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The Burden of Opportunistic Infections in Hospitalized Multiple Sclerosis Patients: a United States population-based study of 25.8 million patients (S40.008)

Lindsay Petrenchik, Farren Briggs

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Article | Info & Disclosures

Abstract

Objective: To determine the burden of opportunistic infections (OIs) in hospitalized patients with multiple sclerosis (MS) versus non-MS

Background: MS disease modifying therapies (DMTs) confer an increased risk of opportunistic infections (OIs). A nationwide cohort study in Sweden showed that the incidence of OIs is higher in MS patients than the general population. The relationship has yet to be quantified in the United States where the use of more potent DMTs are more widely used.

Design/Methods: A cross-sectional analysis of adult patients (≥18 years) hospitalized for a non-infection related cause in 2018. Data for 30.3 million adult patients were available from the Healthcare Cost and Utilization Project (HCUP) National Inpatient Sample (NIS) database, and 25.8 million patients hospitalized for a non-infection related causes were retained for these analyses. ICD-10-CM codes identified MS and non-MS patient groups, as well as those with OIs. The primary outcome was a diagnosis of a hospital acquired (HA) OI. The secondary outcome was a diagnosis of any OIs. Estimates were adjusted for hospital and patient characteristics.

Results: The incidence of HA OIs in the MS and non-MS patients were 0.93% (1,070/115,180) and 0.50% (129,175/25,691,214), respectively, and the adjusted relative risk of OI in MS vs non-MS patients was 1.91 (95%CI 1.67–2.12). The incidence of any OIs in the MS and non-MS patients were 12.04% (13,865/115,180) and 7.47% (1,919,695/25,691,214), respectively, and the adjusted relative risk was 1.53 (95%CI 1.47–1.59).

Conclusions: Among a nationally representative 2018 hospitalized sample, MS patients had a 50% higher risk of OIs than non-MS patients, with almost a double HA OI risk. These novel findings underscore the importance of hospital infection control measures, ensuring MS patients do not exceed the maximum duration of certain medications, are appropriately immunized, and receive necessary viral testing before and during treatment.

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Letters: Rapid online correspondence

No comments have been published for this article.

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