FAQs: Program Development

Exploring the Sleep Medicine Landscape

Q **What are some common sleep center models, and how does the adoption of home-based sleep studies fit into the overall sleep medicine landscape?**

Overview

Sleep study growth is being fueled in part by an increasing prevalence of obstructive sleep apnea (OSA). Sg2's sleep study forecast includes home-based sleep testing which also is experiencing growth as a number of organizations are embracing home sleep testing as part of their overall testing portfolio. However, Sg2 expects to see some flattening of the sleep study growth rate due to increasing scrutiny on appropriate use criteria and the quality of tests provided.

As a result of recent health care reform legislation, changes in regulatory and credentialing requirements, and an evolving payment and reimbursement scheme, sleep medicine will continue to be a dynamic medical specialty. While demand for sleep services will rise, expect home sleep testing to share volumes with sleep centers. Future growth opportunities for sleep medicine include comprehensive sleep studies and treatment of complex sleep disorders, as well as surgical services, as sleep screens are a preoperative requirement for some patients. Sleep programs should be well integrated with other services, because reducing complications that result from comorbid OSA and other sleep disorders can decrease length of stay, reduce emergency department (ED) visits and improve patient recovery from acute events.

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Sleep medicine focuses on the diagnosis and management of sleep disorders including obstructive sleep apnea, a prominent condition that affects approximately 4% of men and 2% of women in the US. Sleep study growth is being fueled by the obesity epidemic, with the Sg2 forecast projecting a 41% increase for patients with sleep apnea and a 28% growth for those with sleep disorders projected over the next 10 years.

In-center sleep services can be provided in multiple care settings; the determination of which model best fits your organization's needs should be based on gaining necessary capital, availability of appropriate facilities and assessment of market demand.

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Table 1. Sleep Center Models and Considerations

	Freestanding	In Hospital	Hotel Based
Pros	■ Limited impact on hospital beds ■ Joint venture opportunities	■ Physician emergency access ■ Lower capital costs ■ Greater access to hospital resources	■ Reduced up-front capital requirements ■ More desirable sleep environment ■ Does not impact hospital capacity
Cons	■ Capital costs ■ Lone source of facility revenue	■ Less-desirable sleep environment ■ Logistics/constraints related to hospital layout	■ Limited physician emergency access ■ Reimbursement challenges

Source: Sg2 Analysis, 2012.

Conditions Assessed and Medical Specialties

In addition to diagnostic services, Sg2 has seen several other support services and professionals involved within the sleep center, including nutrition, behavioral medicine, patient education, psychology and continuous positive airway pressure (CPAP) compliance.

Additional conditions assessed include:

- Obstructive sleep apnea
- Central sleep apnea, snoring
- Insomnia
- Narcolepsy
- Idiopathic hypersomnia
- Delayed sleep phase syndrome
- Jet lag and shift work
- Arousal disorders
- Sleepwalking
- Restless leg syndrome
- Sleep talking

Sleep centers most often employ a sleep physician, physician assistant and sleep medicine technicians who help maintain the center's daily operations. In addition, sleep clinic professionals often will consult with other medical specialties including, but not limited to:

- Pulmonary medicine
- Neurology
- Psychiatry
- Pediatrics
- Otolaryngology
- Critical care medicine
- Anesthesia
- Oral and maxillofacial surgery
- Dentistry
- Prosthodontics
- Psychology

While obesity is driving increasing prevalence of OSA in the general population, comorbid OSA is even more common in neurological patients, affecting one-third of epilepsy patients and two-thirds of stroke survivors. There is a growing body of evidence that demonstrates how successful treatment of comorbid OSA can improve neurological outcomes, including cognitive functioning and seizure control. Consequently, many of these patients may benefit from CPAP treatment. As many instances of OSA in these patients can only be identified in a lab setting, these patient populations benefit from having sleep studies performed in sleep centers rather than in the home-based setting.

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Home Sleep Studies

Home sleep testing represents an alternative to hospital-based diagnostic sleep studies. The national coverage decision established in March 2008 by the Centers for Medicare & Medicaid Services (CMS) positioned home sleep studies as a viable model for diagnosing sleep disorders. Home sleep studies are an important contributor to the sleep study growth opportunity.

Percentage of Sleep Labs Performing Home Testing

According to the sleep medicine journal, *Sleep Review*, and Mizuho Securities USA Inc, an investment advisory firm, home testing will continue to show robust growth. As the following data illustrate, home sleep testing is becoming more prevalent. Currently, 28% of sleep centers offer home testing for Medicare patients, and 35% offer home testing for privately insured patients. According to these recent data, 41% of sleep centers would like to begin to administer home sleep testing in the next six months.

Table 2. Percentage of Sleep Centers Offering Home Testing

	Presently for Medicare (n = 354)	Presently for Privately Insured (n = 356)	Within the Next Six Months (n = 314)
Yes	28%	35%	41%
No	69%	62%	39%
Unsure	3%	3%	20%

Source: Mizuho Securities USA, April 2011.

Reimbursement

Medicare payments for sleep testing have increased from $62 million in 2001 to $235 million in 2009. The 2008 CMS national coverage determination authorized reimbursement of CPAP therapy for OSA based on the results of a home-based study that was performed under the supervision of a treating physician. Board-certified sleep specialists may claim that they are the only physicians qualified to oversee home sleep studies, but the CMS coverage decision does not provide specific credentialing criteria.

Throughout 2008, CMS further clarified the types of eligible providers and established payments for home-based studies. Additionally, in January 2011, two new Current Procedural Terminology (CPT®) codes (95800, 95801) were introduced for unattended sleep studies. The adoption of home-based sleep studies will contribute to continued growth of services for patients with sleep disorders and alleviate wait times for sleep studies in markets where demand has outpaced bed capacity.

Sleep Center Affiliation With Durable Medical Equipment (DME) Companies

CMS recognized that the new payment policy enacted in 2008 created the potential for physician self-interest in the results of the sleep test, since the same physician could be ordering the test, interpreting the results and supplying the CPAP device. Thus, the DME Medicare Administrative Contractors rule published in September 2008 states that “no aspect of a home sleep test, including but not limited to delivery and/or pickup of the device, may be performed by a DME supplier. This prohibition does not extend to the results of studies conducted by hospitals certified to do such tests.”

The final 2009 Medicare Physician Fee Schedule states that payment will not be made to the supplier of the CPAP device when the supplier is the provider or the interpreter of the unattended sleep test that is used to diagnose a Medicare beneficiary with OSA. However, the exception to this rule is that Medicare does not prohibit DME payment to CPAP suppliers when beneficiaries have been diagnosed with OSA using attended facility-based polysomnography.

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Two major implications result from this new rule. First, the DME Medicare Administrative Contractors rule places a massive roadblock to DME and home medical equipment providers who sought to capture the full circle of revenue from home-based sleep testing diagnosis through CPAP therapy. This rule may offer relief to existing sleep laboratories that potentially saw DME suppliers as new competitors in the home sleep testing market. Second, the new physician fee schedule seeks to prevent fraudulent relationships in which providers of home sleep tests benefit financially from prescribing patients CPAP therapy. While there is an exception to this rule for patients diagnosed through attended facility-based sleep studies, it does not exempt home sleep tests provided by facility-based sleep centers. This does not mean that sleep centers cannot have a DME supplier provide CPAP for patients who were diagnosed via a home sleep test, but rather, the DME supplier that provides the CPAP cannot be the same supplier that provides the sleep center with the home testing equipment.

Future Value Opportunities for Sleep Centers

Demonstrating Value to the Patient

OSA diagnostic tests now make up the vast majority of sleep center volumes, so coverage of home testing for OSA has had a major impact and has shifted a portion of sleep studies out of the sleep center. However, hospitals will continue to find opportunities in sleep-related services by offering advanced evaluation and management of sleep disorders.

Due to the chronic nature of OSA, repeat visits for these patients are common. Integration of the full continuum of sleep services into chronic disease management programs can help to ensure compliance of this patient population. Presently, CMS covers only 12 weeks of CPAP therapy for newly diagnosed patients, after which patients must be reassessed to confirm that the device is still being used and that it has improved the patient's condition. This need for reassessment creates an opportunity for establishing an ongoing relationship with patients initially tested at home. Furthermore, patients who fail to benefit from CPAP or are unable to tolerate their devices offer another potential market, as these patients will need further evaluation and other approaches to disease management.

Of note, sleep centers also can offer split-night studies, which are more difficult to provide at home. In a split-night study, the first half of the night is devoted to diagnosing OSA. The second half determines the effectiveness of CPAP and adjusts the device to the patient's individual needs.

Sleep centers also can find a growth opportunity in surgical services, as sleep screens may be required prior to patients being admitted for surgery as a safety measure. If it is determined that a patient has a sleep disorder, he or she will be required to have a sleep study prior to surgery, presenting another opportunity to engage patients and referring surgeons with sleep services.

Demonstrating Value to Payers

Private payers are likely to continue to put up barriers to in-center sleep studies and to steer patients to home-based sleep studies as a mechanism to control their costs. However, since proper treatment of sleep disorders can decrease utilization by decreasing costs, length of stay and ED visits, sleep centers may be able to negotiate preferential contracts with payers as they are decreasing costs and barriers to care across a variety of patient populations.

Effects of Health Care Reform

As a result of recent health care reform legislation, the sleep medicine practice model will continue to evolve. Staffing shortages will limit growth, and fierce competition for revenue-generating services will make it very important for organizations to stand out among the competition. In the next three years, it

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is likely that accreditation will be required in order to receive reimbursement for sleep services. A 2011 article in *Sleep Review* titled, "Steering Sleep Into the Next Decade," includes the following important points:

- The most significant challenge for sleep medicine physicians is declining Medicare reimbursement for sleep test interpretation. In 2012, reimbursement decreased 29% for sleep test interpretation.
- Freestanding sleep labs will increasingly have to obtain licensure. For instance, in the state of Oklahoma, all nonhospital sleep labs must be fully or provisionally certified or accredited by the American Academy of Sleep Medicine or the Joint Commission as a condition to performing a sleep test.
- Medicare reimburses hospitals for outpatient polysomnography and multiple sleep latency tests under Ambulatory Payment Classification (APC) 0209. For tests billed under APC 0209 in 2012, Medicare pays hospitals $795.16 per test, an increase of about 2% from last year's payment of $780.77 per test.

Strategic Considerations

- Demand for sleep services will rise, but expect home sleep testing to increasingly share volumes with sleep centers. Home sleep testing will reduce patient wait times at hospital sleep centers, accelerating diagnosis and treatment of complex cases.
- Future opportunities for hospitals will be in advanced diagnostics and treatment of complex sleep disorders. Market sleep center expertise in complex cases, and build referral streams from internal and external referral sources.
- When well integrated with an organization's services, sleep programs can improve the overall value proposition for the enterprise. By reducing complications that result from comorbid OSA and other sleep disorders, providers can decrease length of stay, reduce ED visits and improve patient recovery from acute events.
- Hospitals considering entry into the home testing market or expansion of sleep center facilities should carefully evaluate capacity and competition. Ensure that you have the capacity within the center to treat patients for whom home sleep testing is inappropriate and those patients who require further evaluation following a home study.

Note: CPT is a registered trademark of the American Medical Association.
Sources: St Louis EK. *Pract Neurol (Fort Wash Pa)* 2010;9:26–30. www.bmctoday.net/practicalneurology/2010/08/article.asp?f=diagnosing-and-treating-co-morbid-sleep-apnea-in-neurological-disorders; Center for Sleep Medicine at Mayo Clinic in Minnesota. www.mayoclinic.org/sleep-center-rst/; Brown DB. Steering sleep into the next decade. *Sleep Rev* 2011. www.sleepreviewmag.com/issues/articles/2011-03_03.asp; American Thoracic Society. Changes in Medicare sleep reimbursement. *Coding & Billing Quarterly* December 2010. www.thoracic.org/clinical/coding-and-billing/resources/2010/december-2010.pdf; Sg2 Analysis, 2012; All web sites accessed September 2012.

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