

**OR-04 | The effect of barriers to treatment access on emergency department usage by race/ethnicity in the United States: A claims data analysis**

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Barriers to prescription migraine treatment were associated with higher rates of emergency department visits for migraine related reasons among people with migraine and rates of use were highest among African-American/Black and Hispanic patients compared with White and Asian patients in this large medical, hospital, and prescription claims database analysis.

**Background:** Barriers to effective and tolerable migraine treatment can be associated with a range of negative outcomes including higher rates of emergency department use for migraine. Access to care may vary based upon sociodemographics including race and ethnicity. Our goal was to explore relationships of two types of barriers to treatment with emergency department use for migraine by race/ethnicity in a large medical, hospital, and prescription database claims analysis.

**Methods:** Data were compiled and analyzed by Symphony Health, a division of ICONplc. The data were sourced from Symphony's Integrated Dataverse (IDV®), an open, multi-source compendium that encompasses medical, hospital, and prescription claims across all payment types and including ≥17 years of historical data for >317 million active deidentified patients, 2.9 million healthcare providers and >17,000 health plans. The current analysis included longitudinal claims data from 2019 through 2021 for >2.1 million diagnosed and treated people migraine of all ages. Stability rules ensured that all patients had claims activity in Symphony's prescription and medical/hospital data for all three years of the study. This analysis examined access to and restrictions on migraine treatments across an array of parameters as well as the effect of access limitations on emergency department use. Asian, African-American/Black, Hispanic and White patient cohorts were evaluated and compared. Therapies of interest included acute and preventive generic and branded prescription medications for migraine. Approved claims were defined as migraine product claims that were approved by the payer and dispensed to the patient. Rejected claims were migraine product claims that were rejected by the payer. This study focused on rejected claims relating to payer blocking (e.g., prior authorization and/or step therapy related reasons). Onerous prior authorization/step therapy was defined as an individual experiencing ≥2 rejections due to prior authorization or step therapy/step edit reasons during the 3 year study period and the preceding 12 months. Data were extracted from multiple IDV fact and dimension tables through the use of structured query language (SQL) and put through a detailed and structured quality control process. Data were segmented and transferred to a series of pipe-delimited text files and analyzed in MS Access and MS Excel pivot tables. Frequencies and percents are presented as well as rates of rates of ≥1 ED visit for migraine-related reasons among the Asian, African-American/Black, Hispanic groups compared to the White group.

**Results:** Among 1,438,667 patients with diagnoses of migraine, patients were 83.2% female, there were no age limits, the largest sample groups were aged 18-79, 30% high school graduate or less, 44.4% some college, 24.5% with a bachelor's degree or higher, from a range of household incomes ranging from 28.1% <\$30,000 to 26.5% >\$100,000, and from all four regions of the US including 19.4% Northeast, 27.0% Midwest, 41.4% South, and 12.1% West. Racial/ethnic subgroups were: White N= 1,091,376 (75.9%), African-American/Black N=193,202 (13.4%), Hispanic N=140,073 (9.7%), Asian N=14,016 (1%). African American/Black patients had the highest prescription medication rejection rates and the White subgroup had the lowest rejection rates. (Table 1) Compared to White patients, Black and Hispanic patients in general were more likely to have migraine-related ED visits and Asian patients were less likely. Across all races/ethnicities, those with a history of onerous prior authorization/step therapy were more likely to have migraine-related ED visits over the three study observation years than others of the same race/ethnicity. When compared to White patients with a history of onerous prior authorization/step therapy, African American/Black patients with a history of onerous prior authorization/step therapy were 23.5% more likely to have ≥1 ED visit for migraine and African American/Black patients without a history of onerous prior authorization/step therapy were 57.3% more likely than White patients with a history of onerous prior authorization/step therapy to have ≥1 ED visit for migraine. A similar pattern was seen among Hispanic patients compared to White patients. Asian patients

Patient Ethnicity	Rejection Rate: Compared to Overall	Rejection Rate: Compared to White Subgroup
Asian	-1.1%	3.2%
Black/African American	18.5%	23.7%
White	-4.1%	CONTROL
Hispanic	13.7%	18.6%
Total	CONTROL	

Patient Race/Ethnicity	History of Onerous Step Therapy	No ED Visit N(%)		≥1 ED Visit N(%)		≥1 ED Visit: Compared to the White group
Asian	NO	12,792	94.5%	747	5.5%	-18.6%
	YES	429	89.9%	48	10.1%	5.7%
African-American/Black	NO	165,625	89.3%	19,775	10.7%	57.3%
	YES	6,885	88.2%	917	11.8%	23.5%
White	NO	976,089	93.2%	71,016	6.8%	Comparison group
	YES	40,057	90.5%	4,214	9.5%	Comparison group
Hispanic	NO	121,853	90.5%	12,762	9.5%	39.8%
	YES	4,835	88.6%	623	11.4%	19.9%
Total		1,328,565	92.3%	110,102	7.7%	

without a history of onerous prior authorization/step therapy were less likely to use the ED for migraine than White patients (-18.6%) while Asian patients with a history of onerous prior authorization/step therapy were 5.7% more likely than White patients to use the ED for migraine. (Table 2)**Conclusion:** Barriers to receiving migraine prescription pharmacologic therapies were associated with higher ED use for migraine. Rates of ED use for migraine were higher in African American/Black, Hispanic and largely lower in Asian patients than White patients both for people who did and who did not experience barriers to access migraine prescription therapies.

### P-188 | The epidemiology and unmet need of diagnosed migraine respondents using the National Health and Wellness Survey in five European countries

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This study assessed the current prevalence, burden, and unmet need of migraine in five European countries.

**Background:** Migraine affects more than 10% of the world's population, with a previous prevalence of 11.4% reported in Europe. The prevalence of migraine peaks among people in their 30s and 40s and is the leading cause of lost productivity in these age groups. This study examined the prevalence and burden of migraine in Europe by collecting data from the National Health and Wellness Survey in five European countries: France, Germany, UK, Italy, and Spain.

**Methods:** A retrospective cross-sectional study using the 2020 EU National Health and Wellness Survey (NHWS, Cerner Enviza) captured patient-reported data from respondents with migraine. NHWS uses a quota sampling framework (sex and age by country) to ensure it is representative of the demographic composition of each of the five EU countries' adult (age 18+) population.

A self-reported physician diagnosis of migraine was required for the respondents to be included in the migraine cohort. Weighted prevalence estimates were calculated for those with diagnosed migraine in the EU. Demographic, health, and clinical characteristics were summarized by weighted descriptive statistics. Measures of migraine burden summarized included disability and severity determined by the Migraine Disability Assessment Test (MIDAS), migraine frequency (episodes) in the past 30 days, headache frequency in the past 30 days, current treatments for migraine, satisfaction with current treatment, and medication overuse risk.

**Results:** A total of 62,319 (weighted N=265 million) respondents completed the 2020 5EU NHWS survey in Europe. Among all respondents, 14,536 self-reported having migraine and 7,311 of those reported having a physician diagnosis and were included in the analysis. This represented an estimated 30.5 million adults with diagnosed migraine and a weighted prevalence of 11.5% in the 5

countries. Migraine prevalence peaked in respondents between ages 18 and 49 years, with 62.5% of individuals diagnosed with migraine within this age group and a mean age of 44.4 years. Figures 1 & 2 display the breakdown of migraine prevalence by country and age group. Among all those with diagnosed migraine, 66.4% were female, and 31.8% of females reported their migraines were associated with their menstrual cycle.

Individuals in the migraine cohort reported a mean of  $3.1 \pm 4.8$  migraine days and  $6.2 \pm 6.2$  headache days in the past 30 days. Migraine disability measured via MIDAS showed 32% of people with migraine reported mild or moderate disability, and 24% reported severe disability. Regarding medication use, 29% reported using over-the-counter (OTC) medication only, 27% reported using prescription (Rx) only, and 24% used both Rx and OTC. The majority (73%) reported using medications typically indicated for acute migraine treatment. One-fifth (20%) reported taking no current treatment. Treatment satisfaction was less than 50% for all medication

