



Maladie de Lyme: best of 2016

Lesens O

CHU Clermont-Ferrand



Déclaration d'intérêts de 2013 à 2016

- **Intérêts financiers : aucun pour cette présentation**
- **Liens durables ou permanents : aucun pour cette présentation**
- **Interventions ponctuelles : aucune pour cette présentation**
- **Intérêts indirects : aucun pour cette présentation**

Detection of Lyme disease and anaplasmosis pathogens via PCR in Pennsylvania deer ked

Journal of Vector Ecology 41 (2): 292-294, 2016.

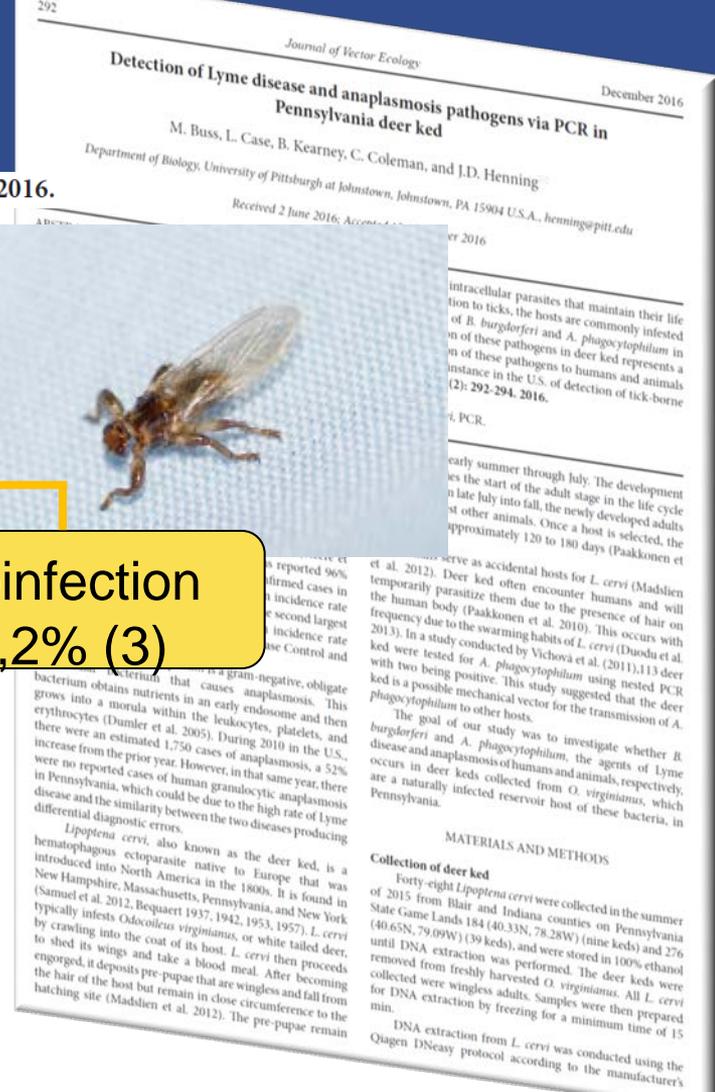
88 mouches du cerf: *Lipoptena cervi*

B burgdorferi
39,6% (19)

A Phagocytophilum
29,1% (14)

Coinfection
6,2% (3)

Rôle dans la transmission à d'autres animaux? À l'homme?



Identif
Lyme
descri

A



Borrelia species causing spirochaetaemia: a

2016 May ; 16(5): 556–564.

borrelii

published in final edited form as
Lancet Infect Dis. 2016 May ; 16(5): 556–564. doi:10.1016/S1473-3099(15)00464-8.

Identification of a novel pathogenic *Borrelia* species causing Lyme borreliosis with unusually high spirochaetaemia: a descriptive study

Bobbi S Pritt, Paul S Mead, Diep K Hoang, ...
Kingry, Jeffrey P Davitt, ...

- Détection de spirochètes mobiles: 1/6
- Culture sang: 2/6

Summary

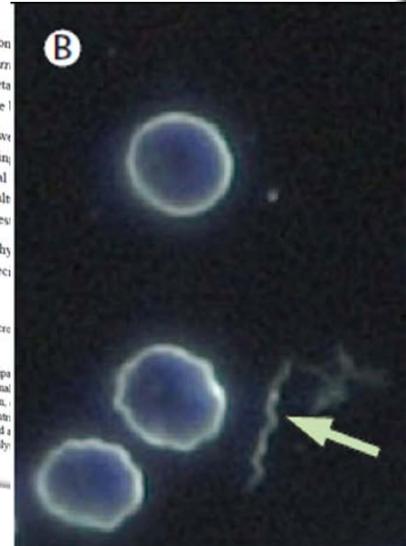
Background—Lyme borreliosis is the most common infectious disease in the Northern Hemisphere. It is a multisystem disease caused by *Borrelia burgdorferi*, a spirochete bacterium. We identified a novel *Borrelia* species causing Lyme borreliosis in the United States.

Methods—At the Mayo Clinic, from 2003 to 2014, we identified positive specimens with PCR targeting the *ospA* gene (outside the expected range) by sequencing, microscopy, or culture from regions of suspected patient tick exposure and testing.

Findings—100 545 specimens were submitted by physicians to Sept 30, 2014. From these samples, six clinical specimens were identified as novel *Borrelia* species.

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Contributors
BSP and JMP did the literature search, created tables and figures, participated in data collection, analysis and interpretation, and edited and approved the final manuscript. DKH, JPD, DFN, and ES contributed to data collection, analysis and interpretation, and edited and approved the final manuscript. TKM, MAF, EST, RP, LCK, and CLI participated in data collection, analysis and interpretation, and edited and approved the final manuscript.



Borrelial Lymphocytoma in Adult Patients

Vera Maraspin,¹ Mirijam Nahtigal Klevišar,¹ Eva Ružič-Sabljić,² Lara Lusa,³ and Franc Strle¹

- 144 patients (86-2014, 1 centre)



73,6%



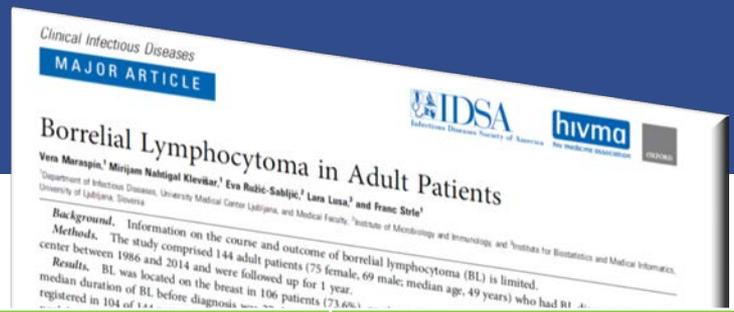
18,8%

Durée traitement: 14j



Echec: 9,7%

FdR: signes systémiques
OR=4 [1,22-13]



Durée médiane incubation /pique de tique	21j (10-30)
Durée moyenne diagnostic	27j
Signes systémiques	48,6%
ECM concomitant	72,2%
Autres signes cliniques	7,6% (neuro++)
IgG ou IgM	50%
Borrelia dans lésion (n=44)	31,8% (11 afzelii, 1garinii, 1 bissettii)
Borrelia isolée du sang	3,7%

Inclusion

Douleur radiculaire + méningite lymphocytaire 2005-13 N=77

Suivi

J0

PL, synthèse intrathécale d'Ig
Cultures (sang, PL, peau)

ceftriaxone 2 sem
(± 1) (evt: doxy)

J14

M3

PL

M6

M12

Outcome

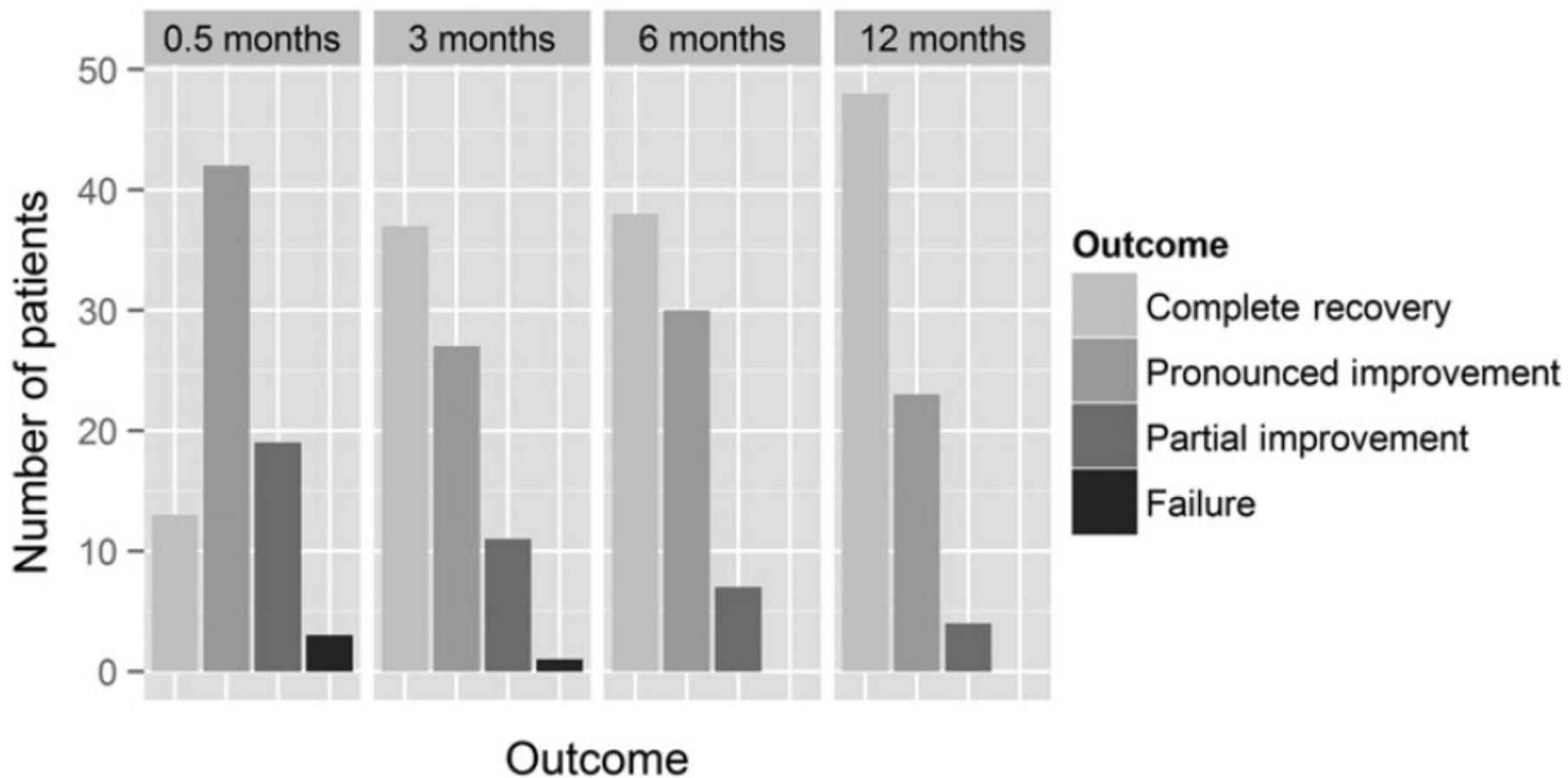
Guérison complète

amélioration
marquée

amélioration
partielle

Echec

Evolution à long terme défavorable



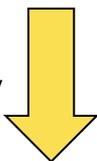
Syndrome post-lyme

CID 2015:61 (15 December) • Weitzner et al

128 patients

Culture + peau ou sang, traités

SF36-V2
Fatigue severity scale 11



Suivi médian: 15 ans

14 (10,9%) ont un possible SPL

9: 1 seul symptôme le + svt mémoire/concentration puis fatigue

8: persistance d'au moins 1 symptôme >10 ans

MAJOR ARTICLE

Long-term Assessment of Post-Treatment Symptoms in Patients With Culture-Confirmed Early Lyme Disease

Erica Weitzner,¹ Donna McKenna,¹ John Nowakowski,¹ Carol ...
Robert B. Nadelman,¹ Paul Veitstaine,¹ ...
¹Division of Infectious Diseases, ...

- Diagnostic de fibromyalgie: 1% (n=100)
- FdR: ECM multiples, + de symptômes à baseline
- Pas d'association à un génotype particulier
- Autres causes pouvant expliquer fatigue
- Pas de retentissement fonctionnel à la dernière visite

Syndrome post-lyme

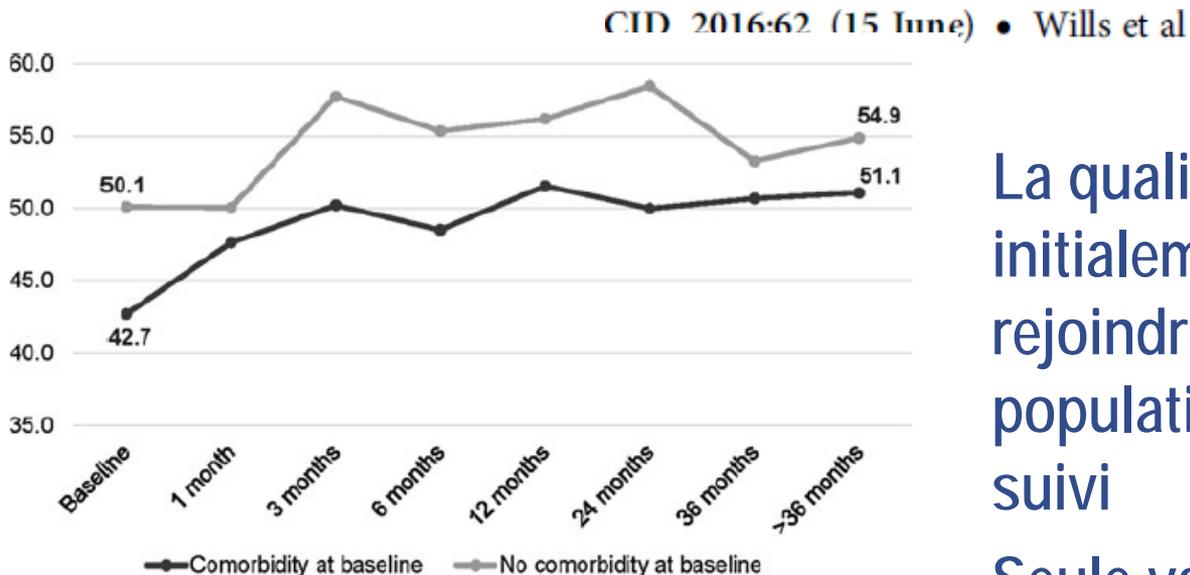


Figure 3. Change in mean physical component summary in a cohort of Lyme disease patients by follow-up time period and comorbidity at baseline (n = 60*). *Sample sizes: comorbidity/no comorbidity—baseline (33/23), 1 month (9/7), 3 months (11/9), 6 months (18/12), 12 months (26/14), 24 months (19/16), 36 months (19/10), >36 months (11/13).

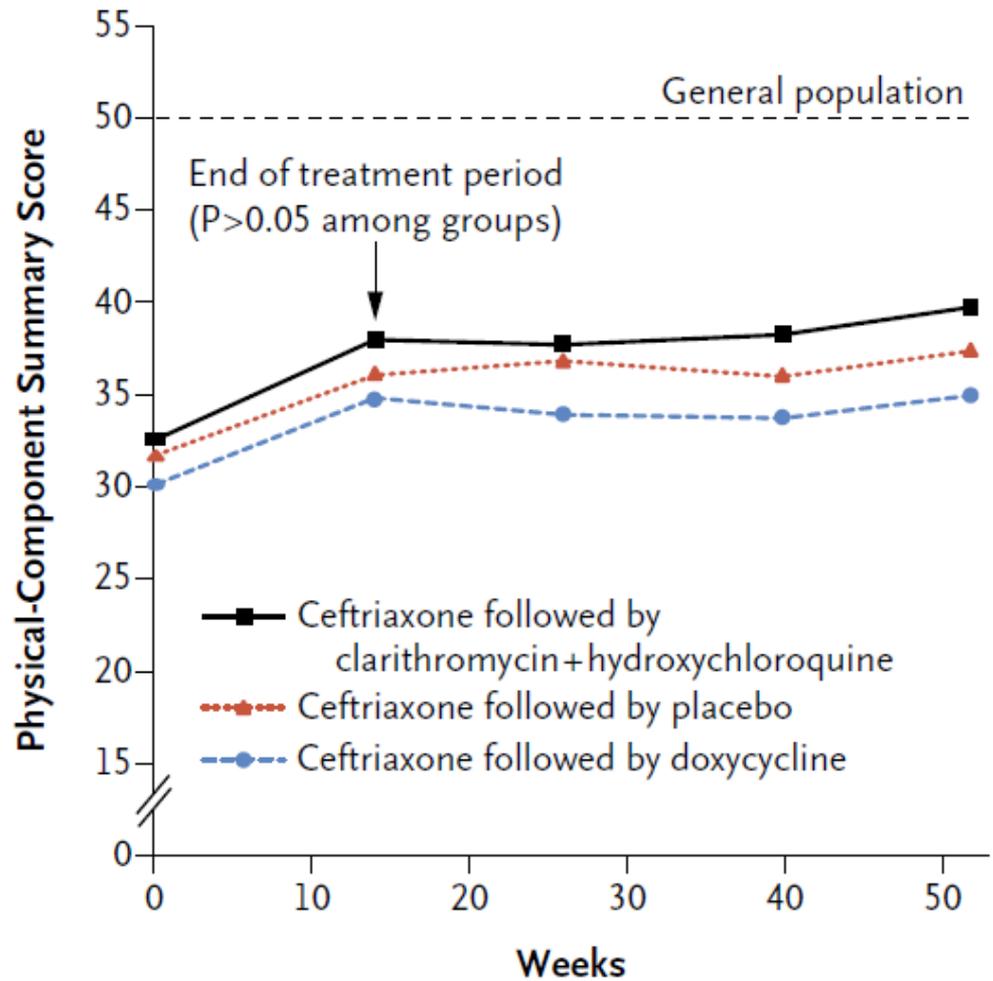
La qualité de vie , basse initialement augmente pour rejoindre ou dépasser celle de la population générale au cours du suivi

Seule variable associée à symptômes persistants ou faible qualité de vie lors du suivi: comorbidités



Résultats

- Faible qualité de vie
- Augmentation significative du score quelque soit le groupe
- Aucune différence entre les groupes



Serious Bacterial Infections Acquired During Treatment of Patients Given a Diagnosis of Chronic Lyme Disease — United States

Natalie S. Marzec, MD¹; Christina Nelson, MD²; Paul Ravi Waldron, MD³; Brian G. Blackburn, MD⁴; Syed Hosain, MD⁵; Tara Greenhow, MD⁶; Gary M. Green, MD⁶; Catherine Lomen-Hoerth, MD, PhD⁷; Marjorie Golden, MD⁸; Paul S. Mead, MD²

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Diagnostic et traitements alternatifs de la maladie de Lyme

AB IV, Ig IV

5 patients avec des complications graves liées à des complications sur Piccline ou CD

Choc septique, décès, métastases septiques

Serious Bacterial Infections Acquired During Treatment of Patients Given a Diagnosis of Chronic Lyme Disease — United States

Natalie S. Marzec, MD¹; Christina Nelson, MD²; Paul Ravi Waldron, MD³; Brian G. Blackburn, MD⁴; Syed Hosain, MD⁵; Tara Greenhow, MD⁶; Gary M. Green, MD⁶; Catherine Lomen-Hoerth, MD, PhD⁷; Marjorie Golden, MD⁸; Paul S. Mead, MD²

The term "chronic Lyme disease" is used by some health care providers as a diagnosis for various constitutional, musculoskeletal, and neuropsychiatric symptoms (1,2). Patients with a diagnosis of chronic Lyme disease have been provided a wide range of medications as treatment, including long courses of intravenous (IV) antibiotics (3,4). Studies have not shown that such treatments lead to substantial long-term improvement for patients, and they can be harmful (1,5). This report describes cases of septic shock, osteomyelitis, *Clostridium difficile* colitis, and paraspinal abscess resulting from treatments for chronic Lyme disease. Patients, clinicians, and public health practitioners should be aware that treatments for chronic Lyme disease can carry serious risks.

Lyme disease is a well-known condition caused by infection with the spirochete *Borrelia burgdorferi* sensu lato. Features of early infection include erythema migrans (an erythematous skin lesion with a bull's-eye or homogeneous appearance), fever, headache, and fatigue. If left untreated, the spirochete can disseminate throughout the body to cause meningitis, carditis, neuropathy, or arthritis (5,6). The recommended treatment for Lyme disease is generally a 2–4-week course of antibiotics (5).

Chronic Lyme disease, on the other hand, is a diagnosis that some health care providers use to describe patients with a variety of conditions such as fatigue, generalized pain, and neurologic disorders. Many of these patients have experienced significant debilitation from their symptoms and have not found relief after consultation with conventional medical practitioners. As a result, some seek treatment from practitioners who might identify themselves as Lyme disease specialists ("Lyme literate" doctors) or from complementary and alternative medicine clinics, where they receive a diagnosis of chronic Lyme disease (3,7).

A diagnosis of chronic Lyme disease might be based solely on clinical judgment and without laboratory evidence of *B. burgdorferi* infection, objective signs of infection, or a history of possible tick exposure in an area with endemic Lyme disease (1,7). There is a belief among persons who support the diagnosis and treatment of chronic Lyme disease that *B. burgdorferi* can cause disabling symptoms even when standard testing is negative, despite evidence that the recommended two-tiered serologic testing is actually more sensitive than the longer *B. burgdorferi* testing has been present (6). Some practitioners use tests or testing criteria that have not been

validated for the diagnosis of Lyme disease (1). A significant concern is that after the diagnosis of chronic Lyme disease is made, the actual cause of a patient's symptoms might remain undiagnosed and untreated (3,8).

Patients given a diagnosis of chronic Lyme disease have been prescribed various treatments for which there is often no evidence of effectiveness, including extended courses of antibiotics (lasting months to years), IV infusions of hydrogen peroxide, immunoglobulin therapy, hyperbaric oxygen therapy, electro-silver, and stem cell transplants (1,3). At least five randomized, placebo-controlled studies have shown that prolonged courses of IV antibiotics in particular do not substantially improve long-term outcome for patients with a diagnosis of chronic Lyme disease and can result in serious harm, including death (1,5,9).*

Clinicians and state health departments periodically contact CDC concerning patients who have acquired serious bacterial infections during treatments for chronic Lyme disease. Five illustrative cases described to CDC over the past several years

Patient A

A woman in her late 30s with fatigue and joint pain received a diagnosis of chronic Lyme disease, babesiosis, and *Bartonella* infection by a local physician. Despite multiple courses of oral antibiotics, her symptoms worsened, and a peripherally inserted central catheter (PICC) was placed for initiation of IV antibiotic treatment. After 3 weeks of treatment with IV ceftriaxone and cefotaxime, the patient's joint pain continued and she developed fever and rash. She became hypotensive where she was treated with broad spectrum IV antibiotics and required mechanical ventilation and vasopressors. Despite maximal medical support, she continued to worsen and eventually died. The patient's death was attributed to septic shock related to central venous catheter-associated bacteremia.

Patient B

An adolescent girl sought medical advice regarding years of muscle and joint pain, backaches, headaches, and lethargy. She had received a diagnosis of chronic fatigue syndrome.

*<https://www.cdc.gov/lyme/treatment/prolonged/index.html>

Lyme disease or a lemon?

[Intern Med J.](#) 2016 Dec;46(12):1370-1375

A 15-year-old girl with years of chronic fatigue symptoms was seen by a general practitioner who professes to specialise in Lyme disease, which he diagnosed in the girl on the basis of serology performed at an unaccredited laboratory. The parents took her to a private clinic in Germany where she was treated with 2 weeks of induced whole-body hyperthermia ($\geq 42^{\circ}\text{C}$) and intravenous antibiotics. She returned to Sydney extremely unwell and required urgent hospital admission with severe dehydration due to *Clostridium difficile* gastroenteritis, almost certainly acquired at the clinic.¹



- Merci de votre attention

