

Lyme Disease Advisory Committee Meeting
March 12, 2015
Sacramento, California

Committee members in attendance

Barbara Barsocchini, California Lyme Disease Association (LymeDisease.org) (via phone)
Karen Chew, Lyme Disease Support Network (via phone)
Vicki Kramer, PhD, California Department of Public Health (CDPH)
Robert Lane, PhD, University of California, Berkeley
James Miller, PhD., University of California, Los Angeles (via phone)
Chindi Peavey, PhD, Mosquito and Vector Control Association of California
Raphael Stricker, MD, California Medical Association

Other attendees

Claudia Erickson, MS, CHES, CDPH, Committee Coordinator
Anne Kjemtrup, DVM, MPVM, PhD, CDPH
Melissa Yoshimizu, PhD, CDPH

Approximately 15 individuals representing CDPH and the interested public.

1. Roll Call and Opening Comments

The meeting was brought to order by Dr. Lane at 10:30 a.m.

2. Committee Member Updates

Dr. Miller provided updates on potential Lyme disease vaccines. He noted that new serological tests are currently under evaluation at the US Centers for Disease Control and Prevention (CDC) and independent laboratories.

Ms. Barsocchini noted that this is the 11th year of physician education offered by the California Lyme Disease Association. LymeDisease.org had 37 applicants and 35 grantees (12 from Canada) apply for funds this year. The annual Lyme walk will be in Santa Monica in May (Lyme disease awareness month), and they are organizing a music festival at the House of Blues in Hollywood.

Dr. Peavey reported that a few local vector control agencies are providing PCR testing of ticks. Some agencies are also available to do educational presentations and outreach.

Dr. Kramer acknowledged Ms. Erickson as committee coordinator and introduced Dr. Yoshimizu as the new lead of the tick surveillance program at CDPH. In April, CDPH will have a new director, Dr. Karen Smith, an infectious disease specialist.

Dr. Lane reported that he and colleagues are completing several long-term studies, including one co-authored article that was published recently in PLOS ONE in which *Borrelia bissettii* was found for the first time in birds. *Borrelia bissettii* was first isolated and described from an infected *Ixodes pacificus* tick from Del Norte County by Dr. Marjorie Bissett and Warren Hill

of the California Department of Health Services (now California Department of Public Health). In central and southern Europe, it has been implicated as a human pathogen. Dr. Lane was invited by CDC to co-author a manuscript for the Institute of Medicine about changing paradigms of tick-borne diseases in the New World.

Dr. Stricker reported on a 2014 study he coauthored suggesting evidence of *B. burgdorferi* in vaginal secretions and semen of Lyme patients, suggesting the potential of sexual transmission of Lyme disease.

3. CDPH Progress Report (Claudia Erickson and Melissa Yoshimizu)

Ms. Erickson reviewed the tick-borne disease educational and outreach activities of CDPH. For the general public, CDPH tweets and Facebook postings resulted in messages being distributed through other health agencies' social media efforts. Ms. Erickson reviewed the CDPH outreach activities to the medical community, including the updated presentation for medical personnel posted on the CDPH website. Ms. Erickson highlighted a collaborative tick-borne disease display with the Gateway Science Museum at California State University, Chico. CDPH continues to provide information and educational materials on tick-borne diseases to local vector control agencies, health departments, and other partners. An updated tick identification card, now named "Common Ticks in California," will soon be available. The Lyme Disease Advisory Committee (LDAC) provided input on this card previously.

Dr. Yoshimizu presented information on the number of Lyme diseases cases from 2005 to 2014. The prevalence of *Borrelia* in ticks tested since October 2014 is similar to the infection prevalence reported previously in nymphal and adult *Ixodes pacificus*. Current projects include focused collection of larvae and nymphs and examination of emerging and re-emerging tick-borne diseases.

Committee comment: Dr. Stricker asked about the tick testing protocol at CDPH. Dr. Yoshimizu explained the two step testing process: DFA followed by RT-PCR for positive DFA ticks.

Public comment: A member of the public asked if there were plans to test more ticks from coastal Sonoma County. Dr. Kramer responded that testing from that county has occurred in the past, and the data presented by Dr. Yoshimizu reflect ticks tested in the last four months. A map is posted on the CDPH website indicating where ticks have been collected and tested in California.

4. Rocky Mountain Spotted Fever: A Re-emerging Disease with Changing Ecology (Anne Kjemtrup)

Dr. Kjemtrup presented an overview of Rocky Mountain spotted fever (RMSF) and discussed the symptoms and epidemiology of this disease caused by *Rickettsia rickettsii*. She highlighted that two ecologies, rural (transmitted by *Dermacentor* ticks, such as the Pacific Coast tick) and urban (transmitted by the brown dog tick) potentially exist in California. The differing ecologies present unique and differing challenges for prevention messaging.

Committee comments:

- Dr. Miller asked about the potential of co-infections with RMSF.
 - Dr. Kjemtrup replied that to her knowledge no RMSF patient has had a tick-associated pathogen co-infection.
- Ms. Barsocchini asked who is allowed to post tick warning signs.
 - Dr. Kramer responded that they are provided by CDPH biologists and also shared with local vector control agencies.
- Dr. Miller commented on serological titers and that to confirm the diagnosis of RMSF, a second specimen taken 2-3 weeks after the first specimen must be tested. He was concerned that the patient could die before the second sample could be confirmed.
 - Dr. Kjemtrup responded that is why treatment is recommended before confirmatory diagnosis.
 - Dr. Miller and Dr. Stricker commented that newer, more specific tests are being developed for RMSF as well as other tick-borne disease agents.

Public comments:

- A member of the public voiced concern about physicians denying the presence of Lyme and other tick-borne diseases in California and that those physicians refuse to offer treatment.
 - Dr. Kjemtrup replied that public health agencies publish human case data to demonstrate where and when tick-borne diseases occur in California.
 - Dr. Miller responded that medical schools should provide students with more information on Lyme and other tick-borne diseases.
 - Dr. Lane commented that it can be difficult to reach medical students, but workshops and symposiums specifically designed to educate physicians on tick-borne diseases can help fill in some of these gaps.

5. Public Education – Developing a plain language brochure on Lyme disease prevention in California (Claudia Erickson)

Ms. Erickson explained that the new brochure will be an easy to read, plain language, tick-bite prevention brochure for adults. The brochure will not include suggestions to tuck pants into socks or wear light colored clothing as CDC no longer promotes these recommendations.

Committee and public suggestions:

- Include the text: There are many types of ticks that carry diseases.
- Add information on picnic tables and logs as potential tick exposure substrates.
- Include more types of outdoor activities for potential tick exposure, not just hiking on trails.
- Include information on the length of time clothes should be washed and dried and at what temperature to ensure ticks are killed.
- Add wording to remind the public to check for ticks often while recreating or working in areas with ticks, and to check their bedding and pets for ticks.
- It was noted that some of the vocabulary in the brochure may be too technical for most readers and suggestions were made for simpler language.
- It was suggested that more images would be better, including possible habitat images.

6. General Public Comment

- A member of the public (via phone) emphasized the need for Kaiser to be better informed regarding testing patients for Lyme disease, and more responsive to treating tick-borne infections.
- A member of the public (via phone) commented on a recent article published in *Sonoma Medicine*.
- A member of the public (via phone) requested that notification of this meeting be provided more than two weeks prior to the meeting.
 - Ms. Erickson noted that the meeting date had been posted since December.
- A member of the public noted that the lack of Lyme disease education in the medical community led to a delay in her diagnosis. She reported that her Lyme disease test was negative through an HMO system laboratory, but positive at another laboratory. There is a need for better tests, and that a broader range of tests should be included in the case classification.
- The new plain language brochure is a great idea and will be an excellent resource, but physicians need to be educated properly as well.
- A speaker stated that she was diagnosed with Lyme disease 15 years ago, but her case was not reported by the State.
- The final speaker provided feedback on an article in the November issue of *Sonoma Medicine*. She provided written comments on the article to the LDAC members.

Dr. Lane announced that the next meeting will be by conference call in November and the exact date will be posted soon.

Meeting adjourned at 1:44 p.m. by Dr. Lane