

**Evidence-Based Practice Group Answers to Clinical
Questions**

**“Effect of Ropinirole on Patients with
Myoclonic Dystonia”**

A Rapid Systematic Review

By

WorkSafeBC Evidence-Based Practice Group

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Clinical Services – Worker and Employer Services

About this report

Effect of Ropinirole on Patients with Myoclonic Dystonia

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About the Evidence-Based Practice Group

The Evidence-Based Practice Group was established to address the many medical and policy issues that WorkSafeBC officers deal with on a regular basis. Members apply established techniques of critical appraisal and evidence-based review of topics solicited from both WorkSafeBC staff and other interested parties such as surgeons, medical specialists, and rehabilitation providers.

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Objective

To determine whether there is evidence to support the efficacy and/or effectiveness of Ropinirole in patients with myoclonic dystonia.

Methods

- A systematic literature search was done on September 8th, 2020.
- This literature search was conducted on commercial medical literature databases, including Medline Epub Ahead of Print[®], Medline In-Process & Other Non-Indexed Citations[®], Medline Daily Update[®] and Medline[®] (1946 to September 4, 2020), available through the Ovid[®] platform.
- The search was done by employing combinations of keywords. Full search strategies seen in Appendix 2.
- No limitations, such as on the language and date of publication, were implemented in any of these searches.
- For non-English language publications, the Bing Translator[®] (<https://www.bing.com/translator/>) was used to generate an English translation.
- A manual search was also conducted on the references of the articles that were retrieved in full.

Results

- Search results:
- 22 published studies were identified through literature search
- Upon examination of the titles and abstracts of these published studies, one study, a case study, was thought to be relevant and was retrieved in full for further appraisal.¹
- The manual search identified one additional study, a case report.²
- Of the two studies that were retrieved in full, both were excluded due to incorrect study design (case reports)

Summary

- At present, there is no high quality evidence that supports the use of Ropinirole on patients with myoclonic dystonia.

References

1. Karvonen MK, Kaasinen V, Korja M, Marttila RJ. Ropinirole diminishes myoclonus and improves writing and postural balance in an ULD patient. *Mov Disord Off J Mov Disord Soc.* 2010; 25(4): 520-521. doi: 10.1002/mds.22962
2. Kuncel AM, Turner DA, Ozelius LJ, Greene PE, Grill WM, Stacy MA. Myoclonus and tremor response to thalamic deep brain stimulation parameters in a patient with inherited myoclonus-dystonia syndrome. *Clin Neurol Neurosurg.* 2009; 111(3): 303-306. doi: 10.1016/j.clineuro.2008.10.015

Appendix 1

WorkSafeBC - Evidence-Based Practice Group Levels of Evidence (adapted from 1,2,3,4)

1	Evidence from at least 1 properly randomized controlled trial (RCT) or systematic review of RCTs.
2	Evidence from well-designed controlled trials without randomization or systematic reviews of observational studies.
3	Evidence from well-designed cohort or case-control analytic studies, preferably from more than 1 centre or research group.
4	Evidence from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments could also be included here.
5	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees.

References

1. Canadian Task Force on the Periodic Health Examination: The periodic health examination. *CMAJ.* 1979; 121: 1193-1254.
2. Houston TP, Elster AB, Davis RM et al. The US Preventive Services Task Force Guide to Clinical Preventive Services, Second Edition. AMA Council on Scientific Affairs. *American Journal of Preventive Medicine.* May 1998; 14(4): 374-376.
3. Scottish Intercollegiate Guidelines Network (2001). SIGN 50: a guideline developers' handbook. SIGN. Edinburgh.
4. Canadian Task Force on Preventive Health Care. New grades for recommendations from the Canadian Task Force on Preventive Health Care. *CMAJ.* Aug 5, 2003; 169(3): 207-208.

Appendix 2

Search 1. Search strategy for MEDLINE (via OVID)

1	myoclon*.mp.	17029
2	dyston*.mp.	19146
3	1 or 2	35070
4	exp Dystonic Disorders/	7076
5	myoclonus dystonia/	0
6	dyston*.ab,ti.	16736
7	exp dystonia/	9660
8	DYT11.mp.	72
9	SGCE.mp.	223
10	epsilon sarcoglycan.mp.	150
11	myoclonic dystonia/	0
12	hereditary essential myoclonus.mp.	18
13	paramyoclonus multiplex.mp.	37
14	myoclonus-dystonia { Including Related Terms}	304
15	myoclonic-dystonia { Including Related Terms}	61
16	or/3-15	37678
17	ropinirole.mp.	935
18	ReQuip.mp.	21
19	ropinirole { Including Related Terms}	789
20	or/17-19	936
21	16 and 20	22