

Implementation Model for Identifying and Treating Obstructive Sleep Apnea in Commercial Drivers

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Objectives

Obstructive Sleep Apnea (OSA), a highly prevalent, under-diagnosed disorder, is an important preventable cause of accidents at work and on the road. Commercial drivers are predominantly middle-aged men with high levels of obesity and hypertension, increasing their risk for OSA. Although Department of Transportation (DOT) physicals are conducted to certify drivers, physicians have no accurate and convenient methods for identifying OSA and evaluating its effects on performance. The investigators developed and validated two innovative technologies that can be easily applied in the workplace to identify the presence and severity of OSA and quantify the daytime symptoms of OSA.

Methods

The Apnea Risk Evaluation System (ARES™) combines anthropomorphic and clinical information obtained from a validated questionnaire with physiological recordings acquired in at-home sleep studies to identify OSA. The Alertness-Memory Profiler (AMP) assesses neurocognitive consequences of OSA with neurophysiological and performance measures.

Results & Conclusions

The investigators will present a model program designed to inexpensively identify and treat drivers with OSA in compliance with DOT guidelines. ARES and AMP data will be included to support the model. The goal is to accurately diagnosis and treat OSA while minimizing medical leave time. The model incorporates: ARES Questionnaire Analysis to rapidly assess OSA risk, 2-night ARES nocturnal study to diagnose OSA, objective quantification of alertness with AMP, and CPAP auto-titration when required. Educational programs developed for occupational medical providers, employers and OSA patients are essential elements of the model. Results from pilot programs will also be presented.