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Lyme Disease (Borrelia burgdorferi) 1995 Case Definition | CDC  
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Lyme Disease (  
Borrelia burgdorferi  
)  
1995 Case Definition  
Lyme Disease (  
Borrelia burgdorferi  
)  
1995 Case Definition  
NOTE:  
A surveillance case definition is a set of uniform criteria used to define a disease for public health surveillance. Surveillance case definitions enable public health officials to classify and count cases consistently across reporting jurisdictions. Surveillance case definitions are not intended to be used by healthcare providers for making a clinical diagnosis or determining how to meet an individual patient’s health needs.  
Clinical Description  
A systemic, tick-borne disease with protean manifestations, including dermatologic, rheumatologic, neurologic, and cardiac abnormalities. The best clinical marker for the disease is the initial skin lesion, erythema migrans (EM), that occurs among 60%-80% of patients.  
Clinical Criteria  
Erythema migrans,  
OR  
At least one late manifestation, as defined below, and laboratory confirmation of infection  
Laboratory Criteria For Diagnosis  
Isolation of  
Borrelia burgdorferi  
from clinical specimen,  
OR  
Demonstration of diagnostic levels of immunoglobulin M (IgM) and immunoglobulin G (IgG) antibodies to the spirochete in serum or cerebrospinal fluid (CSF),  
OR  
Significant change in IgM or IgG antibody response to  
B. burgdorferi  
in paired acute- and convalescent-phase serum samples  
Exposure  
Exposure is defined as having been in wooded, brushy, or grassy areas (potential tick habitats) in a county in which Lyme disease is endemic no more than 30 days before onset of EM. A history of tick bite is NOT required.  
Endemicity  
A county in which Lyme disease is endemic is one in which at least two definite cases have been previously acquired or in which a known tick vector has been shown to be infected with  
B. burgdorferi  
Case Classification  
Confirmed  
A case that meets one of the clinical case definitions above  
Comments  
This surveillance case definition was developed for national reporting of Lyme disease; it is NOT appropriate for clinical diagnosis.  
Definition of terms used in the clinical description and case definition:  
A. Erythema migrans  
For purposes of surveillance, EM is defined as a skin lesion that typically begins as a red macule or papule and expands over a period of days to weeks to form a large round lesion, often with partial central clearing. A solitary lesion must reach at least 5 cm in size. Secondary lesions may also occur. Annular erythematous lesions occurring within several hours of a tick bite represent hypersensitivity reactions and do not qualify as EM. For most patients, the expanding EM lesion is accompanied by other acute symptoms, particularly fatigue, fever, headache, mild stiff neck, arthralgia, or myalgia. These symptoms are typically intermittent. The diagnosis of EM must be made by a physician. Laboratory confirmation is recommended for persons with no known exposure.  
B. Late manifestations  
Late manifestations include any of the following when an alternate explanation is not found:  
Musculoskeletal system  
Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints, sometimes followed by chronic arthritis in one or a few joints. Manifestations not considered as criteria for diagnosis include chronic progressive arthritis not preceded by brief attacks and chronic symmetrical polyarthritis. Additionally, arthralgia, myalgia, or fibromyalgia syndromes alone are not criteria for musculoskeletal involvement.  
Nervous system  
Any of the following, alone or in combination: Lymphocytic meningitis; cranial neuritis, particularly facial palsy (may be bilateral); radiculoneuropathy; or, rarely, encephalomyelitis. Encephalomyelitis must be confirmed by showing antibody production against  
B. burgdorferi  
in CSF, demonstrated by a higher titer of antibody in CSF than in serum. Headache, fatigue, paresthesia, or mild stiff neck alone are not criteria for neurologic involvement.  
Cardiovascular system  
Acute onset, high-grade (2nd or 3rd degree) atrioventricular conduction defects that resolve in days to weeks and are sometimes associated with myocarditis. Palpitations, bradycardia, bundle branch block, or myocarditis alone are not criteria for cardiovascular involvement.  
Laboratory confirmation  
As noted above, laboratory confirmation of infection with  
B. burgdorferi  
is established when a laboratory isolates the spirochete from tissue or body fluid, detects diagnostic levels of IgM or IgG antibodies to the spirochete in serum or CSF, or detects a significant change in antibody levels in paired acute- and convalescent-phase serum samples. States may determine the criteria for laboratory confirmation and diagnostic levels of antibody. Syphilis and other known causes of biologic false-positive serologic test results should be excluded when laboratory confirmation has been based on serologic testing alone.  
The 1995 case definition appearing on this page was previously published in the 1990  
MMWR  
Recommendations and Reports titled  
Case Definitions for Public Health Surveillance  
.  
1  
Thus, the 1990 and 1995 versions of the case definition are identical.  
References  
CDC. (1990). Case Definitions for Public Health Surveillance.  
MMWR  
, 39(RR-13), 1-43.  
https://www.cdc.gov/mmwr/preview/mmwrhtml/00025629.htm  
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NNDSS receives and shares case data from state, local, and territorial health departments to help public health monitor, control, and prevent serious diseases.  
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