STD Screening and Treatment in Juvenile Corrections and the New CDC Guidelines

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May 27, 2016
STD Screening and Treatment in Juvenile Corrections and the New CDC Guidelines

Please note: This webinar does not offer Continuing Education credit.

This informational webinar was developed by independent experts. The information provided in this webinar is not the official position of NCCHC but rather expert opinion. This information is not intended to be appropriate for every clinical situation nor does it replace clinical judgment.
Learning Objectives

• To review the health of detained youth focusing on reproductive health
• To review the epidemiology of STDs among adolescents
• To discuss STD testing methods and ways to implement in juvenile corrections
• To review the 2015 STD treatment guidelines
STATE OF HEALTHCARE IN JUVENILE DETENTION CENTERS
General Information

• 1,642,500 juveniles were arrested in 2010
• 60,000 youths were detained that year
• Youth involved in the juvenile justice system are disproportionately affected by poor health outcomes.
• More likely to engage in risky health behavior
  – substance use
  – sexual experiences
  – violence
Reproductive Health

Sexual and reproductive health are a significant area of morbidity among youth involved in the juvenile justice system.
Reproductive Health Overview

• More likely than the general adolescent population to
  – Have been sexually active
  – Have 4 or more sexual partners
  – Have sexually transmitted diseases

• Less likely to use
  – Contraceptives
  – Condoms

Morris et al., 1995; CDC: 2014 STD Surveillance
STD/HIV Testing in Detention Centers
2004 Juvenile Residential Facilities Census

• STD Testing
  – Only 18.5% of facilities offered STD testing for all youth on admission
  – 8.3% did not have STD testing available

• HIV testing
  – Only 4.3% tested all youth
  – 13.4% did not have HIV testing available

Note: Some JJ facilities collaborate with health departments for STD/HIV testing resources
Pregnancy Testing and Prenatal Services
2004 Juvenile Residential Facilities Census

• Pregnancy testing in detention centers*
  – Only 18% of all facilities had universal testing on admission
  – 2% did not provide pregnancy tests

• Prenatal Services all facilities**
  – 23% of facilities provided NO services
  – 74% had services inside and/or outside of facility

*Gallagher et al, Pediatrics 2007; **Gallagher et. al., Womens’ Health Issues 2007
STATUS OF STDS AMONG ADOLESCENTS
Sexually Transmitted Diseases Key

- Sexually Transmitted Disease – STD
- Gonorrhea – GC
- Chlamydia - CT
- Trichomonas – TV
- Human Immunodeficiency Virus - HIV
- Bacterial Vaginosis - BV
Youth aged 15-24 make up about 25% of the general population, but account for approximately 50% of new STD infections.
Why do teens account for such a high percentage of STDs?

**Biologic**
- Immature cervix
- Lack of immunity from prior infections
- Lack of lubrication

**Behavioral**
- Age of initiation of sex
- New/multiple partners
- Substance use
- Mental health concerns
- Lack of or ineffective condom use

**Cognitive**
- Impulsivity
- Invincibility

**Social**
- Lack of health education
- Poor access to healthcare
- Lack of transportation
- Confidentiality concerns
- Stigma
Chlamydia (2014)

• 15-24 year olds represented 66% of all reported cases

• Rates decreased 3.5% among youth 15-19
  – Rates decreased more among women (4.2%) than men (0.6%)

• Rates increased 2.3% among 20-24 year olds
  – Rates increased more among men (4.4%) than women (1.6%)

CDC: 2014 STD Surveillance
Gonorrhea (2014)

- Women 20-24 had the highest rates of gonorrhea compared to any other age/sex
- Women 15-19 had the second highest rates of gonorrhea among females
- Men 20-24 had the highest rates among men
- During 2013-2014, rates overall:
  - Decreased 5% for those 15-19 and 2.8% for those 20-24 year old
    - Decrease 7% 15-19 females
    - Decreased 0.7% 20-24 females
    - Decreased 0.9% 15-19 males
    - Increased 6.9% 20-24 males

CDC: 2014 STD Surveillance
Gonorrhea — Rates of Reported Cases Among Women 15–24 Years of Age by State, United States and Outlying Areas, 2014

CDC: 2014 STD Surveillance
Primary and Secondary Syphilis (2014)

• During 2013-2014, rates increased 11.6% among 15-19 year old and 13.1% among 20-24 year olds
  – Increased 31.6% among 15-19 y/o women
  – Increased 15.4% among 20-24 y/o women
  – Increased 7.7% among 15-19 y/o men
  – Increased 13.5% among 20-24 y/o men

CDC: 2014 STD Surveillance
Primary and Secondary Syphilis — Rates of Reported Cases by State, United States and Outlying Areas, 2014

CDC: 2014 STD Surveillance
Racial Disparities

- **Chlamydia among 15-19 year olds:**
  - Black females - 4.9 times higher
  - Black males - 9 times higher
- **Chlamydia among 20-24 year olds:**
  - Black females - 4.1 times higher
  - Black males - 5.4 times higher
- **Gonorrhea among 15-19 year olds:**
  - Black females - 12.7 times higher
- **Gonorrhea among 20-24 year olds:**
  - Black females - 9.5 times higher
  - Black males - 10.7 times higher

CDC: 2014 STD Surveillance
STD Rates in Juvenile Detention Center
2011 CDC Data

• Chlamydia (12-18)
  – Males: 6.3% positivity
  – Females: 13.5% positivity

• Compared to chlamydia rates of 3.3% in the general adolescent female population and 0.7% in the general adolescent male population.

• Gonorrhea (12-18)
  – Males: 0.7% positivity
  – Females: 3.4% positivity
### STD Rates in Juvenile Detention Center

- Trends in CT screening, positivity and treatment among Females in California JDC 2003-2014

<table>
<thead>
<tr>
<th></th>
<th>FY 2010-2011</th>
<th>FY 2011-2012</th>
<th>FY 2012-2013</th>
<th>FY 2013-2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Booked</td>
<td>6547</td>
<td>6122</td>
<td>5645</td>
<td>5050</td>
<td>38,947</td>
</tr>
<tr>
<td>% Screened</td>
<td>77.7</td>
<td>77.5</td>
<td>79.4</td>
<td>78.0</td>
<td>77.1</td>
</tr>
<tr>
<td>% screened within 1 day</td>
<td>90.0</td>
<td>90.5</td>
<td>88.5</td>
<td>91.1</td>
<td>89.9</td>
</tr>
<tr>
<td>% Positive</td>
<td>10.5</td>
<td>12.0</td>
<td>12.1</td>
<td>11.5</td>
<td>11.8</td>
</tr>
</tbody>
</table>
## STD Rates in Juvenile Detention Center

<table>
<thead>
<tr>
<th>% Positive, age group</th>
<th>Totals over 11 FYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-12</td>
<td>3.9</td>
</tr>
<tr>
<td>13-14</td>
<td>10.2</td>
</tr>
<tr>
<td>15-17</td>
<td>12.5</td>
</tr>
<tr>
<td>18-19</td>
<td>10.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Positive, race/ethnicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>9.9</td>
</tr>
<tr>
<td>Black</td>
<td>15.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.2</td>
</tr>
<tr>
<td>Other</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Burghardt et al, 2016
## STD Rates in Juvenile Detention Center

### N, % Positive Among 1181 Youth

- A Juvenile Detention Center in Indianapolis, IN

<table>
<thead>
<tr>
<th></th>
<th>CT</th>
<th>GC</th>
<th>TV</th>
<th>Any STI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>139 (11.8%)</td>
<td>43 (3.6%)</td>
<td>35 (3.0%)</td>
<td>175 (14.8%)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>53 (21.8%)</td>
<td>21 (8.6%)</td>
<td>27 (11.2%)</td>
<td>71 (29.2%)</td>
</tr>
<tr>
<td>Male</td>
<td>86 (9.2%)</td>
<td>22 (2.3%)</td>
<td>8 (0.8%)</td>
<td>104 (11.1%)</td>
</tr>
<tr>
<td><em>P</em></td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>105 (14.7%)</td>
<td>33 (4.6%)</td>
<td>27 (3.8%)</td>
<td>130 (8.2%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>2 (5.7%)</td>
<td>1 (2.9%)</td>
<td>0 (0%)</td>
<td>3 (8.6%)</td>
</tr>
<tr>
<td>Multi</td>
<td>5 (9.1%)</td>
<td>2 (3.6%)</td>
<td>1 (1.8%)</td>
<td>8 (14.5%)</td>
</tr>
<tr>
<td>White</td>
<td>27 (7.3%)</td>
<td>7 (1.9%)</td>
<td>7 (1.9%)</td>
<td>34 (9.2%)</td>
</tr>
<tr>
<td><em>P</em></td>
<td>0.002</td>
<td>0.178</td>
<td>0.371</td>
<td>0.001</td>
</tr>
</tbody>
</table>
• STD TESTING SHOULD FOLLOW NATIONAL CDC GUIDELINES
CDC Screening Guidelines for Adolescents

• Chlamydia
  – Screen sexually active females < 25 years old annually*
  – Consider screening sexually active young males in clinical settings with a high prevalence of chlamydia (e.g., adolescent clinics, correctional facilities, and STD clinics) and should be offered to YMSM

• Gonorrhea
  – Screen sexually active females < 25 years old annually
  – Offer screening to YMSM.

*Recent article suggests cost effectiveness of screening all females
CDC Screening Guidelines for Adolescents

- **HIV**
  - Should be offered to all adolescents.
  - Frequency of repeat screenings of those who are at risk for HIV infection should be based on level of risk.

- **Syphilis**
  - YMSM and pregnant adolescent females should be screened for syphilis.

- **Other STDs**
  - Routine screening for syphilis, trichomoniasis, BV, HSV, HPV, HAV, and HBV is not generally recommended.

CDC, 2015 STD Treatment Guidelines
CDC Screening Guidelines for Persons in Correctional Facilities

• Women ≤35 and men <30 should be screened for chlamydia and gonorrhea.
• Universal screening should be done based on local prevalence for syphilis.

CDC, 2015 STD Treatment Guidelines
CDC Screening Guidelines – Special Populations

• Men who have sex with men (MSM)
  – HIV
  – Syphilis
  – Urethral screening for Gonorrhea and Chlamydia in men who have had insertive intercourse
  – Rectal screening for Gonorrhea and Chlamydia in men who have had receptive anal intercourse
  – Pharyngeal screening for Gonorrhea in men who have had receptive oral intercourse
CDC Screening Guideline – Special Populations

• Women who have sex with women (WSW)
  – Diverse group with variations in sexual identity, sexual behaviors including having/had male partners, sexual practices, and risk behaviors
  – Providers should consider performing screening for STDs and cervical cancer according to current guidelines

• Although not an STD, BV can also be a common cause of vaginal discharge

CDC, 2015 STD Treatment Guidelines
CDC Screening Guideline – Special Populations

• Transgender
  – Assess STD- and HIV-related risks for transgender patients based on current anatomy and sexual behaviors.
  – Be aware of symptoms consistent with common STDs and screen for asymptomatic STDs on the basis of behavioral history and sexual practices.

CDC, 2015 STD Treatment Guidelines
NCCHC Standard Y-E-02

• Receiving Screening
  – Sexually transmitted diseases (chlamydia, gonorrhea, HIV and syphilis where there is a significant prevalence) testing is offered to all juveniles upon arrival or within 24-48 hours, consistent with national guidelines.
NCCHC Standard Y-E-04
Reproductive Health: Juveniles

• Health History: includes sexual activity

• Physical exam includes: breast, testicular, gynecologic exam as indicated by age, risk factors

• Laboratory tests for STDs: as determined by responsible physician with recommendations from local health department

Standards for Health Services in Juvenile Detention and Confinement Facilities, 2015, NCCHC
Clarification on Gynecological Exam

- Part of the general exam should include examination of the external genitalia and Tanner staging
- Gynecological exam does not mean a speculum exam
- Pap smears are not recommended until age 21 unless HIV positive
- With options for urine and vaginal swabs, speculum exams are not always needed for STD screening
NCCHC Standards Y-G 08 and Y-G-09
Reproductive Health: Juveniles

• Pregnant juveniles: comprehensive counseling and care consistent with community standard

• Contraception at appropriate time prior to discharge consistent with local laws

• Liaisons with community providers to facilitate programs and discharge planning

Standards for Health Services in Juvenile Detention and Confinement Facilities, 2015, NCCHC
NCCHC Standards Y-F-01 and Y-G-08
Reproductive Health: Juveniles

• Educate and prepare juveniles for responsible sexual behavior including
  – Preparation for parenthood and parenting skills

• Provide age appropriate educational materials including contraceptive materials for both males and females

Standards for Health Services in Juvenile Detention and Confinement Facilities, 2015, NCCHC
Sexually Transmitted Infections
Genitourinary Clinical Presentation By Category

Cervicitis/ Urethritis
- *Neisseria Gonorrhoeae*
- *Chlamydia trachomatis*
- *Mycoplasma genitalium*
- *Trichomonas vaginalis*
- Herpes simplex virus

Ulcers
- Syphilis: *Treponema pallidum*
- Herpes: Herpes simplex virus

Raised lesions
- Genital Warts: Human Papillomavirus
- Condylomata Lata: Secondary Syphilis

All STIs can be asymptomatic
### Complications of Gonorrhea, Chlamydia, HIV

<table>
<thead>
<tr>
<th>Disease</th>
<th>Complication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonorrhea and Chlamydia</td>
<td>Pelvic Inflammatory Disease</td>
</tr>
<tr>
<td></td>
<td>Perihepatitis (Fitz-Hugh Curtis)</td>
</tr>
<tr>
<td></td>
<td>Bartholinitis/ gland abscess</td>
</tr>
<tr>
<td></td>
<td>Epididymitis</td>
</tr>
<tr>
<td></td>
<td>Prostatitis</td>
</tr>
<tr>
<td></td>
<td>Conjunctivitis</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>Disseminated Infection</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>Reiter Syndrome (reactive arthritis)</td>
</tr>
<tr>
<td>HIV</td>
<td>Opportunistic infection</td>
</tr>
<tr>
<td></td>
<td>Cancer</td>
</tr>
</tbody>
</table>
## STD Screening Options

<table>
<thead>
<tr>
<th></th>
<th>CT</th>
<th>GC</th>
<th>Trichomonas</th>
<th>Syphilis</th>
<th>HIV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Females</strong></td>
<td>Vaginal NAAT (urine acceptable)</td>
<td>Vaginal NAAT (urine acceptable)</td>
<td>Vaginal Rapid Antigen Or urine/cervical/vaginal/Pap NAAT</td>
<td>Syphilis RPR/VDRL Or EIA / CIA Or Rapid Finger Stick</td>
<td>Conventional serum Or Rapid test (Finger stick vs oral fluid)</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td>Urine NAAT</td>
<td>Urine NAAT</td>
<td>-</td>
<td>-</td>
<td>Conventional serum</td>
</tr>
<tr>
<td><strong>MSM</strong></td>
<td>Urine NAAT + rectal NAAT or Culture</td>
<td>Urine NAAT + rectal/pharyngeal NAAT or Culture</td>
<td>-</td>
<td>-</td>
<td>Conventional serum Or Rapid test (Finger stick vs oral fluid)</td>
</tr>
</tbody>
</table>
IMPLEMENTATION
Barriers to STD screening

- Cost of testing
- Quick turn around of detainees
- What to do with positive results
- Limited community resources
  - Especially in regards to HIV care
- Access to general health care for detainees
Overcoming Barriers

• Cost of testing
  – Working with Health Departments (HD)
  – Working with labs, hospitals, negotiating price for tests
  – Explore possible funding sources via the HD to municipalities and states for free STD testing
Overcoming Barriers

• Quick turn around of detainees
  – Protocol at time of entry screening, use of rapid tests
  – Consider including trichomonas screening for females
Overcoming Barriers

• What to do with positive results
  – Treat in facility as soon as possible once positive known to catch youth before release
  – If positive found after release: Coming back to facility to get treated vs PCP vs HD or STD clinic
    • Contacting youth: phone, letters
  – Working with local HD for tracking, no cost medication
  – System to track for recommended 3 month follow up retesting (GC, CT, Trich) for repeat offenders who had a previous positive result
  – Don’t forget to report positive labs to the HD
Overcoming Barriers

• Limited community resources
  – Working with HD
Overcoming Barriers

• Access to general health care for detainees
  – Nationwide problem
  – Establish relationships with community providers to provide follow up
Treatment

Due to concern about compliance in general for adolescents, recommend single dose treatments for uncomplicated STDs
One Dose Treatment

• **Trichomonas**
  – Metronidazole 2g PO **once**
  ___OR___
  – Tinidazole 2g PO **once**

• **Chlamydia**
  – Azithromycin 1g PO **once**

• **Gonorrhea**
  – Ceftriaxone 250mg IM **once**
  ___PLUS___
  – Azithromycin 1g PO **once**

• **Syphilis (primary, secondary or early latent <1 year)**
  • Benzathine penicillin G 2.4 million units IM **once**

CDC, 2015 STD Treatment Guidelines
Other Treatments

• Herpes
  – Acute infection:
    • Initial treatment for HSV based on whether first or recurrent episode
  – Also consider initiating suppressive treatment especially for long term youth with recurrent episodes
    • Because intermittent shedding is occurs particularly with HSV-2, suppressive therapy should be considered for everyone to decrease transmission
Other Treatments

• HIV
  – Develop a relationship with HIV specialist to guide care
  – Many reasons not to start therapy for HIV including concern for compliance for short term youth
    • However may consider if a long term youth
Other Treatment Considerations

• If male has persistent urethritis after treatment consider Trichomonas and Mycoplasma.....
What is Mycoplasma???

- Cause of
  - 15%–20% of nongonococcal urethritis (NGU) cases,
  - 20%–25% of nonchlamydial NGU,
  - 30% of persistent or recurrent urethritis
  - Detected in 10%–30% of women with clinical cervicitis
  - Detected in 2%–22% of PID cases
- Can be asymptomatic
- NAAT preferred to culture for detection. However there is not a FDA cleared diagnostic test
Mycoplasma Treatment
Syndromic Management

• Urethritis/Cervicitis
  – 1-g single dose of azithromycin preferred over doxycycline
  – Rapidly emerging resistance
    • Consider longer 5 day course of Azithromycin (Z pack) or Moxifloxacin 400 mg daily x 7, 10 or 14 days
    • Some moxifloxacin failures for 7 day treatment

• PID
  – Consider moxifloxacin 400 mg daily for 14 days if failure of standard treatment and other causes of symptoms ruled out

CDC, 2015 STD Treatment Guidelines
Summary

• Detained youth are at higher risk due to high rates of sexual activity and lack of consistent condom use.
• Goal is to screen sexually active youth annually for GC/CT at time of entry. Consider screening for TV/Syphilis based on local epidemiology. HIV screening should be offered at least once for all youth.
• Establishing relationships with local and states agencies with funding for STD screening and treatment can address cost barriers.
• Screening and treatment for STDs are important to reduce long term consequences and can significantly reduce morbidity in high risk youth.
Resources

• CDC
  – Laboratory Testing for Gonorrhea, Chlamydia, Syphilis and Trichomonas
    http://www.cdc.gov/std/laboratory/default.htm


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