STI Treatment Guidelines Update

Part 1: Syphilis (and BV + Trich)

Chase Cannon
Acting Assistant Professor
University of Washington

Last Updated: 6 Sep 2021
Disclosures

No conflicts of interest or financial relationships to disclose.
2021 CDC STI Treatment Guidelines

• Experts convened in Atlanta, GA from 11-14 June 2019
• Incorporation of new data/evidence
• More focus on challenges in syphilis management
  • Enhanced discussion about algorithms
  • Ocular syphilis
  • CSF follow-up
  • Expanded risk factors for testing in pregnant people
• Updates to BV and Trichomonas treatment
**Syphilis algorithms**

**Traditional**

- Non treponemal test (e.g. RPR)
  - +
    - Syphilis unlikely
  - -
    - Syphilis unlikely

- Treponemal test (e.g. TP-PA)
  - +
    - Syphilis (past or present)
  - -
    - Syphilis unlikely

**Reverse sequence**

- Treponemal test (e.g. EIA or CIA)
  - +
    - Syphilis (past or present)
  - -
    - Syphilis unlikely

- Quantitative non treponemal test (e.g. RPR)
  - +
    - 2nd treponemal test (e.g. TPPA)
      - +
        - Syphilis unlikely
      - -
        - Syphilis unlikely
  - -
    - Syphilis unlikely

*Morshed MG, Clin Vaccine Immunol 2015*
Syphilis algorithms

**Traditional**

- Always best to use same NTT from same lab, if possible
- RPR titers are often higher than VDRL
- Serofastness: inadequate serologic response vs serologic non-reversion

**Reverse sequence**

- If treated during primary stage, 15-25% of TT may serorevert in 2-3 years
- Tiebreaker: use TP-PA or TT with different antigen target than initial used for screening
  - If positive: repeat NTT in 2-4 weeks with H&P to evaluate for early infection
- EIA/CIA optic density cutoffs may predict TP-PA positivity

(1) Romanowski et al, Ann Int Med 1997; (2) Berry GJ et al, STD 2016
CSF evaluation in neuro-, ocular and otosyphilis

- Can occur at any stage of syphilis; commonly identified in early stage
- *May or may not* involve CNS
- If *isolated* ocular sx that are *confirmed* on exam + *reactive* serology = **CSF is unnecessary before treatment**
- CSF may be helpful if ocular sx + reactive serology and no abnormal exam

Panuveitis, retinal vasculitis, CN II-VI dysfunction, etc.
CSF evaluation in neuro-, ocular and otosyphilis

Otosyphilis

• If isolated auditory abnormalities + reactive serology, **CSF is** almost always normal and **not of any additional diagnostic benefit**

CSF analyses

• **VDRL** is very specific (~100%), not very sensitive (~25-30%)\(^1\)
  - Negative doesn’t rule out but positive means highly likely to be neurosyphilis

• **FTA-ABS** is not very specific (55-60%), but highly sensitive (95-100%)\(^2,3\)
  - If negative, very unlikely to be neurosyphilis

• **TP-PA**: sensitivity and specificity are similar to **FTA-ABS**\(^2\)

CSF evaluation in neuro-, ocular and otosyphilis

For those who are immunocompetent or who have HIV and on effective ART, normalization* of the serum RPR titer predicts normalization of CSF parameters after NS tx.

* 4-fold decrease or reversion to nonreactive vs >8-fold decrease in serum RPR

Repeat CSF exams not necessary in setting of serologic and clinical response to therapy.
Syphilis in pregnancy

• Optimal timing between doses for LL/UD syphilis is 7 days; up to 9 days may be permitted

• Specified risk factors:
  - Sex with multiple partners
  - Transactional sex or sex + drug use
  - Late entry into prenatal care (first visit in 2\textsuperscript{nd} trimester or later)
  - No prenatal care
  - Meth or heroin use
  - Incarceration of pregnant individual or their partner
  - Unstable housing or homelessness

• Evaluate for ongoing risk factors and treat sex partners
Syphilis in pregnancy: management tree

- EIA pos
- RPR neg
- TP-PA pos

H/o adequately treated infection?
- No further work-up or treatment needed

No h/o treatment
- Stage infection and treat accordingly
Syphilis in pregnancy: management tree

EIA pos  
RPR neg  
TP-PA neg

Yes or unable to f/u

H/o prior syphilis, abnormal exam, high prevalence community, partner is infected?

Chancre?

If e/o primary syphilis, treat

Repeat testing at 4 weeks. If RPR and/or TP-PA pos, treat

If unable to confirm prior history, treat

No and able to f/u

Repeat testing at 4 weeks. If RPR and TP-PA neg, stop
Miscellaneous syphilis pearls

• Primary syphilis can be multiple, atypical or painful lesions\(^1\)

• Longer tx for latent stage: \(T.\ pallidum\) thought to hide and divide slowly in sequestered sites

• No evidence that steroids improve outcomes for ocular or otosyphilis

• Ok to consider giving 1-3 weeks of BPG IM after finishing NS tx

• No evidence that antipyretics prevent Jarisch-Herxheimer rxn

• If syphilis diagnosed and treated…
  • Before/at 24 weeks EGA: soonest to repeat titers is 8 weeks after tx
  • After 24 weeks EGA: repeat titers at delivery

• For serofast persons without HIV, retreatment does not meaningfully change serologies\(^2\)

(1) Towns JM et al, STI 2016; (2) Zhang X et al, STD 2021
Bacterial vaginosis

- Removed warning about disulfiram-like reaction with nitroimidazoles
- Recommended therapy:
  - Metronidazole 500 mg PO bid x7d
  - *Metro gel 0.75%, give 1 full intravaginal application (5 gm) daily x 5d*
  - Clindamycin cream 2%, give 1 full intravaginal application (5 gm) qhs x7d
- Alternative therapies: Four prior regimens remain; *addition of secnidazole 2 gm oral granules in a single dose* (sprinkle on soft food before ingesting and drink full glass of water after to help with swallowing)
### Trichomoniasis

- Change to tx for women
- No data for extended tx regimens in men
- Revised recommendations for persistent infection; contact CDC for resistance testing

<table>
<thead>
<tr>
<th>Group</th>
<th>2015</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Rec.</strong></td>
<td><strong>Alt.</strong></td>
</tr>
<tr>
<td><strong>Women (HIV-negative) and men?</strong></td>
<td>MTZ 2 gm PO x1 or tinidazole 2 gm PO x1</td>
<td>MTZ 500 mg PO bid x7d</td>
</tr>
<tr>
<td><strong>Women (HIV-positive)</strong></td>
<td>MTZ 500 mg PO bid x7d</td>
<td></td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>MTZ 2 gm PO x1</td>
<td>Tinidazole 2 gm PO x1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Change to tx for women
- No data for extended tx regimens in men
- Revised recommendations for persistent infection; contact CDC for resistance testing
The Mountain West AIDS Education and Training (MWAETC) program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $2,886,754 with 0% financed with non-governmental sources.

The content in this presentation are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the U.S. Government.