

# 05 Increase Sleep Apnea Syndrome Screening

## Situation

Early detection is crucial to the health and wellbeing of patients suffering from sleep apnea syndrome (SAS). In 2014, the number of patients with SAS in Japan was more than three million (a prevalence of 2 – 4 percent of adults), of whom only 300,000 (about 10 percent) were undergoing treatment.<sup>1</sup> That means there is a large pool of latent patients, who are unaware of their condition and do not recognize the symptoms. SAS not only disrupts a person's sleep, causing daily drowsiness, but also contributes to serious cardiovascular disease, such as hypertension, heart failure, stroke, and heart arrhythmia.

Several studies have demonstrated that the cumulative survival rate of SAS patients who do not receive proper treatment is significantly lower than that of those who do.<sup>2</sup> While the treatment offered to patients diagnosed with SAS in Japan is in line with that of other developed nations, efforts to bring latent patients to sleep labs for detection are insufficient. Undetected and untreated SAS takes a heavy toll on society. It is estimated that untreated SAS patients cause seven times more traffic accidents than persons who are not suffering from the syndrome.<sup>3</sup> In Japan, a major incident attributed to SAS occurred in 2003, when a bullet train driver dozed off at the controls.

The number of patients with SAS who are undergoing continuous positive airway pressure (CPAP) treatment in the United States currently stands at between three and five million, or about 20 to 30 times more than in Japan.<sup>4</sup> This greater number in the United States is due to the more frequent diagnosis of sleep disorders in that country. It is estimated that there is about one sleep lab bed for every 10,000 persons in Japan, while there are five to 10 sleep lab beds for every 10,000 persons in the United States. Also, physicians in the United States have a greater incentive for conducting SAS detection

tests where the reimbursement is typically in the range of USD1,000 to USD1,500. Given the severity of the co-morbidities of SAS, preventing and treating it is an investment in public health.

## Current Policy

At present, the Ministry of Health, Labour and Welfare (MHLW) provides reimbursement for SAS testing via full polysomnography (PSG) and simplified portable PSG (without electroencephalography). However, the national health insurance reimbursement amount for full PSG is only JPY33,000 per test (requiring one night in hospital) and does not cover the room charge and the staffing cost of sleep laboratory technicians. This low level of reimbursement does not provide an adequate incentive to physicians. Meanwhile, the significant out-of-pocket costs for patients means that affordability reduces access to SAS testing.

In terms of national insurance coverage, CPAP treatment can be prescribed in the United States and major countries in Europe for patients with an apnea-hypopnea index (AHI) of more than five. By contrast, the treatment can be prescribed in Japan only when the AHI is more than 20. Therefore, CPAP treatment cannot be offered to many patients who other countries believe should receive it.

Annual health screenings provide an important opportunity to detect lifestyle diseases while they are in their early stages. Untreated, SAS can lead to many lifestyle diseases. To date, in Japan there has been only one official government statement in support of SAS screening. Issued in 2003 by the Ministry of Land, Infrastructure, Transport and Tourism, it recommends the screening for professional drivers. There has been no statement or recommendation for other workers. Many medical practitioners consider SAS screening to be necessary for adult males, of whom 20 percent have the syndrome.<sup>5</sup>

In addition, the decrease in female hormone levels causes the incidence of sleep apnea among postmenopausal women to be between two and four times higher than that among premenopausal women.<sup>6</sup> Because SAS in women only rarely produces snoring or sleepiness during the day, it is likely that women may not recognize the possibility that they have the syndrome. Increased efforts for SAS screening are needed because if left untreated, SAS can contribute to various forms of chronic diseases and increase a patient's health risk.

### **Recommendations**

- Raise the level of national health insurance reimbursement for SAS testing by physicians.
- Revise the criteria for prescribing CPAP treatment to match that of other developed nations where SAS testing is more common.
- Introduce SAS screening for adult males and postmenopausal women in annual health screenings.

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### **References**

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