

PORTABLE MONITORING SLEEP STUDY

Patient Name:	Sample , Report	Started:	1/21/2010 at 12:30:36 AM
Gender:	F	Stopped:	1/21/2010 at 8:11:36 AM
Birth Date:	2/15/1943	ng Time:	7:41:00 (461 min)
Patient Age:	66 years	Time in Bed (TIB)	461 min (LO -> LON)
Patient ID:	ST1200104	Light on (LON)	8:11:36 AM
Weight:	240 lbs	Time in Bed (TIB)	461 min (LO -> LON)
Height:	56 in.		
Body Mass Index:	53.8		

Test description

The home sleep study utilized 5 channels. The physiologic parameters monitored are respiratory airflow, respiratory effort, oxygen saturation, EKG, and body position. Respiratory events are scored according to the latest guidelines of the American Academy of Sleep Medicine (AASM) and Medicare (less than 10% of baseline airflow lasting 10 or more seconds for an apnea and less than 70% of airflow or effort lasting 10 or more seconds with at least 4% oxyhemoglobin desaturation for a hypopnea)

Portable home sleep studies are designed to diagnose sleep-disordered breathing and not other types of sleep disorders. Portable studies are best used when there is a high pretest probability of moderate to severe obstructive sleep apnea. The studies are not recommended for general screening of asymptomatic populations. They are neither appropriate for the diagnosis of obstructive sleep apnea in patients with significant comorbid medical conditions that may degrade the accuracy of PM.

Physician Impression: Interpretation on the portable home study data

The quality of the study is good. The length of the study is adequate. Please also see the tabulated and graphic data.

- Obstructive Sleep Apnea-Hypopnea** (ICSD 327.23), severe, with an AHI of 41.4/hr and nadir SaO2 of 69%. During the study, the patient had 318 apneas (73 obstructive, 4 central, 0 mixed) and 241 hypopneas. The longest episode lasted 50.5 seconds. The respiratory events occurred more frequently during supine sleep.
- Hypoxemia** (ICSD 799.02), moderate, with the lowest oxygen saturation of 69% and 232 minutes with SaO2 under 90%. Baseline oxygen saturation was slightly low (mean oxygen saturation was 89%).

Recommendation: Recommendations for physicians review

- Nasal CPAP therapy is indicated. Other types of therapy such as upper airway surgery and oral appliance may be considered but unlikely to be effective. Consider CPAP/bi-level PAP titration study if positive airway pressure therapy is going to be utilized. In the meantime, an autoCPAP may be used. With BMI of 53.8, weight loss is also recommended.
- For low baseline oxygen saturation, consider underlying cardiopulmonary disorders such as COPD, congestive heart failure, obesity hypoventilation, etc. Further work up with PFTs, ABGs, may be beneficial.
- Counseling about the increased risk of motor vehicle accident in patients with untreated obstructive sleep apnea.

Physician: *signature*

Diplomate, American Board Sleep Medicine

Events

	Code	Index (#/hour)	Total Number of Events	Mean duration (sec)	Max duration (sec)	Events by Position	
						Supine (#)	Non-Supine (#)
Central Apneas	CA	0.5	4	10	10	1	3
Obstructive Apneas	OA	9.5	73	10.6	32	21	52
Mixed Apneas	MA	0	0	0	0	0	0
Hypopneas	HY	31.4	241	10.6	50.5	34	207
Total		41.4	318	10.6	50.5		
Time in Position						41.9	419.1
AHI in Position						80.2	37.5

Snoring

Total Snoring Event Flags	180
Snore Flags Index (#/hour)	23.4

Oximetry distribution

<95 % (minutes)	441
<90 % (minutes)	232
<85 % (minutes)	18.5
<80 % (minutes)	1.5
<75 % (minutes)	0.5
<70 % (minutes)	0
<60 % (minutes)	0
<50 % (minutes)	0
Total Dur (min) < 89	160.5
Average (%)	89
Desat Index (#/hour)	39.5
Desat Max (%)	19
Desat Max dur (sec)	51
Lowest SpO ₂ (≥ 2 sec) (%)	69
# Episodes (≥ 5 min) ≤ 88	0
Longest dur (min) SpO ₂ ≤	3.5

Heart Rate

Mean HR (BPM)	68.7
# of LHR	31
LHR min (BPM)	41
# of HHR	66
HHR max (BPM)	136

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RIP belt technology capable of revealing central apneas

The total index AHI (apnea hypopnea index) is key measurement if sleep disorder breathing is present.

Positional AHI data assist physicians with treatment decision making

Oximetry & heart rate data collected via finger pulse oximeter

All-night trend graph

- Heart rate tracing
- SPO2 tracing
- SRBD*
- body position

* sleep related breathing disorders

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