Cochrane Library

**Cochrane** Database of Systematic Reviews

# Losigamone add-on therapy for partial epilepsy (Review)

Xiao Y, Luo M, Wang J, Luo H

Xiao Y, Luo M, Wang J, Luo H.
Losigamone add-on therapy for partial epilepsy.
*Cochrane Database of Systematic Reviews* 2015, Issue 12. Art. No.: CD009324.
DOI: 10.1002/14651858.CD009324.pub3.

**www.cochranelibrary.com**




WILEY

[Intervention Review]

# Losigamone add-on therapy for partial epilepsy

Yousheng Xiao[1], Man Luo[1], Jin Wang[1], Hongye Luo[2]

[1]Department of Neurology, The First Affiliated Hospital, Guangxi Medical University, Nanning, China. [2]Department of Epidemiology & Statistics, Guangxi Medical University, Nanning, China

**Contact address:** Jin Wang, Department of Neurology, The First Affiliated Hospital, Guangxi Medical University, No. 22, Shuang Yong Lu, Nanning, Guangxi, 530021, China. wangjin72@126.com.

**Editorial group:** Cochrane Epilepsy Group.
**Publication status and date:** New search for studies and content updated (no change to conclusions), published in Issue 12, 2015.

**Citation:** Xiao Y, Luo M, Wang J, Luo H. Losigamone add-on therapy for partial epilepsy. *Cochrane Database of Systematic Reviews* 2015, Issue 12. Art. No.: CD009324. DOI: 10.1002/14651858.CD009324.pub3.



## ABSTRACT

### Background

Epilepsy is a common neurologic disorder, affecting approximately 50 million people worldwide; nearly a third of these people are not well controlled by a single antiepileptic drug (AED) and usually require treatment with a combination of two or more AEDs. In recent years, many newer AEDs have been investigated as add-on therapy for partial epilepsy; losigamone is one of these drugs and is the focus of this systematic review. This is an update of a Cochrane review first published in 2012 (*Cochrane Database of Systematic Reviews* 2012, Issue 6).

### Objectives

To investigate the efficacy and safety of losigamone when used as an add-on therapy for partial epilepsy.

### Search methods

We searched the Cochrane Epilepsy Group Specialized Register (16 February 2015), the Cochrane Central Register of Controlled Trials (CENTRAL, T*he Cochrane Library* 16 February 2015) and MEDLINE (Ovid, 1946 to 16 February 2015). We searched trials registers and contacted the manufacturer of losigamone and authors of included studies for additional information. We did not impose any language restrictions.

### Selection criteria

Randomized controlled, add-on trials comparing losigamone with placebo for partial epilepsy.

### Data collection and analysis

Two review authors independently assessed trial quality and extracted data. The primary outcomes were 50% or greater reduction in seizure frequency and seizure freedom; the secondary outcomes were treatment withdrawal and adverse events. Results are presented as risk ratios (RRs) with 95% confidence intervals (CIs) or 99% CIs (for the individual listed adverse events to make an allowance for multiple testing).

### Main results

Two trials involving a total of 467 patients, aged over 18 years, were eligible for inclusion. Both trials assessed losigamone 1200 mg/day or 1500 mg/day as an add-on therapy for partial epilepsy. One trial was assessed as being of good methodological quality while the other was of uncertain quality. For the efficacy outcomes, results did show patients taking losigamone were significantly more likely to achieve a 50% or greater reduction in seizure frequency (RR 1.76; 95% CI 1.14 to 2.72), but associated with a significant increase of treatment withdrawal when compared with those taking placebo (RR 2.16; 95% CI 1.28 to 3.67). For the safety outcomes, results indicated the proportion of patients who experienced adverse events in the losigamone group was higher than the placebo group (RR 1.34; 95% CI 1.00 to 1.80), dizziness was the only adverse event significantly reported in relation to losigamone (RR 3.82; 99% CI 1.69 to 8.64). The proportion of

patients achieving seizure freedom was not reported in either trial report. A subgroup analysis according to different doses of losigamone showed that a higher dose of losigamone (1500 mg/day) was associated with a greater reduction in seizure frequency than lower doses, but was also associated with more dropouts due to adverse events.

**Authors' conclusions**

The results of this review showed losigamone did reduce seizure frequency but was associated with more treatment withdrawals when used as an add-on therapy for people with partial epilepsy. However, trials included were of short-term duration and uncertain quality. Future well-designed randomized, double-blind, placebo-controlled trials with a longer-term duration are needed. No new studies have been found since the last version of this review.

## PLAIN LANGUAGE SUMMARY

**Losigamone add-on therapy for partial epilepsy**

**Review question**

This review is an update of a previously published review in the *Cochrane Database of Systematic Reviews* (2012, Issue 6) on 'Losigamone add-on therapy for partial epilepsy'. We reviewed the evidence about the efficacy and safety of losigamone when used as an add-on therapy for partial epilepsy. We found two studies.

**Background**

Epilepsy is a common neurologic disorder, affecting approximately 50 million people worldwide; nearly a third of these people are not well controlled by a single antiepileptic drug (AED) and often require treatment with two or more AEDs (add-on therapy). In recent years, many newer AEDs have been investigated as add-on therapy for partial epilepsy; losigamone is one of these drugs. We wanted to know whether losigamone was an effective and safe treatment for patients with partial epilepsy.

**Study characteristics**

The evidence is current to February 2015. We found two trials assessing add-on losigamone for partial epilepsy, which recruited a total of 467 patients aged over 18 years. Both trials assessed losigamone 1200 mg/day or 1500 mg/day as an add-on therapy for partial epilepsy.

**Key results**

The results of this review showed patients taking losigamone as an add-on treatment were more likely to reduce their seizure frequency by 50% or more in a short-term duration; however it was associated with more treatment withdrawal side effects than placebo. The most frequent adverse event caused by losigamone was dizziness.

**Quality of the evidence**

One trial was assessed as being of good methodological quality while the other was of uncertain quality.