

Understanding the New Anti-CGRP Treatments

The American Migraine Foundation guide to the new class of migraine treatment

THE NEW ANTI-CGRP TREATMENTS are the first drugs specifically designed for migraine prevention in more than 50 years, making this a golden era of headache medicine. There are now three different therapies approved, with more options on the horizon.



What is CGRP?

CGRP stands for calcitonin gene-related peptide. It is a protein that transmits pain signals along the trigeminal nerve into the brain stem and through the brain itself. CGRP and its receptor are involved in numerous bodily processes—from gastrointestinal movement to the transmission of pain.

Since the late 1980s, researchers gradually uncovered more and more evidence that CGRP plays a role in both migraine and cluster headache. Studies revealed increased levels of CGRP in patients' blood and saliva during migraine attacks. They also found that patients with chronic migraine—meaning 15 or more days with headache over each of 3 consecutive months—had chronically elevated levels of CGRP. In addition, when CGRP itself was given to people with migraine, it would rather consistently trigger a migraine attack.

Scientists concluded that blocking CGRP or its receptor could play a key role in treating migraine and cluster headache. The result? The first three drugs in a new class of treatments specifically designed for migraine prevention.

How the Treatments Work

The three anti-CGRP treatments work by using monoclonal antibodies, or large laboratory-produced highly specific protein molecules. These antibodies target the CGRP protein or its receptor.

Monoclonal antibodies are too large to cross into the brain to any significant degree and are not metabolized by the liver or excreted by the kidneys. That means there is minimal chance of adverse effects on the liver or kidney and no interactions with other drugs.

The three treatments currently available on the market are erenumab, fremanezumab and galcanezumab. While they behave similarly, each one is a little different.

What to Know About the New Anti-CGRP Treatments

| Brand | Aimovig™ (Erenumab) | AJOVY™ (Fremanezumab) | Emgality™ (Galcanezumab) |
|------------------------|------------------------------------|---|--|
| Manufacturer | Amgen and Novartis Pharmaceuticals | Teva | Eli Lilly and Company |
| Date of FDA approval | May 17, 2018 | Sept. 14, 2018 | Sept. 27, 2018 |
| Target | CGRP receptor | CGRP protein | CGRP protein |
| Administered by | 70 mg or 140 mg injections | 225 mg injection | 120 mg injection |
| Frequency of treatment | 1 monthly injection | 3 injections every 3 months, or 1 monthly injection | 2 injection loading dose followed by 1 monthly injection |
| For More Information | CLICK HERE | CLICK HERE | CLICK HERE |

Patients who begin any one of these treatments may begin to see results as quickly as one week; however, it may take up to one to two months or longer to experience the full effects. Clinical trials have found minimal side effects but allergic reactions, constipation, muscle cramps, injection site pain, and injection site reactions have occurred in some patients.

Insurance coverage is key to paying for these medications. Each of these treatments cost nearly \$7,000 a year without coverage or \$575 per month.



Who is the ideal candidate?

The new treatments were tested on a wide variety of migraine patients, including those living with chronic migraine, those who have tried other migraine prevention treatments, and those who have a high level of disability. Patients who had used prior preventive treatments or who take acute medications more than 10 days a month may also respond.

Clinical trials are currently underway to collect more information in other headache disorders. In fact, galcanezumab has recently been shown to be effective for the preventive treatment of episodic cluster headache and is currently under review by the Food and Drug Administration for this headache disorder.

Effectiveness

In monoclonal antibody clinical trials, the reduction in days lived with migraine was significant, the proportion of patients experiencing a more than 50% response was substantial, and the onset of effect in some patients occurs within four weeks—even as early as within one week or even one day in some.

Patients usually experience a response within two months, and that response may improve over time. If you do not begin to notice results after three months, then the treatment is not likely to work for you.

“If history tells us anything, it’s that different drugs within the same class can have a different effect in an individual patient,” said Dr. David Dodick, Chair of the American Migraine Foundation and Professor of Neurology at the Mayo Clinic Arizona. He remains “cautiously optimistic” that patients who fail to respond to one monoclonal antibody may respond to another.

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– Dr. David Dodick, Chair, American Migraine Foundation; Professor of Neurology at the Mayo Clinic Arizona

If you think any of the new anti-CGRP treatments might be right for you, we encourage you to start the conversation with your healthcare provider, neurologist or headache specialist. If your provider isn’t aware of the treatments, don’t be afraid to let him or her know about them or ask for a referral to a local neurologist or headache specialist.

Visit americanmigrainefoundation.org to find a headache specialist near you, learn more and get connected with other members of the migraine community.

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FOUNDATION

The mission of the American Migraine Foundation is to mobilize a community for patient support and advocacy, as well as drive and support impactful research that translates into advances for patients with migraine and other disabling diseases that cause severe head pain. Visit americanmigrainefoundation.org for more resources for people living with migraine and their supporters.

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