MediPulse Brief

MIGRAINE DISEASE

Headache disorders are revealed as one of the major global public-health concerns. In 2019, migraine disease was second among the causes of disability, and first among women under 50 years of age (1A). The prevalence of migraine is estimated to be 12% in the United States with approximately 23% of households having at least 1 family member with migraine.[1,3] Migraine most commonly occurs between the ages of 18 and 44,[4] and can be characterized as a chronic disease with episodic attacks, with potential for progression to more frequent and severe patterns.[5] Individuals who do not receive adequate treatment either due to severity of disease and/or intolerable side effects, may experience increasing frequency of headaches over months or years, leading to chronic migraine, in which headaches occur at least 15 days per month.[6]

Characteristics of Migraine	Affects nearly 40 million people in U.S.[7,]	Affects women three times more than men[8]	Migraine peaks in 40's to 50's[8].

Symptoms of Migraine	A typical migraine attack may consist of unilateral pain, throbbing, moderate to severe pain which is aggravated by activity. Individuals with migraine may experience bothersome symptoms such as sensitivity to light and sound, nausea, and vomiting.[8] About 30% of individuals with migraine have aura that could present as visual (e.g., flashing light) and or sensory disturbances.[8]
Diagnosis	Despite available treatment options and debilitating effects, migraine is often underdiagnosed and undertreated. According to research, over 40% of individuals with migraine remain undiagnosed.[9] Migraine is diagnosed primarily on medical history since there are no blood tests to diagnose migraine[10.] American Headache Society guidelines estimate that about 44% of migraine patients experience at least 4 attacks a month and would benefit from a preventive medication.[11.]
Migraine Disease Progression	Individuals with episodic migraine (occurs on 14 or fewer days per month) may progress to chronic migraine (migraine with 15 or more headache days per month).[12]
Migraine Treatment	Patients with migraine should use an acute medication to abort a migraine attack. In addition to an acute medication, patients who experience at least 4 headaches a month should also be offered a preventive medication.[11] However, only 11-20% of preventive-eligible migraine patients are currently on preventive medications.[9]

Individuals with migraine who have more than 4 migraine days per month report greater disability and poorer health status.[3]

Work Productivity[12]

Previous 7 days

5.5% Higher absenteeism

18.5% Higher presenteeism

A majority of migraine attacks are experienced during the workday (68%), and result in some impact on work productivity, either as a result of absenteeism, presenteeism, or both total productivity loss.[13]

Absenteeism = work missed because of one's health in the previous 7 days.
Presenteeism = impairment or reduced productivity experienced while at work in the previous 7 days because of one's health

Healthcare Resource Utilization[12]

Previous 6 months

3.2 More HCP visits

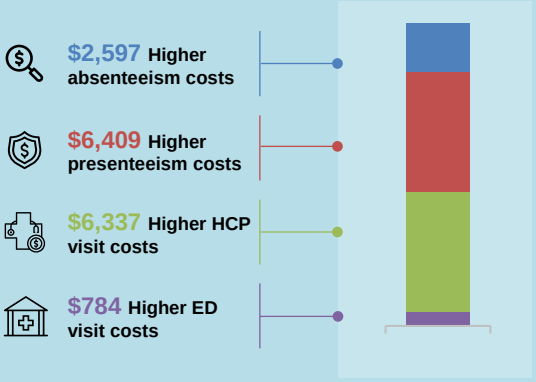
0.2 More ED visits

ED = emergency department; HCP = healthcare

Annual Costs[12]

Per respondent

$18,187 Higher total all-cause direct and indirect costs



Data has demonstrated that with appropriate treatment, individuals who experience an increase of five headache free days (HFD) was associated with 18.2% improvement in absenteeism and 10.3% improvement in presenteeism.[14]

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Goals of Acute Treatment of Migraine (Use to abort migraine attacks)[11]

- Rapid and consistent freedom from pain and symptoms (e.g., sensitivity to light or nausea) without recurrence
- Minimal need for repeat dosing or use of another acute medication
- Optimal self-care and reduced subsequent use of resources - (for example: ER visits)
- Minimal or no adverse events

Treatment Class Options for Acute Treatment of Migraine[11]

Migraine-specific* Treatments	Nonspecific Treatments
• Oral Gepants	• Over the Counter medications
• Nasal Gepant	• Opioids/Barbiturates
• Serotonergic Agonists	• Prescription Non-Steroidal Anti-Inflammatory medications (NSAIDs)
– Triptans	
– Ditans	

Goals of Preventive Treatment of Migraine (Use to prevent migraine attacks)[11]

- Reduce attack frequency, severity, duration, & and migraine related disability
- Improve function
- Reduce reliance on poorly tolerated, ineffective, or unwanted acute treatments
- Improve health-related quality of life (HRQoL)

Treatment Class Options for Preventive Treatment of Migraine[11]

Class	Route of Administration
• **Antiepileptic**	• Oral
• **Beta-blocker**	• Oral
• **Calcitonin gene–related peptide (CGRP) monoclonal antibody**	• Intravenous and Subcutaneous
• **CGRP Gepant**	• Oral
• **Botulinum Toxin A (chronic migraine)**	• Intramuscular
• **Neuromodulation device**	• External trigeminal nerve stimulation and Transcranial magnetic stimulation

***Migraine-specific refers to these drugs working on pain pathways involved in migraine and being approved or studied specifically for treatment of migraine.**

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