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P-1573. Healthcare Costs Associated With Lyme Disease Among Medicare Fee-for-Service Beneficiaries in the United States: A Retrospective Claims-Based Study

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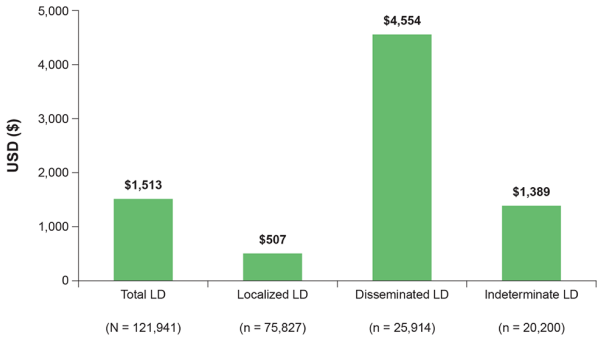
Background. Lyme disease (LD) is the most common tick-borne illness in the United States (US). Incidence peaks in older adults, yet LD-associated healthcare costs are understudied in this population. This retrospective, observational study assessed LD-associated healthcare costs among US Medicare Fee-for-Service (FFS) beneficiaries aged ≥ 65 years.

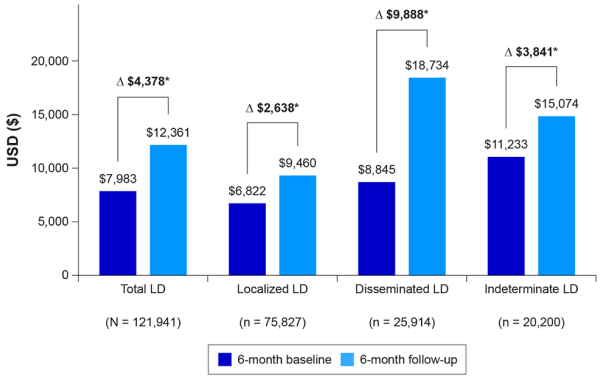
Figure 1. Mean LD-specific total (medical) costs during individual episodes



LD = Lyme disease; USD = United States Dollar.

Note: LD episodes are defined as the index date through date of last medical claim with an LD diagnosis code in the study period without LD-related claims in the subsequent 12 months or through the end of follow-up, whichever occurred first.

Figure 2. Mean total all-cause (medical and pharmacy) costs at 6-month follow-up versus 6-month baseline



* P<0.001.

LD = Lyme disease; USD = United States Dollar.

Notes: The 6-month follow-up period includes 30 days prior to index date through 5 months post index date; the 6-month baseline period includes 7 months prior to index date - 30 days prior to index date.

Δ = Difference in cost between 6-month baseline and 6-month follow-up, based on non-rounded values.

Methods. Eligible LD cases were identified in Medicare FFS claims data (Medicare Parts A, B, and D) from Jan 2016–Jul 2023, had continuous eligibility for the assessment period, and had ≥ 1 outpatient or inpatient LD claim. Outpatient claims had an LD diagnosis code (A69.xx) with qualifying antibiotic treatment within 30 days. Inpatient claims had a primary LD diagnosis code or a secondary LD diagnosis code with a primary LD-linked condition. Cases were classified into subgroups (localized, disseminated, indeterminate) based on LD-associated diagnosis codes, outpatient and inpatient services, and antibiotics. Outcomes included LD-specific (medical) costs during individual LD episodes and all-cause (medical and pharmacy) costs at 6-month follow-up versus 6-month baseline. Comparisons used a paired *t* test for continuous measures, with significance noted at $P < 0.001$.

Results. Among 121,941 identified LD cases, 53.0% were female, 93.4% were White, and the mean (standard deviation) age was 74.0 (6.0) years. Of these, 62.2% had localized LD, 21.3% had disseminated LD, and 16.6% had indeterminate LD. Mean LD-specific total (medical) costs were $1,513 overall and were highest for disseminated cases ($4,554) (Figure 1). Mean all-cause total costs at 6-month follow-up versus 6-month baseline were significantly higher for LD cases overall (Δ$4,378), localized LD cases (Δ$2,638), disseminated LD cases (Δ$9,888), and indeterminate LD cases (Δ$3,841) (Figure 2).

Conclusion. US Medicare FFS beneficiaries with LD incurred substantial healthcare costs, especially those with disseminated disease. Strategies to prevent LD cases in older adults may decrease associated economic burden.

Disclosures. Holly Yu, MSPH, Pfizer Inc.: Employee; may hold company shares and/or stocks. Peter Kardel, MA, ADVI Health LLC: Employee; may hold company shares and/or stocks. Heidi De Souza, MPH, ADVI Health LLC: Employee; may hold company shares and/or stocks. L. Hannah Gould, PhD, MS, MBA, Pfizer Inc.: Employee; may hold company shares and/or stocks.