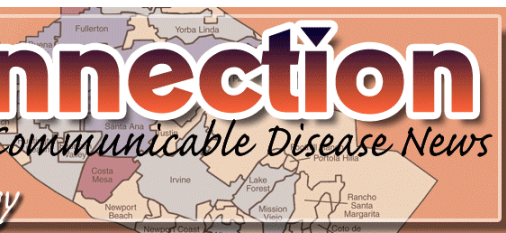




CD Connection

Orange County Communicable Disease News

Health Care Agency/Public Health Services - Epidemiology



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1719 W. 17th St. Santa Ana, CA 92706, (714) 834-8180

Welcome to the inaugural issue of *CD Connection, Orange County Communicable Disease News*. Our goal is to provide you with timely information about emerging diseases, diseases with updated reporting or testing recommendations, agents of bioterrorism, and resources available to you. To suggest topics for future issues, email epi@ochca.com.

LYME DISEASE

- Approximately 1-5 cases of Lyme Disease (LD) are reported annually in Orange County residents, although most of those were acquired outside of the County. Many case reports are received that have not had the appropriate testing done to confirm LD. LD testing is the focus of this issue of *CD Connection*.
- **Transmission:** LD is caused by the spirochete *Borrelia burgdorferi*, which is transmitted to humans by an infected western black-legged tick, *Ixodes pacificus*, and also *Ixodes scapularis* elsewhere in the US. Only 1 tick from OC has tested positive for *B. burgdorferi* since 1987,* although not many ticks are tested and vector-borne diseases may still occur in areas with low rates of vector positivity. (*source Orange County Vector Control District, 12/06)
- **Clinical manifestations** are variable and may include:
 - *Early (days to weeks after tick bite):* erythema migrans (EM) at the site of the tick bite; fever, headache, neckache, myalgia, arthralgia, malaise. Later (several weeks after tick bite) can have multiple EM, cranial nerve palsies (esp. VII), meningitis, conjunctivitis, arthritis, carditis.
 - *Late (weeks, months, or years after tick bite):* Recurrent arthritis, peripheral neuropathy, central nervous system manifestations.
- **Diagnosis:** Erythema migrans is the only manifestation of LD in the US that allows clinical diagnosis of LD in the absence of laboratory confirmation.
 - **Testing:** Testing for LD should only be done in patients with compatible clinical and exposure history (possible tick exposure in a Lyme-endemic area). The CDC and other national expert groups recommend that LD testing be done using a 2-tier testing algorithm for both active disease and confirmation of previous infection in patients with symptoms of late disease.
 - **First tier:** Lyme (*B. burgdorferi*) enzyme immunoassay (EIA or ELISA) or immunofluorescent assay (IFA). If this first test is negative, further testing is not needed unless it is early (the first few weeks) after infection, when paired acute and convalescent serum may be necessary.
 - **Second tier:** if and only if EIA/ELISA or IFA is positive or equivocal, Western immunoblot should be done on the same serum specimen. If the patient has had symptoms for ≤4 weeks, both IgM and IgG immunoblots should be done. If > 4 weeks, reactivity must be present on the IgG immunoblot specifically. Immunoblot should only be done in qualified labs that follow the CDC-recommended, evidence based guidelines for immunoblot interpretation.
- **Treatment:** See the latest Infectious Diseases Society of America (IDSA) guidelines in *Clinical Infectious Diseases* 2006;43:1089-134, available at <http://www.journals.uchicago.edu/IDSA/guidelines/>.
- **Prevention of LD** should focus on prevention of tick bites by avoiding tick-infested areas, use of protective clothing and insect/tick repellents, and frequent tick checks with prompt tick removal. The routine use of antimicrobial prophylaxis or serologic testing after a tick bite is not recommended.
- **For more LD info:** <http://www.dhs.ca.gov/ps/dcdc/disb/lymedisease.htm>, <http://www.cdc.gov/ncidod/dvbid/lyme/index.htm>.

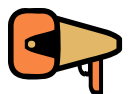


Bioterrorism Preparedness News...

- Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians: <http://www.ahrq.gov/research/pedprep/resource.htm>
- Providing Mass Medical Care with Scarce Resources: A Community Planning Guide: <http://www.ahrq.gov/research/mce/>.

Announcements...

- Shiga Toxin in feces is now reportable in California by healthcare providers and laboratories. For an up-to-date list of reportable diseases: <http://www.ochealthinfo.com/epi/report-diseases.htm>.



For comments or suggestions on the newsletter, contact Pamela Roa Hipp or Dr. Michele Cheung at (714) 834-8180. To receive this newsletter by email, please contact us at epi@ochca.com.