

WatchPAT⁺ ONE

First and Only Single-Use HSAT

Same WatchPAT Simplicity,
Accuracy and Reliability

NO Return Shipment,
NO Downloading or Charging

NO Cleaning,
NO Infection Risk



AASM COVID-19 Mitigation Strategies for Sleep Labs & Clinics



UPDATED MARCH 19, 2020

COVID-19 Mitigation Strategies for Sleep Clinics and Labs

- Guidance to help mitigate spread of the novel coronavirus ([COVID-19](#)).
- Guidance is based on the [mitigation strategies](#) recommended by the Centers for Disease Control and Prevention (CDC).
- **General Considerations**
 - *Use telemedicine where available to limit non-essential, in-person visits.*
 - *Consider the use of disposable home sleep apnea test (HSAT) devices instead of traditional re-usable devices.*

WatchPAT™ ONE

First and Only Single-Use HSAT

Breakthrough Single-Use Design

- Same WatchPAT simplicity, accuracy, reliability
- NO Return Shipment. NO Cleaning, Downloading or Charging
- NO Infection Risk



Streamlined Workflow

- Data transfer through smart phone app
- Immediate access to sleep data for interpretation
- Data interpretation anytime anywhere with Cloud based solution

7 Channels and 4 Respiratory Indices



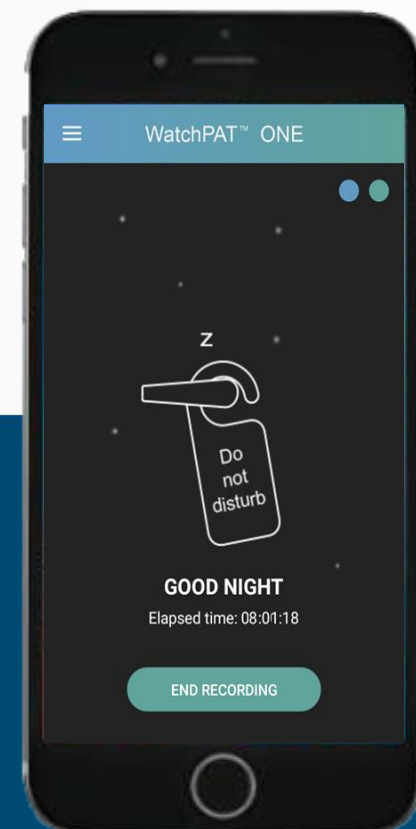
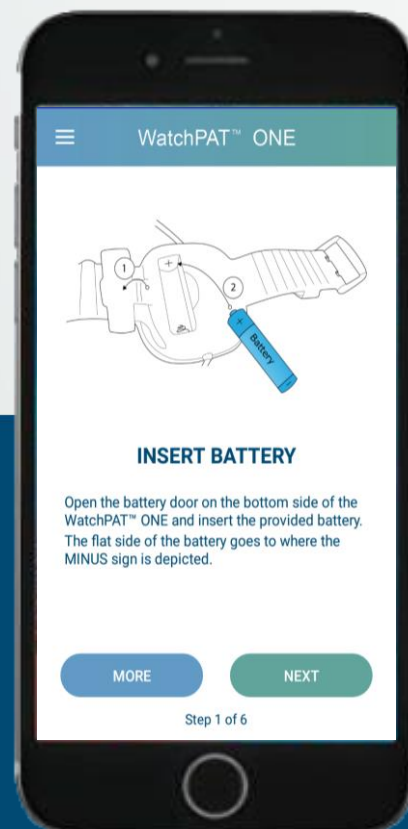
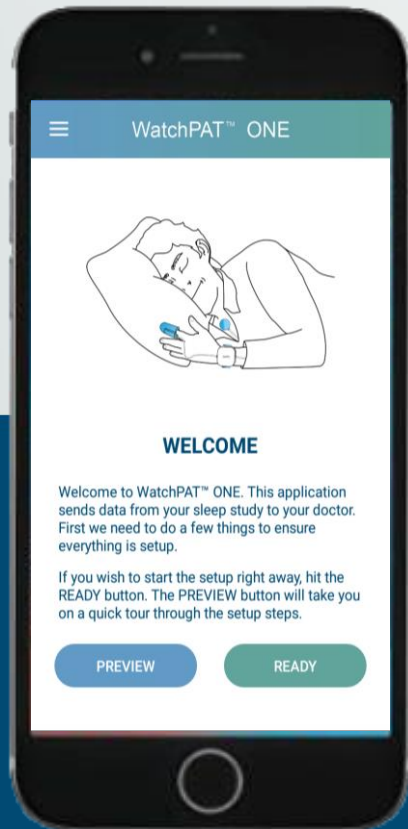
- AHI (Apnea Hypopnea Index) = $\frac{\text{Apneas} + \text{Hypopneas}}{\text{true sleep time}}$
- RDI (Respiratory Disturbance Index) = $\frac{\text{Apneas} + \text{Hypopneas} + \text{RERAs}}{\text{true sleep time}}$
- ODI (Oxygen desaturation index)
- cAHI and CSR % (Central Apnea Hypopnea Index)



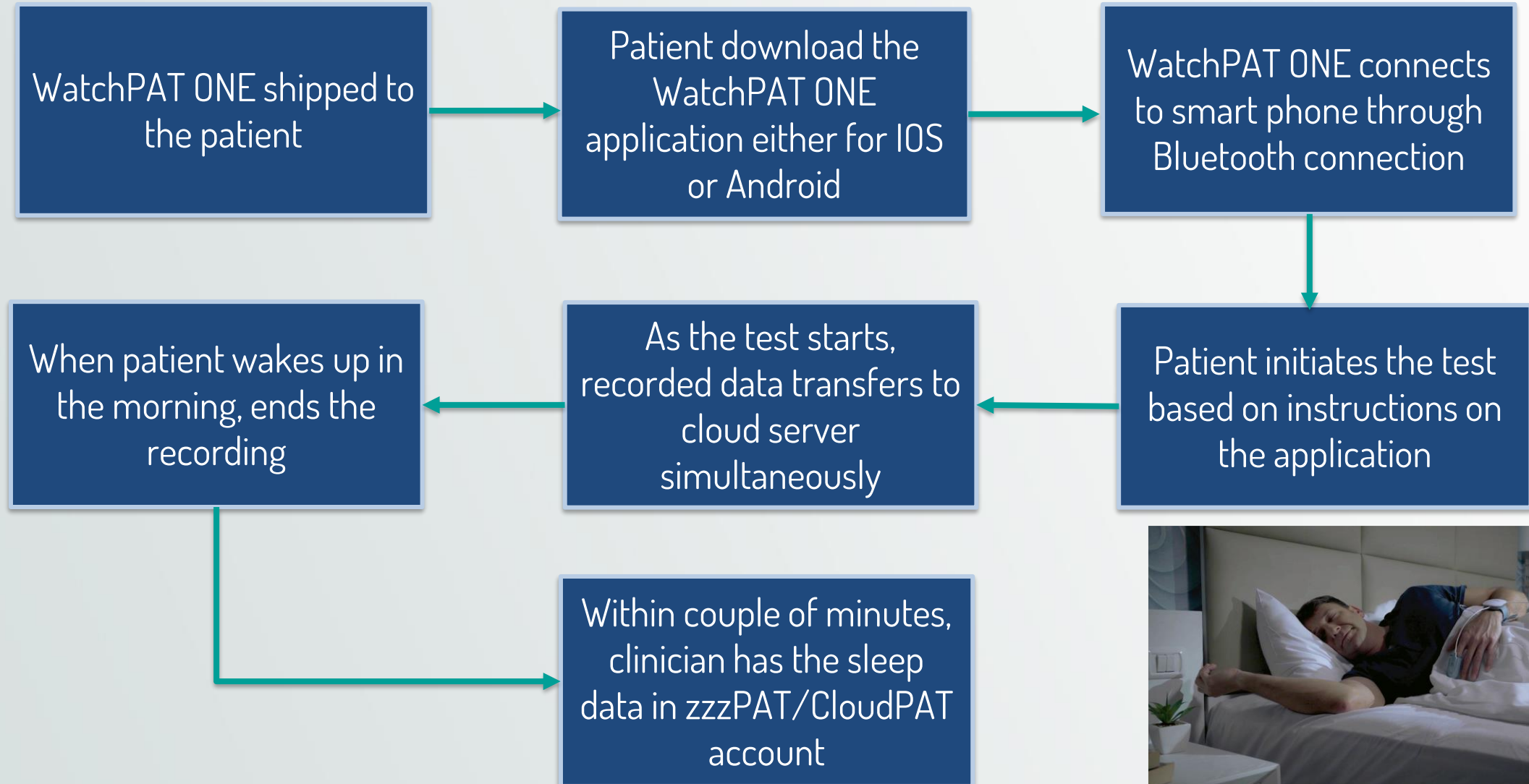
- Automatic Report
- Comprehensive Analysis

Intuitive User Application Interface

- Modern and easy to use interface
- Step by step user guide

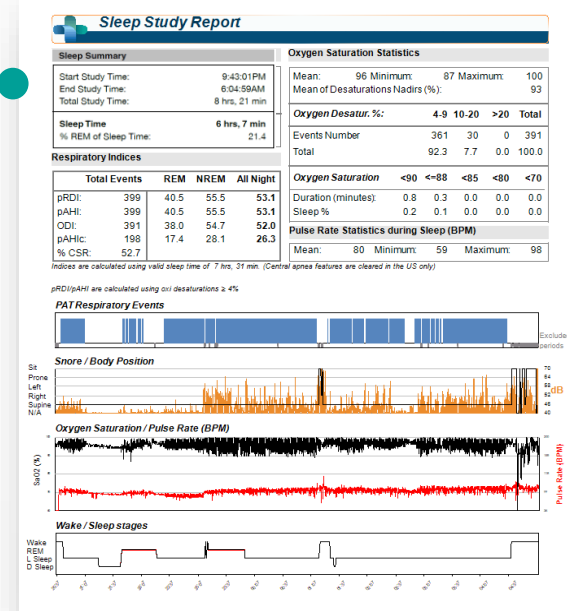


WatchPAT ONE Workflow



Prevent up to 20% Misdiagnosis with **True Sleep Time**

- WatchPAT is the only HSAT that calculates AHI and RDI using the patient's **True Sleep Time** without EEG
- True Sleep Time **reduces the risk of misdiagnosis up to 20%** that has been reported with using total recording ti



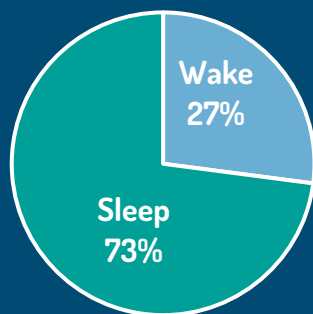
Sleep Summary

Start Study Time:	9:43:01 PM
End Study Time:	6:04:59 AM
Total Study Time:	8 hrs, 21 min
Sleep Time	6 hrs, 7 min
% REM of Sleep Time:	21.4

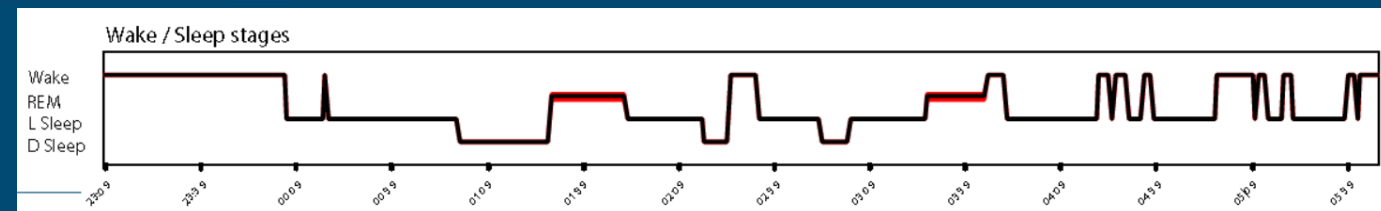
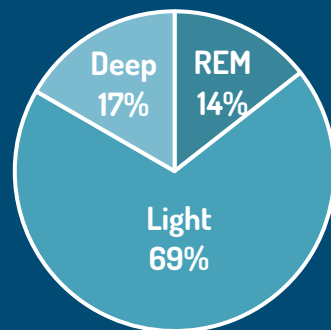
Improved Accuracy with **Sleep Architecture**

- WatchPAT's clinically validated **Sleep Architecture** provides information on sleep stages, sleep efficiency, sleep and REM latency¹⁻²
- It also provides the added value of detecting REM related sleep apnea with **REM and non-REM AHI**

Sleep/Wake States



Sleep Stages



Sleep Latency (min): **56**

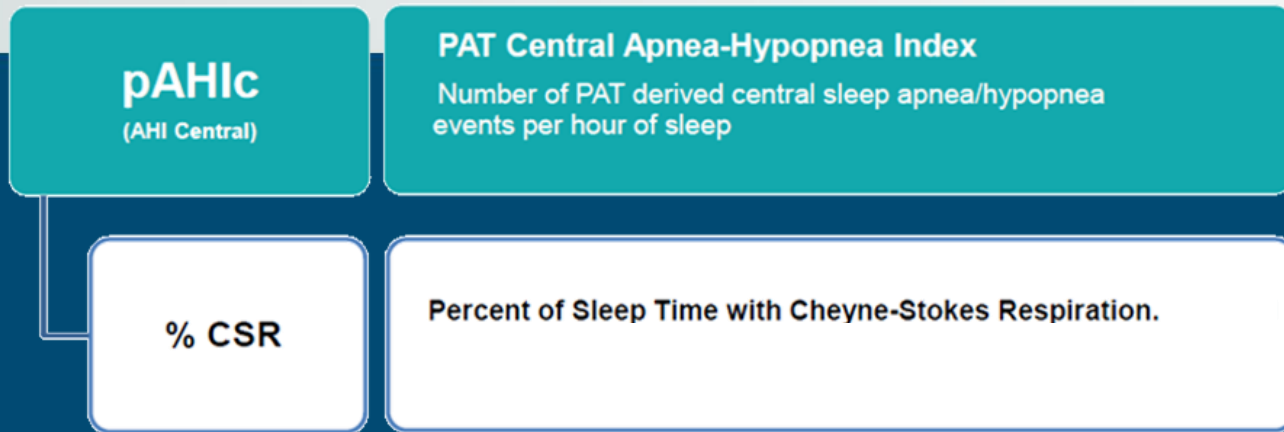
REM Latency (min): **83**

Number of Wakes: **12**

1- Hedner J. et al. A Novel Adaptive Wrist Actigraphy Algorithm for Sleep-Wake Assessment in Sleep Apnea Patients. SLEEP, Vol. 27, No. 8, 2004 :1560-1566
2- Hedner J. et al. Sleep Staging Based on Automimcal Signals: A Multi-Center Validation Study. JCSM. Journal of Sleep Medicine, Vol. 7, No. 3, 2011: 301 - 306

Improved Accuracy with Central Sleep Apnea Identification

WatchPAT has been clinically proven to detect all types of apnea events. **The Central PLUS Module enables specific identification of Central Sleep Apnea (CSA) and** Percent of Sleep Time with Cheyne-Stokes Respiration.



The PAT Signal

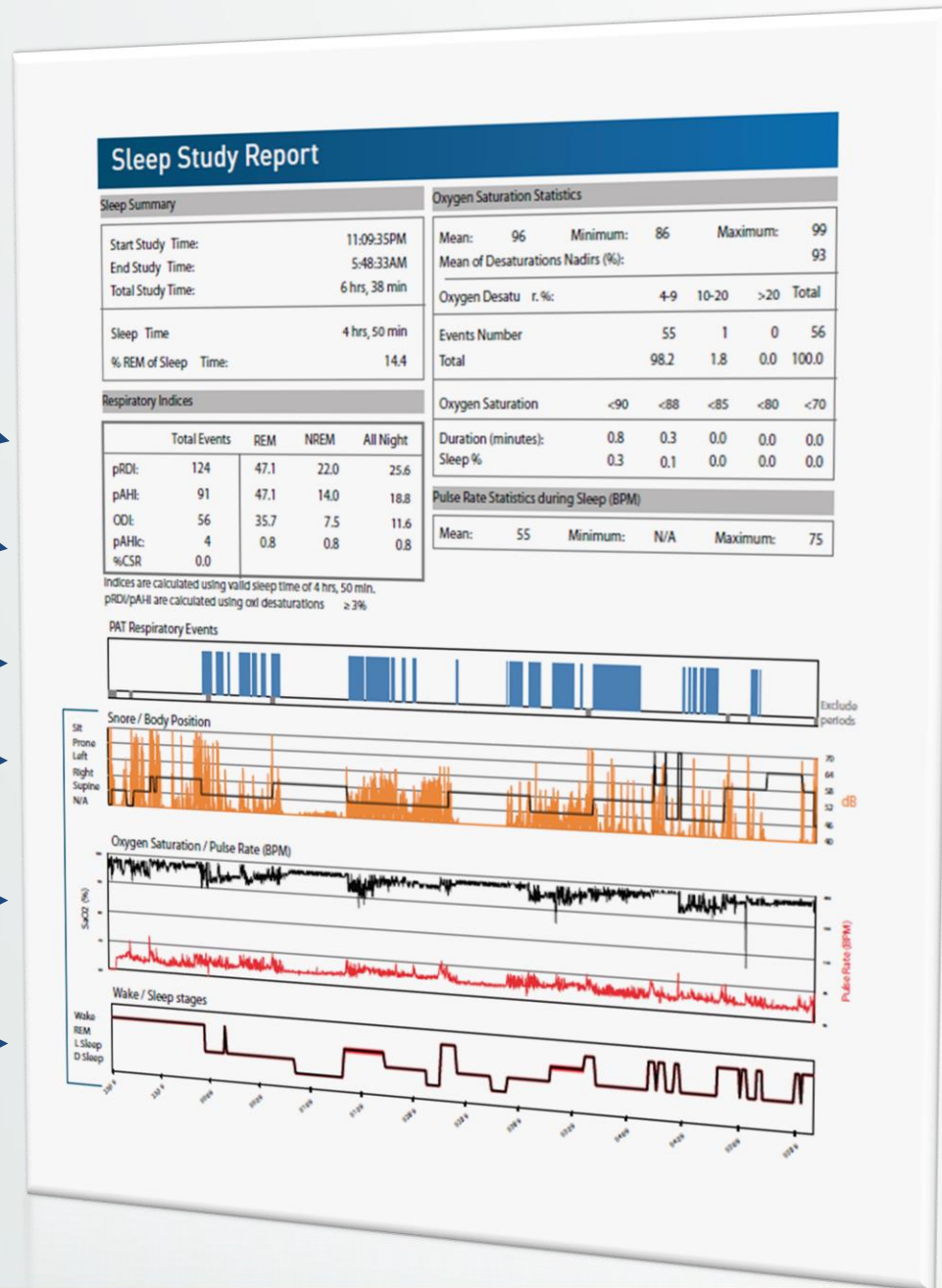
- Fewer upstroke variations as there is no respiratory effort

Central PLUS Sensor

- RSBP (Respiratory, Snoring and Body Position) sensor measures the chest movement
- Assesses breathing noise during and after suspected CSA event

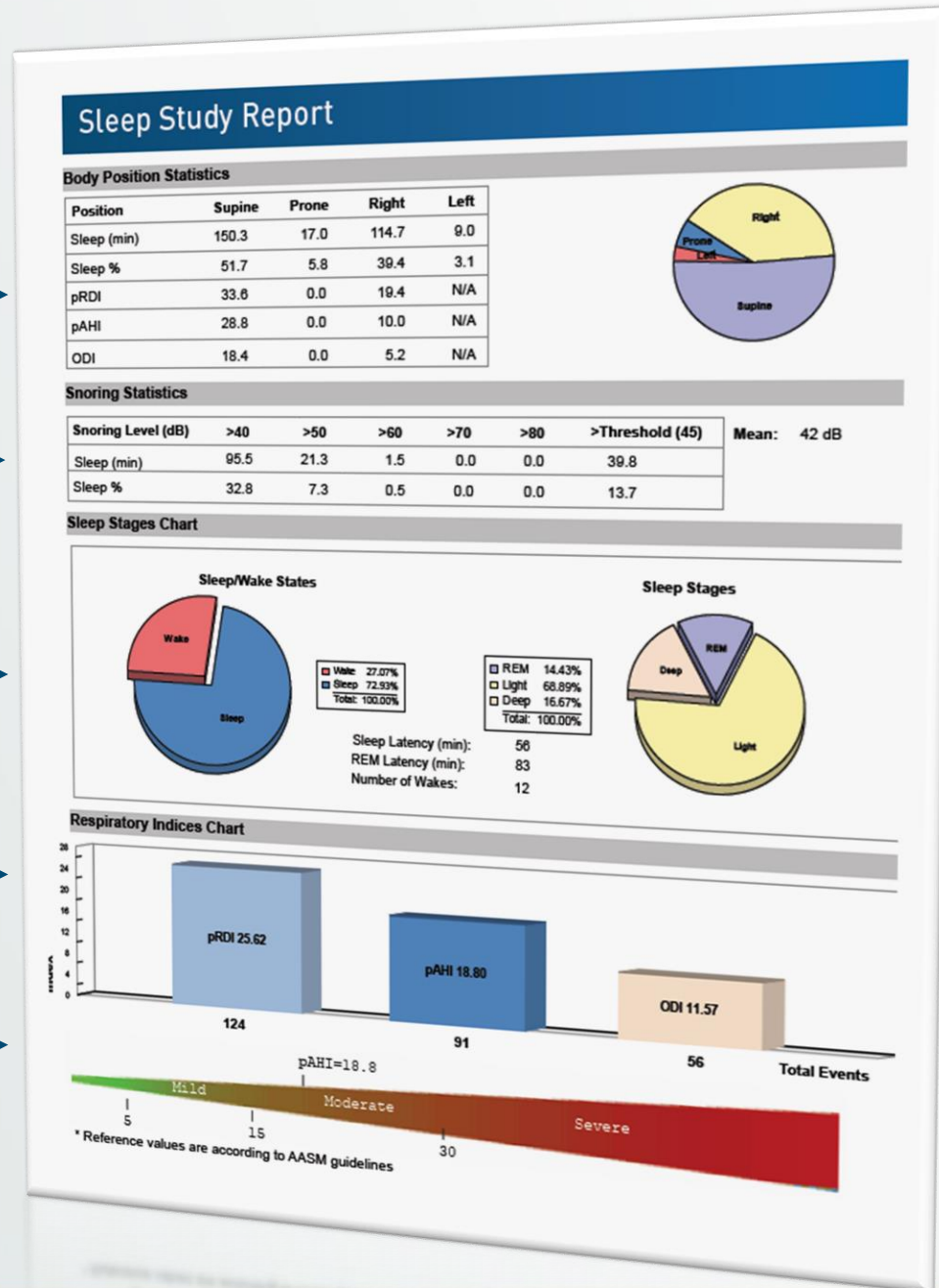
Automated Report in Just Seconds

- **Respiratory Indices**
AHI, RDI, ODI
- **Central AHI- Apneas**
per hour
- **Apnea Episodes**
through the night
- **Snoring and Body Position**
- **Oxygen & Heart Rate**
(note precipitous drops)
- **Sleep Stages**
(unique to WatchPAT)



Automated Report in Just Seconds

- Body Position Statistics and Graphical Display
- Snoring Statistics
- Sleep Stages Graphical Display
- Respiratory Indices Chart
- AHI Severity Scale



WatchPAT, a well validated HSAT against Polysomnography

Diagnosis of Obstructive Sleep Apnea by Peripheral Arterial Tonometry (Meta-Analysis)

Yalamanchali et al. JAMA Otolaryngol Head Neck Surg. 2013

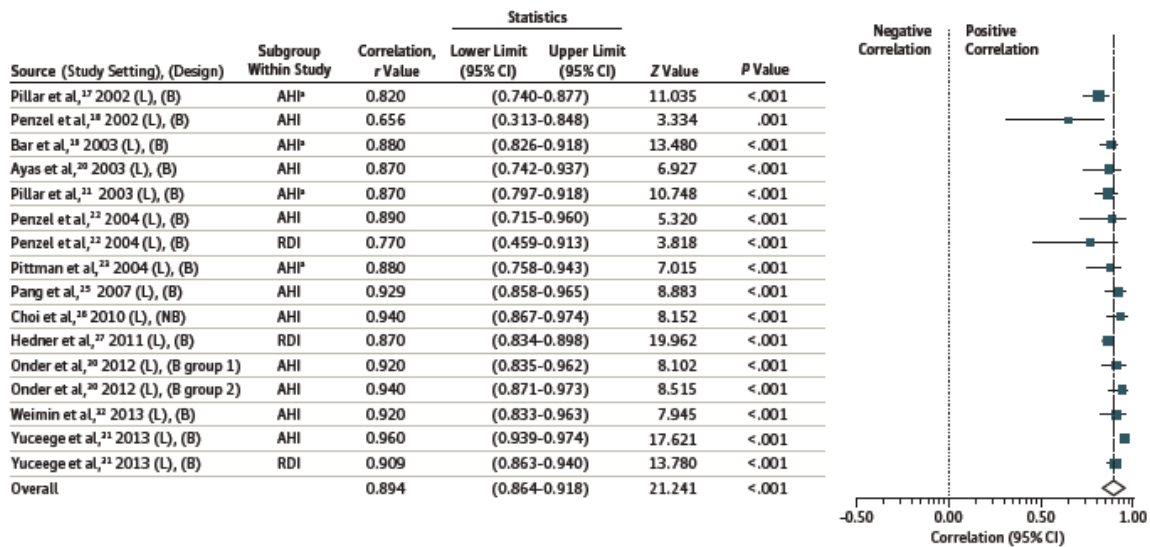
Study Objective: To assess the correlation between sleep indexes measured by a portable sleep-testing device (peripheral arterial tonometry -PAT) and those measured by PSG.

Method: Review incl. 14 studies (909 patients) with data suitable for pooling, that assessed correlation RDI, AHI ODI.

Results: WatchPAT and PSG indices of RDI, AHI and ODI, were all significantly correlated with r values of **0.879 (RDI)**, **0.893 (AHI)**, and **0.942 (ODI)** (all $P < 0.001$).

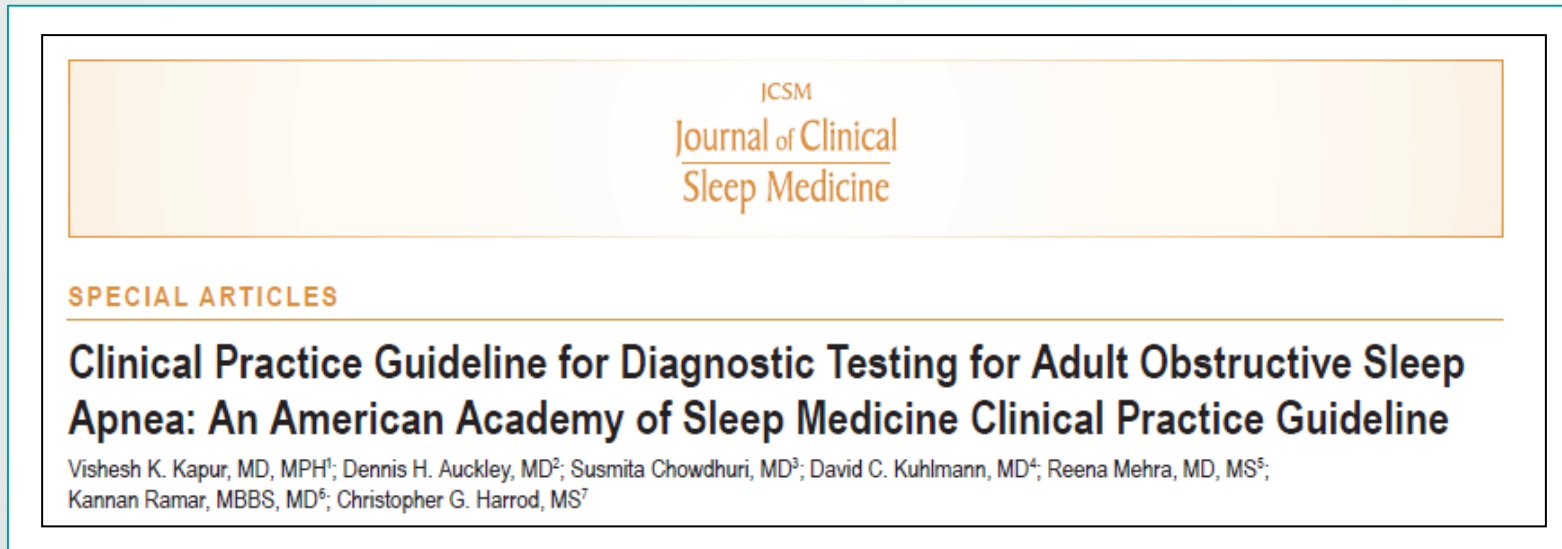
RDI combined with AHI were highly correlated ($r = 0.889$, $p < .001$).

Overall Correlation of the Respiratory Disturbance Index (RDI) and Apnea-Hypopnea Index (AHI) Between Polysomnography (PSG) and Peripheral Arterial Tonometry (PAT)



corresponds to the relative weight assigned in the pooled analysis. B indicates blinded; H, home setting; L, laboratory setting; and NB, non-blinded. Study reported the value as RDI; however, recent American Academy of Sleep Medicine criteria defined the value as AHI.

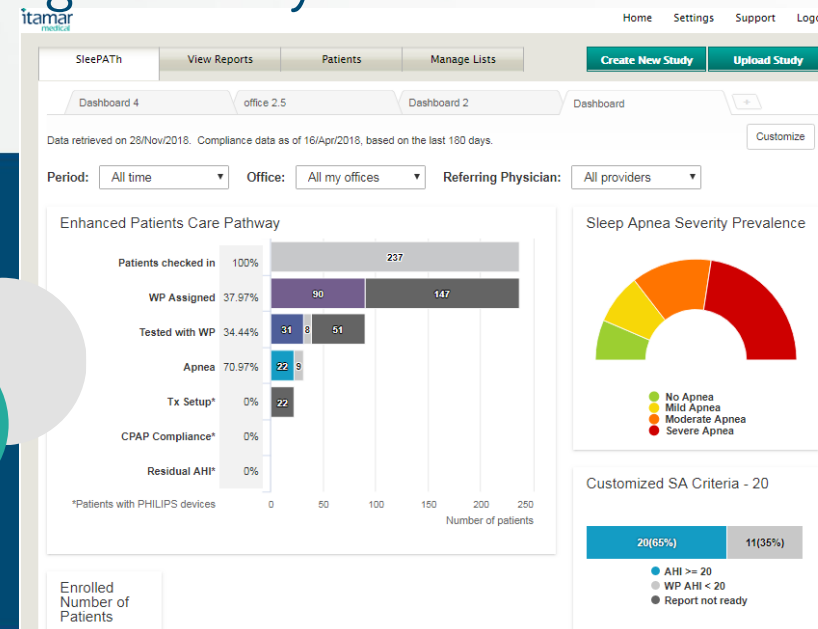
PAT Signal Recognized By AASM Clinical Practice Guidelines



*“A technically adequate HSAT device incorporates a minimum of the following sensors: Nasal pressure, chest and abdominal respiratory inductance plethysmography, and oximetry;
Or else PAT with oximetry and actigraphy.”*

CloudPAT™ Makes Sleep Diagnostics Accessible

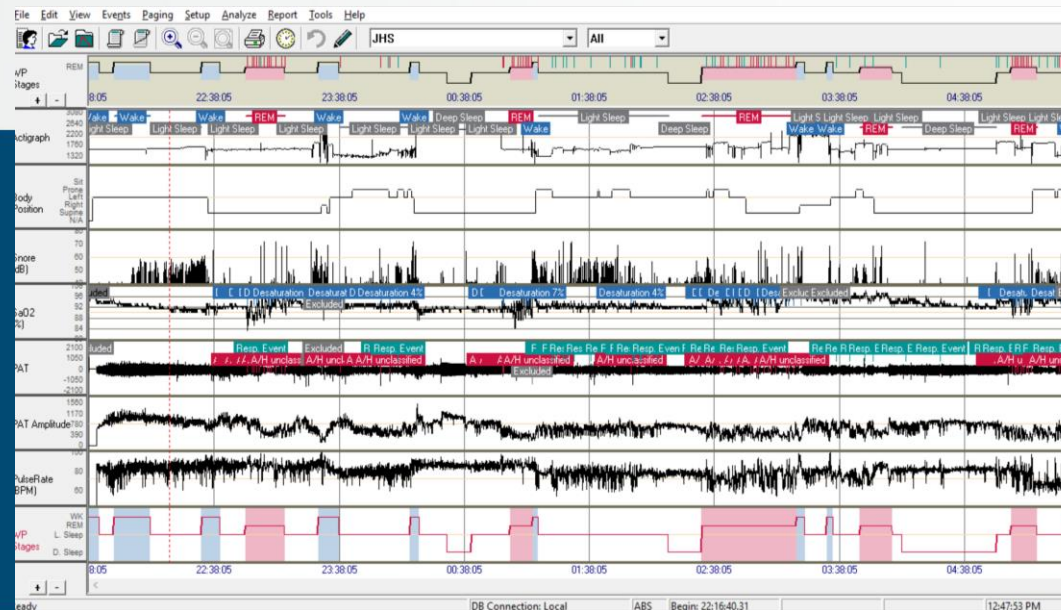
- **CloudPAT**, HIPPA-compliant cloud based IT solution for convenient sleep diagnosis and secure patient data transfer, streamline user workflow through online access for sleep report interpretation.
- Its expanded capability **SleePATh**, a patient care pathway dashboard, enable physicians to track their patient's sleep apnea management pathway and on-line raw signals study review and interpretation



zzzPAT™ Advance Algorithm for Sleep Diagnostics

- **zzzPAT** software with an advanced algorithm for scoring of respiratory events and sleep stages
- A comprehensive **sleep study report** is generated within **seconds** allowing patients to initiate treatment without delay
- **zzzPAT** enables both automatic scoring based on its advanced algorithm or manual scoring by user's preference


zzzPAT allows users to have several montages and graphical changes for event representation for easier report analyzing






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Thank You!

