



Topic Disposition Summary: Prevention of Altitude Illness

Date: 3/29/2024

Nomination Number: 1106

Purpose: This document summarizes information addressing a nomination submitted on March 15, 2024, ([link to nomination](#)) through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: The nominator is interested in a new systematic review on optimal prevention of altitude sickness.

Findings: The EPC program will not develop a new evidence report on this topic because the Wilderness Medical Society published a Clinical Practice Guideline in early 2024 that addresses the topic area.

Background:

Altitude illness affects tens of thousands of people each year who travel to high altitudes. In the United States, it is estimated that approximately 25% of individuals who ascend to altitudes above 8,000 feet (2,500 meters) experience minor symptoms of altitude sickness, with severe cases requiring medical intervention occurring in about 1.5% of these individuals.¹ This includes acute mountain sickness (AMS), which is the most common, as well as more severe conditions like high-altitude pulmonary edema (HAPE) and high-altitude cerebral edema (HACE). AMS can affect up to 25% of individuals visiting high-altitude locations.

Symptoms of altitude sickness include headache, nausea, dizziness, and fatigue, which can range from mild to severe. Current best practices for preventing altitude sickness include gradual ascent, allowing time for acclimatization, and avoiding strenuous activity during the first days at high altitude.² Pharmacological prevention typically involves the use of acetazolamide or dexamethasone, which have been shown to be effective in reducing the incidence and severity of symptoms.³⁻⁶ Non-pharmacological strategies, including adequate hydration and a diet rich in carbohydrates, are also recommended.⁶

For countries with substantial populations living at high altitudes or significant tourism to such areas, altitude sickness can be a more prominent health concern. Awareness, preventative measures and appropriate medical responses are important to manage the risks associated with altitude sickness. However, for the majority of the population in the U.S., it is a relatively rare and avoidable condition.

Related Resources:

We identified additional information during our assessment that might be useful. In early 2024, the Wilderness Medical Society produced [clinical practice guidelines](#) covering the prevention, diagnosis and treatment of altitude illness.⁶

References

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