Naghdi et al. identified, reviewed, and extracted data from randomized controlled trials (RCTs) of preventive drugs for chronic migraine with at least 200 participants. Data were analysed using network meta-analysis.

They included 12 RCTs of six medications (Eptinezumab, Erenumab, Fremanezumab, Galcanezumab, Onabotulinumtoxin A, and Topiramate) compared to placebo or each other. All drugs effectively reduced monthly headache and migraine days compared with placebo. The most effective drug for monthly headache days was Eptinezumab 300mg, with a mean difference of -2.46 days, 95% Credible Interval (CrI): -3.23 to -1.69. On the Surface Under the Cumulative Ranking Area (SUCRA) analysis, the probability that Eptinezumab 300mg was ranked highest was 0.82. For monthly migraine days, the most effective medication was Fremanezumab-monthly, with a mean difference: -2.77 days, 95% CrI: -3.36 to -2.17, and 0.98 probability of being ranked the highest. All included drugs, except Topiramate, improved headache-related quality of life. No eligible studies were identified for the other common preventive oral medications such as Amitriptyline, Candesartan, and Propranolol. The main reasons were that the studies did not define chronic migraine, were undertaken before the definition of chronic migraine, or were too small.

All six medications were more effective than the placebo on monthly headache and migraine days. The absolute differences in the number of headache/migraine days are, at best, modest. No evidence was found to determine the relative effectiveness of the six included drugs with other oral preventive medications.

Registration: PROSPERO (number CRD42021265990) [1)].

1)
Naghdi S, Underwood M, Madan J, Brown A, Duncan C, Matharu M, Aksentyte A, Davies N, Rees S, Cooklin A, Grove A, Mistry H. Clinical effectiveness of pharmacological interventions for managing chronic migraine in adults: a systematic review and network meta-analysis. J Headache Pain. 2023 Dec 6;24(1):164. doi: 10.1186/s10194-023-01696-w. PMID: 38057728.