



Effective Health Care

Dietary Supplements for the Treatment of Viral Illness Nomination Summary Document

Results of Topic Selection Process & Next Steps

- The topic, *Vitamin B12 for the Treatment of Viral Illness*, is not feasible for a full systematic review due to the limited data available for a review at this time.

Topic Description

Nominator(s): Individual

Nomination Summary: Vaccines can be used to help prevent viral infections, but usually are not effective at treating viruses once they infect the body. Also, most benign respiratory and gastrointestinal viruses are not serious enough to warrant the development of a vaccine and individuals continue to contract viruses. Pharmacotherapy for common viral infections has limited indications, is most commonly used in high risk populations, and is most effective when administered within 48 hours of exposure to a virus. There are also types of viruses for which no effective antiviral treatment exists. The nominator suggests that use of alternative therapies may be more effective at preventing and treating some viruses, including cold and flu viruses, than antivirals and vaccines. The nominator suggests that methylcobalamin (B-12) may be effective for the prevention and treatment of viral infections.

Our assessment specifically focused on the following common respiratory and gastrointestinal viral infections to target information most relevant to the nominator's interest: nasal and respiratory viruses such as the common cold (rhinovirus), influenza viruses, and gastrointestinal viruses such as norovirus and Norwalk virus.

Staff-Generated PICO

Population(s): Adults with influenza, respiratory, or gastrointestinal viral infections

Intervention(s): Vitamin B-12

Comparator(s): Other treatment methods including other dietary supplements, placebo, and no treatment

Outcome(s): Improvement in symptoms

Key Questions from Nominator: What is the comparative effectiveness of vitamin B-12 (methylcobalamin) in the prevention and treatment of viral infections?

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/>.)
- Vitamins, minerals, and other dietary supplements are popular in the US. About half of the US adult population uses vitamins and other dietary supplements. In 2009, Americans spent at least \$20 billion on dietary supplements.
- Because the Food and Drug Administration (FDA) does not require pre-marketing approval of vitamins, minerals, and other dietary supplements, there is little known about the positive and negative effects of these products. There is a high amount of uncertainty among patients and clinicians alike about the therapeutic effectiveness of these products in treating viral infections.
- The effectiveness of vitamin B-12 in preventing and treating viral infection is not well-synthesized in any one clinical practice guideline, review, or report. Additionally, only one study specifically addressing vitamin B-12 was found and was related to the treatment of hepatitis C. Therefore, it is not feasible to develop an AHRQ product relevant to the nomination at this time.