# Identifying barriers to care-seeking, diagnosis, and preventive medication among those with migraine: Results of the OVERCOME study

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### BACKGROUND

- Understanding the patient's path to taking recommended preventive medication for migraine may help identify barriers
- The journey to potentially effective preventive treatment of migraine with associated disability includes at least 3 conditional steps:
- Consulting a healthcare professional
- Receiving an accurate diagnosis
- Taking a recommended<sup>a</sup> preventive medication
- Previous efforts to identify barriers to consulting, diagnosis, and treatment did not consider episodic/chronic migraine together and/or were conducted in a historical healthcare
- OVERCOME, a web-based survey conducted in a representative US sample, provides a contemporary view of the migraine healthcare landscape, spanning those with very low-frequency episodic migraine to those with chronic migraine

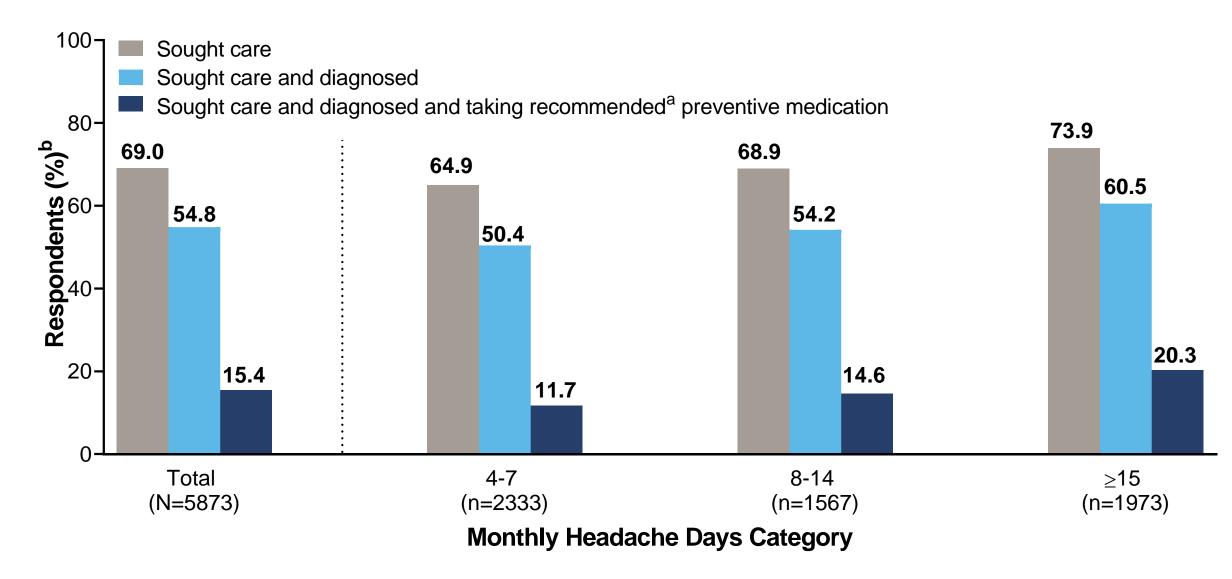
### **OBJECTIVE**

- Determine the proportion of people with disabling migraine who traverse each of these steps
- Compare individuals at each step regarding sociodemographics, migraine-related characteristics, and healthcare utilization for migraine

<sup>a</sup>Recommended medications refer to those with established/probable efficacy as identified by the American Academy of Neurology (AAN)/American Headache Society (AHS) guidelines (Silberstein SD, et al. Neurology. 2012;78:1337-1345) and the AHS position statement regarding new migraine treatments (American Headache Society. *Headache*. 2019;59:1-18). Medications include: topiramate, divalproex sodium/valproate sodium, metoprolol, propranolol, timolol, atenolol, nadolol, amitriptyline, nortriptyline, venlafaxine, duloxetine, and onabotulinumtoxinA. OVERCOME=ObserVational survey of the Epidemiology, tReatment, and Care Of Migrain E. 1. Dodick DW, et al. Headache. 2016;56:821-834. 2. Lipton RB, et al. Headache. 2013;53:81-92

## **KEY RESULTS**

Proportion Seeking Care, Diagnosed With Migraine, and Taking Recommended Preventive Medication for Migraine Among Respondents With ≥4 Monthly Headache Days and at Least Moderate Headache-Related Disability



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NOTE: Moderate headache-related disability=MIDAS 11-20. Severe headache-related disability=MIDAS≥21 MIDAS=Migraine Disability Assessment

### CONCLUSIONS

- Only 15.4% of individuals with ≥4 monthly headache days and moderate or severe headache-related disability traverse the 3 steps and are taking recommended preventive medication
- Key factors were found to differentiate those who traverse the steps to optimal care: Higher likelihood to traverse: older age, having health insurance, higher migraine frequency, more severe migraine-related disability, pain severity, cutaneous allodynia, poor acute treatment optimization, and care sought at specialist
- Lower likelihood: seeking care at ED/UC/Retail Clinic
- These findings demonstrate the high barriers and available opportunities to improve the diagnosis and management of disabling migraine given the current availability of preventive therapies

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ED/UC/Retail Clinic=Emergency Department, Urgent Care, or Retail Clinic.

# OVERCOME Q4 2018 Cohort 1, Wave 1, Respondents With Moderate or Severe Disability

### **Study Population**

- Met criteria for migraine based on:
- Validated AMS/AMPP migraine diagnostic screener<sup>1</sup> using ICHD-3 criteria
- Experienced at least moderate migraine-related disability (as defined by a MIDAS score ≥11)
- established/probable efficacy as identified by the AAN/AHS guidelines and the AHS position

#### **Survey Instruments**

- MIDAS: to assess migraine-related disability<sup>4</sup>
- ASC-12: to assess presence and severity of cutaneous allodynia symptoms during migraine attacks<sup>5</sup>
- MSSS: to assess migraine symptom severity<sup>6</sup>
- mTOQ-4: to assess acute treatment optimization<sup>7</sup>
- MSQ-RFR: to assess quality of life specifically related to migraine<sup>8</sup>
- Pain severity: to assess average pain of migraine or severe headaches<sup>4</sup>

#### **Statistical Methods**

- The data are presented as frequency counts with percentages or means and SDs
- t test (continuous variables) or chi-square test (categorical variables) for total respondents and stratified by monthly headache days category, evaluated differences between groups at each step (p<0.05)

Differences in Sociodemographic and Migraine-Related Factors by Care-Seeking, Diagnosis, and Taking Recommended<sup>a</sup> **Preventive Medication** 

	So	ought Ca	are	Migraine Diagnosis Among Those Who Sought Care			Taking Recommended <sup>a</sup> Preventive Medication Among Those Diagnosed		
	No	Yes		No	Yes		No		
	(n=18	(n=40	р-	(n=83	(n=32	p-	(n=231	Yes	
Variable	20)	53)	Value	5)	18)	Value	6)	(n=902)	p-Value
Mean age, years	39.9	41.3	<0.001	42.4	41.1	0.013	40.6	42.2	0.003
Female, %	83.1	78.2	<0.001	73.4	79.5	<0.001	78.7	81.5	0.076
Hispanic, %	8.6	10.4	0.073	9.8	10.6	0.626	10.3	11.3	0.106
White, %	89.6	85.8	<0.001	84.6	86.1	0.359	86.1	85.9	0.609
Have health insurance, %	80.1	89.4	<0.001	88.4	89.6	0.301	87.7	94.5	<0.001
College degree or higher, %	28.1	31.3	0.015	29.1	31.9	0.119	31.0	34.4	0.062
Employed full-time, %	37.8	41.1	0.017	40.2	41.3	0.568	41.9	39.9	0.308
Pain severity, mean	7.5	7.9	<0.001	7.3	8.1	<0.001	8.0	8.2	<0.001
ASC-12, mean	4.3	5.9	<0.001	5.1	6.2	<0.001	5.9	6.7	<0.001
MSSS, mean	17.8	18.4	<0.001	17.3	18.7	<0.001	18.6	19.0	<0.001
mTOQ-4 Poor/very poor optimization, %	61.1	67.5	<0.001	61.6	69.0	<0.001	68.9	69.4	0.954
MSQ-RFR, mean	50.7	43.5	<0.001	49.4	41.6	<0.001	41.9	41.4	0.354

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Note: Items in **BOLD** represent significant difference for variable between Yes vs. No groups. ASC-12=12-item Allodynia Symptom Checklist with scores ranging from 0 to 24; MSQ-RFR=Migraine-Specific Quality-of-Life Questionnaire Role Function-Restrictive comprising 7 items. Raw domain scores were summed and transformed to a 0-100 scale, with higher scores indicating better quality of life; MSSS=Migraine Symptom Severity Scale, assesses 7 headache features with scores ranging from 0 to 21; mTOQ-4=Migraine Treatment Optimization Questionnaire (4-item), assesses 4 items and scores range from 0 to 8, with scores <6 indicating poor/very poor acute treatment optimization; Pain severity=Self-reported average migraine pain severity measured using a 0-10 Likert-type scale, with anchors of 0 "No pain at all" and 10 "Pain as bad as it could be."

Differences in Severity of Migraine-Related Disability and Healthcare Utilization Location by Care-Seeking, Diagnosis, and Taking Recommended<sup>a</sup> Preventive Medication

	Sought Care			Migraine Diagnosis Among Those Who Sought Care			Taking Recommended <sup>a</sup> Preventive Medication Among Those Diagnosed		
Variable	No (n=18 20)	Yes (n=40 53)	p- Value	No (n=83 5)	Yes (n=32 18)	p- Value	No (n=231 6)	Yes (n=902)	p-Value
MIDAS ≥21, mean	63.1	74.2	<0.001	69.6	74.2	<0.001	73.4	80.6	<0.001
Most specialized level of care sought in past 12 months, %									
ED/UC/Retail		8.9		12.9	7.8	<0.001	9.9	2.5	<0.001
Primary care		38.6		46.5	36.5	<0.001	42.4	21.5	<0.001
Specialist		49.8		35.8	53.4	<0.001	45.1	74.9	<0.001
Other		2.7		4.8	2.2	<0.001	2.7	1.0	0.004
ED or UC for headache in past 12 months		52.0		49.7	52.5	0.142	53.0	51.4	0.433

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Note: Items in **BOLD** represent significant difference for variable between Yes vs. No groups.

ED/UC/Retail=Went ONLY to Emergency Department and/or Urgent Care and/or Retail Clinic (where "Retail Clinic" refers to a clinic located in a pharmacy or retail store) in the past 12 months; MIDAS=Migraine Disability Assessment, assesses days with migraine-related disability across 5 areas over the past 3 months (90 days). Scores of ≥21 are indicative of severe migraine-related disability; Primary care=Went to primary care ± ED/UC/Retail in the past 12 months, but not a specialist; Specialist=Went to a specialist ± primary care ± ED/UC/Retail in the past 12 months (where "Specialist" refers to a neurologist, pain specialist, or headache specialist).

# (N=5873; 27.8% of total respondents [N=21,143])

- (94% of sample) AND/OR
- Self-report of migraine diagnosis by an HCP (61% of sample)
- Reported ≥4 monthly headache days on average over the past 90 days

## **Population Subgroups**

#### ■ Sought care (Yes/No) based on having sought care for migraine over the past 12 months

- Migraine diagnosis (Yes/No) based on report of having been diagnosed by an HCP
- Taking recommended preventive medication<sup>a</sup> (Yes/No) based on those with statement regarding new migraine treatments<sup>2,3</sup>
- Monthly headache days category (4-7, 8-14, ≥15) based on monthly headache day average over the past 90 days

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AMS/AMPP=American Migraine Study/American Migraine Prevalence and Prevention study; ASC-12=12-item Allodynia Symptom Checklist; CGRP=Calcitonin gene-related peptide; HCP=Healthcare provider; ICHD-3=International Classification of Headache Disorders-3; MIDAS=Migraine Disability Assessment; MSQ-RFR=Migraine-Specific Quality-of-Life Questionnaire Role Function-Restrictive; MSSS=Migraine Symptom Severity Scale; mTOQ-4=Migraine Symptom Severity Scale; mTOQ-4=Migraine Treatment Optimization Questionnaire (4-item); OVERCOME=ObserVational survey of the Epidemiology, tReatment, and Care Of MigrainE; SD=Standard deviation. 1. Lipton RB, et al. Headache. 2001;41:646-657. 2. American Headache Society. Headache. 2019;59:1-18. 3. Silberstein SD, et al. Neurology. 2012;78:1337-1345. 4. Stewart WF, et al. Neurology. 2001;56(6 Suppl 1):S20-28. 5. Lipton RB, et al. Ann Neurol. 2008;63:148-158. 6. Serrano D, et al. Headache. 2010;50:40. 7. Lipton RB, et al. Cephalalgia. 2009;29:751-759. 8. Martin BC, et al. Headache. 2000;40:204-215.

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