

Dr. Elizabeth Maloney Responds to NEW guidelines for EM Rash



Elizabeth
Maloney, MD

In a letter to the Editor of the *American Journal of Medicine*, Elizabeth Maloney, MD responds to the new guidelines for erythema migrans (EM) rash.

She writes:

“If the primary treatment goal for managing patients with erythema migrans (EM) rashes is to restore patients to their pre-Lyme health status, then the guidelines endorsed by Auwaerter et al. are both inadequately sourced and potentially dangerous. Of the 2 trials cited by the authors in support of a 10-day doxycycline regimen, only 1 is applicable to US patients. In that study, almost half of the subjects in each arm failed to complete the 30-month trial. At the 12-month observation point, 72% (44 out of 61) had a complete response to therapy, suggesting that this regimen is not highly effective and puts many at risk for post-treatment sequelae that adversely impact quality of life. The other study was conducted in Europe. Due to differences between the US and European Lyme-inducing *Borrelia* species, its findings are not generalizable to US patients and should not be used to guide treatment decisions in the United States.

Missing from the guidelines and the authors' discussion regarding the utility of 10 days of doxycycline is the prospective study by Massarotti et al, where the clinical failure rate was 36% (8 out of 22). With regard to amoxicillin and cefuroxime, there is no US trial data to support the recommended 14-day duration; clinicians should be told that the US trials investigating these agents as monotherapy used 20-day regimens. Additionally, several US EM investigators observed that patients with multiple EM lesions were at higher risk of long-term treatment failure, yet the guidelines the authors promote fail to acknowledge or act on those insights.

It is challenging to provide evidence-based medical care when there is little or no high-quality evidence to rely on. It is harder still when influential authors promote inadequate guidelines without meaningfully disclosing their shortcomings. Clinicians and their patients deserve better."

Dr. Maloney provides the following references in support of her letter:

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2. Maloney EL. Evidence-based, patient-centered treatment of erythema migrans in the United States. *Antibiotics (Basel)*. 2021; 10: 754<https://doi.org/10.3390/antibiotics10070754>
3. Wormser GP, Ramanathan R, Nowakowski J, et al. Duration of antibiotic therapy for early Lyme disease. A randomized, double-blind, placebo-controlled trial. *Ann Intern Med*. 2003; 138: 697-704
4. Rebman AW, Bechtold KT, Yang T, et al. The clinical, symptom, and quality-of-life characterization of a well-defined group of patients with posttreatment Lyme

disease syndrome. *Front Med (Lausanne)*. 2017; 4: 224 <https://doi.org/10.3389/fmed.2017.00224>

5. Stupica D, Lusa L, Ruzic-Sabljić E, et al. Treatment of erythema migrans with doxycycline for 10 days versus 15 days. *Clin Infect Dis*. 2012; 55: 343-350
6. Makhani N, Morris SK, Page AV et al. A twist on Lyme: the challenge of diagnosing European Lyme neuroborreliosis. *J Clin Microbiol*. 2011; 49: 455-457
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8. Massarotti EM, Luger SW, Rahn DW et al. Treatment of early Lyme disease. *Am J Med*. 1992; 92: 396-403

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