

Putting Sleep Apnea to the Test:

One sleep program's drive to diagnose and treat commercial truck drivers

Houston, TX –July 14, 2011 – When a commercial truck is stationary, the driver is losing money. So it's no wonder commercial truck drivers are behind the wheels of their big rigs for up to 14 hours every day – sedentary. Couple it with fast food on the road, stressful deadlines and unfamiliar sleep environments and you have the recipe for a variety of health issues, including sleep apnea.

Recent research and media attention has brought obstructive sleep apnea (OSA) and driver sleepiness into the limelight, revealing just how prevalent the condition is among commercial drivers.

It is estimated that 28 percent or higher of any commercial fleet is at risk for obstructive sleep apnea. Why? This is a demographic of predominantly middle-aged males, many with BMIs of 30 or greater, with associated co-morbidities like hypertension, diabetes, gastric reflux or heart disease. This combination puts one at risk, especially when coupled with a neck of 17 inches or greater.

Legislative progress

The attention has prompted the Federal Motor Carrier Safety Administration (FMCSA) to review the issue but has yet to put a standard into place regarding driver safety.

The Medical Review Board (MRB) to the FMCSA voted on recommendations in January 2008 in Salt Lake City. These were guidelines for DOT examiners to use when reviewing a driver at the point of a DOT medical exam. A MRB may meet on the subject of sleep apnea again in August 2011.

Companies take action

But that hasn't stopped some trucking companies from setting their own standard before regulation hits. Many companies solicit the use of surveys or questionnaires from a third party to collect data regarding a driver's alertness on the road. However, these tools have disadvantages when working with a reluctant patient.

"The average truck driver is not going to volunteer symptoms related to daytime fatigue, daytime sleepiness, or inattentiveness while driving," said Mark Berger, MD, CEO of Precision Pulmonary Diagnostics (PPD) in Houston.

Survey says

That's why Berger, along with colleague Wendy Sullivan, RN, Vice President of project implementation and health and safety consultative services at PPD, developed the Somni-Sage Questionnaire – a sleep-focused questionnaire, which determines sleep issues among the most reluctant of drivers.

The Somni-Sage Questionnaire, now patented, was developed based on research collected solely from commercial drivers. The research, collected over the past four years, concluded drivers have a tendency

to be reluctant due to fear of not being able to drive, being put out of service or not being able to adhere to CPAP treatment for sleep apnea. (Berger and his team are currently preparing the data for publication.)

The Somni-Sage Questionnaire is administered through a secure HIPAA-compliant Web portal and features about 35 questions a driver can usually answer in less than 15 minutes.

"It's running a high positive predictive value for the presence of sleep apnea in a truck driver," Berger said. PPD uses the survey during its screening process to determine which drivers are most at risk for OSA.

"We wanted a method to identify which truck drivers in a fleet would be at risk for having sleep apnea because you obviously don't want to do an overnight sleep test, even with an overnight limited channel monitor, on every single truck driver just because they're a truck driver," Berger said.

Instead, Berger believes it is more time and cost-effective to do subsequent testing on those who score high on the questionnaire, and therefore may be more at risk for OSA.

Partnering for a cause

While diagnostic testing may be tricky on such a mobile population, PPD subcontracts independent diagnostic testing facilities, accredited (or pending accreditation) with either the American Academy of Sleep Medicine or The Joint Commission. The 30 sleep labs in PPD's national network provide the diagnostic testing component of its comprehensive sleep apnea management program.

Drivers are tested overnight on-site with a type 1 polysomnogram. Although PPD is exploring the use of limited channel monitors, Berger cites a reduced need to bring drivers back as a distinct advantage of an attended diagnostic test.

"If there is a technical difficulty, it can be remedied immediately," he said. "So the chance of having to bring a driver back because of a technical issue related to the diagnostic test is almost zero. In addition, it is the reference standard and the most comprehensive test."

The scope is another advantage in terms of liability concerns.

"The legal implications of a diagnosis or a misdiagnosis of sleep apnea in a commercial driver are potentially huge, so we feel strongly that the most comprehensive study ought to be the one used in this patient population to rule out the presence of sleep apnea or to assess its severity," Berger said.

Driver support

Critical to the success of a sleep apnea program is the monitoring, support and education once therapy is prescribed. Over 50 percent of CPAP machines sit on shelves. PPD has a toll-free hotline drivers can call 24 hours a day, 7 days a week, if they have concerns about equipment needs; care and maintenance of CPAP equipment; CPAP troubleshooting and common questions; data card questions; compliance questions; or sleep lab/study information.

PPD has a Driver Support blog, www.CPAPCrossCountry.com, where drivers can read about sleep-specific topics and connect with other drivers suffering from OSA.

“It’s important to support the drivers,” Sullivan said. “Improvement in health, safety and productivity depend on it.”

About Precision Pulmonary Diagnostics

Founded in 2005 by sleep specialist, Mark B. Berger, M.D., Precision Pulmonary Diagnostics (PPD®) is committed to the diagnosis and treatment of sleep apnea in commercial drivers/operators, resulting in improved driver health and safety and significant return on investment for their employer.

Headquartered in Houston, TX PPD®’s patent-pending programs allow administration of employer-driven sleep apnea programs that include web-based screening tools, diagnosis, treatment and monitoring of this highly prevalent condition. For more information go to: www.PPDsleep.com