



Effective Health Care Treatments for Myasthenia Gravis Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Treatments for myasthenia gravis was found to be addressed by two existing reviews by the Cochrane Collaboration titled *Acetylcholinesterase inhibitor treatment for myasthenia gravis* and *Immunosuppressive agents for myasthenia gravis*. Given that the existing reviews cover this nomination, no further activity will be undertaken on this topic.
 - Mehndiratta MM, Pandey S, Kuntzer T. **Acetylcholinesterase inhibitor treatment for myasthenia gravis**. Cochrane Database of Systematic Reviews 2011, Issue 2. Art. No.: CD006986. DOI: 10.1002/14651858.CD006986.pub2. Available at: <http://www2.cochrane.org/reviews/en/ab006986.html>
 - Hart IK, Sathasivam S, Sharshar T. **Immunosuppressive agents for myasthenia gravis**. Cochrane Database of Systematic Reviews 2007, Issue 4. Art. No.: CD005224. DOI: 10.1002/14651858.CD005224.pub2. Available at: <http://www2.cochrane.org/reviews/en/ab005224.html>

Topic Description

Nominator: Individual

Nomination Summary: The nominator has requested research into treatments for myasthenia gravis that are better tolerated than the currently available treatments, especially pyridostigmine and azathioprine.

Staff-Generated PICO:

Population(s): Adults with myasthenia gravis and multiple medical conditions

Intervention(s): Mestinon (pyridostigmine, an anticholinesterase inhibitor) and Imuran (azathioprine, an immunosuppressant)

Comparator(s): Thymectomy, plasma exchange, intravenous immunoglobulin, and lifestyle changes

Outcome(s): Adverse effects, weight loss and gain, vomiting, bone marrow breakdown, low red blood cell count, anemia, and kidney and liver shut down

Key Questions from Nominator: None

Considerations

- The topic meets 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/>.)
- Myasthenia gravis is a rare autoimmune disorder of neuromuscular transmission that causes periodic attacks of muscle weakness. It frequently progresses to more generalized weakness and can be life threatening when involving certain muscles such as respiratory muscles. Current medical treatments reduce mortality from the condition, such that patients can expect near normal life expectancy.
- This topic was found to be addressed by two reviews conducted by the Cochrane Collaboration on immunosuppressant agents and acetylcholinesterase inhibitor treatment for myasthenia gravis. The authors review the available evidence on the specific treatments of interest to the nominator.
- Limited evidence has been published on the particular treatments of interest to the nominator compared to other treatment methods since the Cochrane reviews were conducted, and no relevant in-process studies were identified. The current literature is also unable to address the nominator's concern regarding treatment of myasthenia gravis in the presence of comorbidities. Thus, a new review on the treatment of myasthenia gravis in the general population and subpopulations is not warranted at this time, and the majority of the literature that is available has been reviewed by the Cochrane Collaboration.