

International Lyme and Associated Diseases Society (ILADS)

Vector-Borne Illness Fundamentals

September 22, 2022

This continuing medical education activity is provided through collaboration between the International Lyme and Associated Diseases Society (ILADS) and the American Academy of Family Physicians (AAFP). This live activity provides continuing medical education credit for family physicians, as well as a certificate of attendance for other participants.

Learning Outcomes

At the conclusion of this activity, participants will be able to:

- Introduction to Vector-Borne Illness and Pathophysiology
 - Explain the epidemiology and risk factors for contracting Lyme Borreliosis and other vector-borne diseases;
 - Understand the microbiology and pathophysiology of stealth pathogens;
 - Recognize different ticks and the pathogens they may transmit;
 - Discuss the basic facts regarding *Borrelia burgdorferi*, the agent of Lyme Borreliosis and its mechanisms for adaptation and survival;
 - Identify clinical presentations of early disease and late disease;
 - Discuss evidence-based treatment recommendations for managing patients with tick bites, erythema migrans, persistent disease, and understand Jarrisch-Herxheimer reactions and treatment flairs;
- Introduction to Vector-Borne Infections aka Co-Infections
 - Understand the various patterns of co-infections and how to formulate a working diagnosis;
- Diagnosis and Treatment of Chronic Babesiosis
 - Discuss basic facts and identify common presentations of Babesia;
 - Recognize the role of laboratory testing in the diagnosis;
 - Discuss the treatment;
- Bartonella
 - Discuss basic facts and identify common presentations of Bartonella;
 - Recognize the role of laboratory testing in the diagnosis;
 - Discuss the treatment;
- Rickettsia
 - Discuss basic facts and identify common presentations of Rickettsia;
 - Recognize the role of laboratory testing in the diagnosis;
 - Discuss the treatment;
- Mycoplasma/Chlamydia
 - Discuss basic facts and identify common presentations of Mycoplasma as well as some other opportunistic microbes;
 - Recognize the role of laboratory testing in the diagnosis;
 - Discuss the treatment;
- Tick-Borne Relapsing Fever
 - Discuss basic facts and identify common presentations of tick-borne relapsing fever infections;

- o Recognize the role of laboratory testing in the diagnosis;
 - o Discuss the treatment;
- Viral Infection
 - o Discuss basic facts and identify common presentations of viral infections;
 - o Recognize the role of laboratory testing in the diagnosis;
 - o Discuss the treatment;
- Presentation, Assessment, and Psychiatric Manifestations of Tick-Borne Disease
 - o Describe the presentation of tick-borne disease;
 - o Discuss the assessment of tick-borne disease;
 - o Discuss the pertinent physical assessment of tick-borne disease;
 - o Discuss the pertinent neurological assessment of tick-borne disease;
 - o Review the psychiatric manifestations of tick-borne disease;
 - o Describe the aspects of neuro-borreliosis and neuro-psychiatric problems of tick-borne disease;
- Pediatric Lyme
 - o Recognize the presentation, diagnosis and treatment of vector borne illness in the pediatric population;
 - o Describe the pediatric aspects of neuro-borreliosis, neuro-psychiatric problems and PANDAS/PANS;
- Diagnostic Tools
 - o Review the validity and clinical applications of lab testing;
 - o Review of sensitivity and specificity of lab testing;
 - o Review of ancillary testing;
- Lyme and Persistent Lyme
 - o Identify the basic pathophysiology of early, late, and persistent Lyme Borreliosis;
 - o Identify clinical presentations of persistent disease;
- Cases and Questions
 - o Identify the clinical application(s) of the principles discussed above via case studies;
 - o Identify and discuss participant questions regarding vector-borne illnesses.

Disclosure Information

The planners and staff of the ILADS 2022 Vector-Borne Illness Fundamentals CME activities have no financial or non-financial relationships to disclose.

The faculty of the ILADS 2022 Vector-Borne Illness Fundamentals CME activities have no financial relationships to disclose, with the exception of the following:

- Sam Shor, MD - Consultant, Aspirus Tick-Borne Illness Center
- Tania Dempsey, MD - Founder, AIM Center for Personalized Medicine
- Robert Bransfield, MD - Speakers Bureau, Sunovion and Intra-Cellular Therapies
- Joseph J. Burrascano, Jr., MD - Medical Director, Superior Biologics, Inc.

Conflict of interest was resolved through peer review of content and slides.

Please be aware that some recommendations for Lyme and associated diseases are considered off-label usage by the FDA. Such discussion will be noted with asterisks in the presentation.

Credit Statements

The AAFP has reviewed Vector-Borne Illness Fundamentals (2022) and deemed it acceptable for up to 7.25 In-Person, Live AAFP Prescribed credit. Term of Approval is from 09/22/2022 to 09/22/2022. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

AMA/AAFP Equivalency:

AAFP Prescribed credit is accepted by the American Medical Association as equivalent to *AMA PRA Category 1 credit(s)*[™] toward the AMA Physician's Recognition Award. When applying for the AMA PRA, Prescribed credit earned must be reported as Prescribed, not as Category 1.

Registration Information

CME is included in the registration cost for this activity. To register for this activity, please visit: <https://www.ilads.org/ilads-conference/orlando-2022/>

How to Access the ILADS Vector-Borne Illness Fundamentals Quiz and Claim CME

1. Login to the ILADS Member Portal at <https://ilads.users.membersuite.com/auth/portal-login>
2. Navigate to the ILADS Trainings Tab and select to automatically open the Learner Management System (LMS)
3. Once the LMS has opened, select **Courses** at the upper left to view all activities for which you are registered, then select **Vector-Borne Illness Fundamentals 2022 Assessment (Quiz)**
4. Select the **Vector-Borne Illness Fundamentals 2022 Assessment (Quiz)** and complete all questions. You have two opportunities to pass the quiz; a minimum passing score of 80% is required.
5. Record your answers by clicking **Next** at the bottom of the assessment.
6. Continue and complete the **Vector-Borne Illness Fundamentals 2022 Survey** (activity evaluation form). Record your answers by clicking **Next** at the bottom of the survey.
7. After your passing score has been recorded, you will receive a Certificate of Completion and be contacted with more information regarding next steps for the Physician Training Program if eligible.

For additional information or questions, please contact ILADS at conference@ilads.org or 301-263-1080 ext. 104.