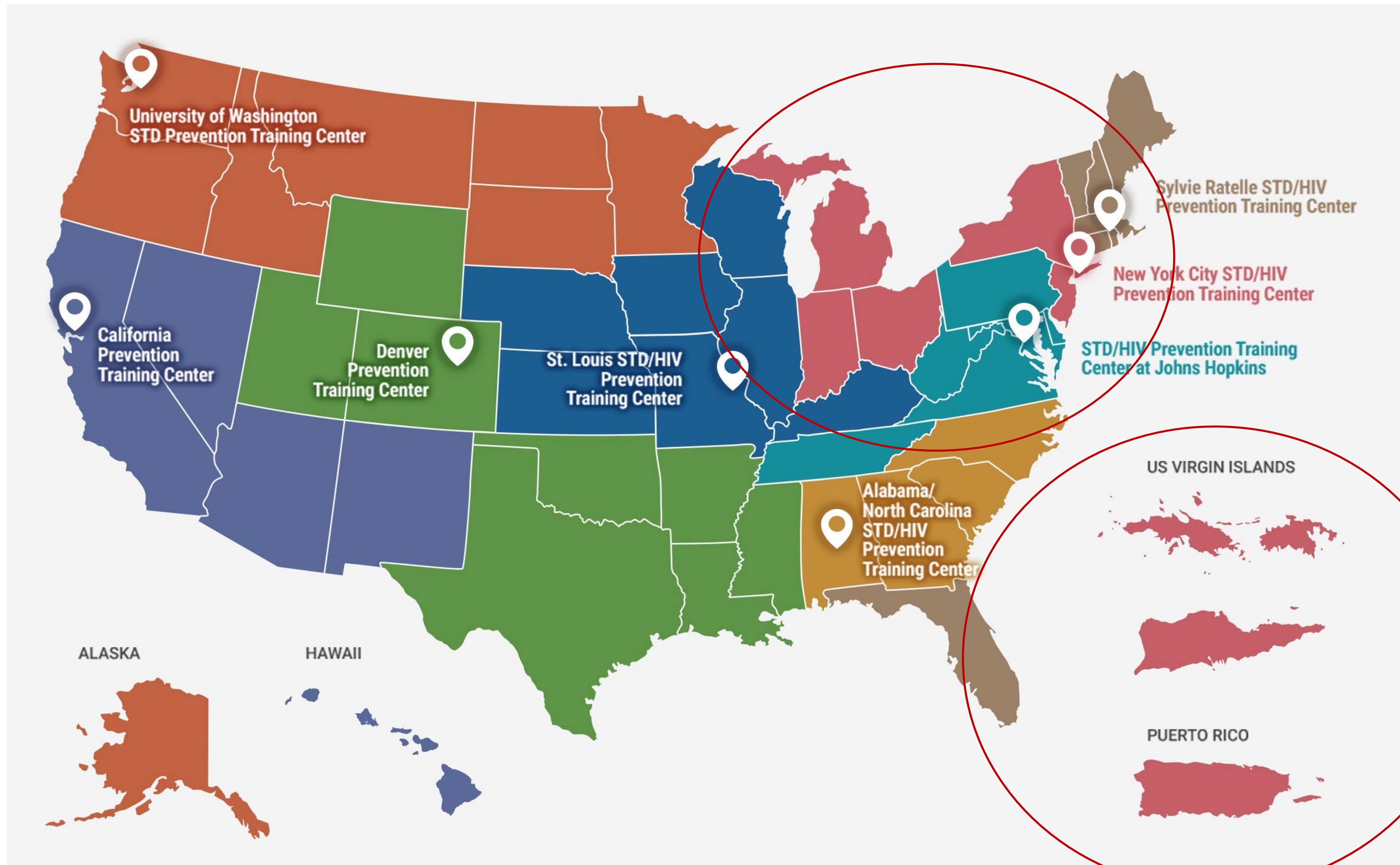
Follow Up Management for STIs and Syphilis

- Counseling for patients
- Follow up if no improvement in 5-7 days
  - Return for testing once clinic is open
- Management
  - All patients receiving oral treatment for syphilis should have repeat serology in 3 months post treatment (in 2015 guidelines it is 6-12 months)

NNPTC – National Network of STD Prevention Training Centers Map



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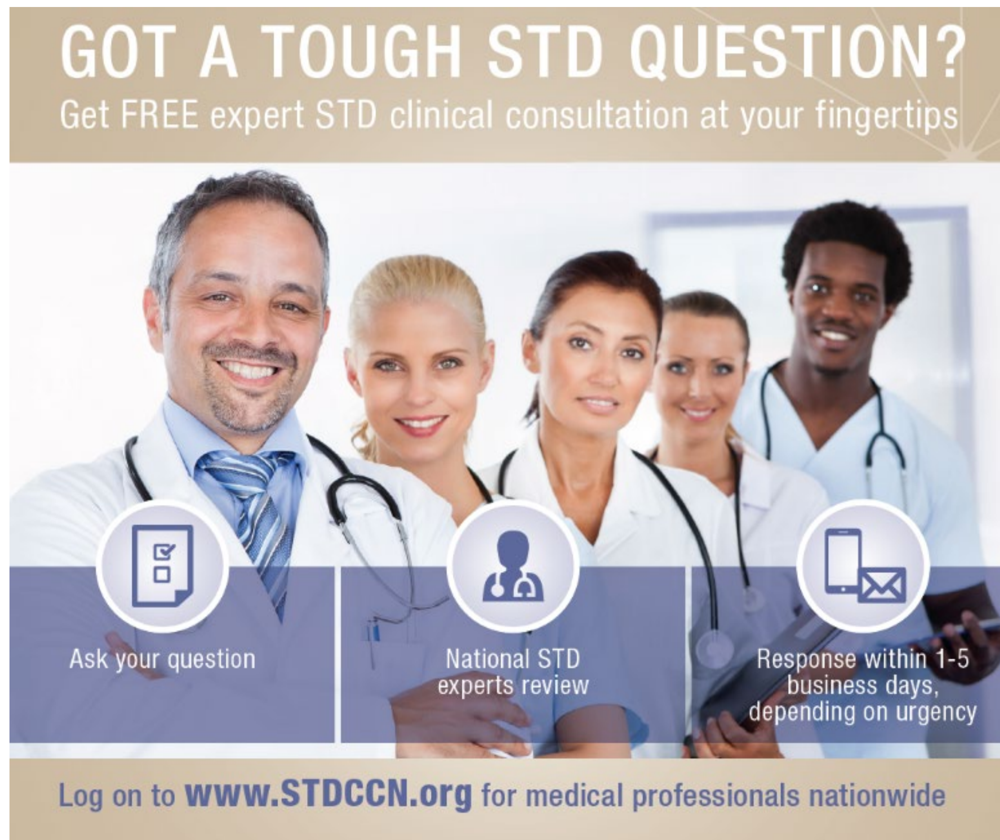
Clinical Consultation and Technical Assistance



- Provides STD clinical consultation services within 1-5 business days, depending on urgency, to healthcare providers nationally
- Your consultation request is linked to your regional PTC's STD faculty
- Just a click away!
- www.STDCCN.org

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Resources for innovative approaches and updates for STD care during COVID

- https://www.nycptc.org/resources.html
- https://www.ncsddc.org/covid-command-center-std-clinic-resources/
- https://www.ncsddc.org/resource/covid-command-cnete-for-std-programs/

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BIANCA CLARKE RN, BSN

PARTNER HEALTH IMPROVEMENT COORDINATOR

PUBLIC ACT 525 OF 2014

- This amendment to the Public Health Code authorized the use of EPT in Michigan
  - Partners to chlamydia
  - Partners to gonorrhea (other than in cases involving men who have sex with men).

  - Section 5110 (2)(a) states that a health professional may provide EPT when, "*the patient has a laboratory confirmed* ***OR*** *suspected clinical diagnosis of a sexually transmitted infection.*"

MICHIGAN EPT EXPANSION

- MDHHS Dear Colleague Letter provided EPT expansion during the pandemic (Released April 15, 2020)
- Includes EPT for Trichomoniasis
  - Metronidazole 2g orally in a single dose OR
  - Tinidazole 2g orally in a single dose.
- EPT for MSM with Gonorrhea
  - Uncomplicated GC
  - Same oral medication regimen.

CDC EPT EXPANSION

Table 1. Therapeutic options to consider for symptomatic patients and their partners when in person clinical evaluation is not feasible:

Syndrome	Preferred Treatments In clinic, or other location where injections can be given*	Alternative Treatments When only oral medications are available[&]	Follow-up
Male urethritis syndrome	Ceftriaxone 250mg intramuscular (IM) in a single dose **PLUS** Azithromycin 1g orally in a single dose (If azithromycin is not available and patient is not pregnant, then doxycycline 100 mg orally twice a day for 7 days is recommended). If cephalosporin allergy is reported, gentamicin 240 mg IM in a single dose **PLUS** azithromycin 2 g orally in single dose is recommended.	Cefixime 800 mg orally in a single dose **PLUS** Azithromycin 1g orally in a single dose (If azithromycin is not available and the patient is not pregnant, doxycycline 100 mg orally twice a day for 7 days is recommended). **OR** Cefpodoxime 400 mg orally q12 hours x 2 doses **PLUS** Azithromycin 1g orally in a single dose (If azithromycin is not available and the patient is not pregnant, doxycycline 100 mg orally twice a day for 7 days is recommended). If oral cephalosporin is not available or cephalosporin allergy is reported, azithromycin 2g orally in a single dose.	For alternative oral regimens, patients should be counseled that if their symptoms do not improve or resolve within 5-7 days, they should follow-up with the clinic or a medical provider. Patients should be counseled to be tested for STIs once clinical care is resumed in the jurisdiction. Health departments should make an effort to remind clients who have been referred for oral treatment to return for comprehensive testing and screening and link them to services at that time.

EPT TAKE AWAY MESSAGE

- Counsel clients to return if symptoms do not resolve in 5-7 days
- Test for STDs once clinical care resumes
- If partner is a pregnant female, all attempts should be made to ensure first line treatment is given
- When possible, clinics should make arrangements with local pharmacies or other clinics that are still open and can give injections
- Alternative regimens should be considered when recommended treatments from the 2015 CDC STD Treatment Guidelines are not available

STAYING SAFE & PROVIDING STD CARE

- Offer presumptive and adequate treatment
- Utilize telehealth/ telemedicine
- Use EPT regularly
- Submit prescriptions electronically
- Offer curbside pick-up of medication for infected clients
- Automatically give EPT medication or scripts at the end of clinic visits of positive STIs or presumptive cases

EPT MOTIVATORS

- Harm reduction strategy
- Decreases reinfection
- Continues to be cost effective
- Free to partners when dispensed by infected patient
- Offers same day treatment
- EPT needed now, more than ever

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