



TITLE: Gabapentin for HIV-Associated Neuropathic Pain: Clinical Effectiveness

DATE: 25 November 2015

RESEARCH QUESTION

What is the clinical effectiveness of gabapentin for the treatment of HIV-associated neuropathic pain?

KEY FINDINGS

One systematic review, one randomized controlled trial, and one non-randomized study were identified regarding the clinical effectiveness of gabapentin for the treatment of HIV-associated neuropathic pain.

METHODS

A limited literature search was conducted on key resources including Ovid Medline, Ovid Embase, PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents. No date limits were used. The search was run on November 17, 2015.

SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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Table 1: Selection Criteria

Population	Adults with HIV-associated neuropathic pain
Intervention	Gabapentin
Comparators	Placebo; Tricyclic antidepressants Serotonin–norepinephrine reuptake inhibitors; Carbamazepine
Outcomes	Clinical effectiveness (e.g., pain reduction) Safety and harms
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies

HIV = human immunodeficiency virus.

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and non-randomized studies.

One systematic review, one randomized controlled trial, and one non-randomized study were identified regarding the clinical effectiveness of gabapentin for the treatment of HIV-associated neuropathic pain. No relevant health technology assessments were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Phillips TJ, Cherry CL, Cox S, Marshall SJ, Rice AS. Pharmacological treatment of painful HIV-associated sensory neuropathy: a systematic review and meta-analysis of randomised controlled trials. PLoS ONE [Internet]. 2010 [cited 2015 Nov 24];5(12):e14433, 2010. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3010990>
[PubMed: PM21203440](#)

Randomized Controlled Trials

2. Hahn K, Arendt G, Braun JS, von Giesen HJ, Husstedt IW, Maschke M, et al. A placebo-controlled trial of gabapentin for painful HIV-associated sensory neuropathies. J Neurol. 2004 Oct;251(10):1260-6.
[PubMed: PM15503108](#)

Non-Randomized Studies

3. La Spina I, Porazzi D, Maggiolo F, Bottura P, Suter F. Gabapentin in painful HIV-related neuropathy: a report of 19 patients, preliminary observations. Eur J Neurol. 2001 Jan;8(1):71-5.
[PubMed: PM11509084](#)

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APPENDIX – FURTHER INFORMATION:**Previous CADTH Reports**

4. Gabapentin for adults with neuropathic pain: a review of the clinical efficacy and safety [Internet]. Ottawa (ON): CADTH; 2015 Apr 14. [cited 2015 Nov 24]. Available from: <https://www.cadth.ca/sites/default/files/pdf/htis/apr-2015/RC0637-Gabapentin-NeuropathicPain%20Final.pdf>
5. Gabapentin for adults with neuropathic pain: a review of the clinical evidence and guidelines [Internet]. Ottawa (ON): CADTH; 2014 Sep 26. [cited 2015 Nov 24]. Available from: <https://www.cadth.ca/sites/default/files/pdf/htis/dec-2014/RC0594%20Gabapentin%20for%20neuropathic%20pain%20Final.pdf>

Systematic Reviews – HIV Not Specified in Abstract

6. Moore RA, Wiffen PJ, Derry S, Toelle T, Rice AS. Gabapentin for chronic neuropathic pain and fibromyalgia in adults. Cochrane Database Syst Rev [Internet]. 2014 [cited 2014 Nov 24];4:CD007938. Cochrane abstract available from: <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007938.pub3/abstract>
[PubMed: PM24771480](#)

Clinical Practice Guidelines – Unspecified Methodology

7. Chetty S, Baalbergen E, Bhigjee AI, Kamerman P, Ouma J, Raath R, et al. Clinical practice guidelines for management of neuropathic pain: expert panel recommendations for South Africa. S Afr Fam Pract. 2013;55(2):143-58.
8. Peripheral neuropathy: primary care of veterans with HIV [Internet]. In: Primary care manual: neurology, psychiatry, and pain. Washington (DC): US Department of Veterans Affairs; 2011 Oct 28 [cited 2015 Nov 24]. Available from: <http://www.hiv.va.gov/provider/manual-primary-care/peripheral-neuropathy.asp>
9. Attal N, Cruccu G, Baron R, Haanpaa M, Hansson P, Jensen TS, et al. EFNS guidelines on the pharmacological treatment of neuropathic pain: 2010 revision. Eur J Neurol. 2010 Sep;17(9):1113-e88.
[PubMed: PM20402746](#)
10. Attal N, Cruccu G, Haanpaa M, Hansson P, Jensen TS, Nurmikko T, et al. EFNS guidelines on pharmacological treatment of neuropathic pain. Eur J Neurol. 2006 Nov;13(11):1153-69.
[PubMed: PM17038030](#)

Review Articles

11. Brix FN, Hein SS, Staehelin JT. Management of painful neuropathies. Handb Clin Neurol. 2013; 115:279-90.
[PubMed: PM23931787](#)

12. Krashin DL, Merrill JO, Trescot AM. Opioids in the management of HIV-related pain. Pain Physician [Internet]. 2012 [cited 2015 Nov 24];15:ES157-ES168. Available from: <http://www.painphysicianjournal.com/current/pdf?article=MTcxMw%3D%3D&journal=68>
13. Selph S, Carson S, Fu R, Thakurta S, Low A, McDonagh M. Drug class review: neuropathic pain: final update 1 report. Portland (OR): Oregon Health & Science University; 2011 Jun. (Drug Class Reviews). [PubMed: PM21977547](#)
14. Finnerup NB, Sindrup SH, Jensen TS. The evidence for pharmacological treatment of neuropathic pain. Pain. 2010 Sep;150(3):573-81. [PubMed: PM20705215](#)

Additional References

15. Nicholas PK, Corless IB, Evans LA. Peripheral neuropathy in HIV: an analysis of evidence-based approaches. J Assoc Nurses AIDS Care. 2014 Jul;25(4):318-29. [PubMed: PM24698331](#)
16. Schutz SG, Robinson-Papp J. HIV-related neuropathy: current perspectives. HIV aids (Auckl) [Internet]. 2013 [cited 2015 Nov 24];5:243-51. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775622> [PubMed: PM24049460](#)
17. Johannessen LC. Antiepileptic drugs in non-epilepsy disorders: relations between mechanisms of action and clinical efficacy. CNS Drugs. 2008;22(1):27-47. [PubMed: PM18072813](#)
18. Backonja MM. Use of anticonvulsants for treatment of neuropathic pain. Neurology. 2002 Sep 10;59(5 Suppl 2):S14-S17. [PubMed: PM12221151](#)