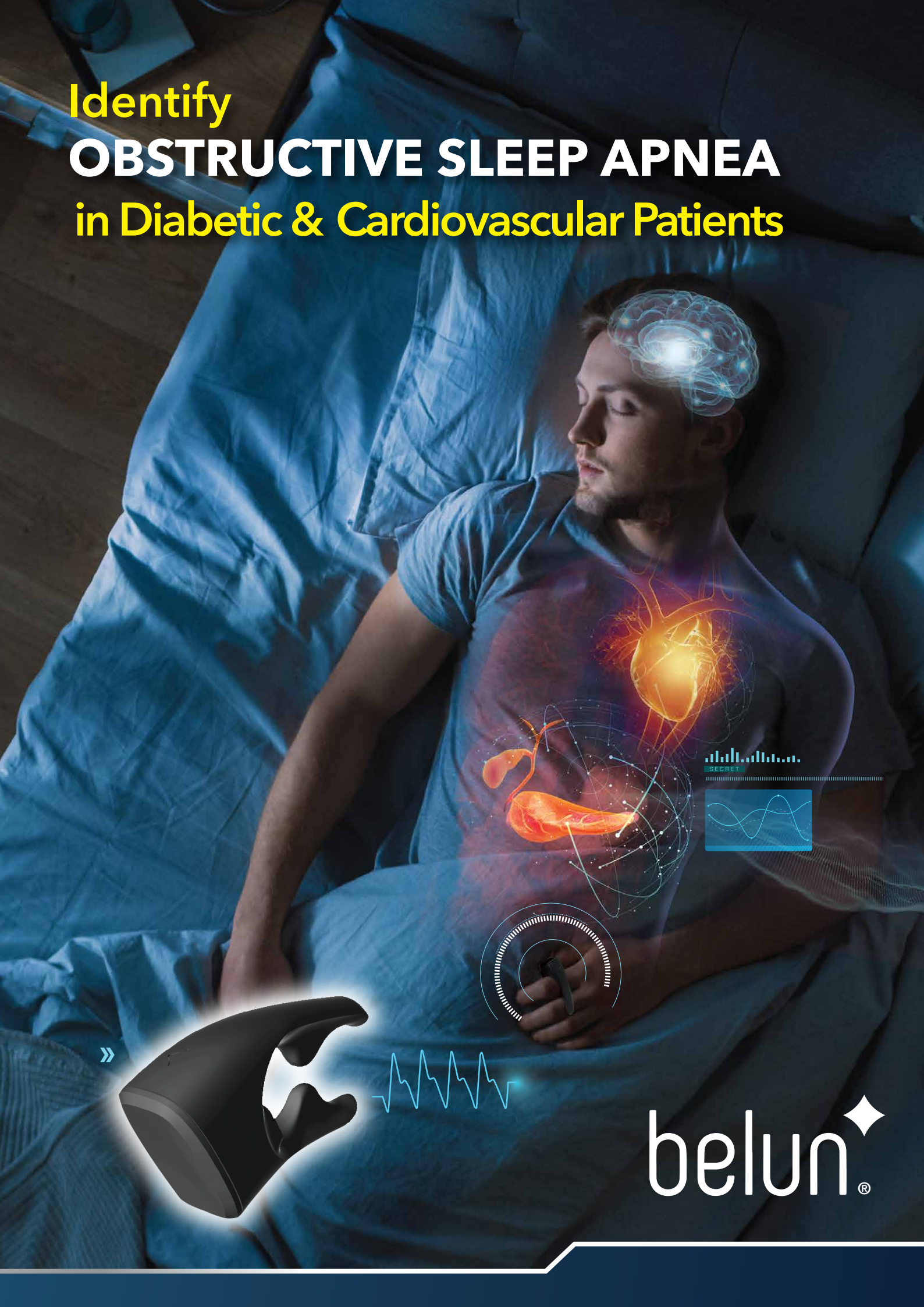


Identify
OBSTRUCTIVE SLEEP APNEA
in Diabetic & Cardiovascular Patients



belun[®] ♦



OBSTRUCTIVE SLEEP APNEA (OSA)

WORSENS GLUCOSE & CV DISEASES CONTROL

- **T2DM Patients:** Up to 83% suffer from OSA¹



Effect of apnea-hypopnea index (AHI) on HbA_{1c} is greater than some antidiabetic drugs²



Patients with AHI \geq 15 have **44%** increased odds of having an abnormal glucose level³

- **CVD Patients:** Up to 60% suffer from OSA⁴



Risk of **heart failure**
↑140%⁵



Risk of **stroke** in men
↑190%⁶



Risk of **coronary heart disease**
↑30%⁵

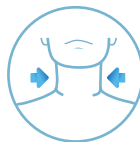


Odds of **complex arrhythmias**
↑2- to 4-fold⁷

PREDICTORS OF SLEEP APNEA⁸⁻¹¹



Short lower jaw



Large neck circumference



Large tongue or tonsils



Obesity



Uncontrolled blood pressure



Nighttime nasal congestion

OSA Screening for the above patients is of the utmost importance!

OSA IS A COMMON DISORDER



The estimated prevalence of OSA (AHI ≥ 15) was **5.3%** among middle-aged men in Hong Kong¹²



The prevalence of OSA (AHI ≥ 15) increased to **29.9%** among the community elders in Hong Kong¹³

- Signs and symptoms of OSA include⁴



Excessive daytime sleepiness



Morning headache



Insomnia with repeated awakenings



Snoring



Nocturia

HOWEVER, THE RATE OF UNDERDIAGNOSIS IN OSA IS UP TO 80%¹⁴

- The following barriers limit the use of polysomnography (PSG) and also the diagnosis rate of OSA



High cost¹⁵



Cumbersome procedure¹⁵



Unpleasant experience to patients¹⁵



Labor intensive¹⁶

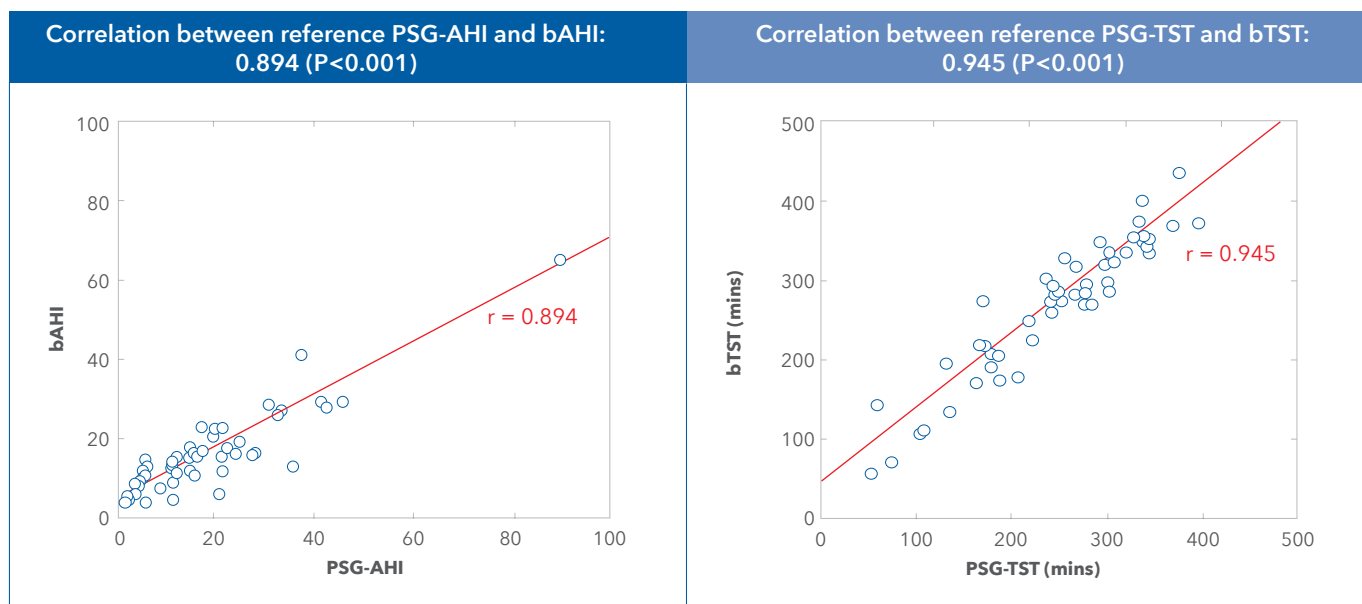


BELUN® RING - ENHANCED EXPERIENCE IN OSA SCREENING

Comfortable and Cost-saving	AI and Cloud Technology
<ul style="list-style-type: none"> • Comfortable measurement with a small, lightweight, cableless, and ergonomically designed ring • Cost-saving and thus allows multiple-night home sleep testing 	<ul style="list-style-type: none"> • Proprietary cloud-based AI algorithm for sleep analysis • Fast and accurate

BELUN® RING - COMPARABLE ACCURACY TO PSG¹⁷

- High sensitivity (0.85) and specificity (0.87) of BelunRing-AHI (bAHI) ≥ 15 in predicting PSG-AHI ≥ 15
- Significant correlations with PSG in both total sleep time (TST) and AHI



AI=artificial intelligence. bTST= BelunRing-TST. CV=cardiovascular. CVD=cardiovascular disease. FDA= Food and Drug Administration. HbA_{1c}= glycated hemoglobin. T2DM=type 2 diabetes mellitus.

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