



**Communicable Disease and Epidemiology News**

Published continuously since 1961  
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**IN THE APRIL 1998 ISSUE:**

**VOL 38, NO. 4**

- **TB on the Decline in Seattle-King County**
- **New and Improved! 1998 Clinical Practice Guidelines for STDs**

### TB Declines

The incidence of tuberculosis (TB) in Seattle-King County (SKC) decreased from 8.0 cases per 100,000 in 1996 to 7.0 in 1997. The 1997 rate was higher than that of the State of Washington (5.4) but comparable to the national rate of 7.4. The decrease in SKC rates appears to be a result of decreased rates in Seattle residents (18.4 vs. 15.2). However, the incidence rate in Seattle residents was almost five times that of King County residents outside of Seattle. Furthermore, the neighborhoods of downtown Seattle, Capitol Hill, Georgetown, and Rainier Valley had rates of TB in excess of 20 per 100,000, approximately three times that of the city and county as a whole. SKC males had a rate of 8.7 and females, 5.4 per 100,000.

One hundred thirteen cases of TB were reported in SKC in 1997. This represents a 12% decline from the 128 cases reported in 1996, and 14% below the total of 131 cases reported in 1995, the peak year for TB case reports since TB began its resurgence in the 1980s. This trend is similar to national trends with the exception that the number of cases peaked on a national level in 1992 and has declined 26% over the last five years.

The age range of the SKC cases was <1 year to 90 years. Seven (6.2%) of the 113 cases died. Five died due to diseases ranging from cancer to AIDS and had TB diagnosed only at autopsy. The other two died during the early stage of therapy for TB, one of whom had HIV infection and disseminated, multidrug-resistant TB.

Birth in an area of high TB endemicity was by far the most important risk factor for TB among 1997 cases, identified in 82 cases (73%). Foreign-born cases immigrated from 24 countries, with Vietnam, the Philippines, India, and Mexico the most frequent countries of origin. By region, foreign-born cases originated from Southeast Asia (including India, 32 cases),

Asia and the Pacific Islands (27), eastern Africa (9), the Americas (5), the countries of Eastern Europe and the former Soviet Union (5), and countries of Western Europe (2). Among other known risk factors, 12 patients (11%) were homeless; 5 (4%) had HIV infection; and 3 (3%) were contacts of currently-active TB cases. Altogether, 97 (86%) of 1997 TB cases possessed at least one of those four risk factors, which were not mutually exclusive.

There is a trend of decreasing TB morbidity among all of the three major groups at risk of the disease in SKC. The decrease is most impressive among persons with HIV infection, among whom TB decreased 69% in 1997 from its peak in 1992, and homeless persons, in whom the number in 1997 was 49% less than that in 1994. Even among foreign-born persons, the actual numbers of cases also declined in each of the past two years.

Fifty-nine percent of the 1997 cases were pulmonary and 37% were extrapulmonary; 4% were both pulmonary and extrapulmonary. Extrapulmonary cases included (in descending order) lymphatic, pleural, miliary, peritoneal, genitourinary, bone/joint, and meningeal. Among 64 culture-positive pulmonary cases, 50% were sputum smear-positive. Among lymphatic cases, 19 of 21 were foreign born, with a median age of 28 years.

Eighty-eight percent of 1997 cases were culture positive, and all of those cases had drug susceptibility testing performed. Eighty-four percent of isolates were susceptible to the four primary TB drugs isoniazid, rifampin, ethambutol, and pyrazinamide, 13% were resistant to isoniazid but susceptible to rifampin, none was resistant to rifampin alone, and 3% were resistant to isoniazid and rifampin. The latter category fits the current definition of multidrug-resistant TB (MDR-TB). Two of the three MDR-TB cases were recent immigrants; the third was an

individual with HIV infection born in the U.S. but who had worked for a considerable length of time in the Philippines.

Fourteen (88%) of the 16 isolates showing significant drug resistance were from foreign-born cases, resulting in 19% of foreign-born culture-positive cases and 8% of U.S.-born cases having drug resistance. The overall rate of drug resistance, and that of MDR-TB, has changed little in SKC for the past 10 years. The rate of resistance to TB drugs is an important indicator of the quality of TB control in a community; a rising rate generally indicates suboptimal follow-up of patients and a low rate of completion of treatment. In that context, drug resistance, including MDR-TB and increased person-to-person spread of TB, often supervene. Seattle-King County has witnessed none of those trends.

*Thanks to Charles Nolan, MD for this report.*

### STD Guidelines

In January 1998, the Seattle-King County Department of Public Health (SKCDPH) issued a revised version of its Sexually Transmitted Disease Clinical Practice Guidelines for the management of STD. These guidelines were developed jointly by the STD and Family Planning Programs of the SKCDPH, and constitute a revision of the previous version (1993). This article briefly summarizes the most prominent changes. In general, the SKCDPH guidelines agree with the 1998 Guidelines for Treatment of STD issued by the Centers for Disease Control and Prevention (CDC), but provide more detailed management of commonly encountered clinical scenarios.

**Chlamydial infection:** Single-dose azithromycin is the treatment of choice for chlamydial infection. Doxycycline should be used only if the clinician is reasonably confident of adherence to the 7-day regimen. Amoxicillin is now recommended as the treatment of choice in pregnant

women, and all pregnant women should have a test of cure three weeks after completing therapy. While azithromycin is reportedly widely used in pregnancy, most authorities feel that data on its efficacy during pregnancy are too limited to recommend its routine use; however, it is as an alternative therapy if compliance with a longer regimen is a concern. All women with chlamydial infection should be retested for *C. trachomatis* 3 to 4 months after completing therapy, especially adolescents. Reinfection increases the risk of ectopic pregnancy and tubal infertility. Urine testing with DNA amplification tests -- ligase chain reaction (LCR) or polymerase chain reaction (PCR) -- may facilitate repeat testing by obviating the need for a pelvic examination. These tests are available in the Public Health Laboratory.

**MPC:** Diagnostic criteria for mucopurulent cervicitis (MPC), an important indicator of possible chlamydial infection, have been revised. Criteria for presumptive treatment of MPC include age <25 years, report of a new partner since last previous chlamydia test or within the last 2 months, overt mucopurulent endocervical discharge, or low likelihood of follow up.

**NGU:** For men with an initial episode of non-gonococcal urethritis (NGU), single-dose azithromycin is now recommended as an alternative to doxycycline.

The guidelines provide extensive recommendations for management of recurrent non-chlamydial NGU, including empiric treatment for trichomoniasis with metronidazole.

**BV:** Selected patients with bacterial vaginosis (BV) should be treated even if asymptomatic, because of research showing high rates of complications of pregnancy in women with BV. Such patients include asymptomatic pregnant women at risk for preterm delivery. Once daily treatment with topical metronidazole or clindamycin is also a new therapeutic option for BV.

**PID:** A particularly important change emphasizes the role of adding anti-anaerobic therapy to routine oral therapy of women with acute PID; most cases should be treated with metronidazole in addition to treatment for gonorrhea and chlamydia.

**HSV:** Valacyclovir and famciclovir have been added as treatment options for genital herpes; indications for suppressive therapy in patients with recurrent genital herpes are provided and include frequent (>9 episodes/year) or severe recurrences.

**Genital warts:** Imiquimod cream and podofilox have been added as patient-applied treatment options for genital warts, and trichloroacetic acid has been added as an option for clinician-applied therapy. All clinicians should have access to and experience with at

least one provider-applied method and one patient-applied treatment.

Appendices on contraceptive services have been expanded, emphasizing the use of combination oral contraceptives, depo-provera, and emergency contraception. Three new appendices describe the protocol for immunization against hepatitis B, procedures for STD reporting, and management of common genital dermatoses.

The SKCDPH STD guidelines are available at the website of the Seattle STD/HIV Prevention and Training Centers (<http://weber.u.washington.edu/~seaptc>). The CDC's 1998 Guidelines for Treatment of STD are also available at <http://www.cdc.gov/> or can be obtained by calling 202-512-1800.

*Thanks to Jeanne Marrazzo, MD, MPH and Connie Celum, MD, MPH for this report.*

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| <b>REPORTED CASES OF SELECTED DISEASES<br/>SEATTLE-KING COUNTY 1998</b> |                                    |             |   |             |
|---|------------------------------------|-------------|---|-------------|
|   | <b>CASES REPORTED<br/>IN MARCH</b> |             | <b>CASES REPORTED<br/>THROUGH MARCH</b> |             |
|   | <b>1998</b>                        | <b>1997</b> | <b>1998</b>                             | <b>1997</b> |
| <b>VACCINE-PREVENTABLE DISEASES</b>                                     |                                    |             |   |             |
| Mumps   | 0                                  | 0           | 0                                       | 0           |
| Measles   | 0                                  | 0           | 0                                       | 0           |
| Pertussis   | 6                                  | 14          | 47                                      | 70          |
| Rubella   | 0                                  | 0           | 0                                       | 0           |
| <b>SEXUALLY TRANSMITTED DISEASES</b>                                    |                                    |             |   |             |
| Syphilis  | 0                                  | 0           | 3                                       | 2           |
| Gonorrhea   | 95                                 | 53          | 245                                     | 200         |
| Chlamydial infections   | 268                                | 236         | 822                                     | 762         |
| Herpes, genital   | 76                                 | 51          | 182                                     | 159         |
| Pelvic Inflammatory Disease   | 15                                 | 17          | 51                                      | 80          |
| Syphilis, late  | 1                                  | 3           | 9                                       | 8           |
| <b>ENTERIC DISEASES</b>   |                                    |             |   |             |
| Giardiasis  | 14                                 | 20          | 40                                      | 48          |
| Salmonellosis   | 10                                 | 13          | 25                                      | 42          |
| Shigellosis   | 9                                  | 10          | 20                                      | 25          |
| Campylobacteriosis  | 19                                 | 9           | 53                                      | 58          |
| E.coli O157:H7  | 1                                  | 1           | 1                                       | 3           |
| <b>HEPATITIS</b>  |                                    |             |   |             |
| Hepatitis A   | 78                                 | 38          | 178                                     | 111         |
| Hepatitis B   | 3                                  | 2           | 19                                      | 9           |
| Hepatitis C/non-A, non-B  | 0                                  | 1           | 1                                       | 1           |
| AIDS  | 42                                 | 47          | 88                                      | 91          |
| TUBERCULOSIS  | 10                                 | 11          | 21                                      | 32          |
| <b>MENINGITIS/INVASIVE DISEASE</b>                                      |                                    |             |   |             |
| Haemophilus influenzae  | 0                                  | 0           | 0                                       | 1           |
| Meningococcal disease   | 2                                  | 0           | 8                                       | 7           |