

## EPIDEMIOLOGY NEWSLETTER

OCTOBER 2000

### HANSEN'S DISEASE IN CLARK COUNTY

The Clark County Health District (CCHD) receives several reports of Hansen's disease cases (leprosy) annually. All of these cases have been acquired abroad. An estimated 500,000 new Hansen's disease cases are identified each year, with about 300 of these occurring in the United States. In 1998, the World Health Organization listed Bangladesh, Brazil, India, Indonesia, Myanmar and Nigeria as the countries reporting the most cases. Worldwide, 1-2 million persons are permanently disabled as a result of Hansen's disease.

Known since ancient times as a contagious, mutilating and incurable disease, leprosy was feared and patients were ostracized from the community. Although leprosy is still prevalent it is now treatable. *Mycobacterium leprae*, the etiologic agent of Hansen's disease, is an acid-fast bacillus, which mainly affects the skin, nerves and mucous membranes. G. A. Hansen discovered *M. leprae* in 1873, but treatment was not available until the 1940s with the introduction of dapsone. Resistance to dapsone developed and gradually became widespread. Today, effective treatment is achieved with multidrug therapy.

The following characteristics are typical of the major forms of the disease:

*Tuberculoid*: one or a few well-demarcated, hypopigmented and anesthetic skin lesions, frequently with active, spreading edges and a clearing center; peripheral nerve swelling or thickening also may occur.

*Lepromatous*: a number of erythematous papules and nodules or an infiltration of the face, hands and feet, with lesions in a bilateral and symmetrical distribution that progresses to thickening of the skin.

*Borderline (dimorphous)*: skin lesions characteristic of both the tuberculoid and lepromatous forms.

*Intermediate*: early lesions, usually hypopigmented macules, without developed tuberculoid or lepromatous features.

Respiratory droplets are believed to be an important means of transmission. A patient with untreated lepromatous Hansen's Disease may discharge up to 800 million bacilli in a single nose blow. It is recommended that all close contacts of persons with *M. leprae* be thoroughly evaluated for disease.

A case is considered confirmed if the patient has a skin lesion consistent with leprosy and acid-fast bacilli are demonstrated in skin or dermal nerve, obtained from the full-thickness skin biopsy of a lepromatous lesion. All suspected or confirmed cases of Hansen's Disease in Clark County must be reported to the CCHD Office of Epidemiology by fax (383-4936) or phone (383-1378). Cases should be referred for follow-up and treatment to:

University of Southern California Hansen's Clinic  
1175 N. Cummins St.  
Los Angeles, CA  
Telephone: (323) 226-2653 Fax: (323) 226-2654

For assistance with referrals, please feel free to contact the Office of Epidemiology.

REFERENCES.

1. Centers for Disease Control and Prevention. Case Definitions for Infectious Conditions Under Public Health Surveillance. MMWR 1997; 46(No. RR-10).
2. Centers for Disease Control and Prevention. Hansen's Disease (Leprosy), Technical Information. @[www.cdc.gov/ncidod/dbmd/diseaseinfo/hansens\\_t.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/hansens_t.htm)
3. Murray, Baron, Pfaller, Tenover and Tenover, 1999. Manual of Clinical Microbiology American Society of Microbiology, Washington, D.C.
4. World Health Organization, Leprosy: @[www.who.int/lep/disease/diagnosis/htm](http://www.who.int/lep/disease/diagnosis/htm)