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# **Home Sleep Test Interpretation**

#### **Patient Information**

Jane Sampleton

DOB: 12/25/1905 | Gender: Female Study Date: 11/20/2014 AHI: 16 Ht: 5 (Ft) 3 (In) Wt: 115lbs BMI: 20.37

# **Ordering Physician**

John Pepper, MD NPI: 1234567890

Phone: (352) 293-2810 Fax: (352) 274-9122

**HME Supplier (Local PAP Provider)** 

**HME Demo Account** Phone: (352) 293-2810 Fax: (352) 274-9122

Indication for Home Sleep Test: Suspected OSA, Excessive daytime sleepiness, Hypertension

### Impression -

- 1. Mild to moderate obstructive but AHI = 5 during some = 10 min periods which are associated with O2 desaturations
- 2. Central apneas are moderate (5-9/hr) and =50% AHI and possible Cheyne-Stokes Respiration: Footnote 5
- 3. Mild O2 desaturation (the lower SpO2 spikes are probably artifacts)
- 4. Snoring is absent are rarely associated with flow limitation and possibly UARS: See footnote 5
- 5. Pulse rate is mostly in the normal range (40-100 bpm) and some tachycardia (higher rate spikes may be artifacts)
- 6. Overall data quality is not sufficient to confirm/exclude a sleep disorder

### Suggestions<sup>6</sup>

- 1. Attended Polysomnogram (PSG): See footnote 5 or Attended CPAP Titration: See footnote 5
- 2. Consider Oral Appliance if not tolerate CPAP/APAP: See footnotes 2 and 4
- 3. Follow up overnight oximetry while on APAP: See footnotes 3 and 4
- 4. If APAP is chosen, recommended settings are:6 Min 12 Max

#### - Additional Comments

Attended Polysomnogram (PSG): See footnote 5 or Attended CPAP Titration: See footnote 5 Consider Oral Appliance if not tolerate CPAP/APAP: See footnotes 2 and 4 Follow up overnight oximetry while on APAP: See footnotes 3 and 4 If APAP is chosen, recommended settings are:6 Min 12 Max

## Other Suggestions; that may be applicable<sup>6</sup>

Weight loss under medical supervision & consider repeat diagnostic sleep test for 20% weight change / Review medications (e.g. stimulants and sedatives) / Instruct in good sleep hygiene / Avoid caffeine, alcohol, tobacco & respiratory depressants at bedtime / Caution against driving or operating machinery if sleepy / Advise patient about consequences of untreated sleep apnea

- 1 This Level III home sleep study was performed using a ResMed ApneaLink Air; a 4-channel screening device subject to limitations. Depending on actual total sleep time (not measured), the AHI (sum of apneas and hypopneas/hr) and the severity of sleep apnea may be underestimated & the severity of sleep apnea may also be underestimated due to the lack of supine and/or REM sleep.
- 2 If APAP is considered, data downloads from the APAP unit should be reviewed to document adherence, leak, & respiratory events; the physician should adjust the APAP appropriately. If download data indicates APAP pressures > 16 cm H2O and/or there is not acceptable clinical improvement, consider a facility-based CPAP titration and/or referral to a sleep specialist.
- 3 If an Oral Appliance is prescribed, an overnight oximetry is recommended after initial & subsequent adjustments until SpO2 is corrected or maximum possible adjustment has been reached followed by a repeat Sleep Test. If the sleep apnea and SpO2 are not adequately corrected (e.g. AHI < 5 or SpO2 > 89%) or patient is still symptomatic (e.g. abnormal sleep patterns, sleepiness, excessive snoring) consider APAP or attended PAP titration and/or referral to a sleep specialist.
- 4 If O2 desaturation during the home sleep test (HST) is clinically significant in the opinion of the patient's physician and the implementation of APAP or an Oral Appliance is based on the HST, consider an overnight oximetry during APAP or use of the Oral Appliance to assure improvement of SpO2 and if SpO2 is not corrected by APAP or Oral Appliance consider pulmonary function.
- 5 An attended PSG is recommended when AHI (based on HST) < 5 in patients at risk for sleep apnea or if frequent central apneas occur. If AHI is >=5 attended CPAP or Split Titration may be indicated based on the occurrence of central apneas and/or the degree of OSA or desaturation. The occurrence of frequent central apneas or Cheyne-Stokes Respiration (CSR) can indicate cardiac or neurological disease and Adaptive Servo Ventilation (ASV) Titration and/or cardiac and/or neurological evaluation, and/or consultation by a sleep specialist may be indicated. If AHI < 5 and upper airways resistance syndrome (UARS) is suspected, consider an attended PSG and/or if CPAP/APAP does not minimize snoring consider ENT evaluation. 6 Implementation of any suggestion is the decision of the patient's physician based on their overall clinical knowledge of the patient.
- 7 The HST Shipping & Billing have been provided & completed by ADSI, a Medicare Certified IDTF licensed in CA & FL.
- 8 I attest that I have reviewed the raw data and that the above impression & suggestions are based on my personal evaluation of this study. I have personally reviewed & approved this Home Sleep Test report.

# **Interpreting Physician – Board Certified in Sleep Medicine**

Electronically signed & Interpreted By: Sleep Doctor, MD

NPI: 1234567890

Interpretation & Signature Date: 11/24/2014

A copy of this doctor's board certification is available upon request.

Sleep Doctor, MD



# ApneaLink - Report of 12/8/2015 9:24 AM

**Evaluation** 

# Treating physician Referral to

Patient data

First name: Patient ID:
Last Name: DOB:

 Street:
 Height:
 6 ft 0 in

 City, ST, Zip:
 Weight:
 207.00 lbs

 Phone:
 BMI:
 28 kg/m²

Recording

 Date:
 12/4/2015

 Start:
 8:53 PM .
 Start:
 9:03 PM .

 End:
 6:46 AM .
 End:
 6:42 AM .

 Duration:
 9 h 53 min
 Duration:
 9 h 39 min

Analysis (Flow evaluation period: 9 h 39 min / SpO2 evaluation period: 9 h 43 min)

Indices		Normal	Result	
AHI*:	16.8	< 5 / h	Average breaths per minute [bpm]:	15.30
RI*:	19.9	< 5	Breaths:	8865
Apnea index:	8.6	< 5 / h	Apneas:	83
UAI:	5.2		Unclassified apneas:	50 (60%)
OAI:	2.7		Obstructive apneas:	26 (31%)
CAI:	0		Central apneas:	0 (0%)
MAI:	0.7		Mixed apneas:	7 (8%)
Hypopnea index:	8.2	< 5 / h	Hypopneas:	79
% Flow lim. Br. without Sn (FL):	33	< Approx. 60	Flow lim. Br. without Sn (FL):	2888
% Flow lim. Br. with Sn (FS):	5	< Approx. 40	Flow lim. Br. with Sn (FS):	413
			Snoring events:	1229

ODI Oxygen Desaturation Index*:	16.2	< 5 / h	No. of desaturations:	157
Average saturation:	93	94% - 98%	Saturation <= 90%:	73 min (13%)
Lowest desaturation:	69	-	Saturation <= 85%:	9 min (2%)
Lowest saturation:	69	90% - 98%	Saturation <= 80% :	2 min (0%)
Baseline Saturation:	98	%	Saturation <= 89% :	54 min (9%)
			Saturation <= 88%:	34 min (6%)

 Minimum pulse:
 42
 > 40 bpm

 Maximum pulse:
 87
 < 90 bpm</td>

 Average pulse:
 55
 bpm

Analysis status: Edited manually

### Analysis parameters used (User-defined)

 $\text{Apnea } \textbf{[10\%; 10s; 100s; 1.0s; 20\%; 80\%; 10\%]; } \textbf{Hypopnea } \textbf{[70\%; 10s; 100s; 1.0s]; } \textbf{Snoring } \textbf{[6.0\%; 0.3s; 3.5s; 0.5s]; } \textbf{Desaturation } \textbf{[4.0\%]; 10s; 100s; 1.0s; 100s; 1.0s; 100s; 1.0s; 100s; 1.0s; 1.0$ 

#### Comments

This Level III home sleep study was performed using the ResMed ApneaLink Air, a 4 channel screening device subject to limitations. Depending on actual total sleep time, not measured in this study, the AHI (sum of apneas and hypopneas/hr of sleep) and therefore the severity of sleep apnea may be underestimated. As with any single night study, including Level 1 attended PSG, severity of sleep apnea may also be underestimated due to the lack of supine and/or REM sleep.

The interpretation associated with this report is based on normal values and degrees of severity in accordance with AASM parameters and/or estimated from multiple sources in the literature for adults ages 20-80+. These may not agree with the displayed values. The patient's treating physician should use the interpretation and recommendations in conjunction with the overall clinical evaluation and treatment of the patient.

Some of the terminology used in this scored ApneaLink report was developed several years ago and may not always be in accordance with current nomenclature. This in no way affects the accuracy of the data or the reliability of the interpretation and recommendations. The date at the top of this page is the date this report was generated and the Recording Date is the date of the study. By convention we have used the Treating Physician to mean the Ordering Physician and the Referral To to mean the Interpreting Physician.

<sup>\*</sup> See Clinical Guide for abbreviations and ResMed standard parameters



