Effective Health Care

Treatment of Trigeminal Neuralgia
Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Treatment of trigeminal neuralgia was found to be addressed by five existing or in-process Cochrane reviews, a 2007 Drug Effectiveness Review Project (DERP) review, and a 2009 BMJ Clinical Evidence review. Given that the existing and in-process reports cover this nomination, no further activity will be undertaken on this topic.
  - Yang M, Zhou M, He L, Chen N, Zakrzewska JM. Non-antiepileptic drugs for trigeminal neuralgia. Cochrane Database of Systematic Reviews 2011, Issue 1. Art. No.: CD004029. DOI: 10.1002/14651858.CD004029.pub3. http://www2.cochrane.org/reviews/en/ab004029.html
  - Wiffen PJ, Derry S, Moore RA, McQuay HJ. Carbamazepine for acute and chronic pain in adults. Cochrane Database of Systematic Reviews 2011, Issue 1. Art. No.: CD005451. DOI: 10.1002/14651858.CD005451.pub2. http://www2.cochrane.org/reviews/en/ab005451.html
  - Moore RA, Wiffen PJ, Derry S, McQuay HJ. Gabapentin for chronic neuropathic pain and fibromyalgia in adults. Cochrane Database of Systematic Reviews 2011, Issue 3. Art. No.: CD007938. DOI: 10.1002/14651858.CD007938.pub2. http://www2.cochrane.org/reviews/en/ab007938.html
  - Wiffen PJ, Derry S, Moore RA. Lamotrigine for acute and chronic pain. Cochrane Database of Systematic Reviews 2011, Issue 2. Art. No.: CD006044. DOI: 10.1002/14651858.CD006044.pub3. http://www2.cochrane.org/reviews/en/ab006044.html
  - Zakrzewska JJM, Linskey ME. Neurosurgical interventions for the treatment of classical trigeminal neuralgia (Protocol). Cochrane Database of Systematic Reviews 2008, Issue 3. Art. No.: CD007312. DOI: 10.1002/14651858.CD007312. http://www2.cochrane.org/reviews/en/protocol_878405021509501382.html
  - Chou R, Norris S, Carson S, Chan BKS. Drug Class Review on Drugs for Neuropathic Pain. 2007. http://www.ohsu.edu/drugeffectiveness/reports/final.cfm
  - Zakrzewska JM, Linskey ME, et al. Trigeminal neuralgia. Clinical Evidence. 2009. http://clinicalevidence.bmj.com/ceweb/conditions/nud/1207/1207.jsp

Topic Description

Nominator: Anonymous individual

Nomination Summary: The nominator states that trigeminal neuralgia is a devastating problem for patients and that there are many harms associated with the currently available interventions. The nominator questions the comparative benefits and harms of medical and surgical treatments.

Staff-Generated PICO
Population(s): Patients with trigeminal neuralgia
Intervention(s): Pharmacologic therapies including antiepileptics (e.g.,carbamazepine, oxcarbazepine, lamotrigine, phenytoin, clonazepam, gabapentin, pregabalin, topiramate, levetiracetam, valporate, tocainide, felbamate), baclofen (a GABA receptor agonist), pimozide (an antipsychotic),or tizanidine (alpha-adrenergic agonist) alone or in combination; surgical interventions (stereotactic radiosurgery, percutaneous radiofrequency, microvascular decompression)
Comparator(s): No treatment or comparative effectiveness within and between pharmacological and surgical therapies
Outcome(s): Reduction of pain symptoms, improved functioning and quality of life, medication toxicity, mental health outcomes

Key Questions from Nominator: None

Considerations

- The topic meets Effective Health Care (EHC) Program appropriateness and importance criteria. (For more information, see http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/.)

- Topic was found to be addressed by five existing or in-process Cochrane reviews, a 2007 DERP Drug Class Review on Drugs for Neuropathic Pain, and a 2009 BMJ Clinical Evidence review. The objectives for these reviews are listed below:

  - *Non-antiepileptic drugs for trigeminal neuralgia*- The objective of this review was to examine the efficacy of nonantiepileptic drugs used to treat trigeminal neuralgia. Drugs being compared include baclofen, pimozide, racemic ketamine, proparacaine, tocainide or any other non-antiepileptic drug alone or in combination.

  - *Carbamazepine for acute and chronic pain in adults*- The purpose of this review was to evaluate the analgesic effectiveness of carbamazepine in acute and chronic pain and to evaluate adverse effects reported in the studies.

  - *Gabapentin for chronic neuropathic pain and fibromyalgia in adults*- To assess the analgesic efficacy of gabapentin for chronic neuropathic pain and to assess the adverse effects associated with the clinical use of gabapentin for chronic neuropathic pain.

  - *Lamotrigine for acute and chronic pain*- To assess the analgesic efficacy of lamotrigine in acute and chronic pain and to assess the adverse effects associated with the clinical use of lamotrigine for pain.

  - *Neurosurgical interventions for the treatment of classical trigeminal neuralgia*- An in-process review to assess the efficacy in terms of pain relief and quality of life after different neurosurgical interventions for the management of classical trigeminal neuralgia, to assess the harms of these interventions, and to determine if any subgroups of patients are likely to benefit.

- *Drug Class Review on Drugs for Neuropathic Pain*- To compare the effectiveness and harms of anticonvulsants, tricyclic antidepressants, serotonin–norepinephrine reuptake inhibitors (SNRIs), and the lidocaine patch in adults with neuropathic pain.

- *BMJ Clinical Evidence: Trigeminal Neuralgia*- To assess the effects of treatments in people with trigeminal neuralgia including: baclofen, carbamazepine, oxcarbazepine, tizanidine, lamotrigine, other antiepileptics, pheripheral nerve treatments, sterotactic radiosurgery, microvascular decompression, proparacaine eye drops, and ablative neurosurgical techniques.