



Effective Health Care

Treatment of Pulmonary Hypertension in Adults with Sleep Apnea

Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Treatment of pulmonary hypertension in adults with sleep apnea is not feasible for a full systematic review due to the limited data available for a review at this time.
- This topic could potentially be considered for new research in comparative effectiveness.

Topic Description

Nominator: Individual

Nomination Summary: The nominator is interested in the effectiveness of treatments for pulmonary hypertension for adults with sleep apnea.

Staff-Generated PICO:

Population(s): Older adults (50-90 years) with sleep apnea and pulmonary hypertension with varying disease severity

Intervention(s): Treatments for pulmonary hypertension, including activity/exercise, medications (combination or monotherapy), surgery, and other supportive therapies

Comparator(s): Above interventions compared to each other

Outcome(s): Improvements in breathing, quality of life, exercise tolerance, and mortality

Key Questions from Nominator: None

Considerations

- The topic meets Effective Health Care (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/>.)
- The American College of Chest Physicians (ACCP) produced clinical guidelines in 2004 that address patients with both PH and sleep apnea. A summary of these guidelines can be found via the National Guideline Clearinghouse at: <http://guidelines.gov/content.aspx?id=5462> or with the following citation:

- Atwood CW Jr, McCrory D, Garcia JG, Abman SH, Ahearn GS. Pulmonary artery hypertension and sleep-disordered breathing: ACCP evidence-based clinical practice guidelines. Chest 2004 Jul;126(1 Suppl):72S-77S.
- A broad scan of the literature since the publication of the ACCP guidelines identified very few new studies that address the topic. Therefore, this topic may not be feasible for a full systematic review at this time.
- A 2011 AHRQ review on the diagnosis and treatment of obstructive sleep apnea in adults and an in-process AHRQ review on screening, management, and treatment of pulmonary arterial hypertension have some relevance to this topic.
 - These reviews can be found on the EHC program website at:
<http://www.effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/>.

Importance of New Research

- New research on treatment for pulmonary hypertension and sleep apnea may be important as existing literature highlights many uncertainties surrounding the clinical correlation between and management of the co-occurring conditions.

Research Gaps

- True prevalence and epidemiology of the co-occurring conditions is unknown, as no large population-based studies have been conducted. There is debate in the literature and evidence is lacking for explanations of how PH can develop from sleep apnea and the impact sleep-disordered breathing has on cardiovascular morbidity.
- Treatment of sleep apnea may lead to improvement in PH. More studies are needed on the effects of sleep apnea treatments on PH and how these treatments fit into the established treatment paradigm for PH.