

# Setting Up and Managing a Sleep Disorders Center

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## Review

An estimated 40 million Americans suffer from a variety of sleep disorders making sleep medicine one of the fastest growing medical fields in the United States. Obstructive Sleep Apnea (OSA) syndrome is the most common sleep-related breathing disorder worldwide. In Asia, the prevalence of symptomatic OSA in middle-aged men and women is 4.1-7.5% and 2.1-3.2% respectively. Obesity, an established major risk factor for OSA, is less common among Asians, and the reported values of body mass indices (BMI's) of Asians with OSA are lower than their Caucasian counterparts. However, these population-based studies have consistently demonstrated that obesity is still the major risk factor for OSA in Asians, while other studies have suggested that craniofacial structural factors may make a greater contribution towards development of OSA in Asians than Caucasians. OSA in Asia, Lam et al Dept of Medicine, Queen of Mary Hospital in Hong Kong, China

As the recognition of sleep disorders and Sleep Disordered Breathing (SDB) grows, so will the demand for quality polysomnography facilities, technologists and skilled interpreters.

This review on Setting Up and Managing a Sleep Disorder's is a useful resource for a physician or sleep professional considering starting up a sleep facility. It provides a general overview of the requirements in setting

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up and managing a sleep disorders center.

The review covers "Typical Settings of Sleep Disorders Centers" such as Hospital Outpatient Setting, a hospital sleep technologist may set up a Sleep Disorder Center (SDC) in conjunction with the respiratory therapy department in the hospital and a medical director. Another example is a Private Physician which a medical doctor may work with a sleep technologist to run sleep studies out of private SDC and a Hospital Inpatient setting similar to the Hospital Outpatient Setting. In this case, a medical doctor may work with a sleep technologist in a hospital to set up a patient in his/her room within the hospital using a portable sleep system instead of bringing them to the sleep center.

General Operating Procedure such as staffing is also important. The recommended ratio by the American Academy of Sleep Medicine (AASM) is 2:1. Two patients to one technologist. Patients who require greater interventions due to physical impairments, cognitive development, neuropsychological impairment or other disease processes may limit this ratio and must be taken into account prior to the study.

The SDC should have a Sleep Director who is responsible for the overall "running" of the Center. This includes care of patients being seen at the SDC, review of patient's history, ordering the appropriate tests, reviewing and interpreting the tracings after they have been scored and ensuring quality patient education. The SDC should ideally have statement of mission and objectives; continuing education, and established programs for major sleep disorders.

The SDC must have programs for treatment of sleep-related breathing disorders such as CPAP therapy, surgical and non-surgical treatments. The SDC must have a functional insomnia program including both

pharmacological and non-pharmacological therapies. Likewise, it must have programs for the treatment of narcolepsy, restless legs syndrome and sleep-wake rhythm disturbances, all very common sleep related conditions. Each of these programs must include a mechanism for long-term patient follow-up.

It is recommended that the SDC must have a Policy and Procedure Manual in place. This manual must address all aspects of the SDC including clinical, operational, financial, and human resources procedures. The clinical policies must address interscorer reliability, step-by-step procedures for polysomnography, CPAP/Bi-level titration, and multiple sleep latency testing (MSLT)/multiple-wake testing (MWT). The operational policies must address safety procedures, including fire, natural disaster, and patient instability. The financial policies must address everything from budgeting to the handling of cash by the SDC personnel. Human resources policies and procedures must range from employee performance reviews to the company dress code. This Policy and Procedure Manual will serve as a guide to provide best clinical and business practices.

Professional associations and industry - based companies are available to assist in setting up and managing a sleep center. In Asia, a majority of clinician requires assistance in setting up a sleep center from advice on designing a patient bedroom to choosing the appropriate sleep system. This review is also an extremely helpful resource to those wishing to start a sleep centre, especially when used in conjunction with the resources available through the American Academy of Sleep Medicine (AASM).

A sample description as seen below with regards to space, sleep system, video equipment, oximeter and staffing is briefly discussed.

Description of Item	Notes
Lab Space	Office furniture, electrical, carpentry to set up a control room, 1 room per patient (10X10), light free, quiet, low traffic area is best, bathroom. Room for scoring.
Sleep System	2 bed sleep system with scoring station, amplifiers, computer, and data storage system. Sleep system should come with 2-3 days training on the system.
Video Equipment	Infrared closed circuit, with monitor and VCR
Oximeters	1 per room per patient.
Staff	Staff should be trained on recording and scoring a sleep study.
Bi-Levels	1 per room per patient.

## Reference

AASM Guidelines; White paper PSG Laboratories; OSA in Asia, Lam et al Dept of Medicine, Queen of Mary Hospital in Hong Kong, China