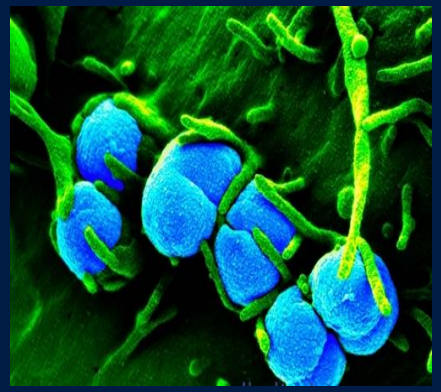
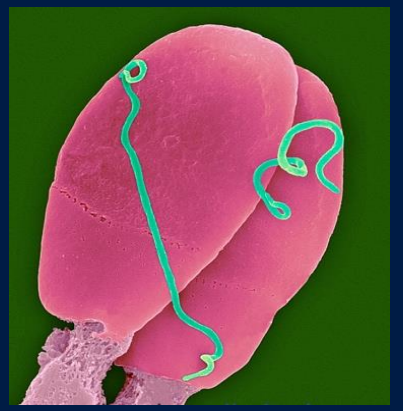
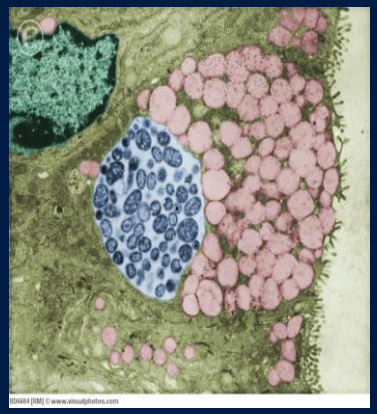
CDC 2021 STI Treatment Guidelines

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Oct 26,2022 NCCHC

California PTC

Disclosure & Disclaimer

Sharon Adler MD, MPH

- I do not have any relevant financial relationships with any commercial interests
- This informational presentation was developed by independent experts. The information provided in this presentation is not the official position or recommendation of NCCHC but rather expert opinion. This information is not intended to be appropriate for every clinical situation nor does it replace clinical judgment.
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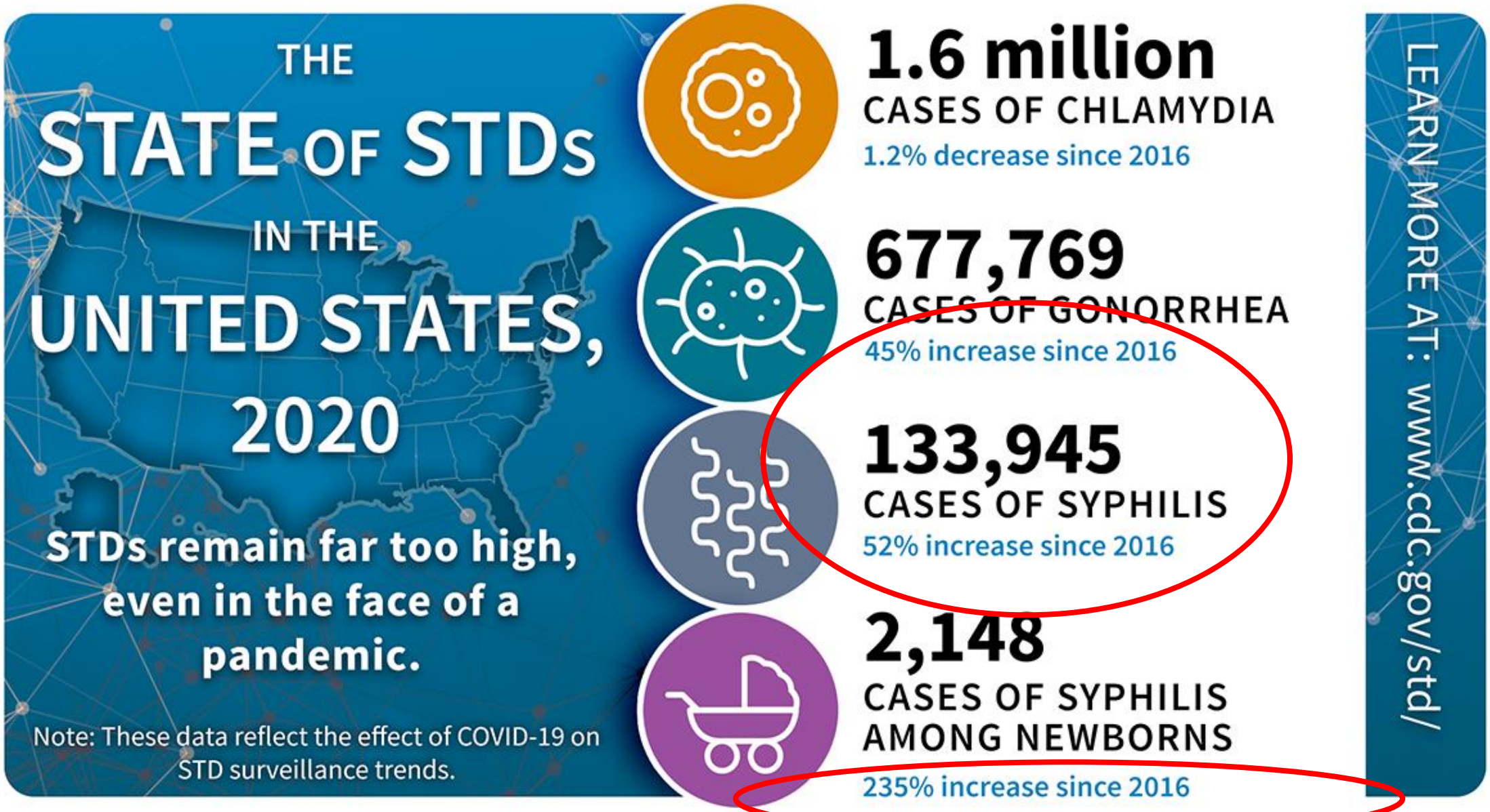
- **October 26, 2022**

Learning Objectives

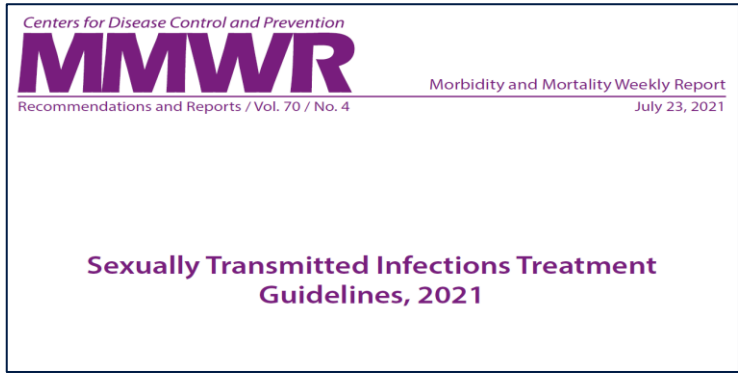
By the end of today's presentation, you will be able to:

1. Discuss updated STI Screening recommendations from the CDC 2021 STI Treatment Guidelines
2. Outline new diagnostic and treatment regimens for STI management
3. Describe updates in the follow-up strategies to optimize STI monitoring

National Snapshot 2020



New Guidelines, New Name!



STD vs **STI**

- Sexually transmitted disease
- Refers to disease state

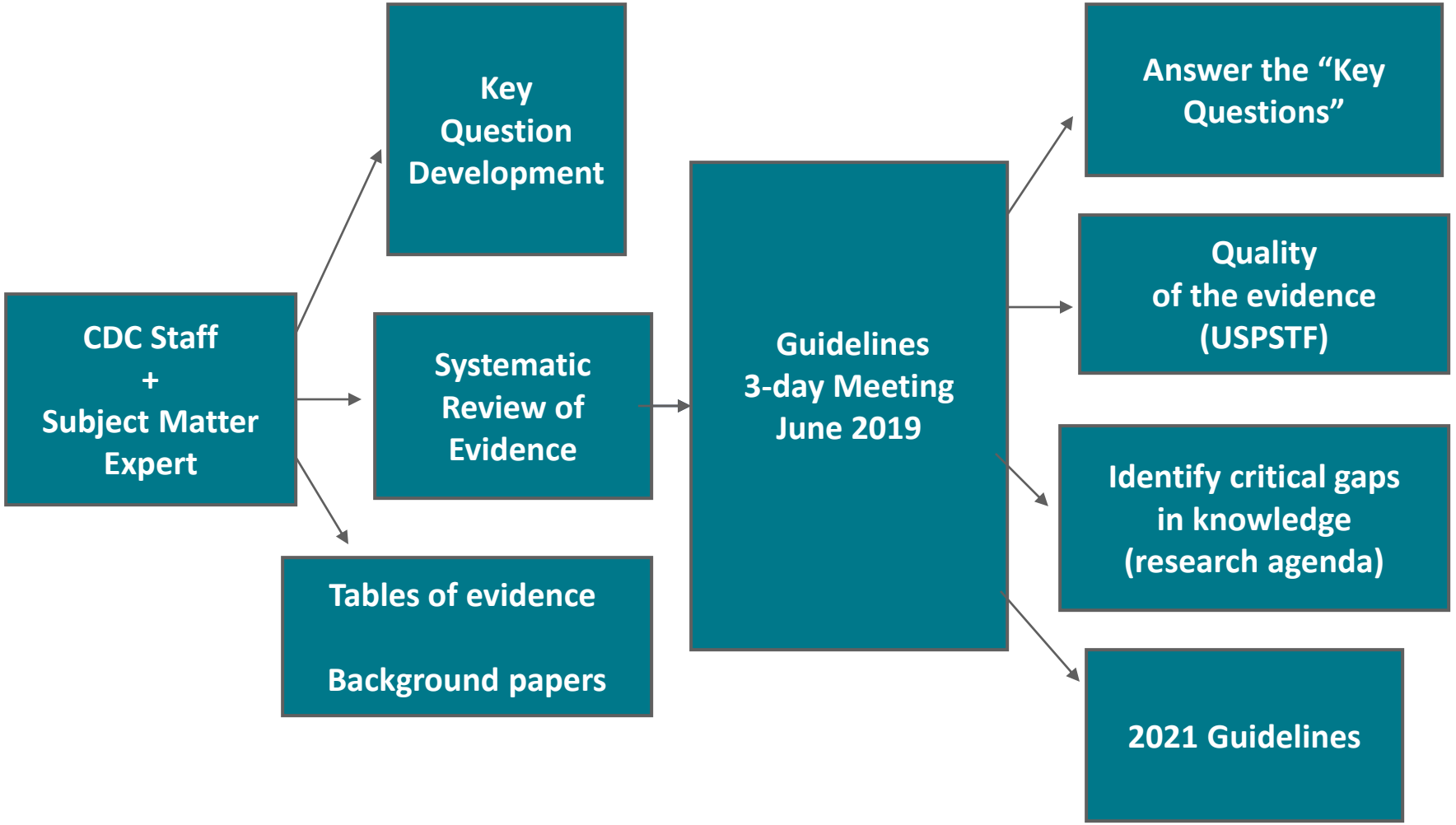
- Sexually transmitted infection
- Refers to pathogen
- Often asymptomatic

- **October 26, 2022**

CDC STI Treatment Guideline Development

- Evidence-based on principal outcomes of STI therapy
- “Recommended” regimens preferred over “alternative” regimens
- Treatments alphabetized unless there is a priority of choice
- Released July 2021
  - Available at: https://www.cdc.gov/std/treatment-guidelines/toc.htm
  - Interim app download: https://www.cdc.gov/STIapp/

Evidence-based Approach to Guideline Development



Top 10 Updates: CDC STI 2021

Prevention and Screening

1. STI screening for transgender persons and adolescent rectal/pharyngeal screening

2. Hepatitis C screening

Chlamydia and Gonorrhea

3. New treatment guidance for GC & CT

4. Test of cure for Pharyngeal GC

Mycoplasma genitalium

5. No longer an emerging pathogen and sequential treatment

CDC 2021 STI Treatment Guidelines

Top 10 Updates– continued

STI syndromes

6. PID treatment routine addition of metronidazole

GUD: Syphilis, Herpes

7. HSV serology- 2 step testing

8. Syphilis/neurosyphilis follow-up and guidance for LP

Vaginitis: Trichomoniasis, Bacterial Vaginosis

9. Trich new multi-day treatment for all women

10. BV new diagnostics & alternative treatments

CDC 2021 STI Treatment Guidelines

STI Screening

STI Screening: Adolescents

- **Chlamydia/Gonorrhea**
  - Female - Yes. Consider rectal screening (GC/CT) and pharyngeal (GC)
  - Male with female-only partners - Shared decision, consider in setting serving populations with high incidence (**Corrections**)
- **HIV:** Offer to all adolescents. Frequency based on risk.
- Routine screening for syphilis, trichomoniasis, BV, HSV, HAV, and HBV is not typically recommended.
- **T. vaginalis:** Consider local prevalence when deciding whether to screen (**Corrections**)
- **Syphilis:** Young MSM and pregnant females should be routinely screened

CDC 2021 STI Treatment Guidelines

STI Screening: Transgender (TG) Persons

Based on current anatomy and gender of sex partners

- **Offer HIV screening to all transgender persons**
- **TG persons with HIV who have sex with cisgender men, at similar risk for STIs as cis-MSM**

Transgender women post vaginoplasty

- **GC/CT at all sites of exposure: oral, anal, genital**
  - **Urine vs neovaginal swab not specified, best specimen type based on tissue type used to construct neovagina.**

Transgender Men post metoidioplasty

- **If vagina still present and need to screen for STIs, use cervical/vaginal swab**

CDC 2021 STI Treatment Guidelines

STI Screening: Non-Pregnant Cis-Women *(partners of any gender)*

Women under 25 years of age

- **Chlamydia/gonorrhea annually**
- **HIV at least once**
- **Hep C at least once if ≥ 18 yo (unless prevalence of Hep C < 0.1%)**

Women 25 years of age and older

- **Chlamydia/gonorrhea if at risk**
- **HIV at least once**
- **Hep C at least once (unless prevalence of Hep C < 0.1%)**

Screening not recommended for M. genitalium or trichomonas

CDC 2021 STI Treatment Guidelines

STI Screening: Pregnant Cis-Women *(partners of any gender)*

Everyone

- **HIV @ first prenatal visit;**
  - If at risk, retest during 3rd trimester by 36 weeks
- **Syphilis @ first prenatal visit**
  - If at risk, retest during 3rd trimester (ideally at 28 weeks) PLUS delivery
- **HepB sAg @1st prenatal (even if vaccinated or previously tested)**
- **Hep C (unless prevalence of Hep C < 0.1%) WITH EVERY PREGNANCY**

If <25 years of age or with risk:

- **Chlamydia and Gonorrhea @ first prenatal plus retest in 3rd trimester**

Screening not recommended for M. genitalium or trichomonas

CDC 2021 STI Treatment Guidelines

STI Screening: Cis-Men who have Sex with Men (MSM)

- **HIV***
- **Syphilis***
- **Urethral GC and CT***
- **Rectal GC and CT (if receptive anal sex)***
- **Pharyngeal GC (if oral sex)***
- **Hepatitis B (HBsAg, HBV core ab, HBV surface ab)**
- **Hepatitis C: (At least once if ≥ 18 yo, unless prevalence of infection < 0.1%)**
- **Anal cancer: annual digital anorectal exam may be useful (no anal Pap rec yet)**
- **HSV-2 serology (consider)**

Annually, more frequent (3-6 months) if multiple/anonymous partners, drug use, or partners w/ risk

Screening not recommended for M. genitalium or trichomonas

CDC 2021 STI Treatment Guidelines

STI Screening: Persons living with HIV

STD	Testing site or test type
Chlamydia	Genital, rectal if exposed
Gonorrhea	Genital, rectal & oral if exposed
Syphilis	Serology
Trichomoniasis	Vaginal (first visit/annually)
Hep B – (HBsAg, HBsAb, HBcAb)	Serology
Hep C	Serology
HPV-related cancer	PAP or PAP & HPV (co-testing) for women Anal cytology for MSM is controversial, digital anorectal exam may be useful for early detection

* Screen at least annually; repeat screening every 3-6 months as indicated by risk.

CDC 2021 STI Treatment Guidelines

Guidelines for the prevention and treatment of OIs in HIV-infected adults and adolescents: recommendations from the CDC, NIH, HIVMA. Available at http://aidsinfo.nih.gov/contentfiles/adult_oi.pdf Accessed Oct 2022

STI Screening in Correctional Facilities

Opt-out screening at Intake

Chlamydia & Gonorrhea: Screen Females up to age 35 ,Males up to age 30

Trichomonas: Screen Females up to age 35

Viral Hepatitis: Screen all on entry for HAV, HBV and HCV. Offer vaccination if susceptible.

Syphilis: Screen Males/Females on basis of local area and institutional prevalence of early infectious syphilis

HIV: Screen all at entry

Audience Poll: GC/CT Treatment

- 20 yo asymptomatic female STI screening reveals GC/CT

- **How should she be treated?**
  - A) Ceftriaxone 250 mg IM x 1 plus Azithromycin 1 gm x 1
  - B) Ceftriaxone 250 mg IM x 1 plus Doxycycline 100 mg PO BID x 7 days
  - C) Ceftriaxone 500 mg IM x 1 plus Doxycycline 100 mg PO BID x 7 days
  - D) None of the above

Answer: GC/CT Treatment

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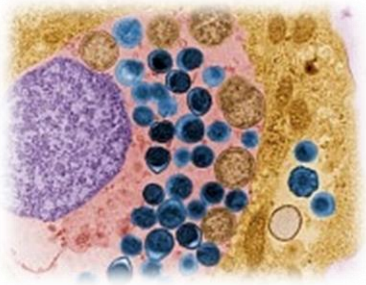
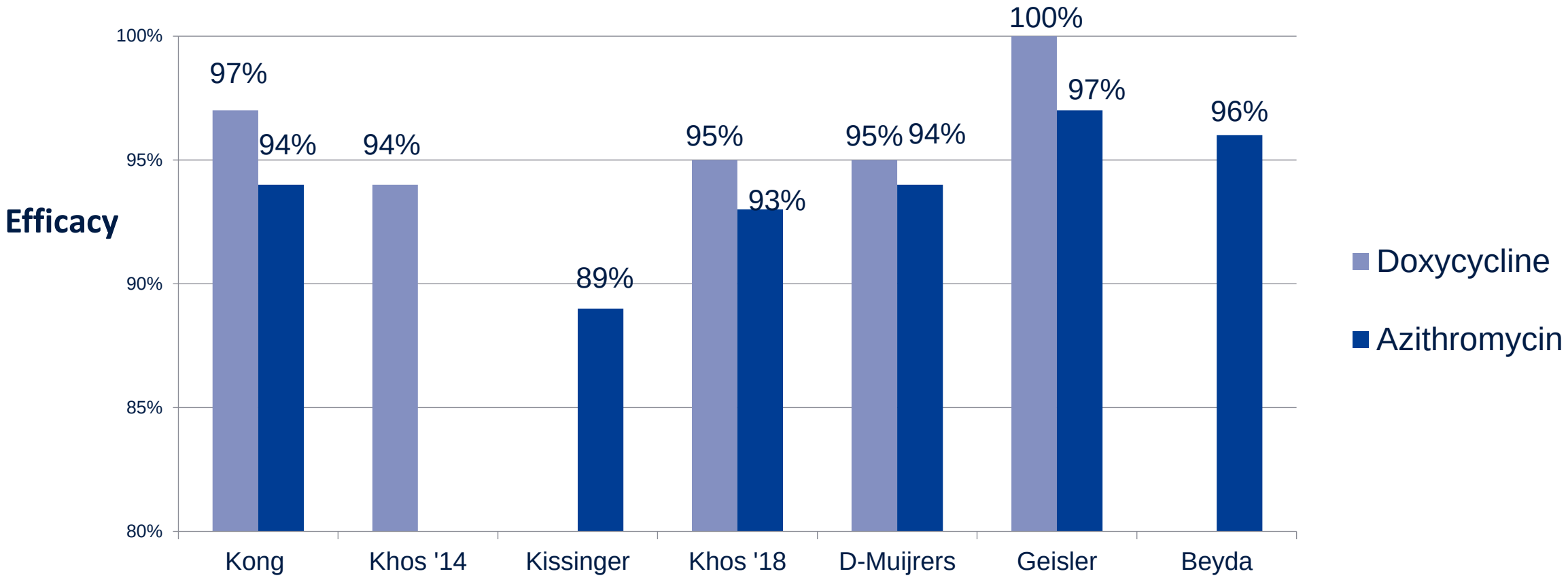
Chlamydia

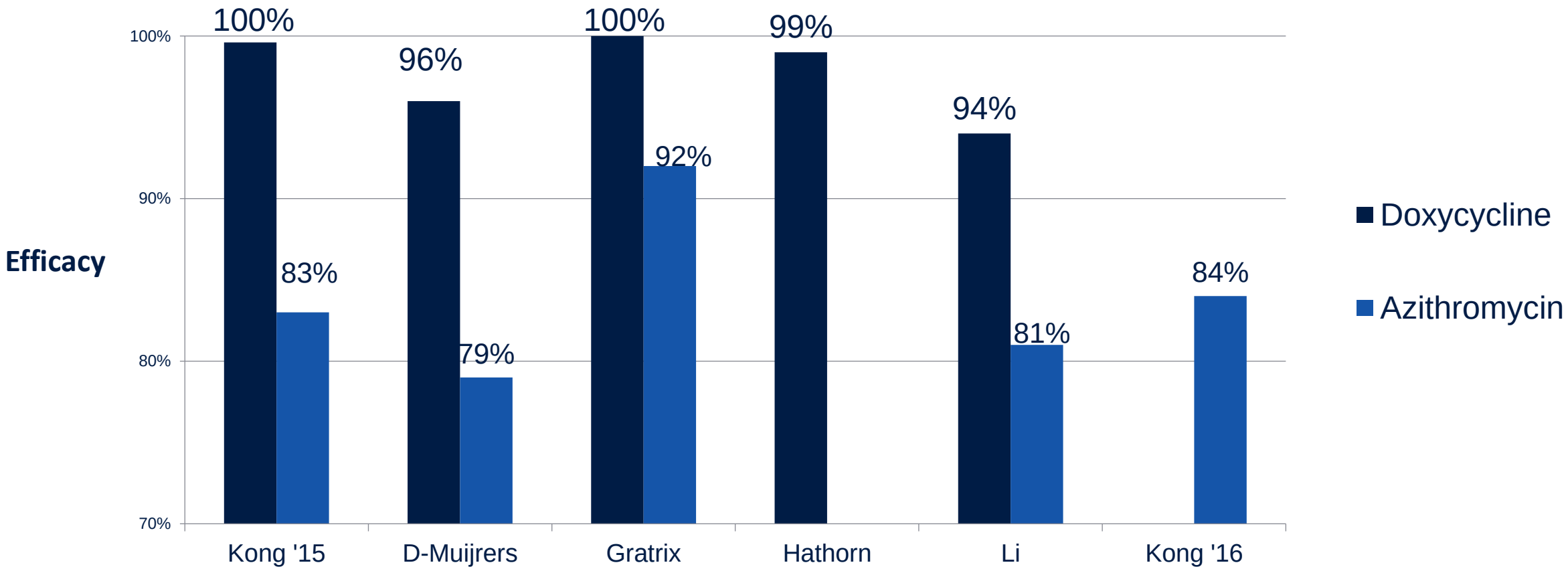


Doxycycline vs Azithromycin: Urogenital Chlamydia



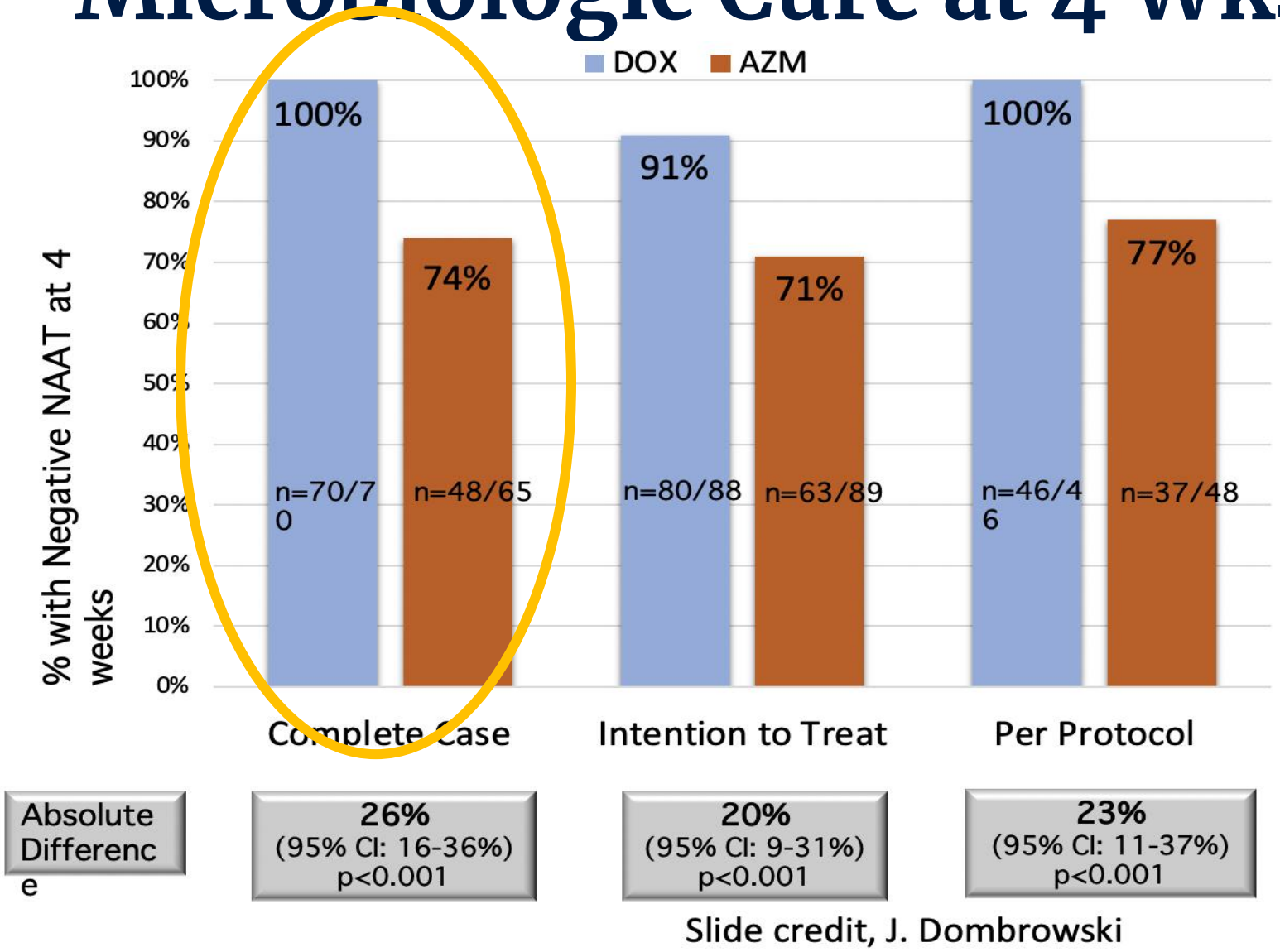
Slide credit: Dr. Will Geisler

Doxycycline versus Azithromycin : Rectal Chlamydia



Slide credit: Dr. Will Geisler

RCT DOX vs AZM for Rectal CT: Microbiologic Cure at 4 Wks



Slide credit, J. Dombrowski

Dombrowski J, *2021, CID* https://doi.org/10.1093/cid/ciab153

Chlamydia Treatment:

Urogenital/ Rectal/ Pharyngeal

Change in 2021 STI Treatment Guidelines

Recommended regimens (non-pregnant):

- Doxycycline 100 mg orally twice daily for 7 days*

Alternative regimens (non-pregnant):

- Azithromycin 1 g orally in a single dose **OR**
- Levofloxacin 500 mg orally once daily for 7 day

*Doxycycline delayed-release 200-mg ,once-daily dosing for 7 days effective for urogenital CT.
More costly but lower frequency GI side effects than standard doxycycline.

CDC 2021 STI Treatment Guidelines

Chlamydia Treatment: Pregnancy

Recommended regimen (pregnant*):

- Azithromycin 1 g orally in a single dose

Alternative regimens (pregnant*):

- Amoxicillin 500 mm orally three times a day for 7 days

*** Test of cure at 3-4 weeks only in pregnancy**

CDC 2021 STI Treatment Guidelines

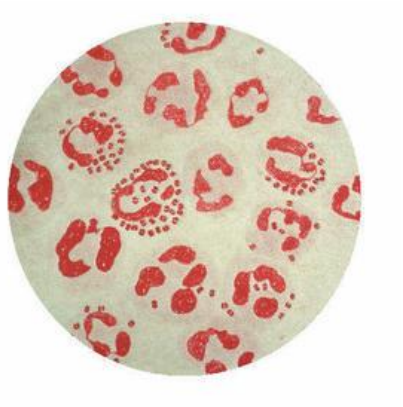
Sure feels like there are a lot of changes for me in the 2021 CDC STI Guidelines!

Chlamydia

Hold on to your hat kid

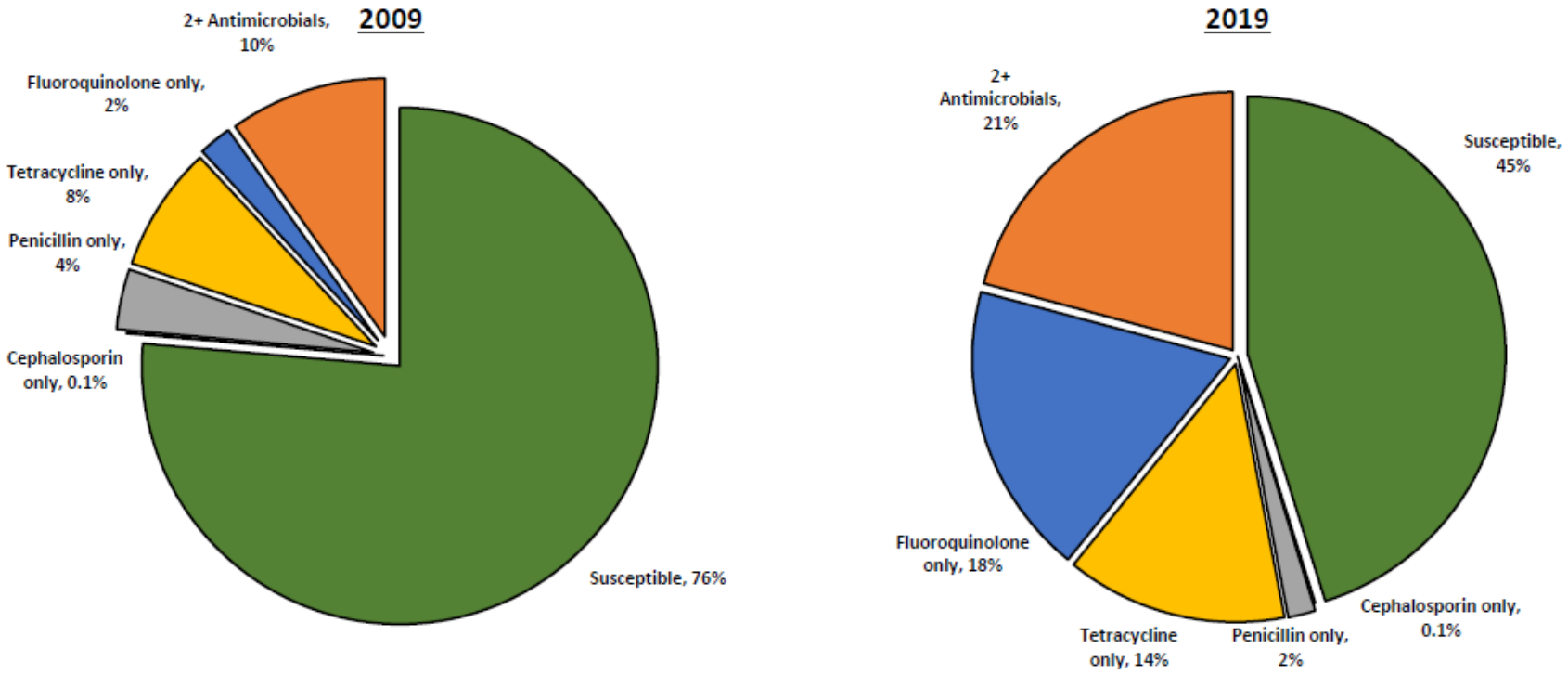
Gonorrhea

Gonorrhea



More than half of GC Isolates are resistant to at least one antibiotic

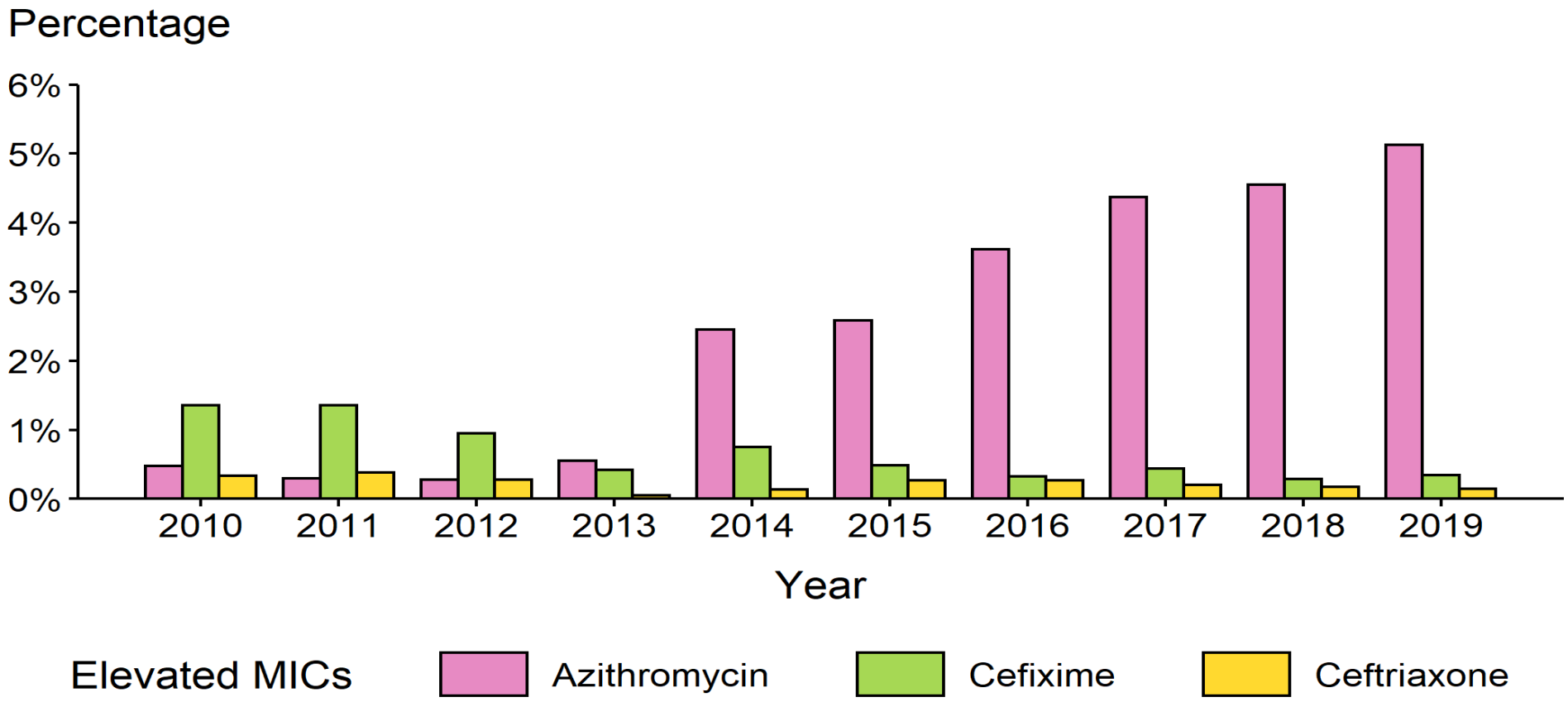
Prevalence of Resistant or Decreased Susceptibility of *N. gonorrhoeae* Isolates to Antimicrobials, GISP, 2009 and 2019*



** 2019 data are preliminary*

Slide courtesy Sancta St. Cyr
National STD Prevention Conference 2020

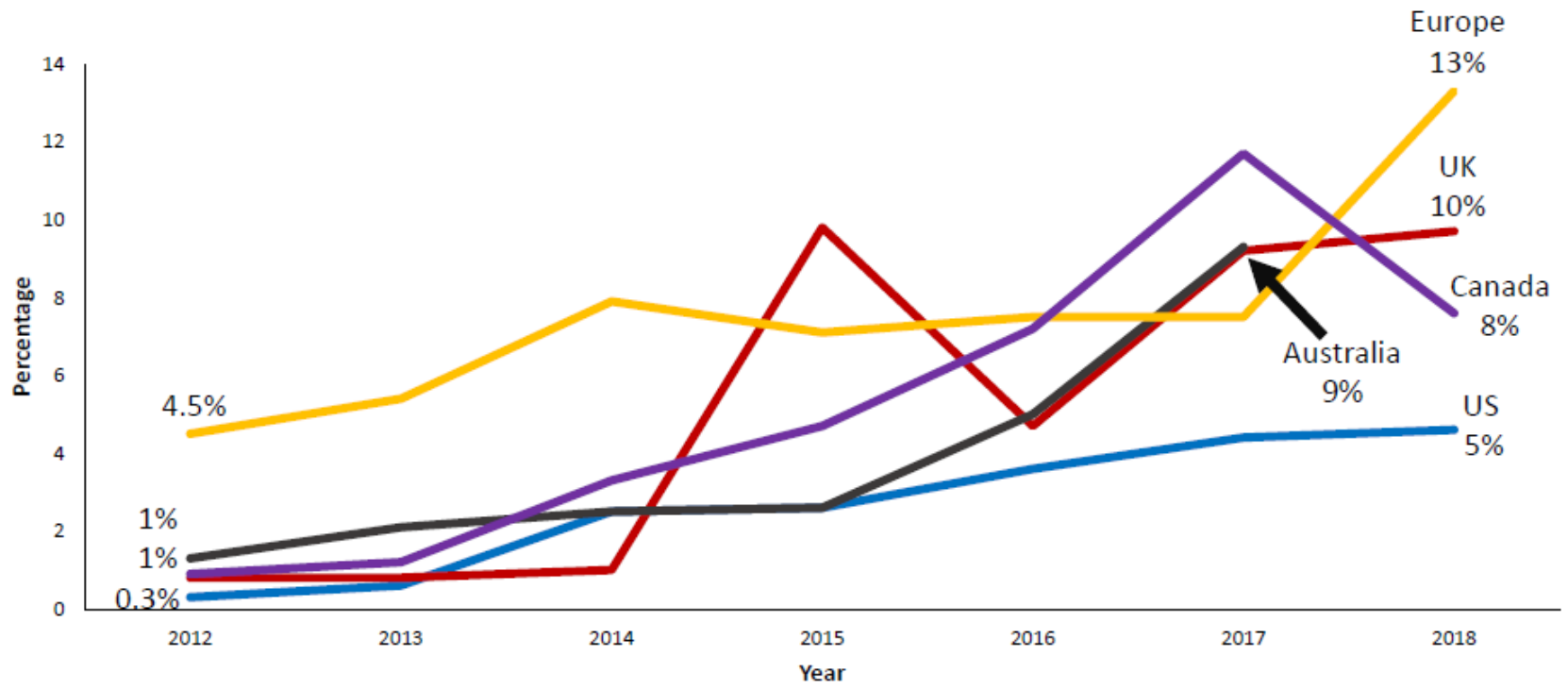
Rise in GC Isolates with Decreased Susceptibility to Azithromycin (~5%) Gonococcal Isolate Surveillance Project (GISP), 2010–2019



NOTE: Elevated MIC = Azithromycin: ≥ 2.0 µg/mL; Cefixime: ≥ 0.25 µg/mL; Ceftriaxone: ≥ 0.125 µg/mL

Azithromycin Decreased Susceptibility around the World

Prevalence of Isolates with Azithromycin Decreased Susceptibility* by Multiple National Surveillance Systems, 2012-2018**



** Classification of decreased susceptibility varies based on selected MIC breakpoints*
*** 2018 data unavailable for Australian Gonococcal Surveillance Programme (AGSP)*

Slide courtesy Sancta St. Cyr
National STD Prevention Conference 2020

Change in 2021 STI Treatment Guidelines

Gonorrhea Treatment Guidelines

for uncomplicated infections

Ceftriaxone 500 mg IM x 1
for persons weighing <150kg*(<330 lb)

*For persons weighing ≥ 150kg, 1 g of IM ceftriaxone should be administered

However, if chlamydia has not been excluded, treat for chlamydia with:

Doxycycline 100 mg PO BID x 7 days

For pregnancy, allergy, or concern for non-adherence, 1g PO azithromycin x 1 can be used

- No longer recommending dual therapy with azithromycin
- Test-of-Cure at 7-14 days post treatment for **pharyngeal** gonorrhea

Update to CDC's Treatment Guidelines for Gonococcal infection, 2020; MMWR

- **October 26, 2022**

Change in 2021 STI Treatment Guidelines

Alternative Gonorrhea Treatment

for uncomplicated infections of the cervix, urethra, and rectum **if ceftriaxone is not available**:

Cefixime **800** mg PO x 1

However, if chlamydia has not been excluded, treat for chlamydia with:

Doxycycline 100 mg PO BID x 7 days

For pregnancy, allergy, or concern for non-adherence, 1g PO azithromycin x 1 can be used

Cephalosporin allergy: Gentamicin 240 mg IM + azithromycin 2 g PO

No reliable alternative treatments are available for **pharyngeal** gonorrhea

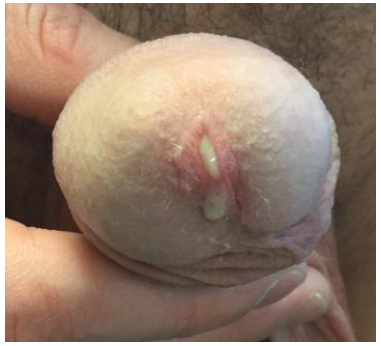
Update to CDC's Treatment Guidelines for Gonococcal infection, 2020; MMWR

Why the change in GC treatment

- **Azithromycin MIC for GC steadily increased**
- **Ceftriaxone, cefixime MICs for GC stabilized**
- Improved understanding of ceftriaxone **pharmacokinetics, pharmacodynamics**
    - Need ≥ 250 mg IM x 1 to ensure level ≥ MIC for 24 hours for most circulating strains

- **Antibiotic stewardship issues with azithromycin**
    - Increasing resistance in *M.genitalium*, Shigella, *Strep pneumoniae*….

Audience Poll: Persistent Urethritis



- 40 yo MSM with persistent dysuria & urethral discharge.
- Seen two weeks ago and treated for urethritis (ceftriaxone 500 mg IM plus doxycycline 100 mg PO BID x 7 days)
- Discharge never resolved / no sexual exposures past two weeks
- GC / CT NAAT negative from prior visit
- **What is the most likely cause of his persistent urethritis?**
  - A) Gonorrhea
  - B) Chlamydia
  - C) Trichomonas
  - D) Mycoplasma genitalium

Image credit: National STD Curriculum, https://www.std.uw.edu/go/comprehensive-study/gonococcal-infections/core-concept/all;

Answer: Persistent Urethritis

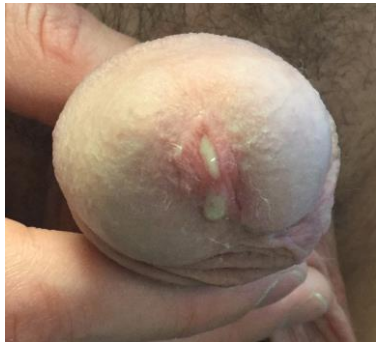


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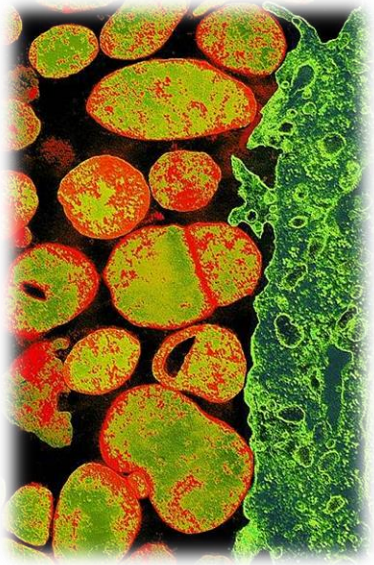
Image credit: National STD Curriculum, https://www.std.uw.edu/go/comprehensive-study/gonococcal-infections/core-concept/all

Mycoplasma genitalium



Mycoplasma genitalium

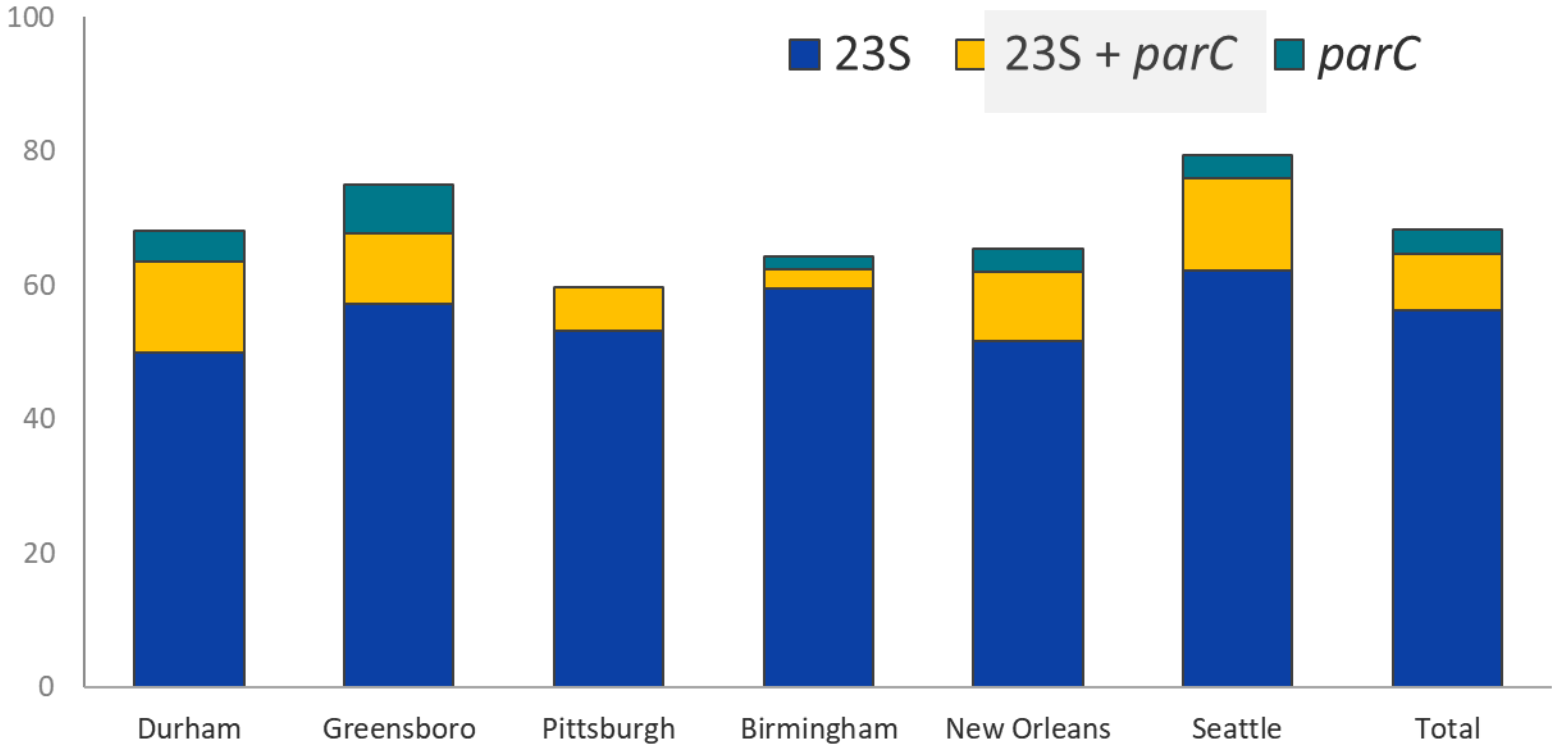
- Sexually transmitted pathogen
  - Urethritis- studies support association
    - 15-20% NGU, 40% persistent/recurrent NGU
    - Data insufficient for epididymitis, prostatitis, infertility
  - Cervicitis, PID, pre-term delivery, spont AB, infertility
    - Cumulative evidence suggest association- 2- fold risk in these outcomes (data not as strong as urethritis)

CDC 2021 STI Treatment Guidelines

M. genitalium screening and diagnostic testing

- **Population** based screening for M. genitalium is **not** recommended
- Diagnostic testing: NAAT (**FDA approved in 2019**) for urine, urethral, penile meatal, endocervical, vaginal specimens
- **When to test**: persistent urethritis that fails initial treatment, also consider for persistent PID or cervicitis

>50-60% of M. genitalium Infections Have Reisistance Mutations to Macrolides (azithro)



23S- Macrolide resistance mediating Mutations, (correlates with RX failure)
parC- flouroquinolone resistance mediating mutation

National Institutes of Health [HHSN2722013000121, HHSN272000010, DIMD16-0039]

Bachmann LH, Kirkcaldy RD, et al. CID 2020

Slide credit: L Bachmann

M. genitalium Treatment

Change in 2021 STI Treatment Guidelines

- **Sequential treatment: Start with Doxycycline to reduce bacterial load**
- **Recommended regimen (M. genitalium resistance testing available & macrolide resistant or *resistance testing not available)***

Doxycycline 100 mg BID x 7days → THEN → Moxifloxacin 400 mg Daily x 7days

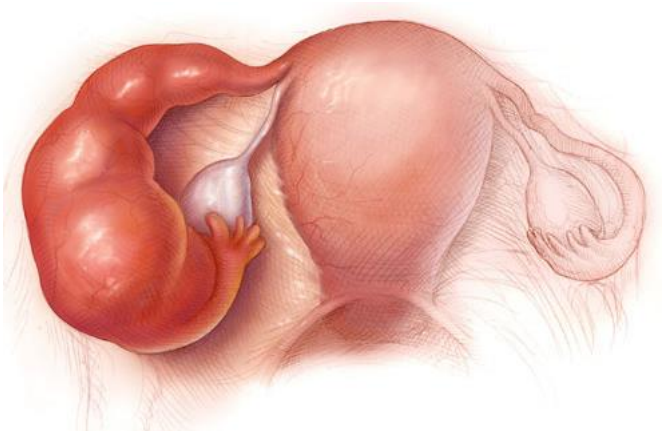
- **Recommended regimen (M. genitalium resistance testing available & macrolide sensitive)**

Doxycycline 100 mg BID x 7days → THEN → Azithromycin 2.5 gm over 4 days*

*Azithromycin 1 gm x 1 day then 500 mg daily x 3 day

CDC 2021 STI Treatment Guidelines.

Syndromes: PID, Urethritis Cervicitis,



PID Outpatient Treatment: Should Metronidazole be used routinely?

- Randomized Controlled Trial (N=233 cis women)
- Ceftriaxone 250 mg IM **plus** Doxycycline 100 mg PO BID x 14 days **plus**
  - Metronidazole 500 mg BID x 14 day **OR**
  - Placebo BID X 14 day
- Primary outcome: Clinical improvement 3 days
- Additional outcomes: Anerobic organisms in endometrium at 30 days, fever, CMT reduction

PID Study Results

- Clinical improvement at 3 days similar between two arms
- Metronidazole
  - Reduced anaerobes in endometrium (8% vs 21%, $p<0.05$)
  - Reduced M. genitalium (cervical) (4% vs 14%, $p<0.05$)
  - Reduced CMT/pelvic tenderness (9% vs 20%, $p<0.05$)

- **Conclusion: Metronidazole should be routinely added for PID RX**

Wisenfeld et al. CID 2021

PID IM/ Oral Treatment Regimens: Metronidazole for All

Change in 2021 STI Treatment Guidelines

Oral regimens:

- Ceftriaxone 250 mg IM (or other parenteral 3rd generation cephalosporin) x 1 ***or***
- Cefoxitin 2 g IM ***with*** probenecid 1 g orally once

  PLUS

- Doxycycline 100 mg orally twice daily for 14 days

  WITH ~~OR WITHOUT~~

- Metronidazole 500 mg orally twice daily for 14 days

CDC 2021 STI Treatment Guidelines

Urethritis, Cervicitis

Ideal treatment based on **knowing pathogen**

If treating empirically:

- **Urethritis: treat for GC/CT**
- **Cervicitis: treat with Doxycycline 100 mg BID x 7 days**
    - **RX GC if increased risk (<25 y/o, new sex partner, sex partner with concurrent partner, sex partner with STI) or f/u concern. Treat for BV/Trich if detected. If low risk can test and defer RX until results available.**

- **CT Treatment** (Doxycycline preferred, Azithromycin as alternative)
- **GC Treatment**(Ceftriaxone 500 mg IM preferred, Cefixime 800 mg alternative)

Genital Ulcer Disease: Syphilis & HSV

Adult Syphilis

- Presentation:
  - Atypical presentation (painful, multiple lesions)
  - Enhanced clinical description (ocular, otic manifestations)

- Treatment
  - **No** changes for any stage of syphilis
  - PCN G remains recommended treatment
  - Ongoing RCT early syphilis (1 vs 3 benzathine PCN)

CDC 2021 STI Treatment Guidelines

Change in 2021 STI Treatment Guidelines

Follow-up and Serologic Response Adult Syphilis

- **Primary and Secondary Syphilis**
  - Expect fourfold decrease in serology in 12 months

  (24 months for PLWHA)
- **Latent Syphilis**
  - Expect fourfold decrease in serology in 24 months (if titer initially >1:16)
- **Neurosyphilis Follow-up** if RPR drops appropriately and patient improves clinically, no repeat CSF (HIV- / PLWHA on ART)

CDC 2021 STI Treatment Guidelines

Ocular/Otosyphilis: Evaluation and Follow-up

Change in 2021 STI Treatment Guidelines

- Patients with reactive serology and ocular or otic symptoms
  - **Ocular symptoms**: isolated ocular syxs, no CN or other neuro involvement, **and** confirmed eye abnormalities on exam, no CSF exam needed before treatment
  - **Otosyphilis**: if isolated auditory abnormalities, CSF likely to be normal, no CSF needed before treatment

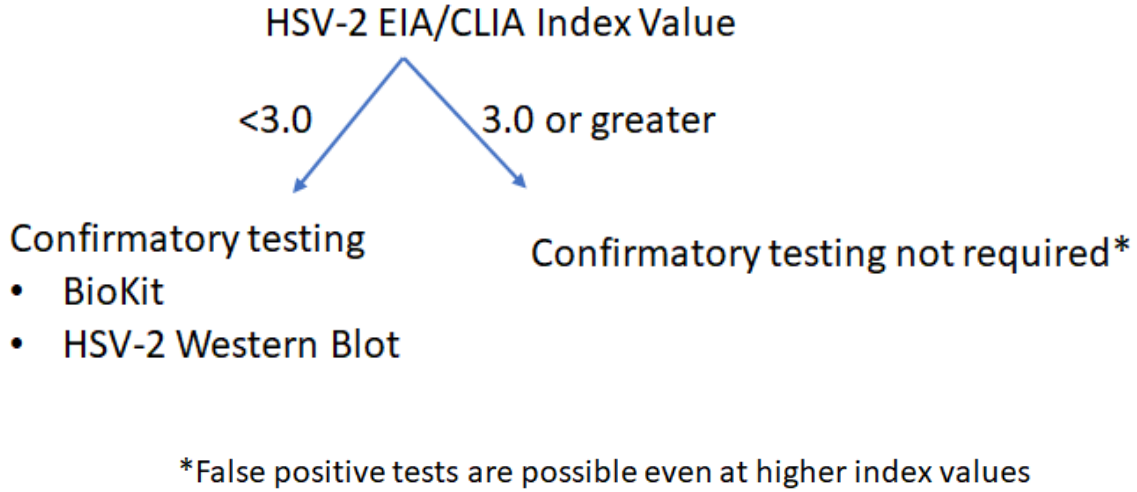
CDC 2021 STI Treatment Guidelines

- **October 26, 2022**

Change in 2021 STI Treatment Guidelines

Genital Herpes: Serologic testing

- Serologic two-step testing for HSV-2 should be performed
  - Poor specificity of EIA at low index values (<3.0)
  - Do not use Herpes-Select Immunoblot/ as 2nd test , detects same antigen as EIA
  - Serologic testing 12 wks after suspected recent acquisition
  - IgM not recommended



If confirmatory tests are unavailable

- Counsel about limitations of available testing before doing serology
- Health care providers should be aware that false-positive results occur. (Specificity 39.8% Index value < 3 **vs**78.6% at Index value ≥3)

CDC 2021 STI Treatment Guidelines

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Vaginitis: Trich, BV and Candida

Trichomoniasis: The "Neglected STD"

- Under appreciated in its importance—most common nonviral STD in US behind HPV (3.7 million new cases/yr estimated)
  - Not reportable in the US
  - NHANES 2013-2014 data found disproportionate impact among African Americans
  - Very high rates in **incarcerated women** (9-32%) and men (2-9%)

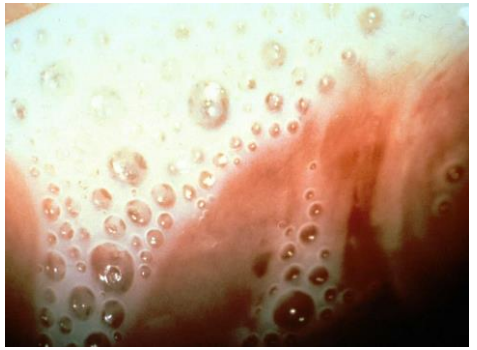
Patel CID 2018 ,Muzny C, CID 2015, Muzny CID 2018.

Trichomoniasis: Sequelae

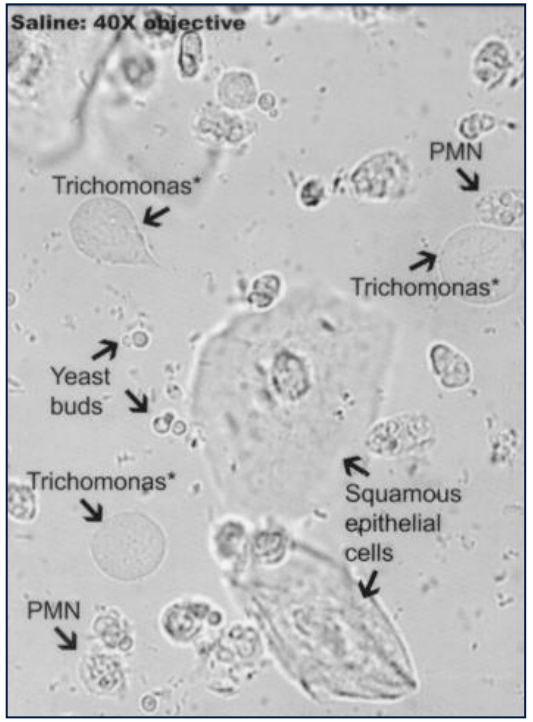
- 70-85% asymptomatic, may persist for years
- Females: Pre-term delivery, LBW, PID
- Males: Less studied but associated with NGU, prostatitis (possibly epididymitis)
- Multiple studies : increased acquisition of HIV with T. vaginalis infection (1.5- 2.5 X)
- Worldwide—MAJOR implications

Van Gerwin et al. Version 1. F1000Res. 2019; 8: F1000 Faculty Rev-1666.
Published online 2019 Sep 20; Masha, STI 2018

Audience Poll: Trichomoniasis Treatment

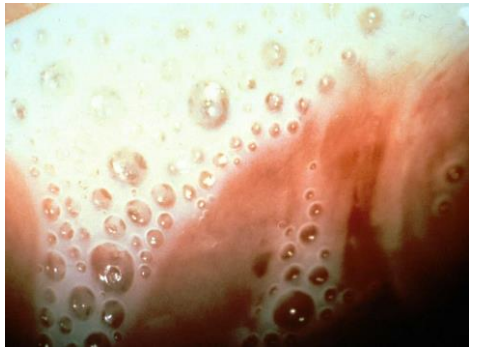


- 40 yo cis female with frothy green vaginal discharge and wet mount reveals motile trichomonads.

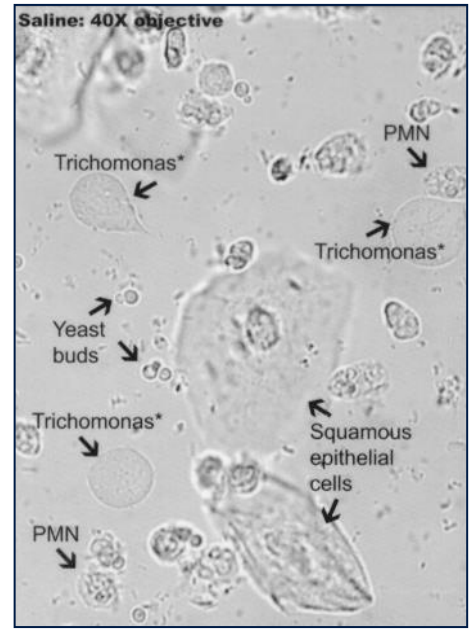


- **What is recommended regimen to treat her?**
  - A) Metronidazole 2 gm orally
  - B) Metronidazole 500 mg PO BID x 7 days
  - C) Tinidazole 2 gm orally
  - D) Metronidazole gel 0.75% a full applicator (5 gm) once a day intravaginally x 5 days

Answer: Trichomoniasis Treatment



- 40 yo cis female with frothy green vaginal discharge and wet mount reveals copious WBCs and motile trichomonads.



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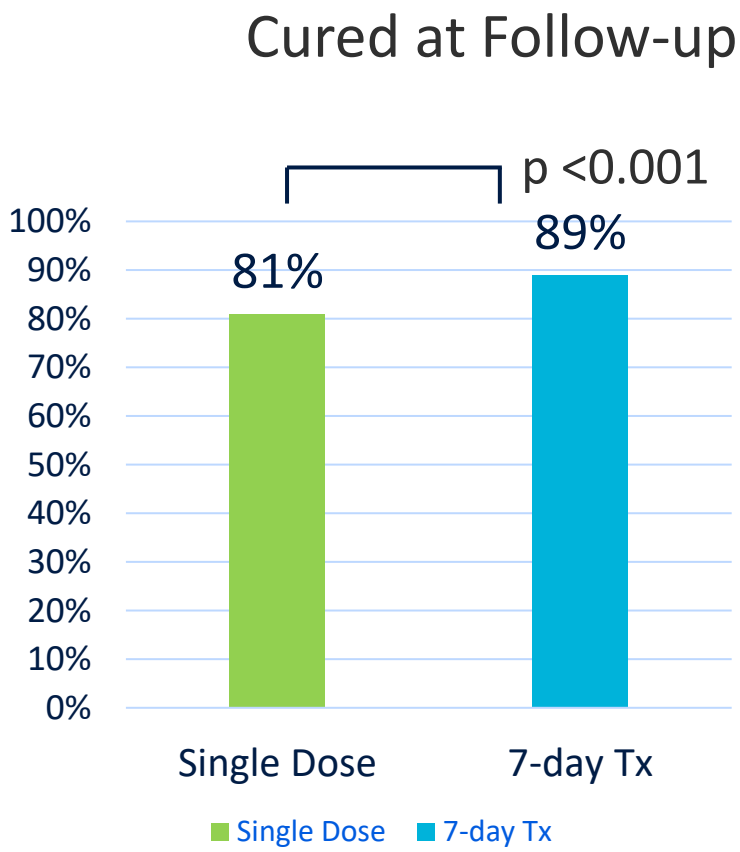
Treatment Consideration: Single dose Metronidazole not as effective as 7 days

- Single dose previously recommended for trich in HIV-negative patients, 7-day therapy (500 mg BID) recommended for pts living with HIV. (CDC TX GL 2015)
- N=623 women randomized 1:1 to single dose MTZ vs 7 day
- Culture TOC, 6-12 days post treatment



Kissinger, 2018 Lancet Infect Dis

Trichomoniasis Treatment

Change in 2021 STI Treatment Guidelines

Recommended regimen: Vaginal trichomonas (HIV+/HIV-)

Metronidazole 500 mg PO BID x 7d

Recommended regimen: men w/ trichomonas or male partners)-
Metronidazole 2g PO single dose

Alternative regimen:

Tinidazole 2 gm orally in a single dose

ACOG 2020 Treatment Guidelines for vaginal trichomonas

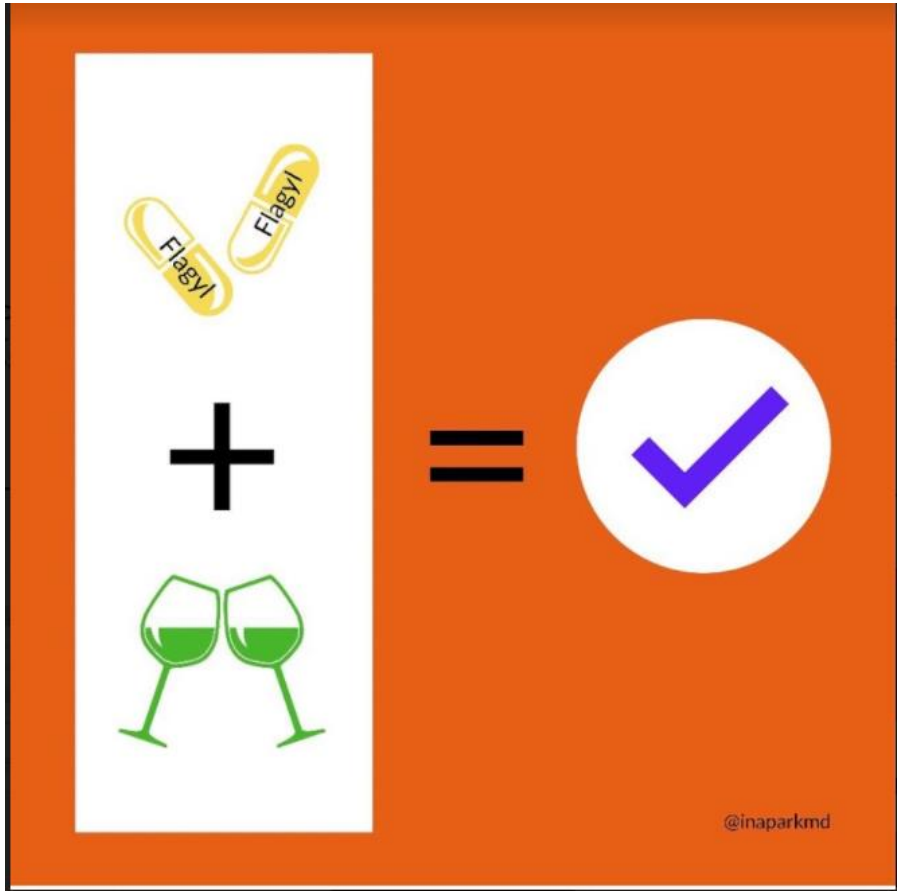
Metronidazole 500 mg PO BID x 7 d

CDC 2021 STI Treatment Guidelines,
ACOG Practice Bulletin 215. OB/GYN Vol 135. Jan 2020

Change in 2021 STI Treatment Guidelines

Metronidazole and Alcohol

- Metronidazole does not actually inhibit acetaldehyde dehydrogenase (as occurs with disulfiram)
- Evidence review: no in vitro or clinical studies, no animal models, and no adverse event reporting
- Refraining from ETOH is unnecessary during treatment



2021 CDC STI Treatment Guidelines
Fjeld H, Raknes G. Tidsskr Nor Laegeforen. 2014;134(17):1661–3

Bacterial Vaginosis

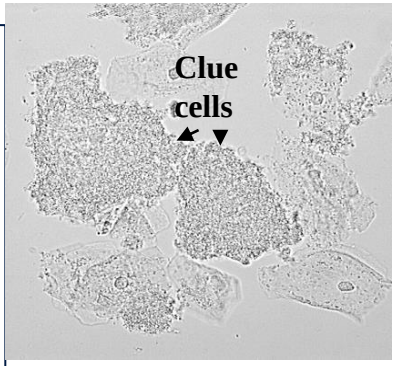
- Several BV NAATs available for diagnosis: For symptomatic patients only:
  - FDA cleared
  - BD Max Vaginal Panel (90.5% sensitivity and 85.8% specificity for BV) +trich, candida
  - Aptima BV (95-97% sensitivity, 85.8-89.6% specificity)
  - Older methods: amsel, nugent, affirm VP III are still useful and less expensive
- Asymptomatic pregnant patients should not be screened

CDC 2021 STI Treatment Guidelines

BV Treatment: No change for recommended regimens

Recommended:

- Metronidazole 500 mg orally twice a day for 7 days
- Metronidazole gel 0.75%, one full applicator (5 grams) intravaginally, once a day for 5 days
- Clindamycin cream 2%, one full applicator (5 grams) intravaginally at bedtime for 7 days



CDC 2021 STI Treatment Guidelines

BV Treatment: New Alternative Regimens

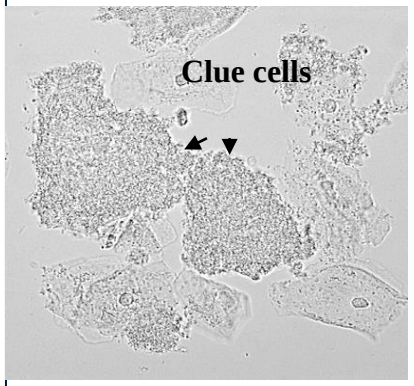
Change in 2021 STI Treatment Guidelines

Alternative regimens nonpregnant person:

- Clindamycin 300 mg orally twice a day for 7 days
- Clindamycin ovules 100 mg intravaginally once at bedtime for 3 days
- Secnidazole* 2g oral granules in a single dose
- Tinidazole 2gm po qd x 2 days
- Tinidazole 1gm po qd x 5 days

Additional alternative treatment options

- Metronidazole 1.3% vaginal gel;
- Clindesse 2% vaginal cream



*Oral granules should be sprinkled on unsweetened applesauce/yogurt or pudding before ingesting. Drinking a glass of water after ingesting can aid in swallowing.

CDC 2021 STI Treatment Guidelines

- **October 26, 2022**

Vulvovaginal Candidiasis

- PCR testing for yeast : most are not FDA-cleared
- Culture remains standard diagnostic test (+/-susceptibility testing)
- *C. albicans* azole resistance more common in vaginal isolates

- Avoid fluconazole use in pregnancy
  - Increase risk of congenital anomalies
  - Spontaneous abortion
  - Topical azoles are recommended

CDC 2021 STI Treatment Guidelines

Test of Cure vs Retesting

Test of Cure vs Retesting

TEST OF CURE	Time period	Who
GC (pharynx)	2 weeks	All patients
CT (cervix)	4 weeks	Pregnant pts only
LGV (all sites)	4 weeks	If AZM used instead of doxy
M. genitalium	3 weeks	If DOX + AZM used instead of MOX

RETEST FOR REINFECTION	Time period	Who
GC/CT/LGV (all sites)	3 m (anytime from 1-12m is ok)	All patients
Trichomonas	3 m (anytime from 1-12m is ok)	Pts w/vaginal infection

CDC 2021 STI Treatment Guidelines

References

1.Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR Recomm Rep 2021 July 23;70 (4): 1-187

2. Update to CDC's Treatment Guidelines for Gonococcal Infection 2020. St Cyr S, et al. MMWR Morb Mortal Wkly Rep. 2020 Dec 18;69(50):1911-1916

3. American College of OB/GYN Practice Bulletin 215. Vaginitis in Non-Pregnant Patients. Obstetrics & Gynecology: Vol. 135, No 1. January 2020

STDCCN.org

- **October 26, 2022**

Resources for Clinicians

- **CDC 2021 STD Treatment Guidelines**

https://www.cdc.gov/std/treatment-guidelines/

- **CDC 2021 STD Guidelines App- Now Available!!**

National Network of STD/HIV Prevention Training Centers

http://nnptc.org/

NNPTC National Network of STD Clinical Prevention Training Centers

- **National STD Curriculum**

https://www.std.uw.edu/

- **California Prevention Training Center**

https://californiaptc.com/

CAPTC

- **October 26, 2022**

Acknowledgments

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- Christine Johnston- University of Washington Prevention Training Center

Thank you!!

Questions?

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Extra Slides– TBD for Q & A

Suspected GC Treatment Failure

TEST WITH CULTURE & NAAT:

- If GC culture testing not available onsite access testing resources*

REPEAT TREATMENT:

- Ceftriaxone 1 gm IM + Azithromycin 2 gm **OR** Gentamicin 240 mg IM + AZ 2g (*Gentamicin low efficacy pharyngeal use CTX regimen*)
- If reinfection suspected, repeat treatment with CTX 500 IM)

REPORT:

- To your local health department within 24 hours

TEST AND TREAT PARTNERS:

- Test &Treat all partners in last 60 days with same regimen

TEST OF CURE (TOC) with Culture & NAAT:

- TOC at 7days for urogenital/rectal
- TOC at 14 days for pharyngeal

} **If Culture positive need AST, access testing resources***

*https://californiaptc.com/resources/ca-clinical-guidelines-for-gc-treatment-failure/

M. genitalium Treatment Failure: Options

- Minocycline has been effective in small case series
  - 100 mg BID X 14days
- Lefamulin (approve for PNA, off label for M gent)
  - 600 mg BID x 7 days (pre-treat with doxy x 7 days)
  - Can be obtained in US through a study at University of Washington
- Consult STDCCN https://www.stdccn.org

Unemo and Jensen, Nature Reviews Urol 2017
Glaser et al. Int J STD AIDs April 2019

Other syndromes

Syndrome	Recommendations
Urethritis, Cervicitis	• Ideal treatment based on knowing pathogen • If treating empirically: **-- Treat for CT (doxycycline preferred, azithromycin alternative)** **-- Add treatment for GC if at risk or high prevalence setting (ceftriaxone 500 mg IM preferred, cefixime 800 mg alternative)**
Proctitis	• **Ceftriaxone 500 mg IM x 1 + doxycycline 100 mg BID x 7 days*** * Extend doxy to 3 weeks (for LGV coverage) if bloody discharge, perianal or mucosal ulcers, or tenesmus and + rectal CT
Epididymitis	• **If GC/CT suspected:** **-- Ceftriaxone 500 mg IM x 1 + doxycycline 100 mg PO BID x 7 days** • **If enterics only suspected (e.g., GC/CT ruled out)** **-- Levofloxacin 500 mg daily x 10 days** • **If GC/CT or enterics suspected: Treat with ceftriaxone PLUS levofloxacin**