

## Scenario 1

Physician-diagnosed EM<sup>1</sup> at least 5 cm in diameter

**AND**

(+) or equivocal EIA or IFA<sup>2</sup> - AND - (+) IgM WB<sup>3</sup> ≤30 days from onset date  
**OR**  
 (+) IgG WB  
**OR**  
 (+) *Borrelia burgdorferi* culture  
**OR**  
 CSF antibody positive for *B. burgdorferi* by EIA or IFA when the titer is higher than it was in serum

**OR**

(+) "Exposure"<sup>4</sup>



## Scenario 2

1 or more "late manifestations" of Lyme disease:

Musculoskeletal:  
 recurrent, brief attacks of joint swelling, followed by chronic arthritis

Nervous system:  
 meningitis, cranial neuritis, facial palsy, radiculoneuritis.

Cardiovascular:  
 2<sup>nd</sup> - 3<sup>rd</sup> grade atrioventricular conduction defects that resolve in days to weeks

**AND**

(+) EIA or equivocal IFA AND (+) IgM WB ≤30 days from onset date  
**OR**  
 (+) IgG WB  
**OR**  
 (+) *Borrelia burgdorferi* culture  
**OR**  
 CSF antibody positive for *B. burgdorferi* by EIA or IFA when the titer is higher than it was in serum



## Scenario 3

"Physician-diagnosed" Lyme disease lacking clinical criteria of a confirmed case

**AND**

(+) or equivocal EIA or IFA<sup>2</sup> - AND - (+) IgM WB<sup>3</sup> ≤30 days from onset date  
**OR**  
 (+) IgG WB  
**OR**  
 (+) *Borrelia burgdorferi* culture  
**OR**  
 CSF antibody positive for *B. burgdorferi* by EIA or IFA when the titer is higher than it was in serum



## Scenario 4

Physician-diagnosed EM<sup>1</sup> at least 5 cm in diameter

**AND**

NO "Exposure"<sup>4</sup>

**AND**

NO lab evidence



## Scenario 5

(+) or equivocal EIA or IFA<sup>2</sup> AND (+) IgM WB<sup>3</sup> ≤30 days from onset date  
**OR**  
 (+) IgG WB  
**OR**  
 (+) *Borrelia burgdorferi* culture  
**OR**  
 CSF antibody positive for *B. burgdorferi* by EIA or IFA when the titer is higher than it was in serum

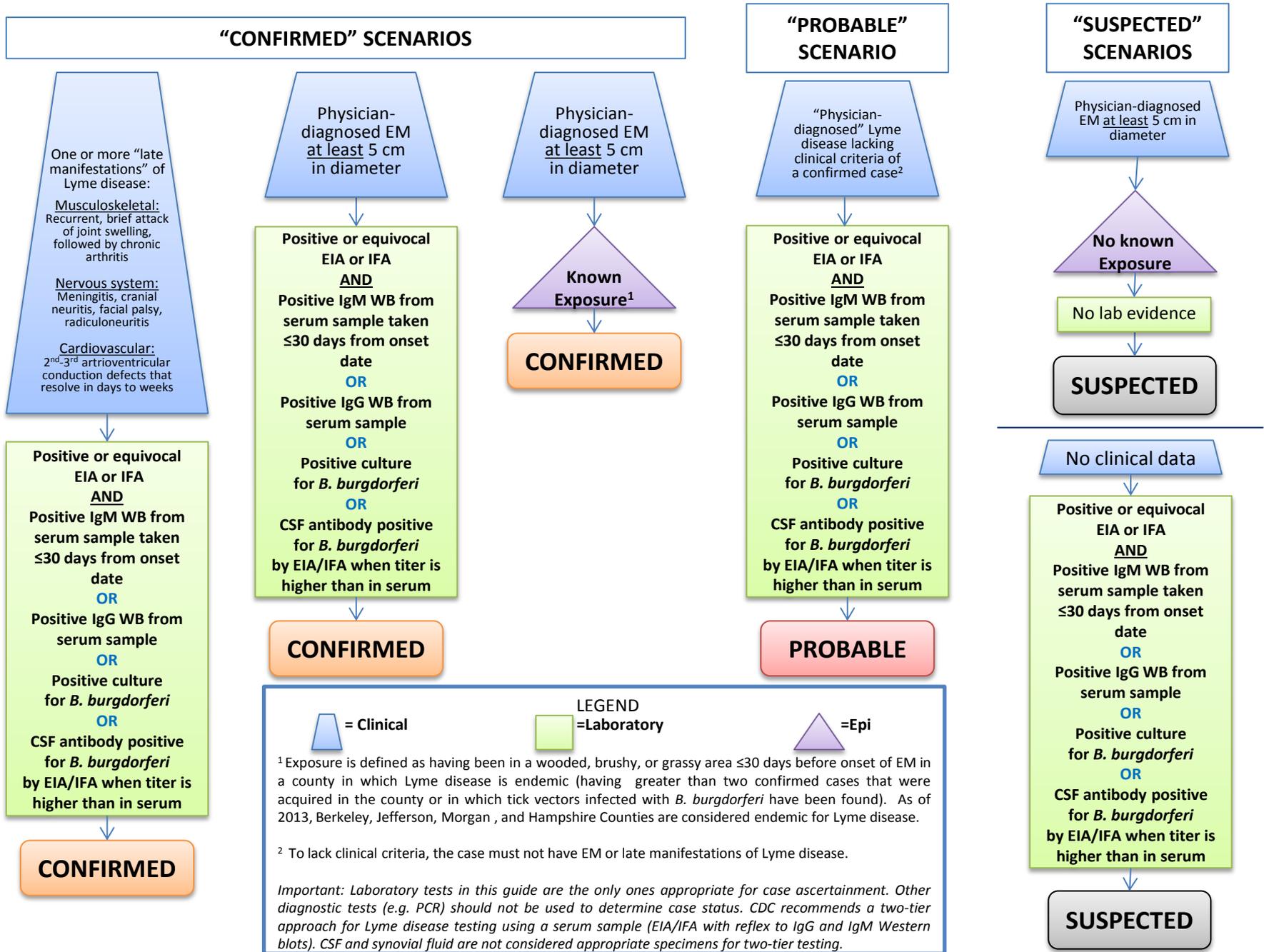
**AND**

NO clinical data

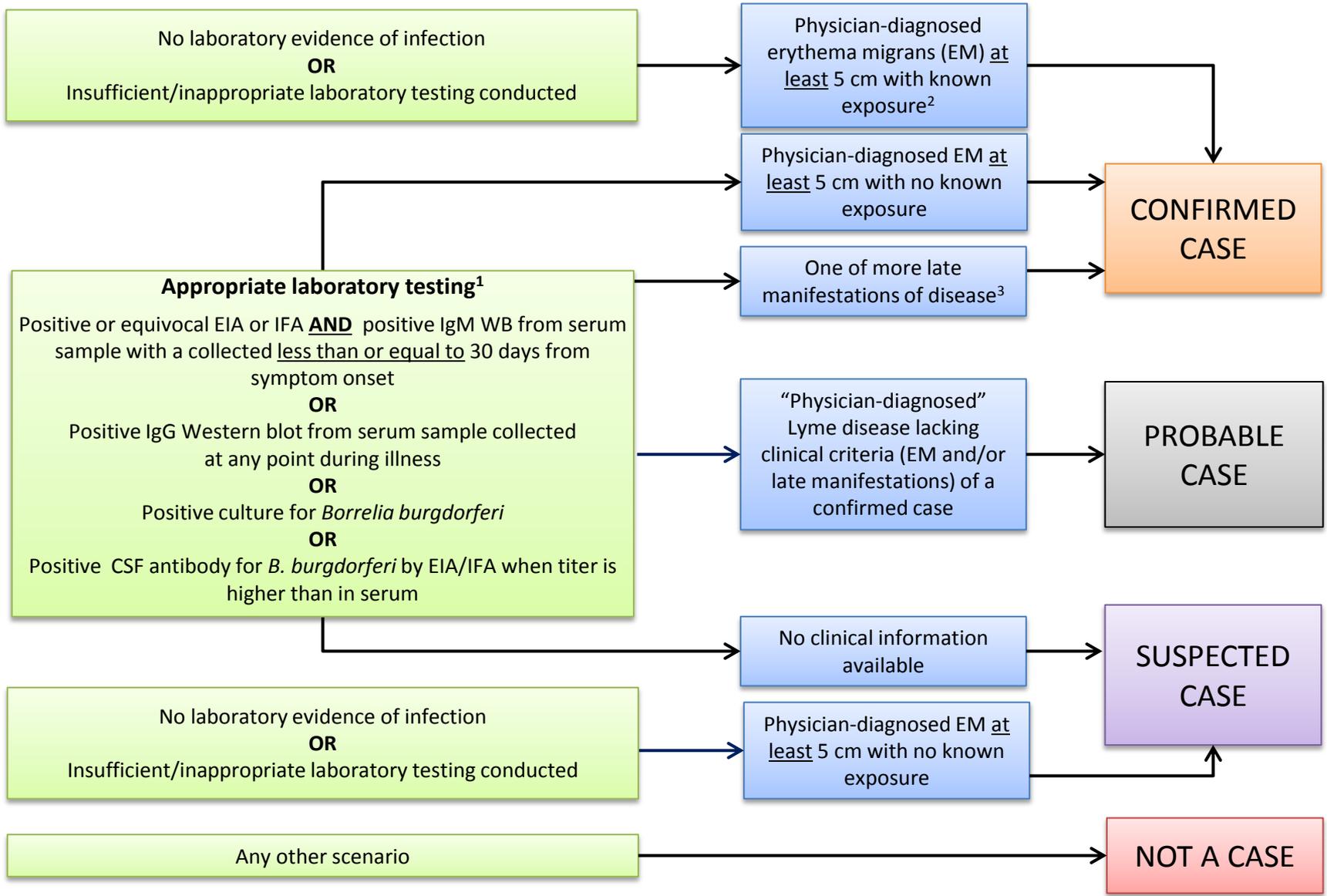


<sup>1</sup>EM: Erythema migrans  
<sup>2</sup>EIA or IFA: Enzyme immunoassay, or indirect fluorescent assay  
<sup>3</sup>WB: Western blot  
<sup>4</sup>Exposure: CDC defines exposure as "having been (≤30 days before onset of EM) in wooded, brushy, or grassy areas...in a county in which Lyme disease is endemic. A history of tick bite is not required." Additionally, CDC defines endemicity as "A county in which...at least 2 confirmed cases have been acquired in the county or in which established populations of a known tick vector are infected with *B. burgdorferi*." Endemic counties in West Virginia are currently defined as: **Berkeley, Hampshire, Jefferson, and Morgan Counties.**

# Lyme Disease Case Ascertainment Guide B (2013 Version)



# Lyme Disease Case Ascertainment Guide C (2013 Version)



<sup>1</sup>Laboratory tests in this guide are the only ones appropriate for case ascertainment. Other diagnostic tests (e.g. PCR) should not be used to determine case status. CDC recommends a two-tier approach for Lyme disease testing using serum (EIA/IFA with reflex to Western blot). CSF and synovial fluid are not considered appropriate specimens for two-tier testing.

<sup>2</sup>Exposure is defined as having been in a wooded, brushy, or grassy area less than 30 days before onset of EM in a county where Lyme disease is endemic (having greater than 2 confirmed cases that were acquired in the county or in which tick vectors infected with *B. burgdorferi* have been found). As of 2013, Berkeley, Hampshire, Jefferson, and Morgan Counties are considered endemic for Lyme disease.

<sup>3</sup>Late manifestations include musculoskeletal (recurrent, brief attacks of joint swelling followed by chronic arthritis), nervous system (meningitis, cranial neuritis, facial palsy, and radiculoneuritis), and cardiovascular (2<sup>nd</sup>-3<sup>rd</sup> atrioventricular conduction defects that resolve in days to weeks) signs of disease.