LYME DISEASE CASE WORKSHEET

INSTRUCTIONS: Enter responses in WEDSS or fax completed worksheet to the Bureau of Communicable Diseases at (608) 261-4976 or submit with Wisconsin Division of Public Health, Acute & Communicable Disease Case Report, F-44151.
*All information in red is essential for case classification.

DEMOGRAPHIC INFORMATION

Patient Name *(last, first, middle initial)*

Date of Birth	Sex ☐ Male ☐ Female ☐ Unknown	Telephone:

Street Address

City	Zip Code	County

Race ☐ White ☐ Black ☐ Native American/Native Alaskan ☐ Asian *(specify)*: _____
☐ Native Hawaiian/Other Pacific Islander ☐ Other: _____

Ethnicity ☐ Hispanic or Latino ☐ Not Hispanic or Latino

SIGNS AND SYMPTOMS HISTORY

Did a physician or other medical professional diagnose this patient with Lyme disease? ☐ Yes ☐ No

Onset date of first symptoms: _____ Date of Lyme disease diagnosis: _____

Confirmatory signs or symptoms/ Late manifestations

	Yes	No	Unk
EM rash (> 5 cm in diameter)	☐	☐	☐
Arthritis (objective episodes of joint swelling	☐	☐	☐
Bells palsy or other cranial neuritis	☐	☐	☐
Encephalomyelitis	☐	☐	☐
Lymphocytic meningitis	☐	☐	☐
Radiculoneuropathy	☐	☐	☐
2nd or 3rd degree atrioventricular block	☐	☐	☐

Non-Confirmatory signs and symptoms (check all that apply)

☐ Arthralgias	☐ Myocarditis
☐ Bundle branch block	☐ Neck pain
☐ Cognitive impairment	☐ Other rash
☐ Encephalopathy	☐ Palpitations
☐ Fatigue	☐ Paresthesias
☐ Fever/Sweats/Chills	☐ Peripheral neuropathy
☐ Headache	☐ Visual/auditory impairment
☐ Myalgias	☐ Symptom(s) not listed

CLINICAL/SUPPLEMENTAL INFORMATION

Name of agency reporting: _____ Was patient hospitalized for this illness? ☐ Yes ☐ No

Clinic/ Hospital name: _____ Date(s): _____

Physician/provider name: _____ Phone: _____

Clinic/ Hospital address: _____

Which medication(s) was the patient prescribed to treat the Lyme disease: *(check all that apply)*

☐ Doxycycline ☐ Ceftriaxone ☐ Penicillin ☐ Amoxicillin ☐ Cefuroxime axetil ☐ Azithromycin ☐ Other: _____

Combined duration of antibiotics prescribed? ☐ < 1 month ☐ 1-3 months ☐ >3 months ☐ None recorded

DIAGNOSTIC INFORMATION

EIA/IFA ☐ IgM ☐ IgG ☐ Total
Collection date: _____

If not serum specify specimen(s): _____

Lab: _____

☐ Positive ☐ Equivocal ☐ Negative ☐ Not Done

Other Tests (Check what applies)
☐ *B. burgdorferi* cultured
☐ Additional Assays (including PCR)
Specify: _____
Collection date: _____
If not serum specify specimen(s): _____

DIAGNOSTIC INFORMATION (continued)

Western Blot (WB) (Indicate positive WB bands, if known.)

Collection date: _____ If not serum specify specimen(s): _____

For IgM, 2 of 3 bands must be positive

IgM: ☐ **positive** ☐ **negative** ☐ **not done**

☐ 41kDa (FlaB) ☐ 39 kDa (BmpA) ☐ 21-25 kDa (OspC)

For IgG, 5 of 10 bands must be positive

IgG: ☐ **positive** ☐ **negative** ☐ **not done**

☐ 93 kDa ☐ 66 kDa ☐ 58 kDa ☐ 45 kDa ☐ 41 kDa
☐ 39 kDa ☐ 30 kDa ☐ 28 kDa ☐ 21-25 kDa (OspC) ☐18 kDa

EXPOSURE HISTORY – Outdoor activities

If EM is present, was patient exposed to wooded, brushy, or grassy areas (i.e., potential tick habitats) ≤30 days before onset of illness?

Since infected ticks are not uniformly distributed, it is important to verify whether exposure occurred in a high or low incidence state (please see page 3 for definition of a high incidence state).

☐ Yes ☐ No ☐ Unknown If yes, where: County(s) _____ State(s) _____

If the patient had EM, was there: ☐ A single EM or ☐ multiple EM rashes

FOR HEALTH DEPARTMENT USE ONLY		
Confirmed Case	Probable Case	Suspect Case
☐ EM rash in a Wisconsin resident or ☐ At least one confirmatory sign or symptom that has laboratory evidence of infection that meets criteria (see next page)	☐ Physician diagnosed Lyme disease with non-confirmatory signs and symptoms and Laboratory evidence of infection that meets criteria. (see next page)	☐ Any positive laboratory test with no clinical information available. (e.g. a laboratory report without a case report form)

Clear Entire Form / Reset Form

WISCONSIN LYME DISEASE SURVEILLANCE CASE DEFINITION (2017)

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), which occurs in 60%-80% of patients.

Surveillance case definition: This surveillance case definition was based on the revised national case definition effective January 1, 2017. It is developed for national reporting of Lyme disease and not intended to be used in clinical diagnosis.

CASE CLASSIFICATIONS:

Confirmed:
- A case of EM in a Wisconsin resident that has been diagnosed by a physician or medical professional and is ≥5cm in size, **OR**
- Any case with at least one confirmatory late manifestation and laboratory evidence of infection that meets criteria.

Probable:
- Any physician-diagnosed Lyme disease with laboratory evidence of infection, with only non-confirmatory signs and symptoms.

Suspect:
- Any positive laboratory test with no clinical information available (e.g., a laboratory report without a case report form).

Not a Case:
- Any case report that does not meet the confirmed, probable, or suspect categories.

DEFINITIONS AND CLARIFICATIONS:

Erythema migrans (EM). 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 single primary lesion must reach greater than or equal to 5 cm in size across its largest diameter. Secondary lesions also may 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, mildly 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.

Confirmatory late manifestations. Late signs and symptoms include any of the following when an alternate explanation is not found:

1. 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.

2. Nervous system. Any of the following signs that cannot be explained by any other etiology, alone or in combination: lymphocytic meningitis; cranial neuritis, particularly facial palsy (may be bilateral); radiculoneuropathy; or, rarely, encephalomyelitis. Encephalomyelitis bay be confirmed by demonstration of antibody production against *B. burgdorferi* in the cerebrospinal fluid (CSF), but CSF testing is no longer required, since persons with antibodies in CSF should also have sufficient antibodies in blood to yield positive serology. Headache, fatigue, paresthesia, or mildly stiff neck alone are not criteria for neurologic involvement.

3. Cardiovascular system. Acute onset of high-grade (2nd-degree 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.

Non-confirmatory. Other non-confirmatory signs and symptoms include:
Fever, sweats, chills, fatigue, neck pain, arthalgias, myalgias, fibromyalgia syndromes, cognitive impairment, headache, paresthesias, visual/auditory impairment, peripheral neuropathy, encephalopathy, palpitations, bradycardia, bundle branch block, myocarditis, or other rash.

Exposure. Exposure is defined as having been (less than or equal to 30 days before onset of EM) in wooded, brushy, or grassy areas (i.e., potential tick habitats) of Lyme disease vectors. Since infected ticks are not uniformly distributed, a detailed travel history to verify whether exposure occurred in a high or low incidence state is needed. A history of tick bite is not required.

High incidence state. A state with an average Lyme disease incidence of <10 confirmed cases/100,000 for the previous three reporting years. Wisconsin has been identified as a high-incidence state. As of 2017, other high-incidence states include: Connecticut, Delaware, Maine, Maryland, Massachusetts, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, and West Virginia,

Laboratory evidence. For the purpose of surveillance, the definition of a qualified laboratory assay is (1) a positive culture for B. burgdorferi, (2) two-tier testing* with IgM immunoblot seropositive result for specimens collected within 30 days of onset date, or (3) single-tier IgG immunoblot seropositive interpreted using established criteria. Additional assays may be added based on periodic review of the scientific literature and strong evidence of comparable or better performance than qualifying assays.
* Two-tier testing includes an initial screen by enzyme immunosassay (EIA) or indirect immunofluorescence assay (IFA), followed by a Western immunoblot on any equivocal or positive EIA or IFA results.