STI Testing 101

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CDC Testing Guidelines: *Chlamydia/Gonorrhea*

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- Chlamydial infection is the most frequently reported bacterial infectious disease in the US

- Gonorrheal infection is the second most frequently reported bacterial infectious disease in the US

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Testing: *Chlamydia/Gonorrhea*

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- *WHO TO TEST:*

  - Sexually active people with vaginas < 25 years AND > 25 years if at an increased risk, defined as "having a new sex partner, more than one sex partner, a sex partner with concurrent partners, or a partner with an STI."

  - Always test once in pregnancy

  - Retest 3 months after treatment

  - Sexually active people with penises, annually

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Testing: *Chlamydia/Gonorrhea*

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- *HOW TO TEST:*
  - Sexually active people with vaginas:
    - -- Vaginal swab preferred
    - -- Urine is second choice
    - -- Can be tested using thin prep from pap smear
  - Sexually active people with penises:
    - -- Urine is preferred method

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Treatment: *Chlamydia/Gonorrhea*

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- Gonorrhea:
    - Adults: ceftriaxone 500mg IM in a single dose (also ok in pregnancy)
        -- Alternative/cephalosporin allergy: gentamicin 240mg IM in a single dose PLUS azithromycin 2 gm PO in a single dose
- Chlamydia:
    - Adults: doxycycline 100mg PO BID x 7 days
        -- Alternative/pregnancy: azithromycin 1 gm PO in a single dose

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CDC Testing: *Syphilis*

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- *WHO TO TEST:*
    - Sexually active people with vaginas:
        -- annually
        -- with pregnancy
    - Sexually active people with penises:
        -- annually

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CDC Testing: *Syphilis*

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- *HOW TO TEST:*
  - Initial screening test: Treponema antibody
  - Confirmatory test: non-treponemal test either RPR or VDRL
    -- pick one and stick with it in order to compare titers later as needed
  - If BOTH positive = infected
  - If no previous history of syphilis:
    -- ask about symptoms to determine early or late infection
    < 1 year = early latent infection
    > 1 year = late latent infection (assume late if time unknown)

Testing: *Syphilis*

- *PEOPLE WITH HISTORY OF TREATED SYPHILIS*
  - Treponema antibody will always be positive
  - Order RPR or VDRL titer – if positive the patient has either:

    -- New infection (if at least 4-fold increase in titer, only compare RPR to RPR or VDRL to VDRL)

    -- Serofast (persistently low titer – 1:8 or below)

    -- Treatment failure (everything else)

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Treatment: *Syphilis*

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- *HOW TO TREAT:*

  - **Early latent treatment:**
    -- IM Penicillin G benzathine 2.4 million units IM once

  - **Late latent treatment:**
    -- IM Penicillin G Benzathine 2.4 million units weekly for 3 weeks

    *** Repeat RPR or VDRL at 6 and 12 months**

    *** Successful treatment = 4-fold decrease in titer**

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Testing: *HIV*

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- *WHO TO TEST:*
  - **Sexually active people with vaginas:**

    -- Annually
    -- with pregnancy

  - **Sexually active people with penises:**

    -- Annually

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Testing: *Mycoplasma genitalium*

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- *WHO TO TEST:*
  - **Sexually active people with vaginas:**
    -- With recurrent cervicitis
  - **Sexually active people with penises:**
    -- With recurrent nongonococcal urethritis
  - ***Not recommended in asymptomatic individuals***

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Testing: *Mycoplasma genitalium*

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- *HOW TO TEST:*

  - NAAT testing is approved for use with urine and urethral, penile meatal, endocervical, and vaginal swab samples.

  - If resistance testing is available, it should be used to guide therapy.
    -- High rates of macrolide resistance cause treatment failure to occur when treating with azithromycin only.

    -- Two-stage therapy approaches, ideally using resistance-guided therapy, are recommended for treatment.

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Treatment: *Mycoplasma genitalium*

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- *Treatment for Mycoplasma genitalium*
  - For settings with resistance testing available:
    -- Macrolide sensitive: doxycycline 100 mg PO BID x 7 days FOLLOWED BY azithromycin 1 gm PO initial dose FOLLOWED BY azithromycin 500mg PO daily x 3 additional days (2.5 gm azithromycin total)
    -- acrolide resistance: doxycycline 100mg PO BID x 7 days FOLLOWED BY moxifloxacin 400mg PO daily x 7 days

  - For settings without resistance testing but M. genitalium has been detected by NAAT
    -- Doxycycline 100mg PO BID x 7 days FOLLOWED BY moxifloxacin 400mg daily x 7 days

**When moxifloxacin cannot be used:
-- Doxycycline 100mg BID x 7 days FOLLOWED BY azithromycin 500mg PO daily x3 days and a test-of-cure 21 days after completion of therapy

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CDC Testing: *Trichomoniasis*

- *Test as desired*

- *Treatment:*

  People with vaginas: metronidazole 500mg PO BID x 7 days

  People with penises: metronidazole 2 gm PO in a single dose

  Alternative: tinidazole 2 gm PO in a single dose

CDC Testing: *Hepatitis C*

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- *WHO TO TEST:*
  - Everyone over the age of 18 once
  - Younger if: drug use, anal receptive sex participant, incarcerated or child born to HCV positive mother
  - Annually: anyone who uses injected drugs, HIV positive persons having sex with men
  - Situational exposures as needed: health care workers with exposure (needle stick), incarcerated patients, liver disease unknown etiology (elevated LFTs)

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Testing: *Hepatitis C*

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- *HOW TO TEST/ WHAT TO ORDER:*
  - Hep C antibody with reflex to RNA via PCR
    - -- Positive antibody, negative PCR = previous infection, TREATED.
    - -- Positive antibody, positive PCR = infected, order genotype and quantitative PCR
    - -- Negative antibody, negative PCR = uninfected

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Treatment: *Hepatitis C*

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- *Elbasvir/grazoprevir (Zepatier): genotypes 1 and 4*
  - Dosage: 50mg/100mg PO daily x 12 weeks
  - Cost: $54,000
- *Glecaprevir/pibrentasvir (Mavyret): all genotypes*
  - Dosage: Three tablets (100mg/40mg) once daily with food x 8 weeks
  - Cost: $26,000
- *Ledipasvir/sofosbuvir (Harvoni): genotypes 1a, 1b, 4, 5, and 6*
  - Dosage: 90mg/400mg PO daily x 8-12 weeks
  - Cost: $62,000 - $93,000
- *Sofosbuvir/velpatasvir (Epclusa): all genotypes*
  - Dosage: 400mg/100mg PO daily x 12 weeks
  - Cost: $74,000

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STI Reporting Guidelines

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- *Reporting preferred within 36 hours of positive test results*
    - Reportable STIs:
        - -- Gonorrhea - use form from county of residence of patient
        - -- Chlamydia - use form from county of residence of patient
        - -- Syphilis - use form from county of residence of patient
        - -- HIV - Indiana has a specific case report form (available at www.in.gov)

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