



## Discussion of Current Approaches and New Therapies for the Treatment of Acute Migraine: A Literature Review

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### Introduction

Headache is one of the most prevalent neurological disorders worldwide, with migraine standing out among the various types due to its highly debilitating nature, significantly impacting the quality of life for many individuals. Additionally, due to its disabling nature, it has a substantial economic impact, including direct medical expenses, loss of productivity, and work absenteeism. Furthermore, migraine can be classified based on the presence of aura and duration, either as acute or chronic. In light of this, it is important to understand the aspects related to current approaches to this condition, such as availability, cost, and benefits, and to be aware of new therapies for the treatment, particularly for recurrent or difficult-to-control forms of migraine with current therapies.

### Objective

The purpose of this work is to compare current pharmacological approaches and new therapies developed for the treatment of acute migraine, highlighting their advantages and disadvantages.

### Methods

This study was conducted through a systematic literature review, covering headache-related topics and classifications, using the PubMed and Scielo databases. The evaluation parameters included English and Portuguese languages, with publication dates ranging from 2013 to 2023.

### Results

It was found that the current approach to acute migraine primarily involves pharmacological measures, such as over-the-counter analgesics, nonsteroidal anti-inflammatory drugs (NSAIDs), and triptans. The most commonly used are over-the-counter analgesics like Dipyrone and Paracetamol, which offer pain relief but have limitations regarding moderate to severe migraines. Often, they are combined with a nonsteroidal anti-inflammatory drug (NSAID) like Ibuprofen, which can alleviate pain and inflammation associated with migraine but is not effective for all patients. Finally, there are triptans, such as Sumatriptan, a prescribed class of medications that specifically target migraines, relieving symptoms of pain, nausea, and photophobia. However, triptans have more side effects and are not effective for all patients. Regarding new therapies, monoclonal antibodies, neuromodulation devices, and oxygen therapy stand out, with monoclonal antibodies like Erenumab and Fremanezumab being the most common. These therapies work by blocking CGRP proteins, which play a significant role in migraine pathophysiology. These medications have shown significant efficacy in reducing the frequency and severity of migraine attacks and have fewer side effects than some older medications. However, they are associated with a high cost and may not be accessible to a large portion of the population.

### Conclusion

In summary, the ideal approach to acute migraine treatment varies from person to person, considering socioeconomic status, symptom severity, treatment response, and potential side effects. Conventional approaches using analgesics, NSAIDs, and triptans are the most commonly used. Nevertheless, newer therapies like monoclonal antibodies represent significant advances in migraine treatment, providing effective relief with fewer side effects compared to some older therapies, benefiting many individuals. However, ongoing development of new therapeutic options and personalized treatment for migraine sufferers are areas of research that need to be encouraged and supported to improve the quality of life for these individuals.

**Palavras-chave:** migraine; Quality of life; Analgesics.