



LETTERS

LYME DISEASE: TIME TO SHIFT THE PARADIGM

Approach to diagnosing Lyme disease misses a large proportion of cases

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Many physicians who care for patients with Lyme disease and who have followed the decades long debate on appropriate diagnosis and treatment agree that a new approach is needed.¹

Numerous scientific papers have shown that the two tiered testing strategy for diagnosing *Borrelia burgdorferi* misses a large proportion of cases.² This approach cannot diagnose new species of borrelia, including *B miyamotoi* and *B burgdorferi sensu lato*, which are also known to cause chronic illness.^{3 4}

Persistence of borrelia has also been recently reported by Johns Hopkins researchers, and mechanisms of persistence have included immune evasion and formation of biofilms. The Centers for Disease Control and Prevention recently reported a 320% increase in the number of Lyme cases over the past two decades,⁵ so without a fundamental shift in the medical paradigm that we use to diagnose and treat Lyme disease the number of people chronically disabled from this illness will greatly increase.

Competing interests: None declared.

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- 4 Rudenko N, Golovchenko M, Vancova M, et al. Isolation of live *Borrelia burgdorferi sensu lato* spirochetes from patients with undefined disorders and symptoms not typical for Lyme borreliosis. *Clin Microbiol Infect* 2015; published online 7 Dec.
- 5 Kugeler KJ, Farley GM, Forrester JD, et al. Geographic distribution and expansion of human Lyme disease, United States. *Emerg Infect Dis* 2015;21:1455-7. http://wwwnc.cdc.gov/eid/article/21/8/14-1878_article.

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