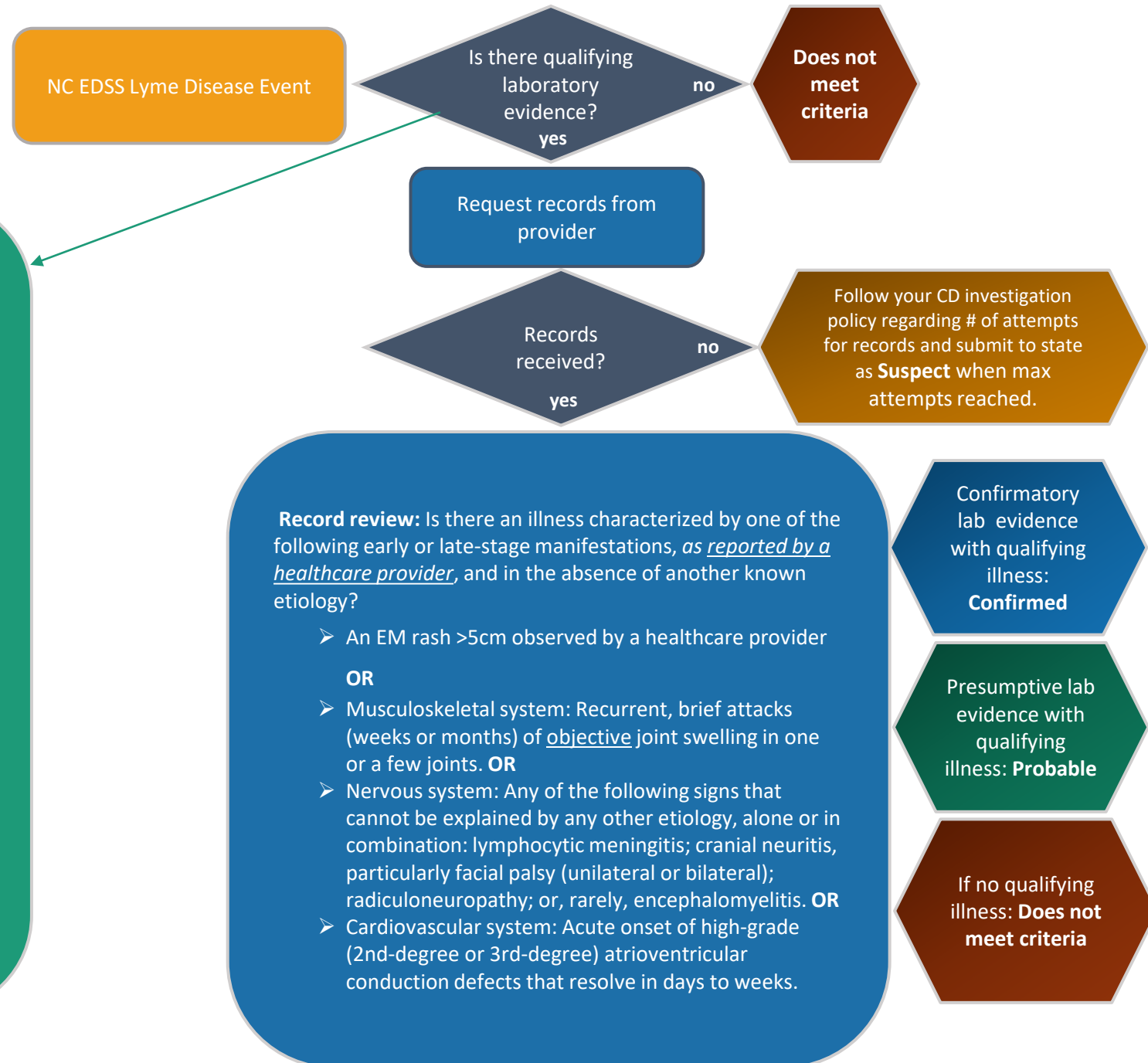


# North Carolina Lyme Disease Surveillance Case Classification Algorithm

Refer to NC CD Manual [Lyme Disease Case Definition](#) for detailed information



### Qualifying Laboratory Evidence

**Confirmatory**

- **Standard Two-Tier test (STTT)** (see page 2)
  - Positive or equivocal serologic EIA and IgM immunoblot (western blot) *within 30 days* of illness onset **OR**
  - Positive or equivocal serologic EIA and IgG immunoblot (western blot)

**OR**

- **Modified Two-Tier Test (MTTT)** (see page 3)
  - Positive or equivocal serologic EIA and 2<sup>nd</sup> tier IgM EIA *within 30 days* of illness onset **OR**
  - Positive or equivocal serologic EIA and 2<sup>nd</sup> tier IgG EIA or combined IgM/IgG EIA

**OR**

- Isolation of *B. burgdorferi* or *B. mayonii* in culture **OR**
- Detection of *B. burgdorferi* or *B. mayonii* in a clinical specimen by a *B. burgdorferi* group-specific NAAT assay **OR**
- Detection of *B. burgdorferi* group-specific antigens by immunohistochemical assay on biopsy or autopsy tissues

**Presumptive**

- Positive serologic IgG immunoblot (western blot) without EIA

**Record review:** Is there an illness characterized by one of the following early or late-stage manifestations, *as reported by a healthcare provider*, and in the absence of another known etiology?

- An EM rash >5cm observed by a healthcare provider

**OR**

- Musculoskeletal system: Recurrent, brief attacks (weeks or months) of objective joint swelling in one or a few joints. **OR**
- 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 (unilateral or bilateral); radiculoneuropathy; or, rarely, encephalomyelitis. **OR**
- Cardiovascular system: Acute onset of high-grade (2<sup>nd</sup>-degree or 3<sup>rd</sup>-degree) atrioventricular conduction defects that resolve in days to weeks.

# Lyme Standard Two-Tier Test (STTT) Interpretation Guide

1st tier test

Total or Separate IgM/IgG Immunoassay

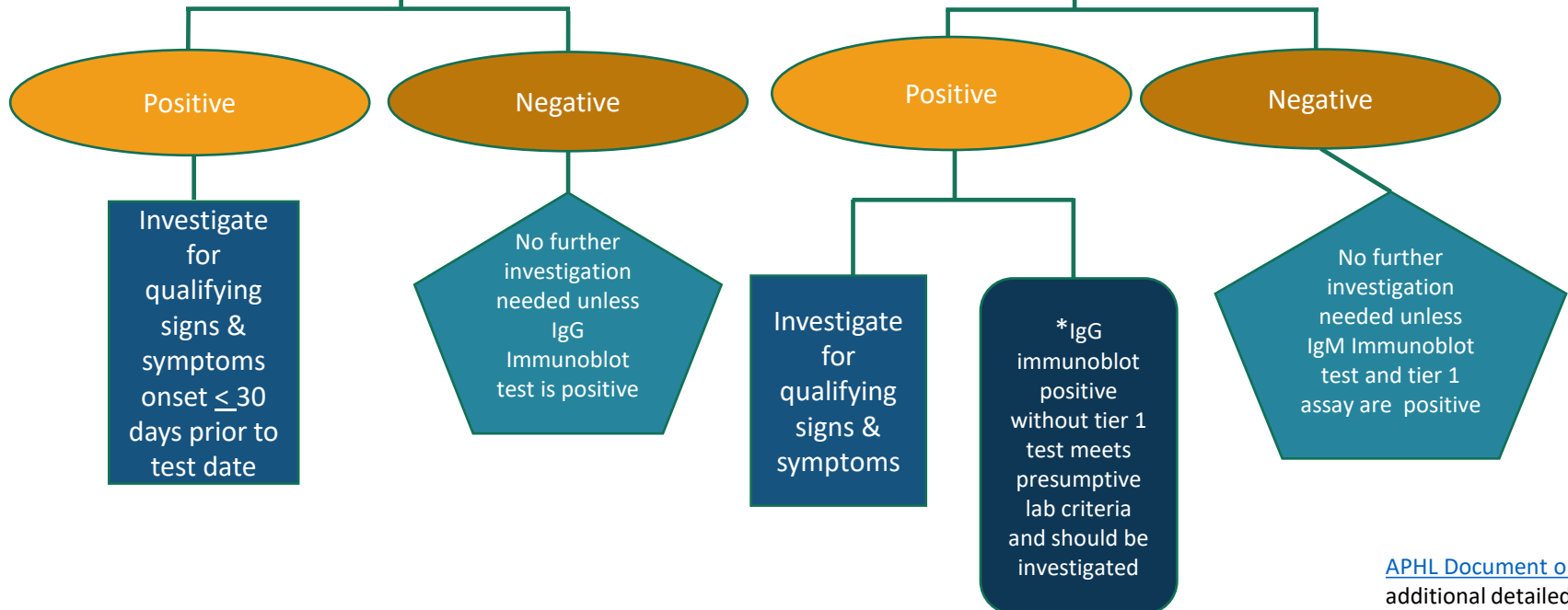


2nd tier test

IgM Immunoblot

IgG Immunoblot

Additional testing not indicated



# Lyme Modified Two-Tier Test (MTTT) Interpretation Guide

## 1st tier test

Total or Separate IgM/IgG Immunoassay(s)



## 2nd tier test

2<sup>nd</sup> Tier IgM Immunoassay

2<sup>nd</sup> Tier IgG Immunoassay or  
2<sup>nd</sup> tier IgM/IgG Total Immunoassay

Additional testing not indicated

