EASYSLEEPKIT

Sample

Polysomnogram Report
Part I

Patient Name:	XXXXXX, XXXX	**Acquisition Number:**	XXXXXX
Date of Birth:	XX/XX/XX	**Acquisition Date:**	XX/XX/XX
Referring Physician:	Dr. XXXXX		

History: The patient is a 52year old male who was referred for evaluation of possible sleep apnea with excessive sleepiness. Medical history: GERD, depression.

Medications: Zoloft and Prilosec.

Procedure: This routine overnight polysomnogram was performed on the Easy Sleep Kit using the standard diagnostic protocol. This included a fully functional system that included the kit with all its sensors as well as the mobile phone application.

Description: The total recording time was 424.0 minutes. The total sleep time was 373.0 minutes. There were a total of 44.0 minutes of wakefulness after sleep onset for a slightly reduced sleep efficiency of 88.0%. The latency to sleep onset was short at 7.0 minutes. The R sleep onset latency was prolonged at 203.0 minutes. Sleep parameters, as a percentage of the total sleep time, demonstrated 3.5% of sleep was in N1 sleep, 79.2% N2, 4.6% N3 and 12.7% R sleep. There were a total of 320 arousals for an arousal index of 51.5 arousals per hour of sleep that was elevated.

Respiratory monitoring demonstrated frequent mild to moderate degree of snoring in all positions. There were a total of 434 apneas and hypopneas for an Apnea Hypopnea Index of 69.8 apneas and hypopneas per hour of sleep. The REM related apnea hypopnea index was 66.9/hr of REM sleep compared to a NREM AHI of 70.2/hr. The average duration of the respiratory events was 35.7 seconds with a maximum duration of 112.0 seconds. The respiratory events occurred in all positions. The respiratory events were associated with peripheral oxygen desaturations on the average to 78%, declining to the high 60s during REM sleep. The lowest oxygen desaturation associated with a respiratory event was 57%. Additionally, the baseline oxygen saturation during wakefulness was 90%, during NREM sleep averaged 88%, and during REM sleep averaged 85%. The total duration of oxygen < 90% was 223.1 minutes and <80% was 46.0 minutes.

Cardiac monitoring- did not demonstrate transient cardiac decelerations associated with the apneas. There were no significant cardiac rhythm irregularities.

Periodic limb movement monitoring- did not demonstrate periodic limb movements.

Impression:

This routine overnight polysomnogram demonstrated the presence of significant obstructive sleep apnea with an overall Apnea Hypopnea Index of 69.8 apneas and hypopneas per hour of sleep. The respiratory events were associated with peripheral oxygen desaturations on the average to 78%, declining to the high 60s during REM sleep. The lowest oxygen desaturation associated with a respiratory event was 57%.

There was a slightly reduced sleep efficiency, elevated arousal index, increased awakenings and failure to progress into the deeper stages of sleep. These findings would appear to be due to the obstructive sleep apnea.

Recommendations:

1. A CPAP titration would be recommended due to the severity of the sleep apnea.
2. Additionally, would recommend weight loss in a patient with a BMI of 31.9

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Part II

Patient last name	XXXXX	**Type**	Adult	**Acquisition**	XXXXX
Patient first name	XXXXX	**Weight**	210	**Started**	XX/XX/XX at 10:25:24 PM
Birth date	XX/XX/XX	**Height**	68	**Stopped**	XX/XX/XX at 5:35:24 AM
Age	52	**BMI**	31.93	**Duration**	424.0

Sleep Data

Lights Out:	10:27:24 PM	Sleep Onset:	10:34:24 PM
Lights On:	5:31:24 AM	Sleep Efficiency:	88.0 %
Total Recording Time:	424.0 min	Sleep Latency (from Lights Off)	7.0 min
Total Sleep Time (TST):	373.0 min	R Latency (from Sleep Onset):	203.0 min
Sleep Period Time:	417.0 min	Total number of awakenings:	31
Wake during sleep:	44.0 min	Wake After Sleep Onset (WASO):	44.0 min

Sleep Data

Stage	Latency from lights out (min)	Latency from sleep onset (min)	Duration (min)	% Total Sleep Time	Normal values
N 1	8.0	1.0	13.0	3.5	(5%)
N 2	11.0	4.0	295.5	79.2	(50%)
N 3	21.0	14.0	17.0	4.6	(20%)
R	210.0	203.0	47.5	12.7	(25%)

Arousal Summary

	NREM	REM	TOTAL
Spontaneous	11	1	12
Respiratory Event	2	0	2
Resp. Event w/ Desat	263	43	306
Limb Movement	0	0	0
Snore	0	0	0
TOTAL	276	44	320
INDEX	50.9	55.6	51.5

Respiratory Data

	CA	OA	MA	Apnea	Hypopnea*	A+ H	RERA	Total
Number	0	35	12	47	387	434	2	436
Mean Dur (sec)	0.0	33.2	29.5	32.3	36.1	35.7	23.3	35.7
Max Dur (sec)	0.0	58.0	43.5	58.0	112.0	112.0	26.0	112.0
Total Dur (min)	0.0	19.4	5.9	25.3	233.0	258.3	0.8	259.1
% of TST	0.0	5.2	1.6	6.8	62.5	69.3	0.2	69.5
Index (#/h TST)	0.0	5.6	1.9	7.6	62.3	**69.8**	0.3	**70.1**

*Hypopneas scored based on 4% or greater desaturation.

Sleep Stage

	REM	NREM	TST
AHI	66.9	70.2	69.8
RDI	66.9	70.6	70.1

Body Position Data

	Time In Position (min)	AHI/hour	RDI/hour
Up			
Supine	227.70	77.73	78.26
Prone			
Left side			
Right Side	145.30	57.40	57.40

Snoring

Total number of snoring episodes	40
Total time with snoring	4.0 min (1.1 % of sleep)

Oximetry Distribution

	WK	REM	NREM	TOTAL
Average (%)	90	85	88	88
< 90%	11.3	32.2	179.6	223.1
< 80%	3.8	10.4	31.8	46.0
< 70%	0.7	0.5	2.1	3.3
# of Desaturations*	12	53	403	456
Desat Index (#/hour)		66.9	74.4	73.5
Desat Max (%)	22	31	38	38
Desat Max Dur (sec)	39.0	69.0	74.0	74.0

Approx Min O2 during sleep	57
Approx min O2 during a respiratory event	57
Was Oxygen added (Y/N) and final rate	No: 0 LPM

*Desaturations based on 4% or greater drop from baseline.

Cheyne Stokes Breathing: None Present
Hypoventilation: None Present

Heart Rate Summary

Average Heart Rate During Sleep	64.1 bpm
Highest Heart Rate During Sleep	247 bpm artifact
Highest Heart Rate During Recording (TIB)	247 bpm artifact

Heart Rate Observations

Event Type	# Events	
Bradycardia	0	Lowest HR Scored: N/A
Sinus Tachycardia During Sleep	0	Highest HR Scored: N/A
Narrow Complex Tachycardia	0	Highest HR Scored: N/A
Wide Complex Tachycardia	0	Highest HR Scored: N/A
Asystole	0	Longest Pause: N/A
Atrial Fibrillation	0	Duration Longest Event: N/A
Other Arrythmias	No	Type:

Periodic Limb Movement Data (Primary legs unless otherwise noted)

Total # Limb Movement	0	**Limb Movement Index**	0.0
Total # PLMS		**PLMS Index**	
Total # PLMS Arousals		**PLMS Arousal Index**	
Percentage Sleep Time with PLMS		min (% sleep)	
Mean Duration limb movements (secs)			