

## Podcast of the Journal of Clinical Sleep Medicine

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Welcome to the regular Podcast of the Journal of Clinical Sleep Medicine. I am Dr. Stuart Quan, Editor of the Journal. These Podcasts are a regular feature of each issue of the Journal and can be downloaded at the Journal's website. Each Podcast features summaries of important articles published in the current issue of the Journal, as well as occasional interviews with authors of these papers.

As most of the readership knows, on December 14, 2007, the Centers for Medicare and Medicaid services, otherwise known as CMS, released a proposed decision for modification of coverage for continuous positive airway pressure (CPAP) for adult obstructive sleep apnea (OSA). Significant modifications of the current coverage are proposed, which include allowing unattended home portable monitors of the Type 2, 3, and 4 categories to be used as diagnostic devices to qualify Medicare recipients for CPAP and requiring a demonstration that beneficiaries benefit from the use of CPAP during a 12 week trial. The proposal to allow home portable monitoring to be used in establishing a diagnosis of OSA is perhaps the most controversial of the modifications. In this issue of the journal, Dr. Alejandro Chediak, current President of the American Academy of Sleep Medicine, offers his perspectives on why CMS proposes to allow home portable monitoring to establish the diagnosis of OSA. Dr. Chediak opines that the basis of the CMS decision was a change in philosophy from an "accuracy of diagnosis" issue to one of "favorable outcomes for treatment of OSA with CPAP." He believes that after hearing sometimes conflicting testimony, CMS determined that neither in-lab polysomnography nor home portable monitoring could accurately predict whether patients would benefit from the use of CPAP for OSA. Therefore, they decided that either diagnostic strategy would be allowed and that a final decision on whether to cover any individual patient's CPAP would be determined after a 12 week trial of its use.

Dr. Chediak points out that there are a number of concerns with the proposed CMS decision. These include potential for physicians inexperienced in Sleep Medicine to provide suboptimal management of OSA patients, especially those with significant medical co-morbidities. However, he also notes that there is a potential for such a decision to enhance the value of a Sleep Medicine specialist in the management of such patients. As the readership knows, a number of organizations and individuals will be commenting on the proposed CMS decision, with a final ruling anticipated some time in the spring of 2008.

Recognition of congestive heart failure is becoming increasingly common among patients and there is growing recognition that sleep-disordered breathing may be a frequent occurrence among patients with congestive heart failure. This issue of the Journal features an article entitled, "The Current Prevalence of Sleep-Disordered Breathing in Congestive Heart Failure Patients Treated with Beta Blockers," by Mary McDonald, James Fang, Steven D. Pitman, David P. White and Atul Maholtra in which the authors attempt to determine the prevalence of sleep-disordered breathing among patients with congestive heart failure. In this study, the authors evaluated 108 consenting patients out of 153 consecutively eligible patients from the heart-failure clinic of the Brigham and Woman's Hospital in Boston, MA. All of these patients had clinically stable heart failure with New York Heart Association class 2, 3 or 4 with an ejection fraction of less than 40%. Patients with valvular heart disease, primary diastolic heart failure and major lung disease were excluded. All patients underwent home portable monitoring, as well as echocardiography. The authors found that 61% of their subjects had some form of sleep-disordered breathing, with 31% having central sleep apnea with Cheyne-Stokes respiration and 30% with obstructive sleep apnea. The presence of sleep-disordered breathing was associated with atrial fibrillation and worse functional heart failure class. Age, gender and body mass index were not significant predictive factors. Almost all of the participants were receiving beta blocker therapy for their heart failure. The authors conclude that both obstructive and central sleep apnea remain common in congestive heart failure patients despite advances in the medical therapy for heart failure.

In a commentary that follows the paper by McDonald and colleagues entitled "Sleep-Disordered Breathing and Heart Failure: A Contemporary Assessment", Dr. Shawn Caples from the Mayo Clinic in Rochester, MN notes that the finding of a high prevalence of central sleep apnea despite nearly universal Beta blocker usage among study participants is an important finding. However, he observes that the assessment of sleep-disordered breathing in the study was made using unattended portable monitoring and the validity of portable monitoring in this setting is not known. He further suggests that additional research is needed to understand the complex interactions between sleep, breathing and heart failure.

Another article featured in this issue of the journal is, "A Comparison of Glycemic Control, Sleep, Fatigue, and Depression in Type 2 Diabetes With and Without Restless Leg Syn-

drome, “ by Drs. Norma Cuellar and Sara Ratcliffe from the University of Pennsylvania. In this paper, the authors point out that diabetes is an important cause of death in Americans and that sleep disturbances and sleep deprivation are increasingly implicated in the development of insulin resistance. They also note that restless leg syndrome is increasingly observed amongst Type 2 diabetics but this association has not been thoroughly evaluated. In their study, participants with Type 2 diabetes, with and without restless leg syndrome, were studied using a case-control design. The authors found that those participants who had restless leg syndrome had significantly worse subjective sleep and were also sleepier. They also found a significant correlation between hemoglobin A<sub>1c</sub> levels and sleepiness, as defined by the Epworth Sleepiness Scale. The authors concluded that restless leg syndrome may have an impact on diabetes management. They further suggest that more research should be conducted in this area.

The final paper to be highlighted in this issue of the Journal is entitled, “Rapid Resolution of Intense Suicidal Ideation After Treatment of Severe Obstructive Sleep Apnea,” by Lois E. Krahn, Bernard W. Miller and Larry R. Bergstrom from the Mayo Clinic in Scottsdale, AZ. In this case report, the authors describe a 74 year-old man who presented with excessive daytime sleepiness, poor quality nocturnal sleep, depressed mood and suicidal ideation. Despite having active suicide plans, the patient declined emergent psychiatric hospitalization. However, because he did have symptoms of significant sleep apnea, the patient did agree to use of an auto-titrating CPAP machine followed by an urgent polysomnogram. The polysomnogram documented severe obstructive sleep apnea, with an apnea-hypopnea index of 64 and a low oxygen saturation of 65%. He responded to CPAP therapy and without the use of anti-depressant medication had a remission in both his suicidal ideation and depression. The authors emphasize that an assessment for a severe sleep disorder in patients presenting with severe depression and suicidal ideation is a prudent measure. They further suggest that use of nasal CPAP in those cases with obstructive sleep apnea could be added to conventional psychiatric treatment.

This concludes the regular Podcast of the February 15, 2008 issue of the Journal of Clinical Sleep Medicine. The listener is encouraged to read the articles summarized in their entirety, as well as other papers published in this issue of the Journal.