

**Share a Dose of Brain Health with Every Issue** 



X









May 03, 2022; 98 (18 Supplement) **THURSDAY, APRIL 7** 

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

Lindsay Petrenchik, Farren Briggs

First published May 3, 2022,

Check for updates

**66** CITATION PERMISSIONS MAKE COMMENT SEE COMMENTS

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).

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.

Conclusions: Among a nationally representative 2018 hospitalized sample,

as an employee of PRO Unlimited. The institution of Prof. Briggs has received research support from NIH. The institution of Prof. Briggs has received research support from Michael J. Fox Foundation.

Disclosure: Dr. Petrenchik has received personal compensation for serving

### No comments have been published for this article.

Letters: Rapid online correspondence

COMMENT

YOU MAY ALSO RESEARCH ARTICLE BE INTERESTED The Economic Burden of Multiple Sclerosis in the

**United States** IN **Estimate of Direct and Indirect Costs** 

Bruce Bebo, Inna Cintina, Nicholas LaRocca, et al.

April 13, 2022

to 2020 in British Columbia, Canada

RESEARCH ARTICLE

Direct Health Care Costs Associated With Multiple Sclerosis: A Population-Based Cohort Study From 2001

November 30, 2022

Amir Khakban, Elisabet Rodriguez Llorian, Kristina D Michaux, et

RESEARCH ARTICLE Risk of Multiple Sclerosis Among Users of Antitumor

Necrosis Factor Alpha in Four Canadian Provinces: A Population-Based Study Lingyi Li, J. Antonio Aviña-Zubieta, Charles N. Bernstein, et al. October 28, 2022

DISPUTES AND DEBATES EDITOR'S CHOICE Reader Response: The Economic Burden of Multiple

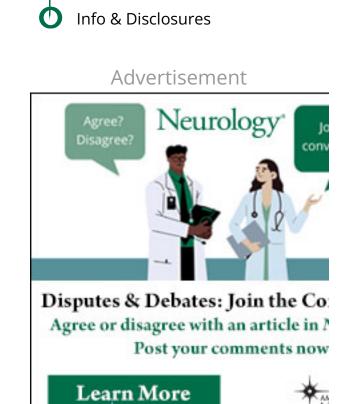
Sclerosis in the United States: Estimate of Direct and **Indirect Costs** 

**ABSTRACTS** Epidemiology and Burden of NMOSD, MS, and

Wendy S. Vargas October 31, 2022

MOGAD in Thailand: a Population-Based Study Nanthaya Tisavipat, Pornpong Jitpratoom, Sasitorn Siritho, et al.

December 05, 2022 Back to top



Article

**Downloads** 



**HEMIPLEGIC MIGRAINE** 

**ASSOCIATED WITH PRRT2** 

**VARIATIONS A CLINICAL AND GENETIC STUDY** Dr. Robert Shapiro and

Dr. Amynah Pradhan

**►** WATCH

#### RELATED ARTICLES

No related articles found.

#### **ALERT ME**

published

Alert me when eletters are



#### Current Issue

**Articles** 

Past Issues

#### Popular Articles **Translations**

#### **Ethics Policies**

**About** 

Board Contact Us Advertise

**Editors & Editorial** 

About the Journals

#### Submit a Manuscript

**Author Center** 

**Submit** 

Information for Reviewers **AAN Guidelines** Permissions

#### Activate a Subscription

**Subscribers** 

Subscribe

Sign up for eAlerts **RSS Feed** 

# Neurology®



**Neurology** 

**Neurology: Education Neurology: Genetics** 

**Neurology: Clinical Practice** 

**Neurology: Neuroimmunology & Neuroinflammation** 

AAN.com AANnews Continuum Brain & Life Neurology Today

american academy of  $NEUROLOGY_{\scriptsize{\scriptsize{\$}}}$ . Wolters Kluwer

