County of San Diego

PHYSICIANS' BULLETIN

Health and Human Services Agency ◆ P.O. Box 85222, San Diego, CA ◆ 92186-5222 ◆ www.co.san-diego.ca.us/cnty/cntydepts/health

July 2007 **No. 460**

STD Update For 2006

Syphilis

San Diego, like many urban areas across the nation, continues to experience a resurgence of syphilis. During 2006, infectious syphilis (primary and secondary stage) increased 22% from 192 cases (6.4 per 100,000) in 2005 to 234 cases (7.6 per 100,000) in 2006. The combined annual rate for 2003–2006 (5.5 per 100,000) was 5 times greater than the rate for 2001–2002 (1.1 per 100,000) (Fig. 1). The projected annual number of cases for 2007 is up another 51% to 354 infectious syphilis cases based on the number of cases reported during January–April 2007. The resurgence in syphilis in San Diego shows no signs of abating.

In 2006, as in 2005, reported cases have been mainly among men who have sex with men (MSM) who accounted for 84% of cases. Methamphetamine use was common among persons with syphilis being reported in 28% of total cases in 2006. HIV infection among syphilis cases was also common with 53% of all cases being HIV positive and among MSM, 60% were HIV positive. Control of syphilis among MSM is important because syphilis infection facilitates the transmission of HIV and syphilis infection impacts HIV serum viral level control.

The most infectious stage of syphilis occurs during the primary stage when a syphilitic ulcer is present (usually painless and lasts about three weeks before spontaneously healing). In 2006, among MSM, 75% (148/197) of primary and secondary stage cases were diagnosed in the secondary stage **indicating that the most infectious primary stage was not diagnosed or treated**. These data suggest that an "occult" syphilitic ulcer may have been present and unnoticed in the rectum/anal canal or in the oral cavity. Frequent syphilis serologic screening, as often as every 3 months, for high-risk MSM who have many sex partners, is recommended. Asymptomatic patients seroconverting from RPR non-reactive to reactive, especially with a low titer (≤ 1:8), very likely have an occult primary lesion and should be managed accordingly. Such patients should be promptly treated and their sex partners should also be preventively **treated regardless of syphilis testing results**. The primary objective of partner services is to deliver **treatment to sex partners who are in the incubating stage before they develop primary infectious syphilis. Such patients will have a nonreactive RPR syphilis test**.

We encourage physicians who provide care for MSM, HIV infected patients, or high–risk heterosexual patients to keep **syphilis high on the differential diagnosis of any patient with a genital, anal/rectal, or oral ulcer (primary stage) or generalized body rash (especially on palms and/or soles) with adenopathy, hair loss or oral mucous atches (secondary stage)**. For such patients we suggest ordering a serologic screening test (RPR or VDRL), **treating presumptively** at the same time (2.4 million units of benzathine penicillin [Bicillin LA]), and reporting the **suspect case by phone/fax** to the STD Field Services section (see page 3). **We urge physicians to request that a confirmatory test (TPPA, FTA) be done reflexively if the RPR/VDRL is reactive, so that syphilis infection can be promptly confirmed.** Approximately 20% of reactive syphilis screening tests are biologic false positives (confirmatory tests negative). Investigators can provide assistance in getting patients treated, if needed, and will offer partner services so that exposed sex partners can be treated before they develop infectious syphilis. **We urge physicians to encourage patients with syphilis to cooperate with Health Department field investigators so that these services can be delivered and help prevent community transmission.**

Treatment information is available in the CDC's newly released 2006 STD Treatment Guidelines available at **www.cdc.gov/STD/Treatment/. Algorithms (with photos of primary/secondary stage lesions) for evaluating possible syphilis are available upon request from the STD program (see page 3) or can be accessed from the California HIV/STD Prevention Training Center web site (http//www.stdhivtraining.org,** from home page, click Resources, then Clinical Resources, and then Syphilis.) Recommended review articles are (especially #1): (1) Hall CS, et al. Managing syphilis in the HIV infected patient. Current Infectious Disease Reports 2004; 6:72-81; (2) Zetola MN, Klausner JD. Syphilis and HIV Infection: An Update. Soc Sci Med 2007; Mar 30 (EPUB ahead of print); (3) Marrazzo J. Syphilis and Other STDs in HIV Infection. Clin Infect Dis 2007; 44:1222-1228.

Neurosyphilis

For the past 3 years, about 7-10 cases of neurosyphilis (NS) are reported each year in San Diego, mostly among HIV positive MSM. Most of these patients have symptomatic early NS which usually occurs within 12 months of their initial syphilis infection. **The most common NS symptoms are related to impaired vision – often unilateral.** Other manifestations include acute meningitis syndrome, cerebral vascular accident (CVA), decreased hearing, altered mental status, or new onset headaches. Signs of secondary syphilis are present in about half the cases. Patients with suspect symptomatic early NS should have a serum serologic test for syphilis (RPR) and if reactive, a lumbar puncture (LP) to determine cerebral spinal fluid (CSF) VDRL, white blood cell count (WBC) and protein level. The VDRL is usually reactive, WBCs >5 per ml^3, and protein is elevated (> 40 mgs/dl). In some instances, the VDRL is nonreactive, but WBCs are elevated (HIV infection can also cause mild elevation of CSF WBCs.) **Occasionally, in patients with auditory NS the CSF examination can be entirely normal.** Although an LP provides very important diagnostic information, **the treatment of patients who have syphilis infection should not be delayed while waiting for an LP to be performed.** Treatment will not affect the CSF findings for several months. Prompt treatment is most important among patients with early syphilis since **delays may result in syphilis transmission**, and/or the patient may develop symptomatic early neurosyphilis while untreated. Counseling messages for persons at risk for syphilis (e.g. MSM) should emphasize that syphilis is a complex infection that may cause persons with symptomatic early NS and may result in **permanent disability** such as vision impairment, hearing loss or hemiplegia following a cerebral vascular accident.

Gonorrhea

The upturn in gonorrhea (GC) that began in 2000 has continued. During 2006, GC increased 6% from 2,606 cases (86 per 100,000) in 2005 to 2,767 cases (90 per 100,000) in 2006. Since 1999, GC has increased 77% (Fig. 2). The male-to-female ratio in 2006 was 1.3 to 1.0 which suggests that MSM may be acquiring gonorrhea. In 2001, a random sample survey of providers who reported patients with GC showed that **at minimum, 22% of total reported GC infections in the county were among men who have sex with men,** which equates to an estimated 609 MSM with GC in 2006. In addition, the number of male rectal/pharyngeal GC infections reported per year increased from an average of 37 cases per year from 1997–2000 to 144 cases per year 2001–2006, a 290% increase (Fig. 3).

A recent review of GC testing by site of specimen collection among MSM STD clinic clients in San Diego covering the years 1997–2003, showed that among 7,333 MSM clients tested for GC, 1,157 (16%) were positive. The STD clinic would have missed 370 (32%) of the 1,157 MS patients with GC, if they had not done a rectal/pharyngeal culture, since the urethral site was negative in those 370 patients. GC cultures are generally available in most major laboratories, but shipping specimens can be problematic and some sensitivity is probably lost in transit. **However, we encourage clinicians to obtain rectal and/or pharyngeal specimens for culture from MSM who report exposure at these sites within the last 3 months,** or refer patients to a provider where GC culture is available such as the County STD Clinic (see page 4). Rectal and pharyngeal GC is usually asymptomatic and rectal GC (and also chlamydia) very likely facilitates HIV transmission. Recent data from San Francisco showed that MSM with a GC or chlamydia rectal positive test had a three-fold greater risk of having a newly acquired (past 3 months) HIV infection and that these infections account for approximately 10% of new HIV infections in San Francisco (population attributable fraction = 10%).

A major risk factor for acquiring GC is a past history (past 5 years) of having had GC. **The more times a patient has GC the higher the risk of a subsequent GC infection.** It is, therefore, recommended that patients be counseled about the increased risk of acquiring GC; be aware of the early signs/symptoms of GC so that they can seek prompt diagnosis and treatment; and **be re-screened at 3 months** – especially MSM and woman who may have asymptomatic re-infection at a nonurethral site.

Chlamydia

Chlamydia (CT) continues to be the most prevalent bacterial STD in San Diego. In 2006, 11,980 cases were reported (391 per 100,000) which is a 9% increase from the 11,001 (365 per 100,000) reported in 2005 (Fig. 4). Most reported chlamydia cases are among females (73%) because more females are screened compared to males.

Chlamydia is an infection of adolescents and young adults (64% of cases). Routine screening of urine, using nucleic acid amplification tests (NAAT), for all adolescent girls admitted to Juvenile Detention in 2006 in San Diego, showed that 11% were positive. Additional data in California suggests that chlamydia incidence is not decreasing which is of considerable concern considering the complications women suffer from this infection such as pelvic inflammatory disease, ectopic pregnancy, infertility, and chronic pelvic pain syndrome. Clinicians are urged to assess the risk of all young patients and **to offer chlamydia screening (NAAT testing) to all sexually active females ≤ 25 years of age annually, and to all high-risk males ≤ 25 years of age (i.e., multiple partners, prior STDs, drug abuse).**

Among females with CT infection, re-infection is common (~15% re-infection rate) and re-screening is recommended at 8–12 weeks. It is also important to

encourage all infected patients to inform their recent sex partners of the need to also be treated and, if possible, tested. **Because of the large number of patients with chlamydia and gonorrhea, the STD Field Program is unable to provide partner follow-up services for persons with these infections and we rely on providers to encourage their patients to inform partners of the need to be treated. California Law allows physicians to prescribe/give CT medications (azithromycin) to patients to deliver to their partner without the physician having a professional relationship with the partner. A recently enacted law (effective January 1, 2007), allows physicians to follow the same partner treatment procedure for patients with gonorrhea.** Alternatively, sex partners can be tested, treated and receive a comprehensive STD evaluation at the County STD clinic (call 619-692-8550 for clinic locations and hours).

Nucleic Acid Amplification Tests (NAAT) for Rectal/Pharyngeal Gonorrhea and Chlamydia

Recent studies have shown that NAAT testing of rectal/pharyngeal specimens is sensitive and specific. However, these tests are not licensed for testing such specimens and cannot be offered by commercial laboratories unless they have done a simple verification process to show that their laboratory obtains accurate results with NAAT testing. The Public Health Laboratory in San Diego and San Francisco counties has conducted verification evaluations and now offers GC/CT rectal/pharyngeal NAAT testing. We urge clinicians, especially those who care for MSM, to contact their laboratory provider and ask that they carry out a verification and offer NAAT for specimens obtained at these non-urethral sites. For more information, Laboratory Directors may contact Dr. Chris Peter, Chief, County of San Diego Public Health Laboratory, regarding this issue.

Contact Information

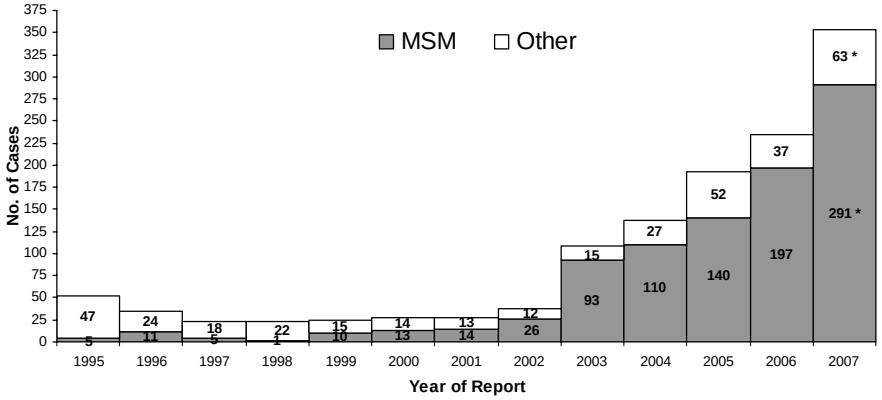
Terry Cunningham, MAOM, Chief, HIV, STD & Hepatitis Branch: 619-293-4706; fax 619-296-2688
Robert A. Gunn, MD, MPH, STD Control Officer: 619-692-8614; fax 619-296-2607
STD Clinic: 619-692-8550; fax 619-692-8543
Reporting a Case: 619-692-8520; fax 619-692-8541
HIV/STD/Hepatitis Admin: 619-293-4709; fax 619-296-2688

STD/Hepatitis Email Updates

If you would like to receive STD/HEP email updates, please send an email to STDHEP.HHSA@sdcounty.ca.gov with "Join" in the subject line.

The *Physicians' Bulletin* is published on an as-needed basis by the County of San Diego Health and Human Services Agency to provide updated information on health issues of concern to San Diego County's medical community.

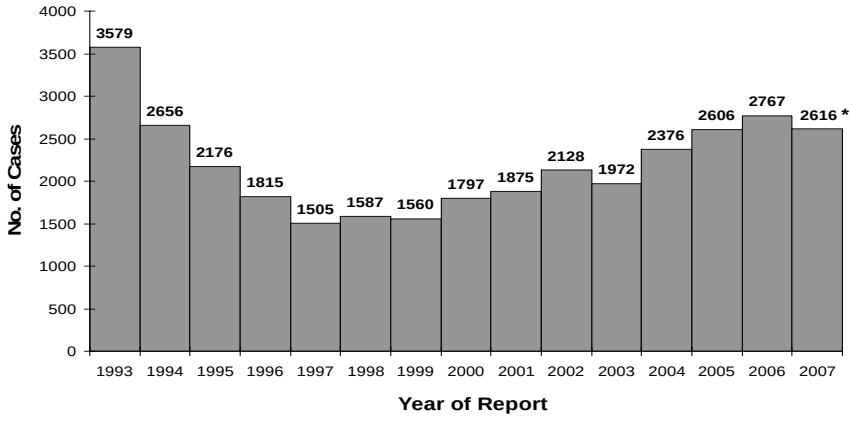
Fig. 1 Primary & Secondary Syphilis
MSM and Other Cases by Year of Report, San Diego 1995-2007



*Estimated from data Jan – Apr 2007

1

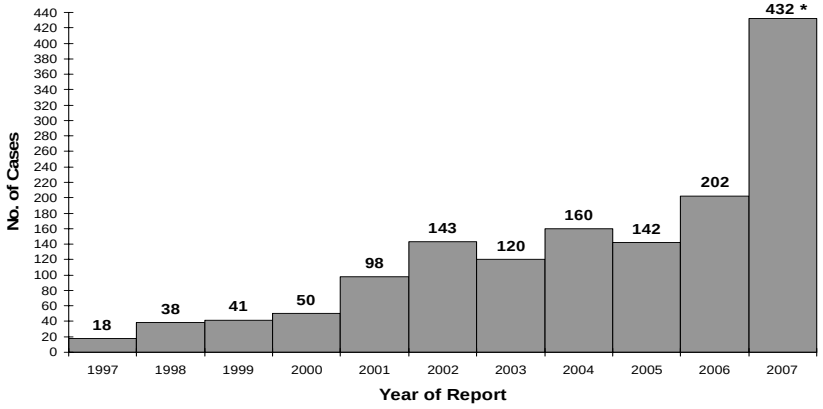
Fig 2. Gonorrhea Cases by Year, San Diego 1993-2007



*Estimated from data Jan – Apr 2007

2

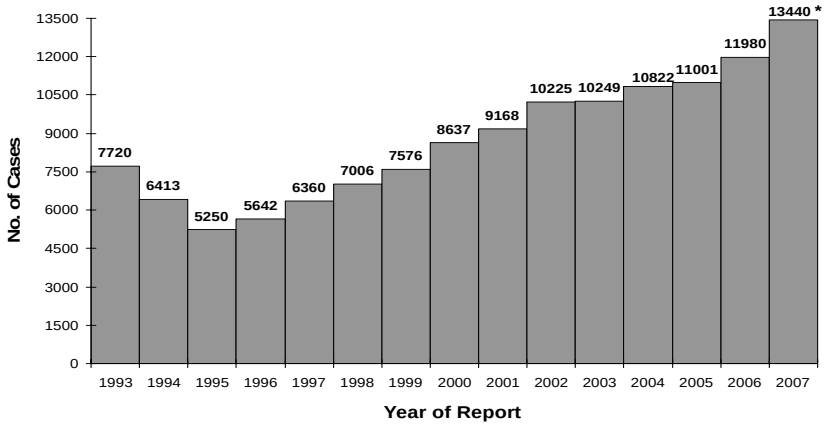
Fig. 3 Reported Rectal or Pharyngeal GC Infections Males, San Diego 1997-2007



*Estimated from data Jan – Apr 2007

3

Fig. 4 Chlamydia Cases by Year, San Diego 1993-2007



*Estimated from data Jan – Apr 2007

4