Syphilis among MSM: Clinical Care and Public Health Reporting

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Continuing Medical Education Disclosure

- **Program Faculty**: Kevin Ard, MD, MPH
- **Current Position**: Massachusetts General Hospital
- **Disclosure**: No relevant financial relationships. Presentation does not include discussion of off-label products.

- **Program Faculty**: Brenda Hernandez
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- **Disclosure**: No relevant financial relationships. Presentation does not include discussion of off-label products.

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Syphilis among MSM: Clinical Care

Kevin Ard, MD, MPH

June 9, 2016
Learning Objectives

1. Describe the epidemiology of syphilis among MSM in the United States.
2. Summarize the diagnostic and therapeutic approach to syphilis.
MSM are disproportionately burdened by syphilis.

- Nationally, syphilis diagnoses > HIV diagnoses
- 61% of early syphilis infections occur in MSM.
- 83% of early syphilis infections in men occur in MSM.

Syphilis predicts HIV acquisition in MSM and transgender women.

HIV incidence, per 100 person years

Syphilis can be spread by almost any type of sexual contact.

- Via contact with a chancre or mucosal lesion
- Such lesions may not be apparent (i.e., in the mouth, vagina, or rectum)
- Oral sex is not necessarily safer.
- Mother-to-child transmission also occurs.
Primary syphilis

- 3 weeks after infection
- Classic sign = chancre
- Resolves spontaneously within 3-6 weeks

Secondary syphilis

- 2-8 weeks after primary syphilis
- Rash, fever, lymphadenopathy, hepatitis
- Condyloma lata
- Resolves spontaneously

Tertiary syphilis

- Years after initial infection
- Aortitis, cognitive decline, myelopathy, gummas

Syphilis is a complex disease.

- Many persons with syphilis are asymptomatic
  - **Early latent**: Infection within past 12 months
  - **Late latent**: Infection more than 12 months ago
- Neurosyphilis and ocular syphilis can occur at any stage.

Who should be screened for syphilis?

1. All sexually active MSM, at least annually
2. People taking PrEP, at least every 6 months

Also, any MSM with visual complaints

1. Workowski KA, Bolan GA. Sexually transmitted disease treatment guidelines, 2015. MMWR. 2015;64(3).
Screening relies upon treponemal and non-treponemal tests.

- **Treponemal:** T. pallidum enzyme immunoassay (TP-EIA)
- **Non-treponemal:** Rapid plasma reagin (RPR)
- **Standard algorithm:** RPR positive → TP-EIA

Case

- A 55-year-old man presents requesting screening for “all STDs.”
- History of multiple male sexual partners, although none for the past 6 months.
- His screening tests are normal, with the exception of a positive treponemal antibody. A confirmatory TP-PA is also positive, but the RPR is non-reactive.
What are 3 possible causes of this pattern of syphilis test results?

- Previously treated syphilis
- Old, untreated syphilis
- Very early syphilis (in a “window period” between treponemal antibody and RPR positivity)

2015 Sexually Transmitted Disease Treatment Guidelines. CDC. Available at: www.cdc.gov/std/tg2015/default.htm
Penicillin is the treatment of choice for all stages of syphilis.

- **Primary, secondary, and early latent syphilis:**
  - 1 Intramuscular (IM) injection of penicillin

- **Late latent or tertiary syphilis:**
  - 3 weekly IM injections of penicillin

- **Neurosyphilis or ocular syphilis:**
  - 10-14 days of Intravenous (IV) penicillin
Counsel patients about syphilis prevention.

- Get screened.
- Condoms reduce but do not eliminate syphilis transmission.
- Syphilis can be readily transmitted by oral sex.
Take-home points

- Most syphilis cases in the United States occur in MSM.
- Manifestations of syphilis vary; many patients are asymptomatic.
- All sexually-active MSM should be screened for syphilis at least yearly.
- Penicillin is the treatment of choice for all forms of syphilis.
Case Reporting & Partner Services
Working to help your clients and their partners stay healthy

Brenda Hernandez, MSHS
Special Project Coordinator/
Field Epidemiologist
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MA Department of Public Health
Learning Objectives

1. Review reporting structure
   - STI vs. Acute HIV reporting
2. Explain Partner Services
3. Understand Role of Field Epidemiologists (FE) (formerly called DIS)
MA Reporting Requirements

- 105 CMR 300 – Reporting Regulations
- Electronic Laboratory Reporting (ELR)
- Electronic Medical Record Reporting (EMR) via ESPnet
- Paper case report forms (CRF)
Syphilis Cases by Year

Number of Infectious Syphilis Cases by Diagnosis Year, Massachusetts, 2005-2015

Number of Cases

Year


231 219 268 366 380 465 500 561 701 774

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NATIONAL CENTER FOR INNOVATION IN HIV CARE
### Syphilis Cases by Age: 2013-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>&lt;15</th>
<th>15 - 19</th>
<th>20-29</th>
<th>30 - 39</th>
<th>40 - 49</th>
<th>50+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0 (0%)</td>
<td>24 (3.4%)</td>
<td>206 (29.4%)</td>
<td>191 (27.2%)</td>
<td>165 (23.5%)</td>
<td>115 (16.4%)</td>
<td>701</td>
</tr>
<tr>
<td>2014</td>
<td>1 (&lt;1%)</td>
<td>16 (2.7%)</td>
<td>212 (35.3%)</td>
<td>160 (26.7%)</td>
<td>131 (21.8%)</td>
<td>80 (13.3%)</td>
<td>600</td>
</tr>
<tr>
<td>2015</td>
<td>0 (0%)</td>
<td>13 (1.7%)</td>
<td>238 (30.7%)</td>
<td>219 (28.2%)</td>
<td>168 (21.7%)</td>
<td>136 (17.6%)</td>
<td>774</td>
</tr>
</tbody>
</table>

- Most infectious syphilis cases in MA occur in the 20-49 year old age group.

Source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. Data are current as of 04/25/2016 and are subject to change.
### Syphilis Cases by Gender

Number of people diagnosed with infectious syphilis by gender and year of diagnosis: Massachusetts, 2013 – 2015 (N=2070)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Transgender*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>646 (92.2%)</td>
<td>55 (7.8%)</td>
<td>0 (0%)</td>
<td>701</td>
</tr>
<tr>
<td>2014</td>
<td>547 (91.2%)</td>
<td>53 (8.8%)</td>
<td>0 (0%)</td>
<td>600</td>
</tr>
<tr>
<td>2015</td>
<td>718 (93.3%)</td>
<td>49 (6.4%)</td>
<td>2 (0.2%)</td>
<td>769</td>
</tr>
</tbody>
</table>

2015 Syphilis cases with unknown gender information = 5
*Transgender was not captured prior 2015

In 2013, 2014, and 2015, reported syphilis cases were primarily comprised of males (92.2% in 2013, 91.2% in 2014, and 93.3% in 2015).

Source: Massachusetts Department of Public Health, Bureau of Infectious Disease and Laboratory Sciences. Data are current as of 04/27/2016 and are subject to change.
Confidential case and lab reports are sent from labs/doctor’s offices. Department of Public Health’s Surveillance team sends cases to Field Operations Manager, who assigns them to Epi (epidemiologist). Cases are assigned to Epi.

Epi meets with clients face-to-face to review partner services (voluntary). Epi locates and informs sexual/needle sharing partners in person. Epi uses the Internet to inform sexual/needle sharing partners of their exposure. Partners referred to medical care for examination/treatment and given other resources as necessary.

STIs that Trigger Follow-up

Epi calls doctor to gather more info.
Field Operations Manager

Case assigned to Epi

Epi introduced at results delivery

For partners only known through the Internet, Epi uses the Internet to inform sexual/needle sharing partners of their exposure

Epi locates and informs sexual/needle sharing partners

Partners referred to medical care for examination/treatment and given other resources as necessary

Lab

Counselor

Acute HIV
Acute HIV

- 4th generation HIV Diagnostic Assay
  - Reduces the window period, time between infection and detection from an average 25 days to 14 days

- Field Epidemiologist is critical part of the care team meeting with this newly diagnosed individual at time of results delivery.
  - High viral load and destruction of CD4 cells = Infected individual is very infectious during this time.
  - Opportunity for individual to share names and contact information of sexual partners.
  - Exposed individuals may have an opportunity for post-exposure prophylaxis (PEP).
What comes to mind when you hear partner services?

**Concerns**
- Sex police
- The STATE
- Contact tracing
- DPH
- “you don’t have to talk to them”

**Benefits**
- Part of the care team
- Collaboration between patient, providers and DPH
- Additional assistance
- Prevention team
Partner Services

- Partner Services is a voluntary service that notifies sexual and needle-sharing partners about potential exposure to a STD and/or HIV and need for testing and/or treatment
- Subject matter expertise
- Confidential
- Never discloses the original patient’s identity
Principles of Partner Services

1. VOLUNTARY

2. CONFIDENTIAL

3. CLIENT-CENTERED

4. STANDARD PUBLIC HEALTH PRACTICE FOR COMMUNICABLE DISEASE CONTROL
Partner Services in Massachusetts

Triggers Follow-up:
- Acute HIV
- Syphilis
- Gonorrhea
- Untreated Priority Sexually Transmitted Infections

Clients May Request Partner Services For:
- HIV*
- Gonorrhea
- Chlamydia

*Partner Services for a person living with HIV may be utilized at any point after diagnoses.
Partner Information

- Name
- Address
- Age
- Phone number
- Date(s) of encounter
- Description (height, weight, race/ethnicity, hair color, tattoos? glasses?)
- Screen name (Manhunt, Adam4adam, etc)
How should Partner Services be introduced?

Pre-test counseling:
- When discussing possible results of HIV, gonorrhea, chlamydia and/or syphilis test, mention that if they get a positive result a Health Educator can talk to them about anonymously notifying partners and preventing re-infection (with gonorrhea, chlamydia and syphilis).
How should Partner Services be introduced?

Post-test counseling:

- If the client has a positive syphilis, gonorrhea, chlamydia or acute HIV test, the health educator will contact them to offer PS.
- Providers can help by calling MDPH to arrange a time for the health educator and client to meet.
- If a client refuses PS after a HIV+ test, assure them that they can use PS at any point in the future.
Role of Field Epidemiologist

- Interrupt the disease transmission and prevent complications
- Ensure clients and partners receive the correct treatment (syphilis, gonorrhea, chlamydia)
- Provide counseling and education for reducing behavioral risks that increase risk of STD/HIV transmission
- Provide access to testing and other prevention services
Role of Field Epidemiologist

- Provide subject matter expertise
  - Flexibility to meet outside of office hours
  - Alternative locations
- Education on treatment and testing
- Offer to notify sex and needle sharing partners
- Assist partners exposed to testing and or treatment.
Common Concerns

- Threat to confidentiality
- Potential for Violence, when HIV+ serostatus is revealed
- Stigma-Related discrimination
  - Mistrust of medical system
- Threat to patient/clinician relationship
Benefits to Clients

- Prevents re-infection
- Anonymity: Patient does not have to reveal HIV/STD status
- Confidential
- Partner learns information on real risk
  - Resource awareness for accessing testing, treatment and health education
- Opens access to prevention and care services for partner
- Client Centered
Benefits to Providers

- Collaboration and on-going support from health department
  - Record search for previous syphilis history
- Improves patient outcomes
  - Linkage and re-establish care for clients
- Can be performed by non-clinical staff
  - Health Navigators/Peer Navigators
Take Home Messages

- Partner Services is an assistance program available to inform partners of possible exposure to STI/HIV.
- Partner Services is a confidential service that a person elects to use.
- These services can assist patients with telling their partners about possible exposure and/or provide a trained staff person who can notify partners without ever mentioning the original patient’s identifying information.
- Provider introduction of the service affects whether the patient utilizes the service.
- This is a free and ongoing service that can be accessed at any time for PLWHA and persons with infectious Syphilis, and Gonorrhea.
Resources

- MDPH: [www.mass.gov/dph/cdc/std](http://www.mass.gov/dph/cdc/std)
- Partner Services Information Line: 617-983-6999
Thank You!

Questions?
MADPH STD Contact

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