

## News You Can Use

Wolfgang Liedtke, MD, PhD



Dr. Wolfgang Liedtke is an Executive with Regeneron Pharmaceuticals in Genetic Medicines in their Global Clinical Development Unit, and member of their Scientific Council where he is Chair of Neurology, Psychiatry, Pain Medicine and Sensory Systems. Prior to joining Regeneron in 2021, he was a tenured professor at Duke University for 17 years. He conducted basic neuroscience pain research and co-founded the Duke University pain research group. He also founded two Duke clinics dedicated to pain medicine, one in neurology, one in anesthesiology, providing science-based yet empathetic clinical care to patients suffering from head face pain, generally refractory pain and pain in the context of complex comorbidities.

He was clinically trained in neurology and psychiatry in his native Germany and in neuropathology in New York City, where he conducted neuropathology and molecular genetics research (Albert Einstein College of Medicine; The Rockefeller University), after coming to the US in 1994. Dr. Liedtke is a member of the

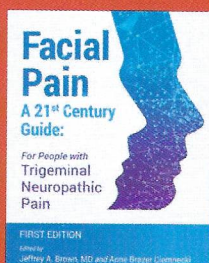
FPA Medical Advisory Board, an elected member of the American Clinical and Climatological Association, a faculty member of the New York University Pain Research Center, Adjunct Professor of Neurology at Duke, and Adjunct Professor of Dentistry at New York University.

Dr. Liedtke has contributed a chapter on facial pain medications in our forthcoming book titled *Facial Pain: A 21st Century Guide, Book II*. In this chapter, he discusses various medications that can be used to manage chronic facial pain under the guidance of a physician, depending on the severity of the pain.

### Dr. Liedtke categorizes these medications into three types:

- As needed/rescue medications
- Baseline medications for continuous management
- Injectables for maintenance management

The first **News You Can Use** section of the Quarterly journal includes a tear-out chart to the right of this article that lists the as-needed/rescue medications. These medications address the question — **what can you do when the pain becomes intolerable?** and are great to keep on hand in case of sudden pain flares. This information is also available by scanning the QR codes here and on the tear-out, as well as at [www.FacePain.org/Blog/Rapid-Acting-Medications](http://www.FacePain.org/Blog/Rapid-Acting-Medications).



*Facial Pain: A 21st Century Guide, Book II* will be published later this year. To purchase the first edition of the book, visit our website, [www.FacePain.org/Understanding-Facial-Pain/Buy-The-Book](http://www.FacePain.org/Understanding-Facial-Pain/Buy-The-Book).





## Rapid-Acting, As-Needed Medications for Trigeminally-Mediated Pain

Drug Type	Compound	Formulation and Dose	Comments and Links to Rxlist.com and Wikipedia or Journal Article
Sodium channel blocker	Carbamazepine	Chewable <sup>1</sup> 50-200 mg (100 mg tablet Rx)	Can be repeated 5-10 min later, up to 400 mg/attack total. Longstanding first line experience.  <a href="#">Tegretol (Carbamazepine): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)</a>  <a href="#">Carbamazepine - Wikipedia</a>
Sodium channel blocker	Oxcarbazepine	Liquid 50-200 mg (variable doses possible with liquid)	See chewable carbamazepine.  Can also be used as "swish and spit," exclusively intra-oral effect with minimal systemic absorption, chewable carbamazepine alternative.  <a href="#">Trileptal (Oxcarbazepine): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)</a>  <a href="#">Oxcarbazepine - Wikipedia</a>
Benzodiazepine	Clonazepam <sup>2</sup>	Orally dissolving tablet 0.125 mg -0.25 mg	Can be repeated up to 1 mg total (soft limit). Balance with mild sedation (which will not kick in at lower dose because of the trigeminal pain attack). Other benzodiazepines are not analgesic. Longstanding first line experience. Synergistic combination with carbamazepine.  <a href="#">Klonopin (Clonazepam): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)</a>  <a href="#">Clonazepam - Wikipedia</a>
Gabapentinoids	Gabapentin	Liquid 100-300 mg	Alternative if carbamazepine/oxcarbazepine works poorly or if patient has known gabapentin/pregabalin response to maintenance medication  <a href="#">Neurontin (gabapentin) for Seizures and Nerve Pain: Uses, Dosage, Side Effects, Interactions, Warnings (rxlist.com)</a>  <a href="#">Gabapentin - Wikipedia</a>
NMDA-receptor blocker	Ketamine <sup>2</sup>	Nasal spray 10-15 mg/puff (100-150 mg /mL)	2-4 puffs per nostril; can be used bilaterally (on both sides) depending on laterality of the pain and on laterality of effect. Soft limit 100-200 mg/ attack and 200-400 mg/day. Dose limiting effects are psychotropic effects (feeling weird; higher doses can be hallucinogenic (which many patients have tolerated when facing trigeminal pain attacks.) Some patients are very responsive to lower doses. Most need higher doses. Nasal irritation can be overcome by pretreatment with 1% lidocaine liquid or jelly. One of the most rapid onset medications against trigeminal pain. Newer approach, possibly promising.  <a href="#">Ketamine Hydrochloride (Ketamine HCl): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)</a>  <a href="#">Ketamine - Wikipedia</a>



NMDA-receptor blocker	S-ketamine <sup>2,3</sup> ES-ketamine <sup>2,3</sup>	nasal spray 28 mg/ puff	Spravato Rx-medicine (controlled substance, high insurance hurdle). If patients use this, medication for mood disorder is recommended.  Spravato (Esketamine Nasal Spray): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)  Esketamine - Wikipedia
- gepant (CGRP receptor blocker)	Rimegepant <sup>3</sup>	75 mg orally- dissolving	1 tablet - can repeat with sufficient supply. Patients need to have a sufficient supply of tablets to engage in repeat applications as-needed. Since it is officially covered over the migraine indication, there will be limits of monthly supply, such as 4 or max 8 tablets that patients can have per month. Patients need to "budget" with what they have so they have enough until the next refill. This is an important practical consideration that can cause stress. Newer approach, with limited experience: some patients experienced a high-impact beneficial response, for most it is a suitable combination to carbamazepine and/or clonazepam.  Nurtec ODT (Rimegepant Orally Disintegrating Tablets, for Sublingual or Oral Use): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)  Rimegepant - Wikipedia
-Gepant (CGRP receptor blocker)	Zavegepant <sup>3</sup>	10 mg nasal spray	1 puff; can have second. Very recent approach, possible equi-effective to Rimegepant No practical experience. Possibly use Rimegepant for 3rd branch pain, Zavegepant for 2nd and 1st branch pain. Both -gepant suitable for trigeminal pain that facilitates migraine (or cluster headache.)  Zavzpret (Zavegepant Nasal Spray): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)  Zavegepant - Wikipedia
Sodium channel blocker	Lidocaine	1-2% jelly, spray	Intra-oral use for 3rd branch triggered trigeminal pain. Nasal spray for 2nd branch triggered pain. Add-on to carbamazepine/clonazepam Pre-medication for nasal ketamine in case ketamine has nasally irritant properties which would defeat its powerful action on the trigeminal system.  <a href="https://www.webmd.com/drugs/2/drug-10414-252/lidocaine-hcl-mucous-membrane/lidocaine-jelly-mucous-membrane/details">https://www.webmd.com/drugs/2/drug-10414-252/lidocaine-hcl-mucous-membrane/lidocaine-jelly-mucous-membrane/details</a>  Lidocaine - Wikipedia
Oxytocin	Oxytocin <sup>1</sup>	nasal spray 24IU/ puff (240IU/mL)	2 puffs per nostril, bilateral (both sides.) Limited experience; however: great safety, adjunct to any partially effective as-needed rapid-onset medication.  Pitocin (Oxytocin Injection): Uses, Dosage, Side Effects, Interactions, Warning (rxlist.com)  Oxytocin (medication) - Wikipedia

<sup>1</sup> Requires formulation by a compounding pharmacy

<sup>2</sup> Controlled substance

<sup>3</sup> Insurance approval hurdles/expensive



Disclaimer: The information contained in this list is not intended to be individual medical advice, diagnosis, or treatment or to induce the reader to seek care with any specific physician. Always seek the advice of your physician or other qualified health care provider with any questions you may have regarding a medical condition or treatment, before undertaking a new health care treatment, and never disregard professional medical advice or delay in seeking it because of something you have read in this list.