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COMMENT LETTER

Nomenclature for Human Infections Caused by Relapsing Fever *Borrelia*

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To the Editor: Vazquez et al. report a convincing case of relapsing fever caused by *Borrelia lonestari* bacteria (1). This discovery highlights an existing problem with the nomenclature for relapsing fever.

Tick-borne relapsing fever (TBRF) is the name given to illness caused by several genospecies of relapsing fever *Borrelia* bacteria, all of which are transmitted by argasid (soft) ticks (2). The limitations of this term became apparent after discovery of *B. miyamotoi*, a related genospecies that is transmitted by ixodid (hard) ticks and causes illness that differs epidemiologically from traditional TBRF (3). Consequently, 3 terms are used in the scientific literature to describe *B. miyamotoi* infections: *Borrelia miyamotoi* disease, hard tick-borne relapsing fever, and hard tick relapsing fever (3,4). In the interest of standard nomenclature, it is worth considering objectively the relative merits of each term.

The term *Borrelia miyamotoi* disease (BMD) is problematic because it is species specific and cannot accommodate the discovery of related pathogens transmitted by ixodid ticks, including potentially *B. lonestari* (1,3). Disease names are most serviceable as

umbrella terms that exist above the species level (e.g., Lyme disease, shigellosis).

The term hard tick-borne relapsing fever has a different problem, a grammatical one. The word hard rightly modifies tick, not tick-borne, which is a mode of transmission. This problem is solved by shortening to hard tick relapsing fever. The suffix “-borne” is not essential for clarity, as demonstrated by other established names (e.g., sand fly fever, Colorado tick fever) (2).

In the absence of a formal nomenclature decision by the World Health Organization, the following terms are consistent with precedent, epidemiologically useful, linguistically sensible replacements for TBRF: hard tick relapsing fever (HTRF) for illness caused by relapsing fever-clade *Borrelia* transmitted by ixodid ticks, and its congener, soft tick relapsing fever (STRF), for related agents transmitted by argasid ticks.

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Correction

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The Figure had an incorrect x-axis scale in Laboratory Features of Trichinellosis and Eosinophilia Threshold for Testing, Nunavik, Quebec, Canada, 2009–2019 (L.B. Harrison et al.). The article has been corrected online (https://wwwnc.cdc.gov/eid/article/28/12/22-1144_article).