Updated Centers for Disease Control (CDC) 2015 Sexually Transmitted Disease (STD) Treatment Guidelines

Key Points and Recommendations:

- The following are some key changes and additions to prior STD treatment guidelines:
  - Given the emergence of antibiotic resistant *Neisseria gonorrhoeae*, the preferred therapy for treatment of gonorrhea is with ceftriaxone 250 mg intramuscular once AND azithromycin 1 g orally once.
  - The treatment recommendations for *Chlamydia trachomatis* remain the same except during pregnancy where the recommended therapy is with azithromycin 1 g orally once; amoxicillin has been demoted to an alternative regimen during pregnancy.
  - Routine screening for *C. trachomatis* and *N. gonorrhoeae* on an annual basis is recommended for all sexually active females aged <25 years. Screening of other at risk populations, including males in high prevalence clinical settings, continues to be recommended.
  - All men who have sex with men (MSM) with HIV infection should be screened for Hepatitis C virus (HCV).
  - *Mycoplasma genitalium* is recognized as an emerging cause of sexually transmitted urethritis, cervicitis, and pelvic inflammatory disease (PID). While there are no FDA approved tests for *M. genitalium*, infection should be suspected in persons with persistent or recurrent urethritis, cervicitis, or PID who test negative for chlamydia and gonorrhea infection.
  - Due to increasing reports of gonorrhea, chlamydia, and syphilis infections in New Hampshire, all healthcare providers should take a thorough sexual history to determine patient risk and need for STD screening.
  - The National Network of STD Clinical Prevention Training Centers (NNPTC) has launched a new online system to provide clinical consultation about STDs, called the STD Clinical Consultation Network (STDCCN). More information can be found at: [www.stdccn.org](http://www.stdccn.org).

Situation:
The guidelines provide information about prevention, screening, diagnosis and treatment of STDs; the last version was published in 2010 and updated in 2012. Below DHHS has summarized some key points and changes in the new 2015 STD treatment guidelines:

1. **Treatment of gonorrhea (pp. 61-63):**
   - Due to the emergence of antibiotic resistant *Neisseria gonorrhoeae*, combination antibiotic therapy with two antimicrobials with different mechanisms of action is recommended to improve treatment efficacy and slow the emergence of resistance.
   - Preferred therapy for treatment of *N. gonorrhoeae* is with ceftriaxone 250 mg intramuscular once AND azithromycin 1 g orally once.
   - Increased resistance of *N. gonorrhoeae* to oral cefixime prompted the CDC to no longer recommend routine use of oral cefixime as a first-line agent in 2012 for treatment of gonorrhea. Cefixime continues to be listed in alternative combination therapy regimens for uncomplicated urethra, cervix, and rectum infections (but not infections of the pharynx).
   - The use of doxycycline 100 mg orally twice daily for seven days (in combination with ceftriaxone 250 mg IM) has now also been moved from a recommended to an alternative treatment regimen because U.S. gonococcal strains with increased resistance to cefixime are also likely to be resistant to tetracyclines like doxycycline.
   - Monotherapy with azithromycin 2 g orally as a single does is no longer recommended as an alternative treatment regimen because of concerns for development of resistance and because several studies have documented azithromycin monotherapy treatment failures.
   - A test-of-cure is not needed for persons with a diagnosis of uncomplicated urogenital or rectal gonorrhea who received recommended or alternative regimens; however, individuals with pharyngeal gonorrhea who are treated with an alternative regimen should return for a test-of-cure using either nucleic acid amplification test (NAAT) or culture, 14 days following treatment.

2. **Treatment of chlamydia infections during pregnancy (p. 58):**
   - Azithromycin and doxycycline continue to be the recommended antibiotics for treatment of *C. trachomatis* infections in non-pregnant adolescents and adults.
   - Because doxycycline is contraindicated during pregnancy, however, only azithromycin 1 g orally in a single dose remains the recommended regimen for pregnant women.
   - Amoxicillin 500 mg orally three times a day for 7 days during pregnancy has been changed from a recommended to an alternative treatment regimen. This is due to the concerns about chlamydia persistence following exposure to penicillin antibiotics.
   - Erythromycin continues to be an alternative treatment option for chlamydia infections during pregnancy.
3. **Gonorrhea and chlamydia screening recommendations (p. 12):**

- Routine screening for *C. trachomatis* and *N. gonorrhoeae* on an annual basis is recommended for all sexually active females aged <25 years. This brings the CDC recommendations in line with those by the United States Preventative Services Task Force (USPSTF).
- Screening of males for chlamydia and gonorrhea continues to be recommended in high prevalence clinical settings (i.e. correctional facilities, STD clinics, etc.).
- Routine screening also continues to be recommended for women aged 25 years and older who are at increased risk of infection (i.e. new sex partner, more than one sex partner, sex partner with an STD, etc.), all pregnant women aged <25 years or pregnant women aged 25 years and older at high risk, women ≤35 years old and men <30 years old in correctional facilities, and men who have sex with men (MSM).

4. **Hepatitis C screening for men who have sex with men (p. 15):**

- Sexual transmission of hepatitis C virus (HCV) can occur, especially among men who have sex with men (MSM).
- People with HIV infection are also at risk of HCV infection given shared modes of transmission, and screening is recommended for those with HIV.
- Therefore, serologic screening for HCV is now recommended at least annually for MSM with HIV infection.

5. **Mycoplasma genitalium** (pp. 20-21):

- *Mycoplasma genitalium* is a bacterium that has been increasingly recognized as a STD that causes urethritis, especially in men, and cervicitis. It has also been linked to pelvic inflammatory disease (PID).
- There are no FDA approved tests for *M. genitalium*, although nucleic acid amplification tests (NAATs) intended for research purposes may be available at some larger medical centers or commercial laboratories. Infection should be suspected in persons with persistent or recurrent urethritis, cervicitis, or PID who test negative for chlamydia and gonorrhea infection.
- Azithromycin is preferred over doxycycline for treating *M. genitalium* infection; however, resistance of *M. genitalium* to azithromycin appears to be increasing.
- Persons with recurrent or persistent non-gonococcal urethritis or cervicitis suspected to have *M. genitalium* infection, and who fail to respond to 1 gram of azithromycin given in a single dose, can be prescribed a 7-14 day course of moxifloxacin, which has shown efficacy in treating *M. genitalium* infections.

**Background Information:**
CDC estimates that nearly 20 million new sexually transmitted infections occur every year in the United States. STDs annually create significant morbidity, increased risk for HIV transmission and account for almost $16 billion in health care costs. Data presented below include all cases reported in New Hampshire to the Division of Public Health Services during 2014. Due to increasing reports of reported gonorrhea, chlamydia, and syphilis infections in New Hampshire,
all healthcare providers should take a thorough sexual history to determine patient risk and need for STD screening.

Gonorrhea:
234 cases of gonorrhea were reported in 2014. This represents a 50% increase from 2013 when only 118 cases were reported. 128 (55%) of the total reported cases were seen in individuals aged 20-29 years, and 141 (60%) of the total reported cases were among males.

Chlamydia:
3,560 cases of chlamydia were reported in 2014, which is an increase compared to the 3,126 cases reported in 2013. More than half of all chlamydia cases were seen in individuals aged 20-24 years (51%). 2,437 (68%) of the total cases reported were among females.

Syphilis:
56 cases of early syphilis (primary, secondary or early latent) were reported in 2014, compared to 45 cases reported in 2013. 34% were co-infected with HIV and 70% were cases in MSM. However, there was a 33% increase in cases reported in women, and a 46% increase in cases where heterosexual contact was reported as the mode of transmission from 2013 to 2014.

New Online STD Consultation Resource:
The National Network of STD Clinical Prevention Training Centers (NNPTC) has launched the STD Clinical Consultation Network (STDCCN), the first online STD consultation system. STDCCN provides free STD clinical consultation services in 1-5 business days (depending on urgency) to health care providers nationally. Expert faculty at the eight regional Prevention Training Centers (PTCs) will respond to STD consultation requests within their region. Operating five days a week during normal business hours, the STDCCN is convenient, simple, and free. Find out more information online at: www.stdccn.org and www.nnptc.org.

For additional information, please refer to:
1. CDC MMWR from June 5, 2015 (Sexually Transmitted Disease Treatment Guidelines, 2015): http://www.cdc.gov/std/tg2015/default.htm/
2. CDC STD Webpage: http://www.cdc.gov/std/default.htm

For any questions regarding the contents of this message, please contact NH DHHS, DPHS, Bureau of Infectious Disease Control at 603-271-4496 (after hours 1-800-852-3345 ext.5300).

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