

## **SLEEP REPORT**

- Interpretation Letter
- Portable Sleep Monitor Report

# INTERPRETATION LETTER



Physician Practice, 4415 Euclid Avenue, Cleveland, Ohio 44103

Patient Name: John, Smith.  
Study Date: 11/10/2009  
Referred by: Physician

## **PATIENT INFORMATION:**

This 56-year-old M was referred for a type 3 portable sleep study. The following were the reasons and indications: restless sleep and snoring.

Height was 70.00 inches and weight was 160.00 Lbs, which represented a BMI of 22.96. Patient has Epworth score of 15/24. Past medical history consisted of: Hypertension. Medication list included: Atacand.

## **PROCEDURE:**

The patient underwent a digital diagnostic portable type 3 device home sleep test; Utilizing CleveMed's SleepView device. We simultaneously recorded airflow via thermistor for apneas, and a nasal pressure transducer for hypopneas. Thoracic respiratory efforts were recorded via respiratory inductance plethysmography. Position monitoring was obtained via an accelerometer integrated in the SleepView device.

Also obtained was pulse oximetry, to identify oxygen desaturations. All of these channels were graphically recorded and documented to provide signals of high enough quality to provide accurate conclusions.

The patient underwent one night of study (although the capacity for multiple night was present). The data was recorded internally to memory built into the SleepView unit and was uploaded to CleveMed's eCrystal PSG website for scoring and interpretation. All raw data, in the form of nearly one thousand complete 30 second epochs, graphically depicting all seven channels, were utilized for scoring and detailed interpretive review. The standards put forth by the American Academy of Sleep Medicine were followed for the complete scoring by a Sleep Technologist and interpretation by a Board Certified Sleep Medicine Physician.

## **SLEEP TIME AND EFFICIENCY:**

The sleep study recording began at 09:58:24 PM and ended at 06:05:22 AM. Total recording time was 486.9 minutes. The patient's own estimate of sleep time was 8 hours. This provides an estimated sleep efficiency of 100%.

## **RESPIRATORY DATA:**

Moderate snoring was noted. There were 118 respiratory events consisting of 85 apneas (73 obstructive and 12 suspected central episodes) and 33 hypopneas. The Respiratory Disturbance Index (RDI) was 14.5 events per hour, i.e. 14.5 apneas and hypopneas occurred per hour of recording time.

The patient spent 244 minutes on-back, and spent 243 minutes off-back. The Back-Index (RDI) was 23.8 per hour of recording time. The Off-Back RDI was 5.2 per hour.

Patient's baseline O<sub>2</sub> saturation was 96.3%. The patient spent 2.1 minutes at an oxygen saturation less than 90%, and 0.08 minutes less than 85%. The desaturation index was 15.6. The lowest saturation was 84.0%.

## **PULSE RATE REVIEW:**

The mean heart rate was 62 beats per minute. The rate ranged from a low of 51 to a high of 84 beats per minute.

## **DIAGNOSIS PER ICD-9 CODE:**

Obstructive Sleep Apnea (OSA) – 327.23

**OVERALL IMPRESSION:**

*Moderate Obstructive OSA, worsened in the supine position. Likely contributing factor to his HPT*

**RECOMMENDATION:**

*Cpap Titration Sleep Study in the sleep lab*

*Then Long Term CPAP therapy w/ a comfortable leak free mask*

*If CPAP is not tolerated or feasible, an Oral Appliance should be considered.*

*After 3mos of use, the home test should be repeated with the appliance in place, to document efficacy*

**Sleep Physician**

# PORTABLE MONITOR REPORT



Cleveland Medical Devices Inc.

Cleveland Medical Devices Inc. 4415 Euclid Avenue, Cleveland, Ohio 44103

**Patient Name:** Smith, John      **Height:** 70.00 inches      **DOB:** 2/17/1953  
**Recording Date:** 11/10/2009      **Weight:** 160.00 Lbs      **Gender:** M  
**Physician:** Sleep Physician      **BMI:** 22.96      **Technician:** Martin Jones  
**Neck Size:** 15 inches

## RECORDING SUMMARY:

**Acquisition Start:** 09:58:24 PM      **Acquisition End:** 06:05:22 AM  
**Total Acquisition Time:** 486.9 min

## RESPIRATORY SUMMARY

<b>O. Apnea Events:</b>	73	<b>O. Apnea Index:</b>	8.99
<b><u>Likely C. Apnea Events:</u></b>	12	<b><u>Likely C. Apnea Index:</u></b>	1.48
<b>Total Number of Apnea Events:</b>	85	<b>Total Apnea Index:</b>	10.5
<b>O. Hypopnea Events:</b>	27	<b>O. Hypopnea Index:</b>	3.33
<b>Total Number of Hypopnea Events:</b>	33	<b>Total Hypopnea Index:</b>	4.1
<b><u>TOTAL NUMBER of EVENTS:</u></b>	118	<b><u>TOTAL APNEA/HYPOPNEA INDEX:</u></b>	14.5
<b>Longest O. Apnea Duration:</b>	72.31 sec	<b>Longest O. Hypopnea Duration:</b>	84.62 sec
<b>Mean O. Apnea Duration:</b>	33.09 sec	<b>Mean O. Hypopnea Duration:</b>	29.82 sec

## SLEEP APNEA SEVERITY SCALE

Normal	Mild	Moderate	Severe
AHI <5	AHI 5-14	AHI 15-29	AHI 30 or >

## APNEA / HYPOPNEA EVENTS by BODY POSITION:

<b>Position:</b>	<b><u>SUPINE</u></b>	<b><u>PRONE</u></b>	<b><u>LEFT</u></b>	<b><u>RIGHT</u></b>	<b><u>UPRIGHT</u></b>
<b>Number:</b>	97	0	3	18	0
<b>Index:</b>	23.81	0.0	5.75	5.84	N/A

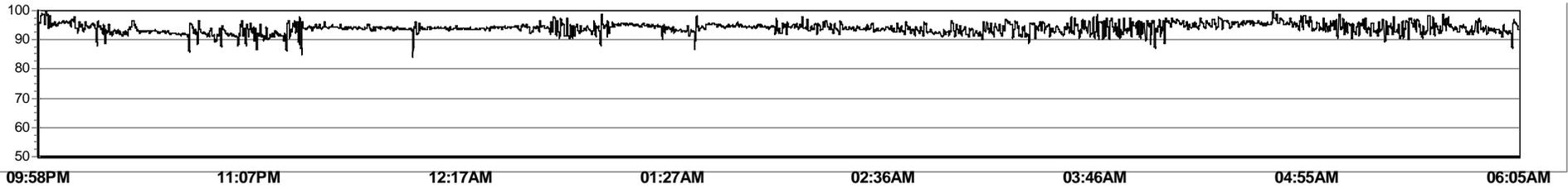
## DESATURATION SUMMARY TABLE

	<b><u>90+</u></b>	<b><u>90-80</u></b>	<b><u>80-70</u></b>	<b><u>70-60</u></b>	<b><u>60-50</u></b>	<b><u>50-40</u></b>	<b><u>40-</u></b>
<b>Mins:</b>	476.22	10.25	0.0	0.0	0.0	0.0	0.0
<b>% Time:</b>	97.79	2.10	0.0	0.0	0.0	0.0	0.0
<b>Baseline SaO2 %:</b>	96.3 %		<b>Lowest SaO2 %:</b>		84.0%		

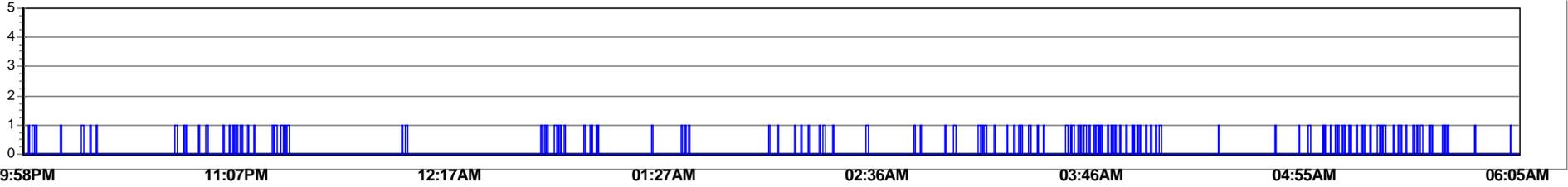
## PULSE RATE SUMMARY

**Mean Heart Rate (bpm):** 62  
**Minimum Heart Rate (bpm):** 51  
**Maximum Heart Rate (bpm):** 84

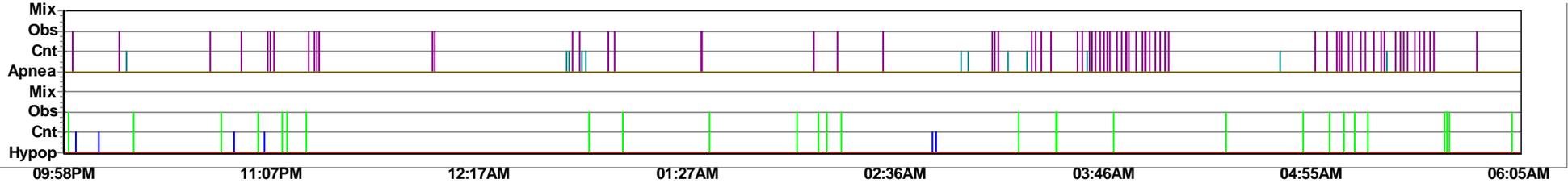
### O2 Saturation



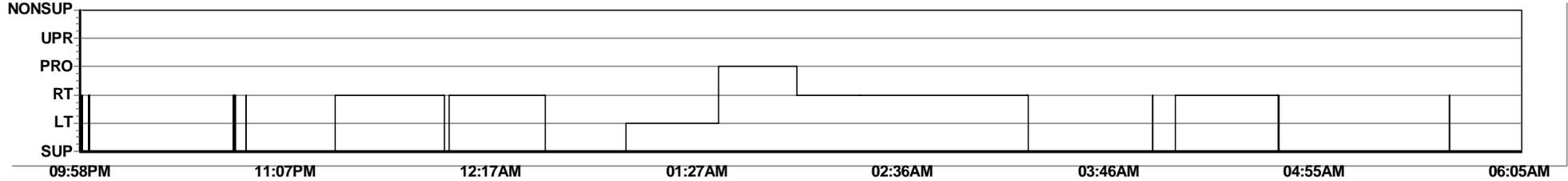
### Desaturation Events



### Apnea/Hypopnea Events



### Body Position



### Heart Rate

