

## SYPHILIS

### References

1. Public Health Agency of Canada. Reported cases and rates of notifiable STI from January 1 to June 30, 2006 and January 1 to June 30, 2005 and corresponding rates for January 1 to December 31, 2005 and 2006. Available at: [http://www.phac-aspc.gc.ca/std-mts/stdcases-casmts/cases-cas-07\\_e.html](http://www.phac-aspc.gc.ca/std-mts/stdcases-casmts/cases-cas-07_e.html). Accessed June 8, 2007.
2. Public Health Agency of Canada. Reported Infectious Syphilis Cases and Rates in Canada by Province/Territory and Sex, 1993-2004. Available at: [http://www.phac-aspc.gc.ca/std-mts/stddata\\_pre06\\_04/tabc3-2\\_e.html](http://www.phac-aspc.gc.ca/std-mts/stddata_pre06_04/tabc3-2_e.html). Accessed June 8, 2007.
3. Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2003 Supplement. Syphilis Surveillance Report, December 2004*. Atlanta, GA: Centers for Disease Control and Prevention; 2004. Available at: <http://www.cdc.gov/std/Syphilis2003/SyphSurvSupp2003.pdf>. Accessed July 14, 2005.
4. Righarts AA, Simms I, Wallace L, Solomou M, Fenton KA. Syphilis surveillance and epidemiology in the United Kingdom. *Eurosurveillance Monthly* 2004;9:15–16.
5. Sarwal S, Shahin R, Ackery JA, Wong T. Infectious syphilis in MSM, 2002: outbreak investigation. Paper presented at: Annual Meeting of the International Society for STD Research; July 2003; Ottawa, ON. Abstract 0686.
6. Shahin R, Sarwal S, Ackery JA, Wong T. Infectious syphilis in MSM, 2002: public health interventions. Paper presented at: Annual Meeting of the International Society for STD Research; July 2003; Ottawa, ON. Abstract 0685.
7. Singh AE, Sutherland K, Lee B, Robinson JL, Wong T. Resurgence of early congenital syphilis in Canada. *CMAJ* 2007;177:33-36.
8. Klausner JD, Wolf W, Fischer-Ponce L Zolt I, Katz MH. Tracing a syphilis outbreak through cyberspace. *JAMA* 2000;284:447–449.
9. Jones H, Taylor D, Montgomery CA, Patrick DH, Money D, Vipond JC, Morshed MG, Ruissard DA, Rekart ML. Prenatal and congenital syphilis in British Columbia. *J Obstet Gynaecol Can* 2005;27:467-72.
10. Unpublished data. Surveillance and Epidemiology Section, Community Acquired Infections Division, Public Health Agency of Canada, 2007.
11. Singh AE, Romanowski B. Syphilis: review with emphasis on clinical, epidemiologic, and some biologic features. *Clin Microbiol Rev* 1999;12:187–209.
12. Garnett GP, Aral SO, Hoyle DV, Cates W Jr, Anderson RM. The natural history of syphilis. Implications for the transmission dynamics and control of infection. *Sex Transm Dis* 1997;24:185–200.
13. Gjestland T. The Oslo study of untreated syphilis: an epidemiologic investigation of the natural course of syphilis infection based upon a study of the Boeck-Bruusgaard material. *Acta Derm Venereol* 1955;35(suppl 34):1–368.
14. Fiumara NJ. Syphilis in newborn children. *Clin Obstet Gynecol* 1975;18:183–189.
15. Sanchez PJ, Wendel GD, Grimpel E et al. Evaluation of molecular methodologies and rabbit infectivity testing for the diagnosis of congenital syphilis and central nervous system invasion by *T. pallidum*. *J Infect Dis* 1993;167:148-57.

16. Finelli L, Berman SM, Koumans EH, Levine WC. Congenital syphilis. *Bull World Health Organ* 1998;76(Suppl 2): 126-8.
17. Rompalo AM, Lawlor J, Seaman P, Quinn TC, Zenilman JM, Hook EW 3rd. Modification of syphilitic genital ulcer manifestations by coexistent HIV infection. *Sex Transm Dis* 2001;28:448-454.
18. Golden MR, Marra CM, Holmes KK. Update on syphilis: resurgence of an old problem. *JAMA* 2003;290:1510-1514.
19. Marra CM, Maxwell CL, Smith SL, et al. Cerebrospinal fluid abnormalities in patients with syphilis: association with clinical and laboratory features. *J Infect Dis* 2004;189:369-376.
20. Hooshmand H, Escobar MR, Kopf SW. Neurosyphilis. A study of 241 patients. *JAMA* 1972;219:726-729.
21. Davis LE, Schmitt JW. Clinical significance of cerebrospinal fluid tests for neurosyphilis. *Ann Neurol* 1990;27:211-212.
22. Marra CM, Critchlow CW, Hook EW 3rd, Collier AC, Lukehart SA. Cerebrospinal fluid treponemal antibodies in untreated early syphilis. *Arch Neurol* 1995;52:68-72.
23. Peter G, Dudley MN. Clinical pharmacology of benzathine penicillin. *Pediatr Infect Dis* 1985;4:586-91.
24. Smith C, Kamp M, Olansky S, Price EV. Benzathine penicillin G in the treatment of syphilis. *Bull World Health Organ* 1956;15:1087-1096.
25. Elliot WC. Treatment of primary syphilis. *J Am Vener Dis Assoc* 1976;3:128-135.
26. Idsoe O, Guthrie T, Wilcox RR. Penicillin in the treatment of syphilis. The experience of three decades. *Bull World Health Organ* 1972;47:1-68.
27. Rolfs RT, Joesoef MR, Hendershot EF, et al. A randomized trial of enhanced therapy for early syphilis in patients with and without human immunodeficiency virus infection. The Syphilis and HIV Study Group. *N Engl J Med* 1997;337:307-314.
28. Harshan V, Jayakumar W. Doxycycline in early syphilis: a long term follow up. *Indian J Dermatol* 1982;27:119-124.
29. Onoda Y. Therapeutic effect of oral doxycycline on syphilis. *Br J Vener Dis* 1979;55:110-115.
30. Hook EW 3rd, Baker-Zander SA, Moskowitz BL, Lukehart SA, Handfield HH. Ceftriaxone therapy for asymptomatic neurosyphilis. Case report and Western blot analysis of serum and CSF IgG response to therapy. *Sex Transm Dis* 1986;13(suppl 3):185-188.
31. Moorthy TT, Lee CT, Lim KB, Tan T. Ceftriaxone for treatment of primary syphilis in men: a preliminary study. *Sex Transm Dis* 1987;14:116-119.
32. Rolfs RT. Treatment of syphilis, 1993. *Clin Infect Dis* 1995;20(suppl 1): S23-38.
33. Augenbraun MH, Rolfs R. Treatment of syphilis, 1998: nonpregnant adults. *Clin Infect Dis* 1999;29(suppl 1):S21-28.
34. Augenbraun M, Workowski K. Ceftriaxone therapy for syphilis: report from emerging infections network. *Clin Infect Dis* 1999;29:1337-1338.
35. Dowell ME, Ross PG, Musher DM, Cate TR, Baughn RE. Response of latent syphilis or neurosyphilis to ceftriaxone therapy in persons infected with human immunodeficiency virus. *Am J Med* 1992;93:481-488.

36. Marra CM, Boutin P, McArthur JC, et al. A pilot study evaluating ceftriaxone and penicillin G as treatment agents for neurosyphilis in human immunodeficiency virus-infected individuals. *Clin Infect Dis* 2000;30:540–544.
37. Hook EW 3rd, Stephens J, Ennis DM. Azithromycin compared with penicillin G benzathine for treatment of incubating syphilis. *Ann Intern Med* 1999;131:434–437.
38. Lukehart SA, Godornes C, Molini BJ, et al. Macrolide resistance in *Treponema pallidum* in the United States and Ireland. *N Engl J Med* 2004;351:154–158.
39. Mitchell SJ, Engelman J, Kent CK, Lukehart SA, Godornes C, Klausner JD. Azithromycin-resistant syphilis infection: San Francisco, California, 2000–2004. *Clin Infect Dis* 2006;42:337–45.
40. Morshed MG, Jones HD. *Treponema pallidum* macrolide resistance in BC. *CMAJ*. 2006; 174:349.
41. Alexander JM, Sheffield JS, Sanchez PJ, Mayfield J, Wendel GD Jr. Efficacy of treatment for syphilis in pregnancy. *Obstet Gynecol* 1999;93:5–8.
42. Walker GJ. Antibiotics for syphilis diagnosed during pregnancy. *Cochrane Library* 2002:3.
43. Genc M, Ledger WJ. Syphilis in pregnancy. *Sex Transm Infect* 2000;76:73–79.
44. Chang SN, Chung KY, Lee MG, Lee JB. Seroconversion of the serological tests in the newborns to treated syphilitic mothers. *Genitourin Med* 1995;71:68–70.
45. Wendel GD Jr, Stark RJ, Jamison RB, Molina RD, Sullivan TJ. Penicillin allergy and desensitization in serious infections during pregnancy. *N Engl J Med* 1985;312:1229–1232.
46. Lukehart SA. Serologic testing after therapy for syphilis; is there a test for cure? *Ann Intern Med* 1991;114:1057–1058.
47. Romanowski B, Sutherland R, Fick GH, Mooney D, Love EJ. Serologic response to treatment of infectious syphilis. *Ann Intern Med* 1991;114:1005–1009.
48. Dattner B, Thomas EW, De Mello L. Criteria for the management of neurosyphilis. *Am J Med* 1951;10:463–467.
49. Flores JL. Syphilis. A tale of twisted treponemes. *West J Med* 1995;163:552–559.
50. Marra CM, Longstreith WT Jr, Maxwell CL, Lukehart SA. Resolution of serum and cerebrospinal fluid abnormalities after treatment of neurosyphilis. Influence of concomitant human immunodeficiency virus infection. *Sex Transm Dis* 1996;23:184–189.
51. Jordan KG. Modern neurosyphilis — a critical analysis. *West J Med* 1988;149:47–57.
52. McFarlin B, Bottoms SF, Dock BS, Isada NB. Epidemic syphilis: maternal factors associated with congenital infection. *Am J Obstet Gynecol* 1994;170:535–540.
53. Mascola L, Pelosi R, Alexander CE. Inadequate treatment of syphilis in pregnancy. *Am J Obstet Gynecol* 1984;150:945–947.
54. Conover CS, Rend CA, Miller GB Jr, Schmid GP. Congenital syphilis after treatment of maternal syphilis with a penicillin regimen exceeding CDC guidelines. *Infect Dis Obstet Gynecol* 1998;6:134–137.
55. Kiefer L, Rubin A, McCoy JB, Foltz EL. The placental transfer of erythromycin. *Am J Obstet Gynecol* 1955;69:174–177.
56. Philipson A, Sabath LD, Charles D. Transplacental passage of erythromycin and clindamycin. *N Engl J Med* 1973;288:1219–1221.

57. Wendel GD Jr, Sheffield JS, Hollier LM, Hill JB, Ramsey PS, Sanchez PJ. Treatment of syphilis in pregnancy and prevention of congenital syphilis. *Clin Infect Dis* 2002;35(suppl 2):S200–209.
58. Sanchez PJ, Wendel GD. Syphilis in pregnancy. *Clin Perinatol* 1997;24:71–90.
59. Brown ST. Adverse reactions in syphilis therapy. *J Am Vener Dis Assoc* 1976;3:172–176