

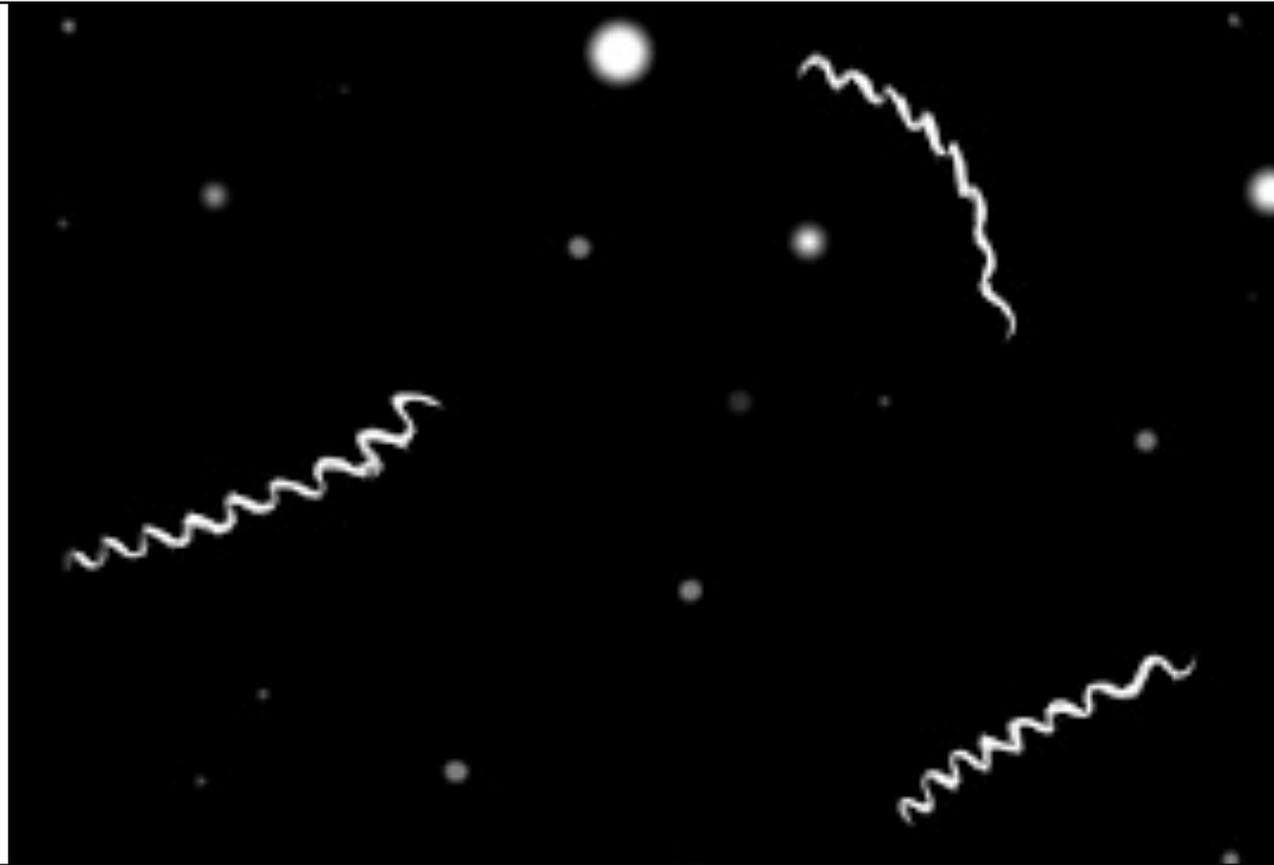
<https://skeptics.stackexchange.com/questions/31596/is-syphilis-all-of-these-men-have-it-a-wwii-propaganda-poster>

# Syphilis

Helen Bills

# Overview

- *Treponema pallidum* subspecies *pallidum*
- Current outbreak = increasing prevalence
- Important sequelae
  - Congenital syphilis
  - Tertiary syphilis (neurosyphilis, cardiovascular syphilis)
  - Interaction with HIV



# Who to test

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Asymptomatic screening<ul style="list-style-type: none"><li>• MSM</li><li>• HIV positive MSM</li><li>• Routine antenatal testing</li><li>• Routine immigration testing</li><li>• Sexual contact of person with syphilis</li><li>• ATSI people from rural and remote areas</li><li>• Routine sexual health check - offer</li></ul></li></ul> | <ul style="list-style-type: none"><li>• Symptomatic testing<ul style="list-style-type: none"><li>• Signs and symptoms of syphilis</li><li>• Genital ulcers</li><li>• Rash – palms/soles/persistent/unexplained</li><li>• Pyrexia of unknown origin</li><li>• Lymphadenopathy unexplained/persistent</li><li>• LFT derangement unexplained</li><li>• Alopecia</li><li>• Neurological conditions - unexplained</li></ul></li></ul> |
|---|--|

# How to test

- Asymptomatic screening
  - Syphilis serology
    - Phx syphilis + Rx hx
    - RPR for treatment response/ reinfection
- Symptomatic testing
  - Syphilis serology
  - Syphilis NAAT
  - *Non-syphilis STI tests*
  - *Lumbar puncture*
- Treatment response
  - RPR at 3, 6, +/- 12 months
    - 4 fold reduction

Test	Site/specimen	Consideration
Syphilis serology	Blood	Treponemal test – CLIA/ EIA Treponemal test - TPPA/ TPHA  Non-treponemal test - RPR
Syphilis NAAT	Swab	May be more sensitive in very early disease
Dark ground microscopy	Swab	

EIA - enzyme linked immunoassay

CLIA – chemiluminescence immunoassay

TPPA/ TPHA - treponema pallidum particle agglutination/ haemagglutination assay

RPR - rapid plasma reagin

NAAT - nucleic acid amplification test

# Staging of syphilis

Early Syphilis : <2 years

Late Syphilis : >2 years

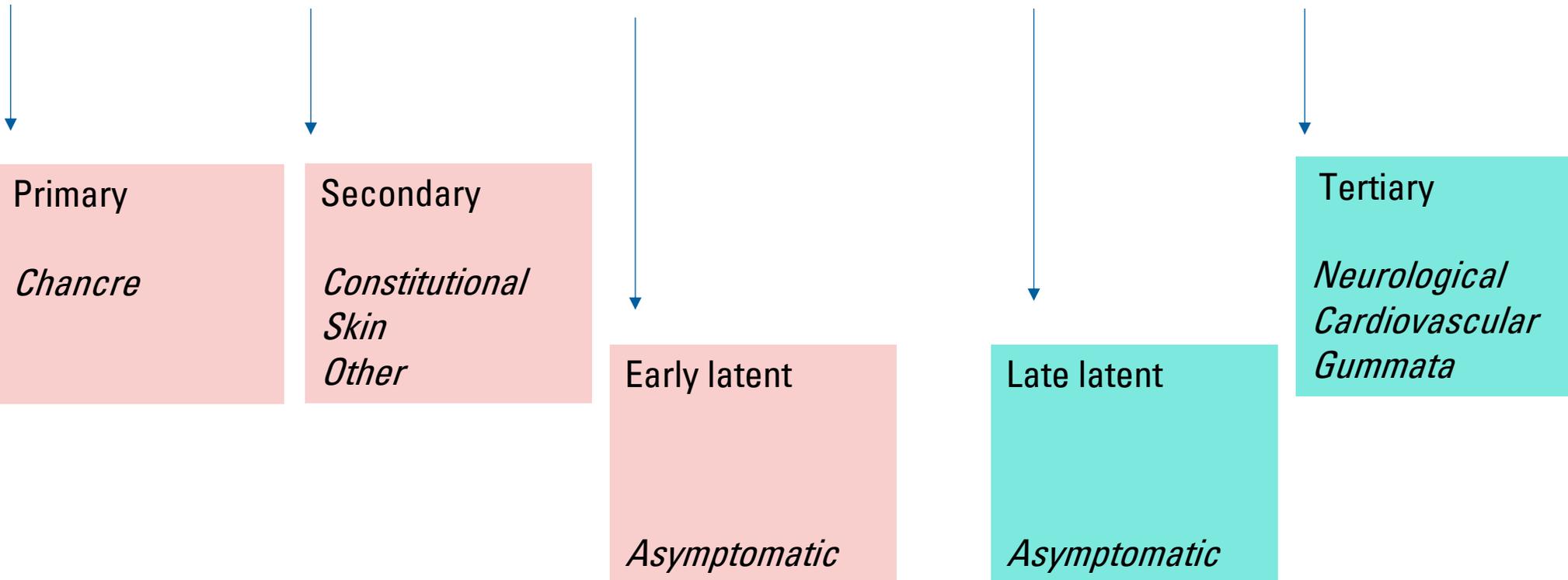


Image warning

# Primary syphilis



Clinical images courtesy of Melbourne Sexual health Centre, via STIatlas.org

# Secondary syphilis



Clinical images courtesy of Melbourne Sexual health Centre, via STIatlas.org

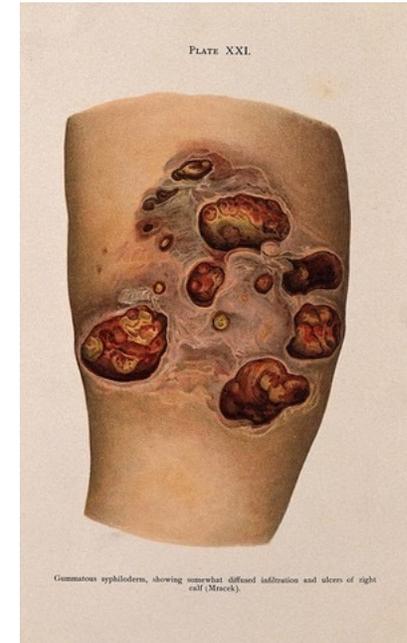
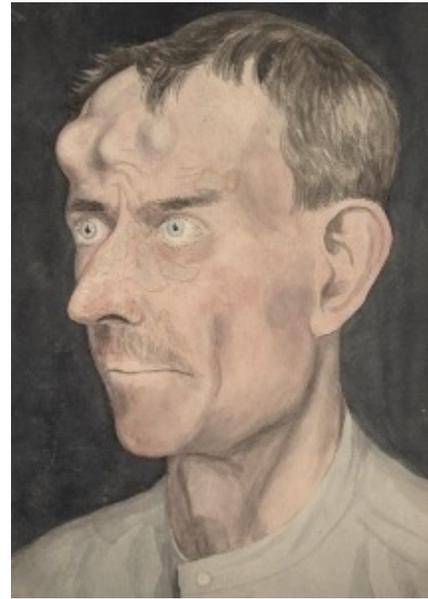
# Latent syphilis

- Early latent
  - Asymptomatic syphilis with either:
    - negative result <2 years ago
    - documented treatment history within 2 years
  - Single dose treatment
  - Contact trace back 12 months or until last negative test/ treatment success

- Late latent
  - Asymptomatic syphilis without these
  - Three dose treatment
  - Contact trace long term partners only

# Tertiary syphilis

- Gummatous syphilis
- Cardiovascular syphilis
  - Syphilitic aortitis → aortic aneurysm
- Late neurosyphilis
  - Meningovascular syphilis
  - General paresis
  - Tabes dorsalis



<https://wellcomecollection.org/works/f4h8mmf3>  
<https://drmartingp.com/blog/2015/8/30/syphilis>

# Treatment and follow up

- Early:
    - Benzathine penicillin 1.8g IM stat
  - Late latent:
    - Benzathine penicillin 1.8 IM, weekly for 3 weeks
  - Tertiary:
    - IV treatment
  - Penicillin allergy
  - Tetracycline/macrolide options
- Day of treatment RPR
  - Ensure STI screening is complete
  - Advise re contact tracing + resources
    - primary - 3/12, secondary - 6/12, late - long term partners
  - Advise no sexual contact 7 days post Rx + until contacts have been tested and treated
  - Public health notification
  - Arrange follow up
    - Repeat RPR + clinical review +/- STI screening at 3,6, 12 months
      - Successful treatment: four fold drop in RPR eg 1:64 to 1:16 within 6 months of treatment

# Congenital syphilis

- Syphilis screening at first antenatal contact
- Re-screening of high risk women at 28/40 and at delivery
- Antenatal treatment of maternal syphilis
  - Reduces incidence of congenital syphilis by 97%

# When to seek advice

- Before commencing on treatment. Interpretation of syphilis serology is complex.
- Diagnosed during pregnancy. Seek urgent specialist advice for congenital syphilis.
- Positive syphilis results in a child. Additionally, discuss results urgently with child protective services.
- Unable to obtain Benzathine benzylpenicillin which is supplied as 1.2MU pre-filled syringes.
- Allergy to principal treatment choice and seeking alternative treatment option.
- Complicated syphilis. Refer those with acute neurological signs, symptoms or suspected tertiary disease to local sexual health or infectious diseases clinic – examples – visual disturbance, hearing loss, gait or balance change, severe headache – warrants CSF examination OR in case of treatment failure
- HIV co-infection.
- Contact tracing is unclear

# Useful references

- <http://contacttracing.ashm.org.au/conditions/when-contact-tracing-is-recommended/syphilis>
- <https://www.health.gov.au/resources/pregnancy-care-guidelines/part-f-routine-maternal-health-tests/syphilis>
- <http://sti.guidelines.org.au/sexually-transmissible-infections/syphilis#contact-tracing>
- <https://www.ashm.org.au/resources/sexual-health-resources-list/decision-making-in-syphilis/>
- <https://www.mshc.org.au/health-professionals/treatment-guidelines/syphilis-treatment-guidelines>