INTRODUCTION

SINCE OBSTRUCTIVE SLEEP APNEA SYNDROME (OSAS) WAS FIRST DEFINED 30 YEARS AGO, there has been a substantial increase in health care costs related to diagnosis and treatment of disorders of breathing during sleep. Though the health benefits of treating sleep-disordered breathing (SDB) are well established, the potential cost savings to health care insurers of detecting and treating SDB have only recently been explored. This paper reviews current evidence supporting cost justification for the current standards of practice in detecting and treating SDB.1,2

EVIDENCE FOR COST JUSTIFICATION

Untreated SDB is associated with an increased risk of morbidity and mortality. From retrospective and matched control studies, mortality appears to be related in a graded fashion to the intensity of SDB and is highly influenced by co-morbidity.3-6 Sleep-disordered breathing likely plays a causal or contributing role in the development of comorbidities such as hypertension7-9 and cardiovascular events.10,11 Untreated SDB is also associated with increased risk of motor vehicle accidents in controlled studies.12,13 Prior to treatment, patients with untreated sleep apnea are more likely to be hospitalized and incur higher health care costs than matched control subjects. In one two-year study of 97 untreated sleep apnea patients, hospitalization days were increased 2.8-fold and incurred excess hospital costs of $100,000-$200,000, and physician costs for sleep apnea patients doubled.14 The same group preformed a follow-up 10-year study of 181 patients which demonstrated an increase in hospital stays of 2.5 days and a 101% excess physician costs for patients as compared to control subjects.15 In this study, the magnitude of medical costs correlated with the intensity of SDB.

There appear to be cost advantages to including sleep-monitoring procedures in the diagnosis of SDB. A recent cost analysis of the benefit of including sleep monitoring procedures in the detection of SDB demonstrated cost savings of $9200-$13400 per quality-adjusted life year gained.18 The cost of using polysomnography (PSG) in detecting SDB compares favorably with other outpatient diagnostic tests. A diagnostic PSG is one-fourth the cost of screening asymptomatic patients for carotid stenosis.18

CONCLUSIONS

Diagnosis and treatment of sleep-disordered breathing (SDB) are justifiable on the basis of short-term and lifetime cost savings. Diagnosis and treatment of SDB are more efficiently accomplished by physician evaluation and sleep monitoring rather than physician evaluation alone.

REFERENCES