



Sleep Apnea Detection. Arrhythmia Detection.  
All in One.

SPIDER SAS POLYGRAPH HOLTER

# Sleep Apnea Diagnosis

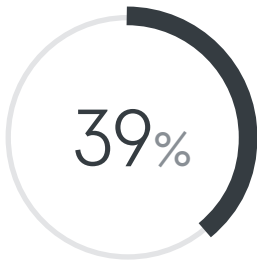
## A Key to Better Arrhythmia Management

- There is a strong link between arrhythmia and sleep apnea.
- 62% of AF patients present with OSA.<sup>1</sup>
- A combined approach has been shown to significantly improve the effectiveness of AF treatment.<sup>2,3,4,5</sup>
- All AF patients should be screened for OSA.<sup>6</sup>

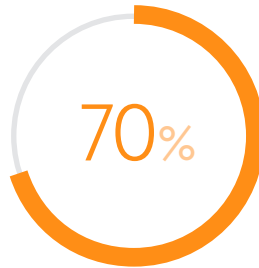
### TREATING OSA IMPROVES AF THERAPY SUCCESS

#### RESPONSE RATES TO ANTI-ARRHYTHMIC DRUGS (AAD)<sup>3</sup>

AF Patients with  
**Severe OSA**



AF Patients with  
**Non-severe OSA**



IMPROVE RESPONSE TO  
MEDICATION<sup>3</sup>

AF patients with severe OSA are less likely to respond to anti-arrhythmic drugs than patients with non-severe OSA: 39% vs 70%.<sup>3</sup>

#### AF RECURRENCE AT 12 MONTHS UNTREATED OSA VS. TREATED OSA

REDUCE RISK OF AF  
RECURRENCE<sup>4,5</sup>

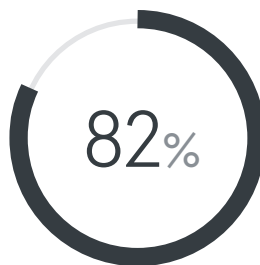
Treating OSA reduces the risk of AF recurrence after cardioversion by almost 50%.<sup>4</sup>

Treated OSA patients have more than a 2-fold reduced risk of AF recurrence following PVI.<sup>5</sup>

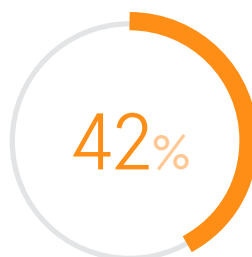
AF patients with untreated OSA have a 55% risk of AF recurrence after ablation compared with 28% for patients treated with CPAP prior to ablation.<sup>5</sup>

AFTER CARDIOVERSION

Untreated OSA

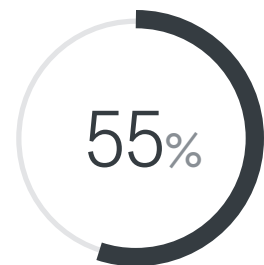


Treated OSA



AFTER ABLATION

Untreated OSA



Treated OSA



# 1 Device 2 Procedures

## SLEEP APNEA DETECTION<sup>7</sup>

- Respiratory Polygraph Cat III
- 1 or 2 nights recording

## ARRHYTHMIA DETECTION

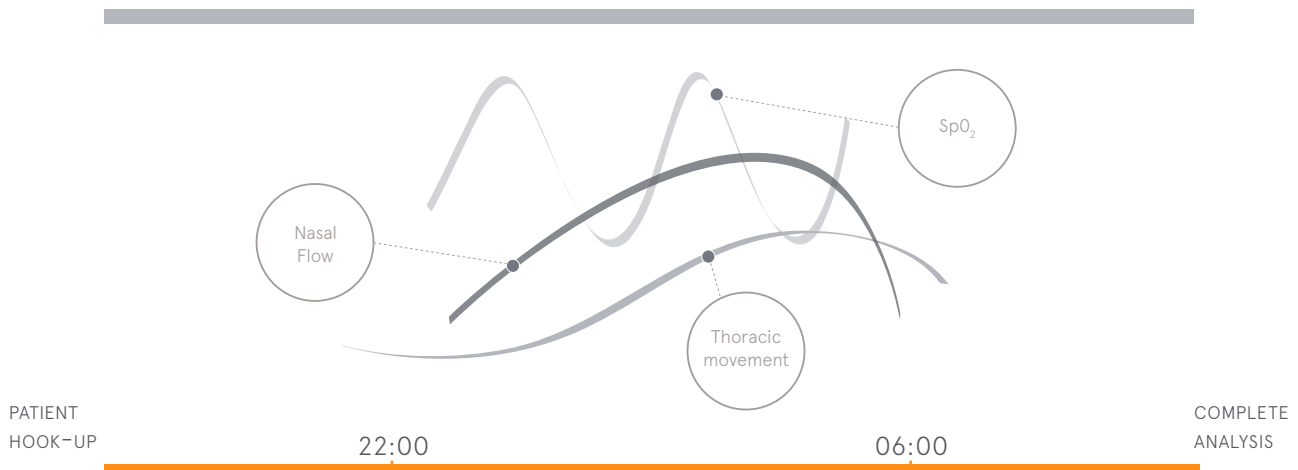
- Up to 32h hours recording
- 2 ECG channels



## All in One

All of MicroPort CRM's know-how in Holter technology is built into Spider SAS.

### 24-HOUR HOLTER



Polygraph Report

Holter Report

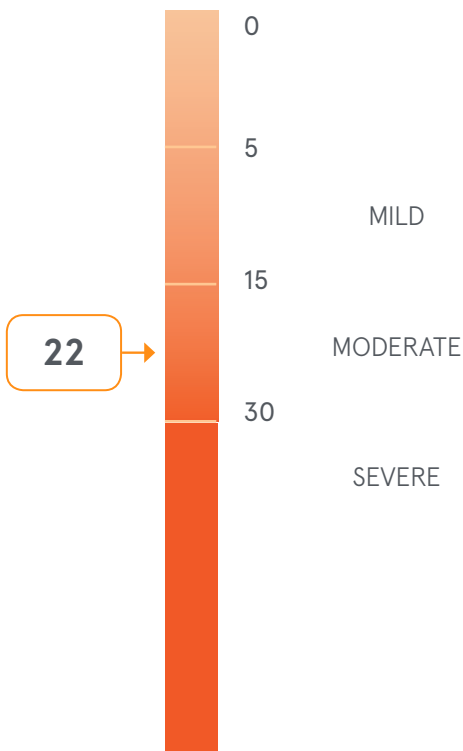
# Polygraph

## Sleep Apnea Diagnosis in your hands

### AHI

Apnea/Hypopnea Index

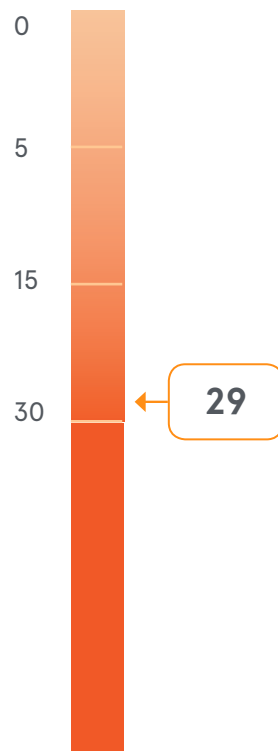
AHI is the mean number of Apneas and Hypopneas per hour.



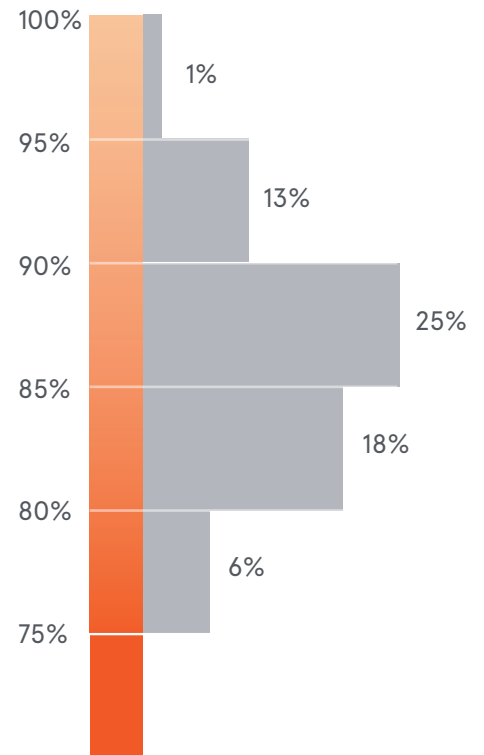
### ODI

Oxygen Desaturation Index

ODI is the mean number of desaturations per hour of sleep.

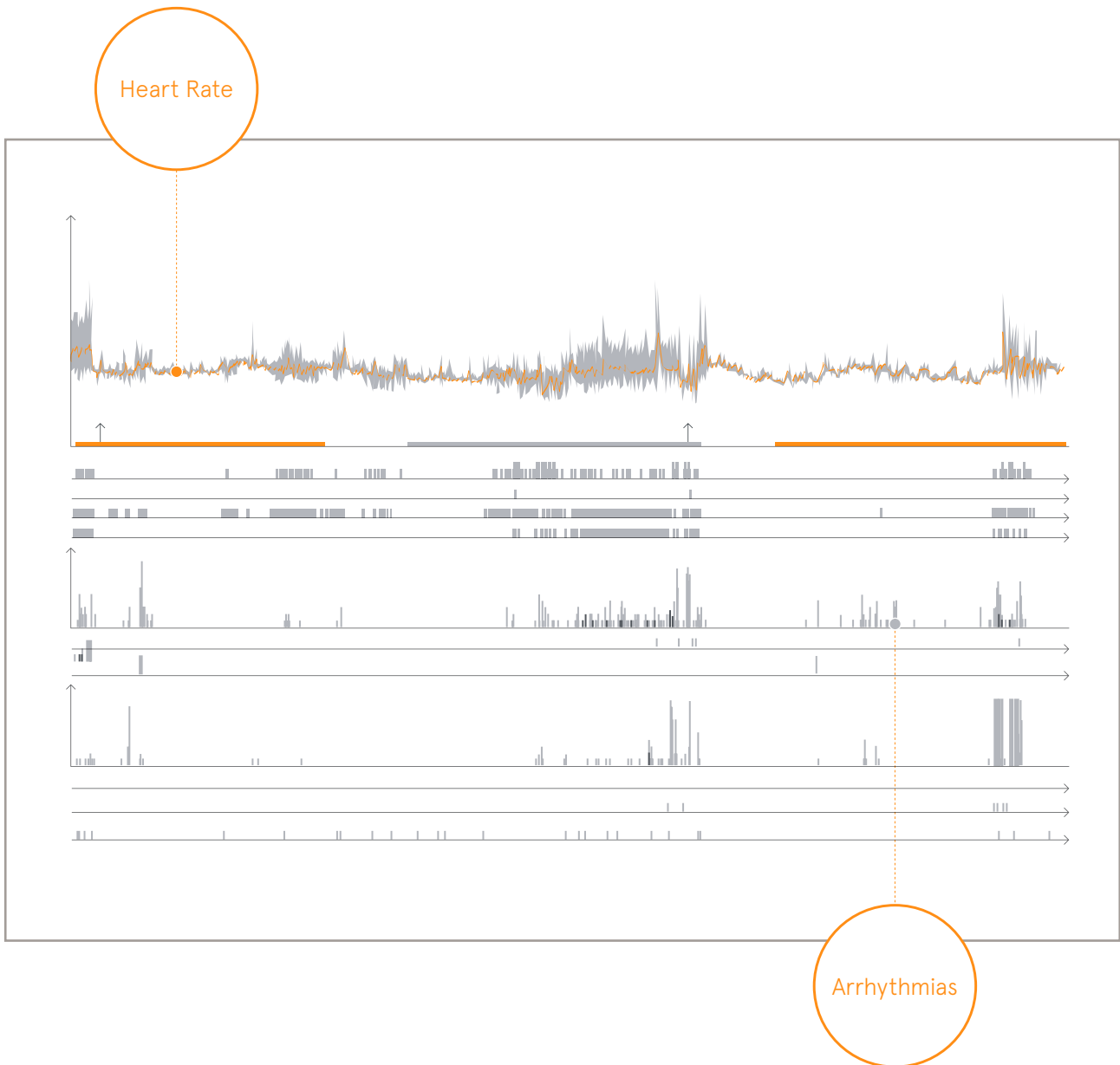


### SpO<sub>2</sub> burden



# Holter

Inspired by excellence

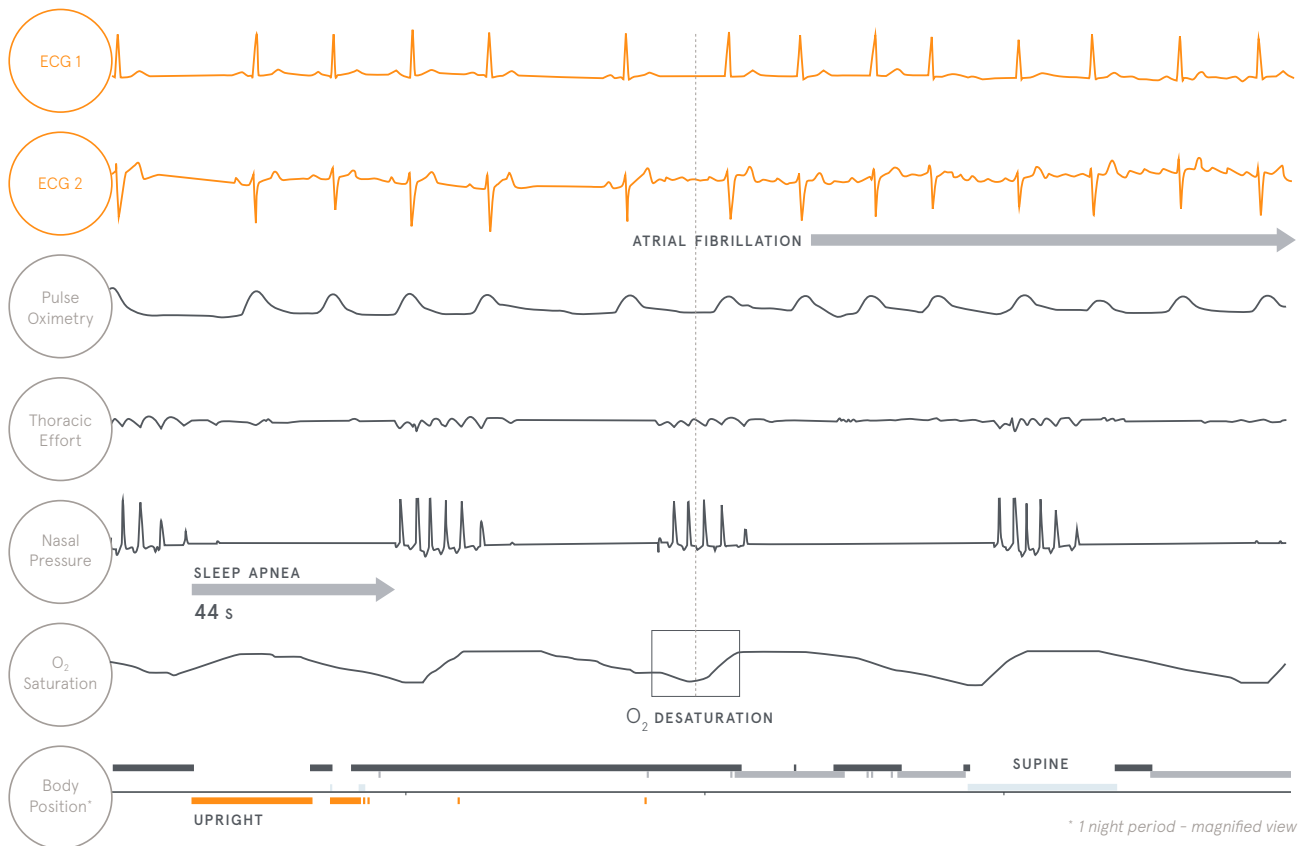


- Spider SAS benefits from **30 years** of experience in ECG recording tools.
- Built on the heritage of the Spiderview platform, a **gold standard** in data acquisition

# Dual Display

A powerful diagnostic tool

Is sleep apnea the underlying trigger of my patient's AF?



Spider SAS Dual Display provides a synchronized view of ECG and respiratory signals.

## DUAL ANALYSIS BENEFITS

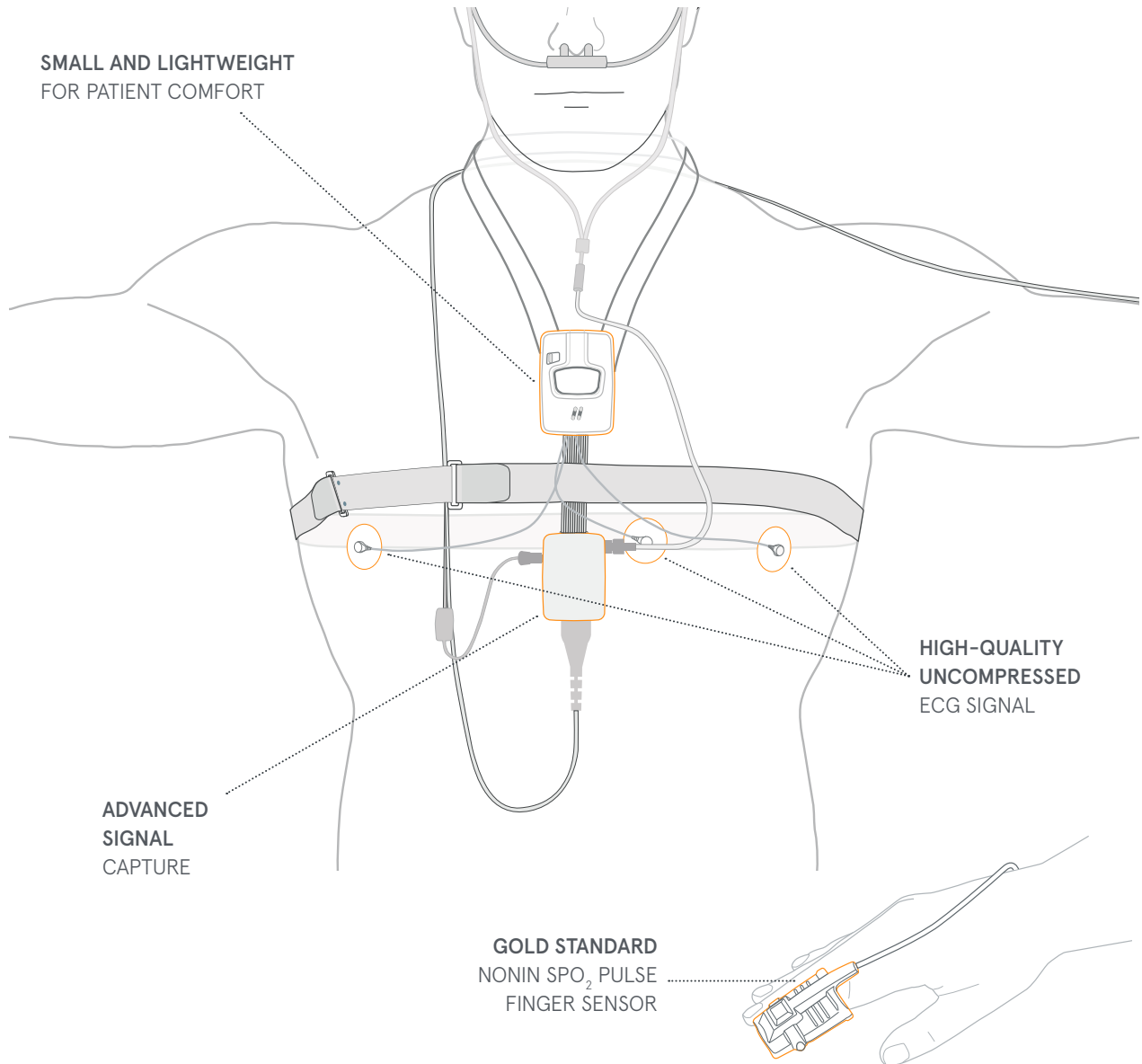
- ECG and respiratory signals combined **and synchronized**
- Fully customizable **analysis** interface
- Easily identify the underlying trigger: Apnea or Arrhythmia
- Identify oxygen desaturation during arrhythmia
- Gain insight into tolerance of apnea in parallel with cardiovascular events
- Help manage sleep apnea
- Provide the most tailored treatment path for patients

## FULLY CUSTOMIZABLE REPORTS

- Automatic reports combined with a full suite of editing tools
- Two polygraph reports, one report per night
- 24hr Holter Report

# One Convenient Solution

State-of-the-art technology at your fingertips



## INTUITIVE HOOK UP

- Wireless bluetooth set up
- Step by step wizard for quick and easy hook-up
- Real-time signal for accurate positioning of sensors

## COMPREHENSIVE REPORTING

- Simultaneous visualization of respiratory and arrhythmia events
- Automatic reports and full suite of editing tools
- AHI and SpO<sub>2</sub> analysis per night
- ECG Holter analysis - Identification of 18 different types of arrhythmia



**DISTRIBUTED BY**

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NOT AVAILABLE FOR  
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IN THE USA.



1. Stevenson H I, Teichtahl H, Cunningham D et al. Prevalence of sleep disordered breathing in paroxysmal and persistent atrial fibrillation patients with normal left ventricular function. *Eur Heart J* 2008 ; 29:1662–1669.
2. Linz D, Woehrle H, Bitter T et al. The importance of sleep-disordered breathing in cardiovascular disease. *Clin Res Cardiol* 2015 ; 104:705–718.
3. Monahan K, Brewster J, Wang L et al. Relation of the severity of obstructive sleep apnea in response to anti-arrhythmic drugs in patients with atrial fibrillation or atrial flutter. *Am J Cardiol*. 2012 August 1 ;110(3): 369–372.
4. Gami S A, Pressman G, Caples M S et al. Association of atrial fibrillation and obstructive sleep apnea. *Circulation* 2004 ; 110:364–367.
5. Kanagala R, Murali S N, Friedman A P et al. Obstructive sleep apnea and the recurrence of atrial fibrillation. *Circulation* 2003 ; 107:2589–2594.
6. Fein S A, Shvilkin A, Shah D et al. Treatment of obstructive sleep apnea reduces the risk of atrial fibrillation recurrence after catheter ablation. *JACC* 2013; 62 (4).
7. D. Feuerstein, L. Graindorge, A. Amblard et al. – Real-time detection of sleep breathing disorders. *Computing in Cardiology Conference (CinC)*, Nice 2015.

Please always refer to the Instructions For Use (IFU) manual provided with each product for detailed information, warnings, precautions and possible adverse side effects.

