



ResMed

*Changing lives
with every breath*

➤ ResMed 2015 Investor Day

Welcome & Opening Remarks

➤ Safe Harbor Statement

Statements contained in this presentation that are not historical facts are “forward-looking” statements as contemplated by the Private Securities Litigation Reform Act of 1995. These forward-looking statements — including statements regarding ResMed's projections of future revenue or earnings, expenses, new product development, new product launches and new markets for its products — are subject to risks and uncertainties, which could cause actual results to materially differ from those projected or implied in the forward-looking statements. Additional risks and uncertainties are discussed in ResMed's periodic reports on file with the U.S. Securities & Exchange Commission. ResMed does not undertake to update its forward- looking statements.

➤ 2015 Investor Day Agenda

Presentation	Presenter
Welcome	Agnes Lee, Sr. Director, Investor Relations
Creating value with ResMed's strategy	Mick Farrell, Chief Executive Officer
Focusing on innovation and continuous improvement	Rob Douglas, President & Chief Operating Officer
Financial review	Brett Sandercock, Chief Financial Officer
Short Break	
Healthcare informatics progress and vision	Raj Sodhi, President, Healthcare Informatics Global Business Unit
ResMed's clinical strategy	Glenn Richards, Chief Medical Officer



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➤ Creating Value with ResMed's 2020 Strategy

Mick Farrell
Chief Executive Officer

> Why ResMed?

25+ years

of successful innovation,
market development and financial management

Disciplined

financial management

Leader

in innovation for sleep
disordered breathing, respiratory
care and chronic diseases



ResMed

Proven

capital deployment history,
committed to returning excess
cash to shareholders

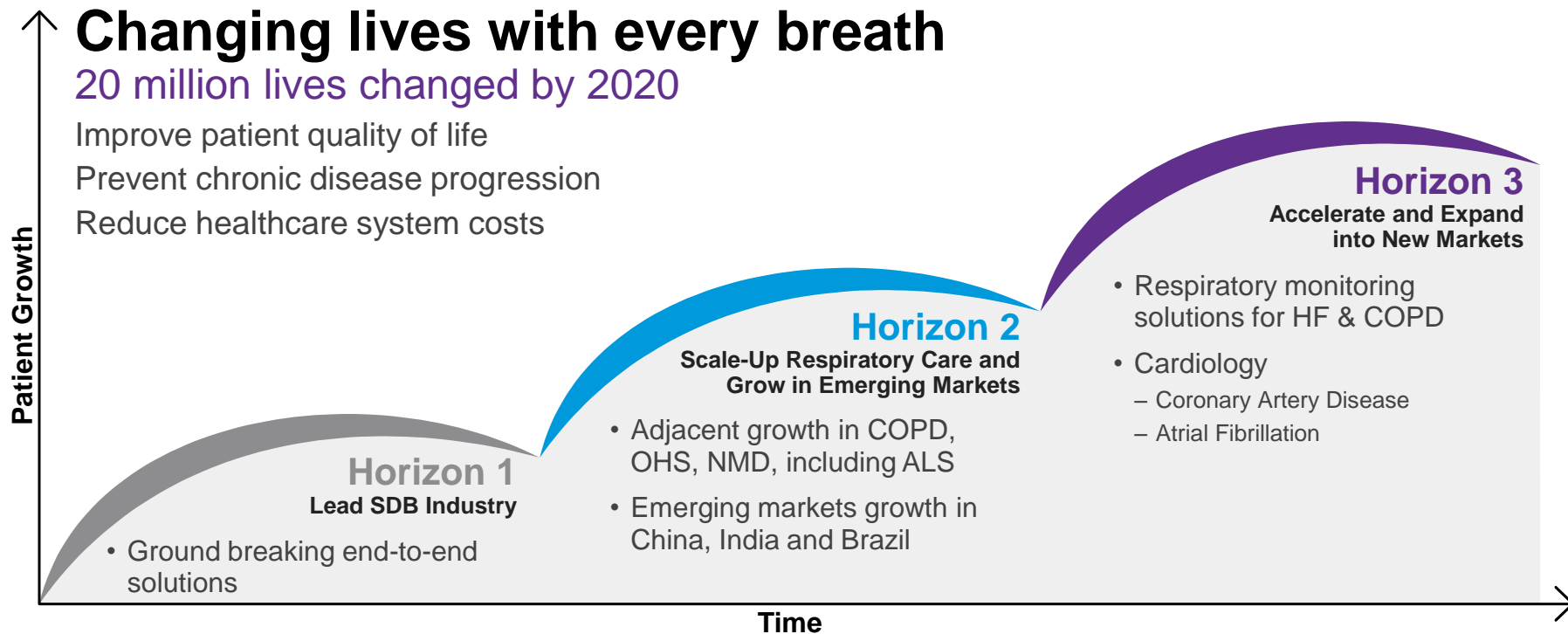
Global

sales and manufacturing franchise,
delivering products and solutions

Long-term Growth

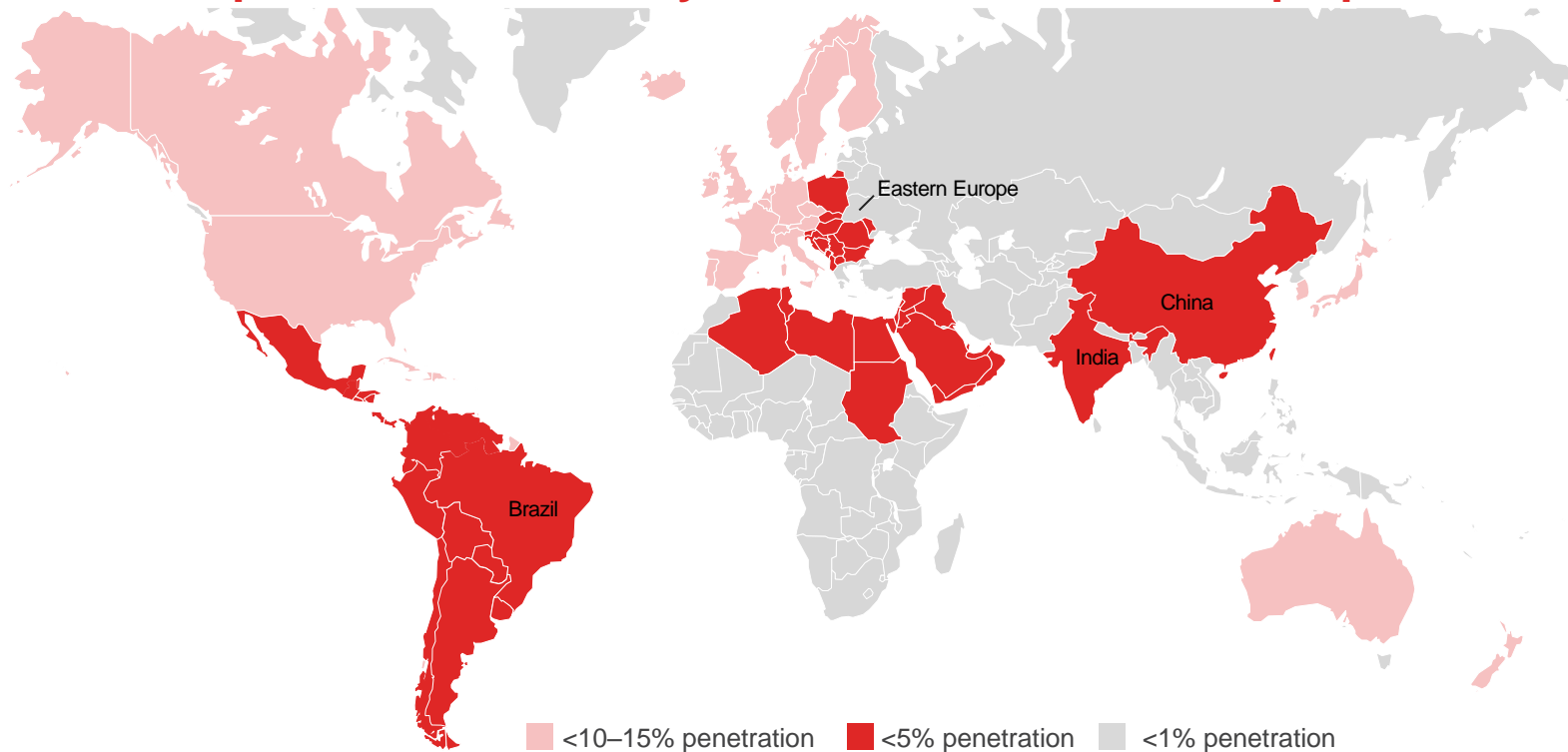
opportunities across all three horizons
of ResMed's strategy

➤ ResMed's Three Horizons Growth Strategy



> Horizon 1: Sleep apnea is a huge, underpenetrated market

Sleep Heart Health Study: 26% of adults have sleep apnea



⌚ Horizon 1: We changed the basis of competition in our market

Air Solutions: Smaller, Quieter, More Comfortable... and More Connected



DIAGNOSIS

THERAPY

MONITORING & MGMT.

PATIENT ENGAGEMENT

BILLING



⌕ Horizon 1: Growing importance of sleep and sleep apnea

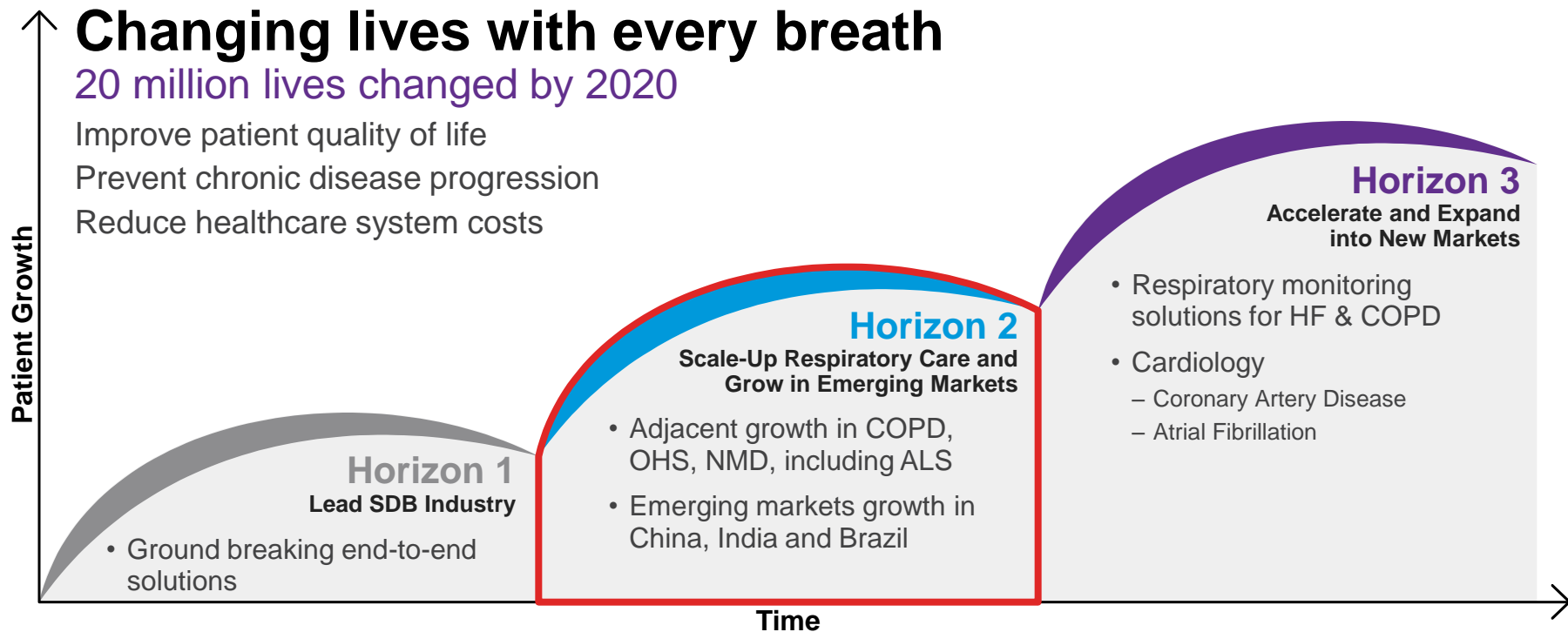


Sleep-concerned Consumers



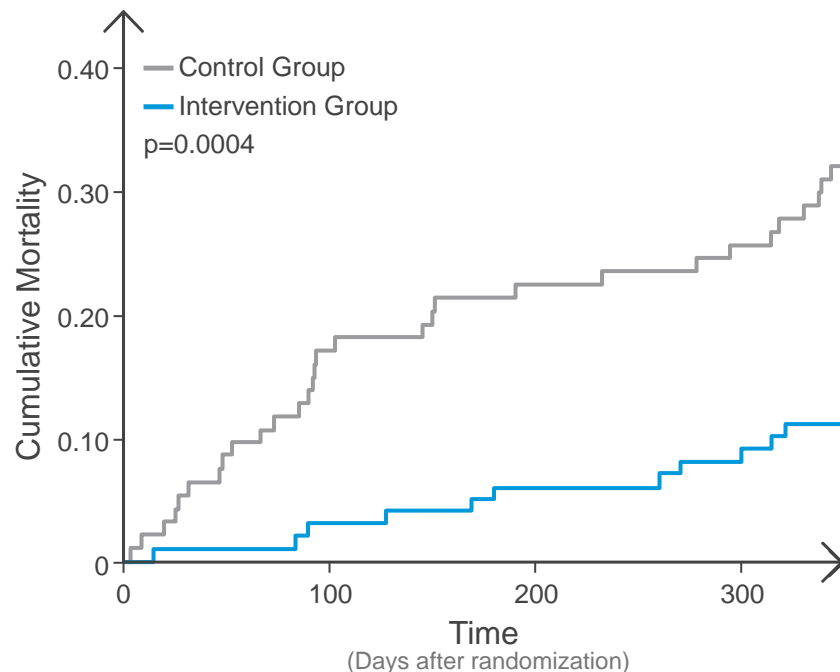
Better Sleep for Women

➤ ResMed's Three Horizons Growth Strategy

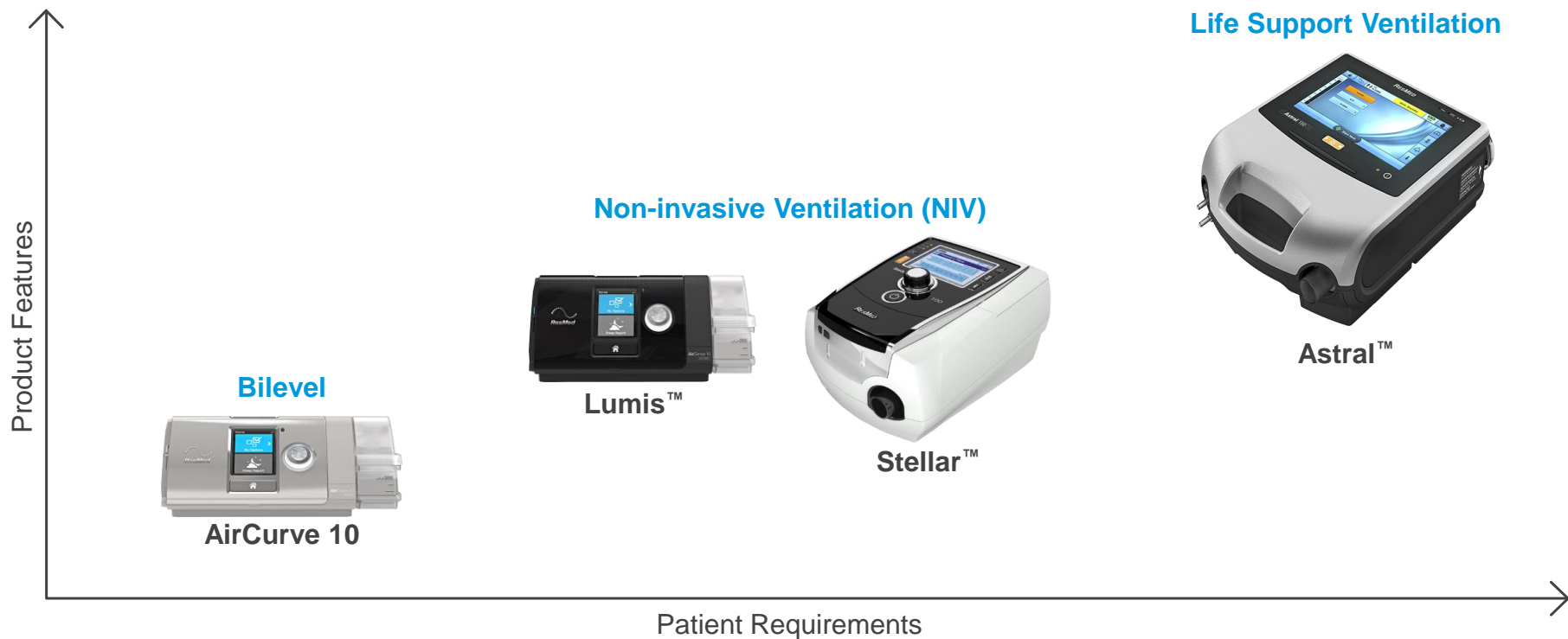


➤ Horizon 2: Huge potential to improve outcomes in COPD

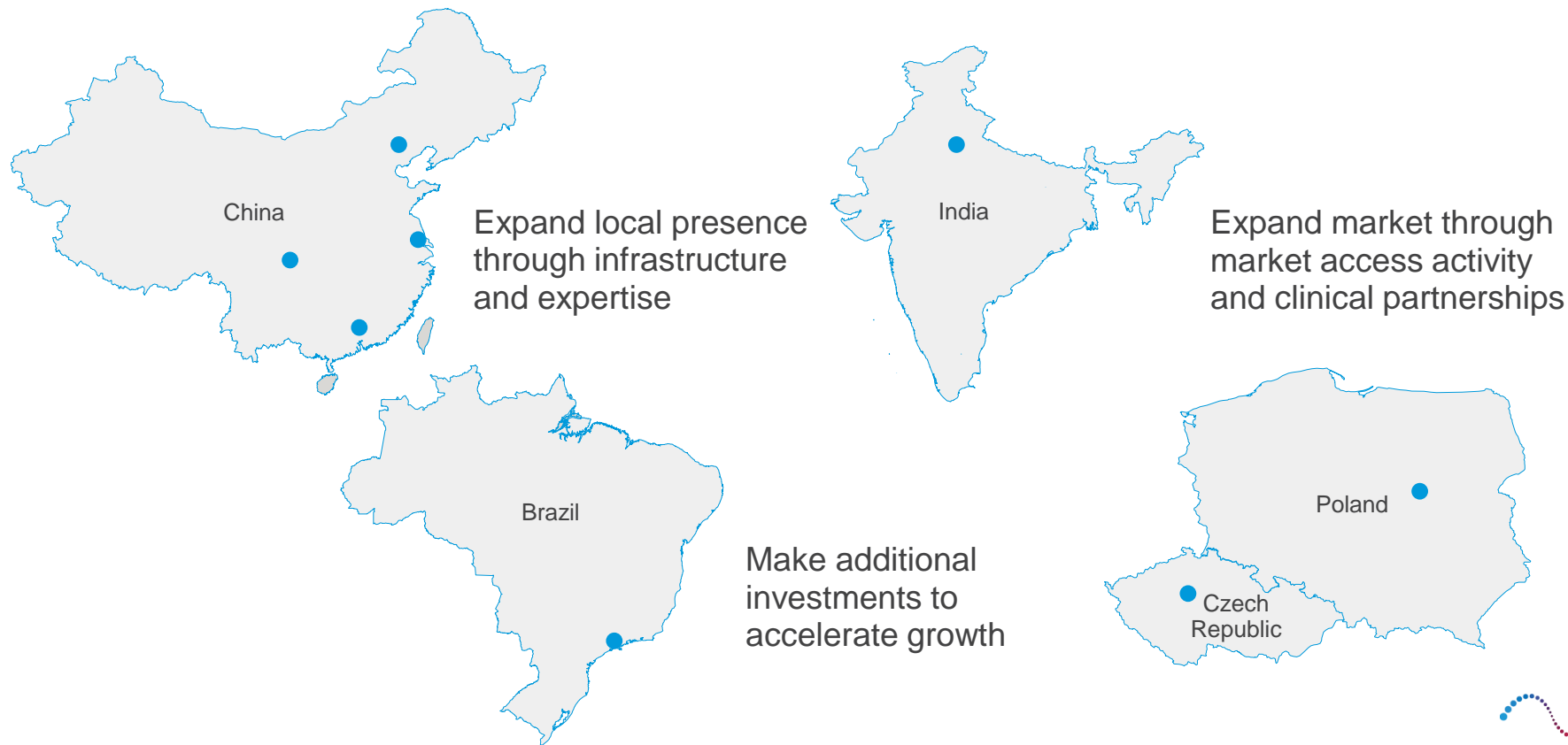
- Mortality risk reduced by over 60% on a relative basis when using long-term non-invasive ventilation (NIV) treatment in chronic obstructive pulmonary disease (COPD)
- One-year mortality in the two matched COPD cohorts was:
 - 12% mortality (NIV therapy)
 - 33% mortality (no intervention)
- 80 Million COPD patients worldwide
 - NIV underpenetrated as treatment for COPD
 - Significant upside: Europe, US, China, Brazil



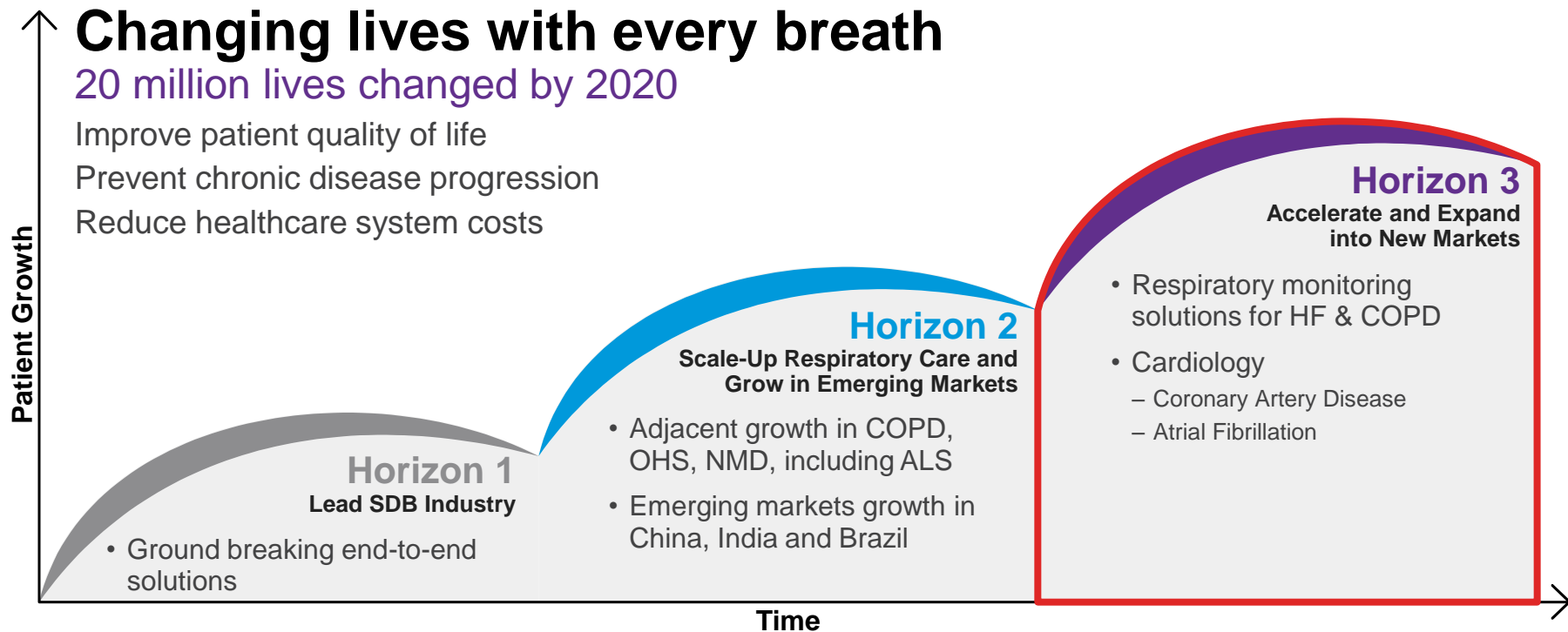
➤ Horizon 2: Full spectrum of ventilation products



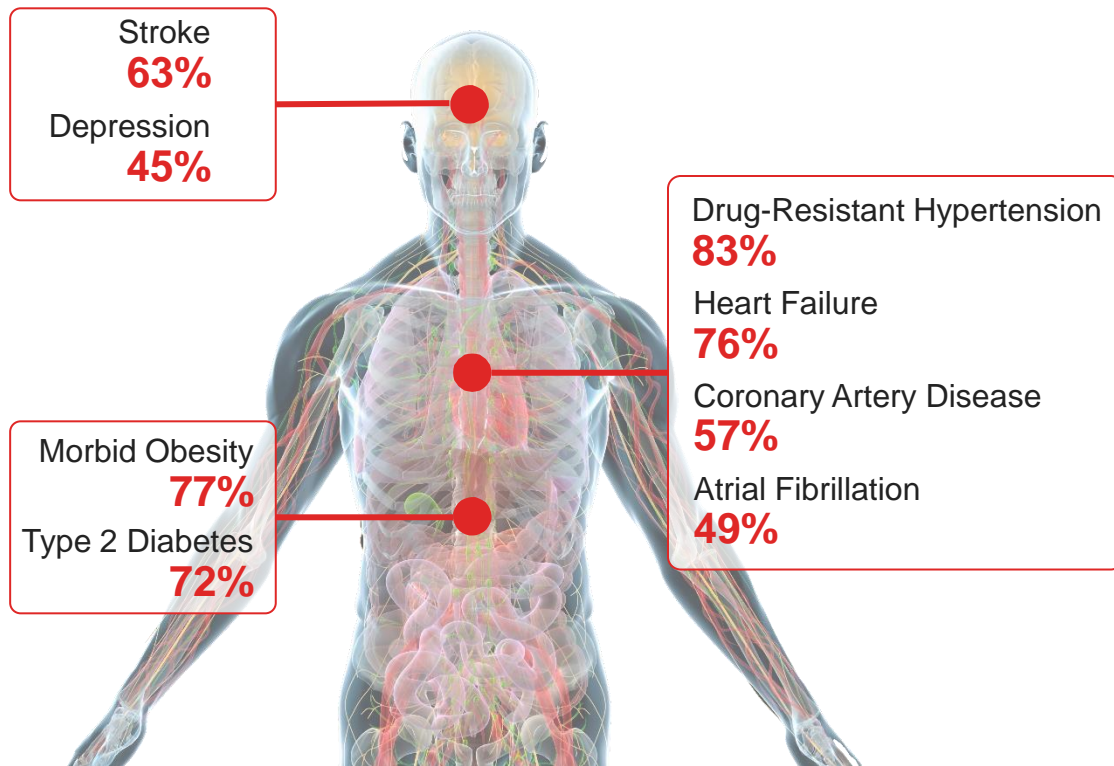
➤ Horizon 2: Growing Businesses in key Emerging Markets



➤ ResMed's Three Horizons Growth Strategy



> Sleep Apnea: Highly prevalent in key chronic diseases



References: Logan et al. *J. Hypertension*; O'Keefe and Patterson, *Obes Surgery*; Oldenburg et al., *Eur J Heart Failure*; Einhorn et al. *Endocrine Prac*; Bassetti et al. *Stroke*

➤ Horizon 3: Heart Failure reduced ejection fraction (HFrEF)

- **SERVE-HF Headline Result:**

- Neutral with no signal in the primary endpoint: all-cause mortality and HF hospitalization

- **SERVE-HF Safety Signal:**

- Adaptive servo-ventilation (ASV) in patients with symptomatic chronic heart failure with reduced ejection fraction and predominant central sleep apnea

- **Key Points:**

- The use of positive airway pressure in other clinical indications is not associated with increased cardiovascular risk
- We will present detailed clinical data on SERVE-HF at medical conferences this calendar year, and we will publish detailed data in peer-reviewed journals.

➤ Horizon 3: Heart Failure preserved ejection fraction (HFpEF)

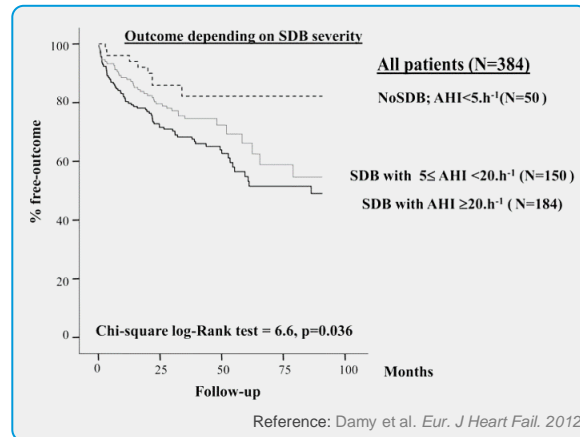
Dose-response relationship between SDB and cardiovascular outcome



AMERICAN
COLLEGE of
CARDIOLOGY
FOUNDATION



American
Heart
Association®
Learn and Live



CAT-HF

Cardiovascular Improvements with
MV ASV Therapy in Heart Failure

- **Goal:** Incorporate ASV therapy into the ACC/AHA heart failure guidelines in class 1A and as standard of care treatment
- **Status:** Enrollment underway as preparation for future clinical study focused on HFpEF.

Note: Further trial details can be obtained from <http://clinicaltrials.gov/>; CAT-HF: NCT01953874

➤ Horizon 3: Atrial Fibrillation (AF)

JACC: CLINICAL ELECTROPHYSIOLOGY
© 2015 BY THE AMERICAN COLLEGE OF CARDIOLOGY FOUNDATION
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<http://dx.doi.org/10.1016/j.jacep.2015.02.014>



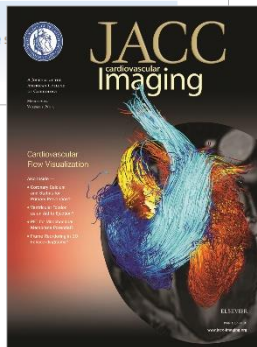
Effect of Obstructive Sleep Apnea Treatment on Atrial Fibrillation Recurrence

A Meta-Analysis

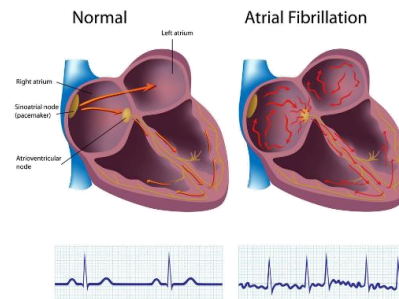
Ashish Shukla, MD, MPH, Anthony Aizer, MD, MSc, Douglas Holmes, MD, Steven Fowler, MD, David S. Park, MD, PhD, Scott Bernstein, MD, Neil Bernstein, MD, Larry Chinitz, MD

ABSTRACT

OBJECTIVES This study aimed to evaluate the cumulative effect of treatment of obstructive continuous positive airway pressure (CPAP) on atrial fibrillation (AF) recurrence.



- Conclusion of study in JACC:
 - CPAP use associated with reduced AF recurrence
 - Reduced AF recurrence seen in two key groups
 - Patients who underwent catheter ablation
 - Patients who underwent non-ablation medical mgmt.
 - Data included 7 studies with n=1,087 patients



➤ Horizon 3: Coronary Artery Disease (CAD)

Impact of CPAP Treatment on Cardiovascular Outcomes in Coronary Artery Disease and Obstructive Sleep Apnea: The RICCADSA trial

Yüksel Peker^{1,2}, MD, PhD, Prof; Helena Glantz^{1,3}, MD; Christine zu Eulenburg⁴, PhD; Karl Wegscheider⁴, PhD, Prof; Johan Herlitz⁵, MD, PhD, Prof; Erik Thunström^{1,6}, MD

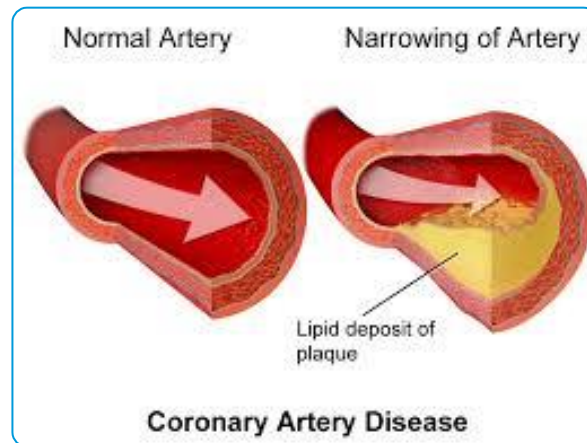
¹Dept. of Molecular and Clinical Medicine/Cardiology, Sahlgrenska Academy, University of Gothenburg, Sweden; ²Dept. of Pulmonary Medicine, Marmara University, Istanbul, Turkey; ³Dept. of Internal Medicine, Skaraborg Hospital, Lidköping, Sweden;

⁴Dept. of Medical Biometry and Epidemiology, University Medical Center, Hamburg-Eppendorf, Germany; ⁵Center of Prehospital Care of Western Sweden, University College of Borås and Sahlgrenska University Hospital/Sahlgrenska, Gothenburg, Sweden;

⁶Dept. of Cardiology, Sahlgrenska University Hospital/Östra, Gothenburg, Sweden

- Conclusion of data from ATS

- Results suggest CPAP reduces risk for adverse cardiovascular outcomes in revascularized patients with CAD and non-sleepy OSA
- CPAP usage of at least 4 hours per night is crucial to achieve this risk reduction



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market development and financial management

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Long-term Growth

opportunities across all three horizons
of ResMed's strategy

 Thank you



ResMed

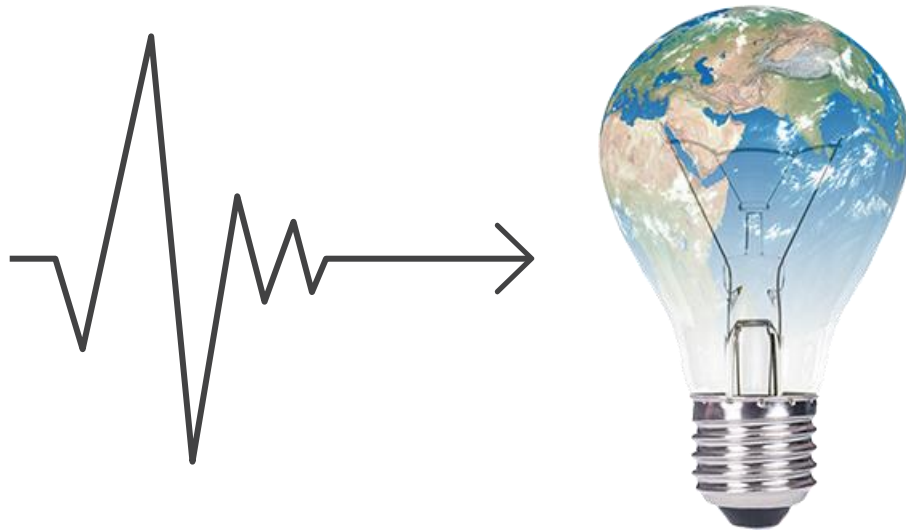
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➤ Focusing on Innovation and Continuous Improvement

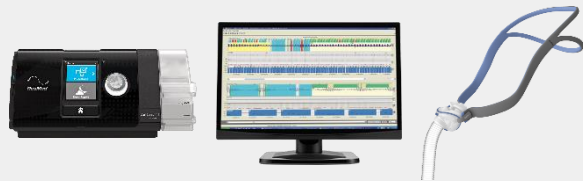
Rob Douglas
President & Chief Operating Officer

➤ Importance of ResMed's culture

- Ethics and integrity
- An apolitical team player
- Initiative
- A sense of urgency
- Instinct and resourcefulness
- Creativity
- Proactive communication
- Commitment to quality and continuous improvement
- Self-esteem
- Value-consciousness
- Customer-focus
- Concern for co-workers



➤ Leveraging global innovation in local markets



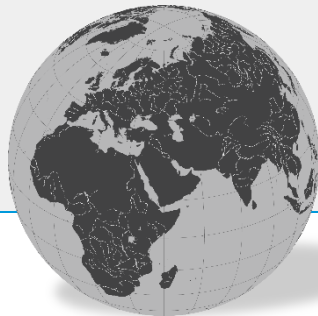
Product and Solution Innovation and Expertise

- Strong R&D organization in Europe, Australia and North America
- 5,000 patents issued pending
- Global business units set R&D priorities



Global Infrastructure

- Innovation and quality driven global supply chain
- Global manufacturing and logistic processes



Market Focused

- HME sales force in the U.S. and major European markets
- Distributor networks
- Direct sales in Australia, New Zealand and the United Kingdom
- Own a home care company in Germany

Note: All figures are approximate

➤ Innovation continues to drive our growth

- Creating game-changing products and an evolving pipeline of high quality products
 - AirSolutions platform: full range of flow generators and associated HI tools launched over past twelve months
 - Air Fit Mask range: launched 3 new masks in the last twelve months
 - Astral: new ventilation platform
- Healthcare informatics investments have enhanced product differentiation
 - End-to-end workflow solution that allows customers to improve efficiencies and drive patient adherence
 - Established a new core competency
- Focus on smaller, quieter, comfortable and now, more connected products
- Our business unit leaders drive global product and solutions innovations
- Our commercial leaders drive local innovations in marketing and sales



➤ Innovation is rewarded across the organization

John Wickham Memorial Award for Invention

Remote troubleshooting for AirSense10



Peter Farrell Innovation Awards

Recognizing ResMed's world-leading innovators



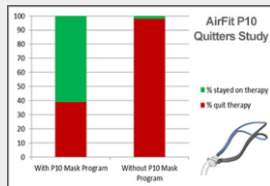
Innovation in Quality Award

AirSense10 Performance Testing



Innovation Delivering a Significant Impact on Business Award

AirFit P10 Adherence Study



Product Innovation Award

AirSense10 and Astral™



> Innovation drives our supply chain

Sydney



Product Design

From product inception ResMed designs for manufacturing efficiency and product reliability

Global Manufacturing Philosophy

- Best in class quality and GMP
- Lean manufacturing
- Flexibility
- Speed

Singapore



Maximize Use of Global Supply Network

Leverage supplier IP and use low cost specialized supplier manufacturing facilities

➤ Our global manufacturing and supply chain footprint



- Sydney, Australia 155,000 ft²
- Singapore 95,000 ft²
- Johor, Malaysia 46,000 ft²
- Lyon and Paris, France 43,000 ft²
- Munich, Germany 43,000 ft²
- Chatsworth and Moreno Valley, California 30,000 ft² & 71,000 ft²
- Atlanta, Georgia 466,000 ft²



- Strategically Designed
 - Supplier Base
 - R&D Base (especially customer feedback)
 - Logistics

➤ State-of-the-art supplier management

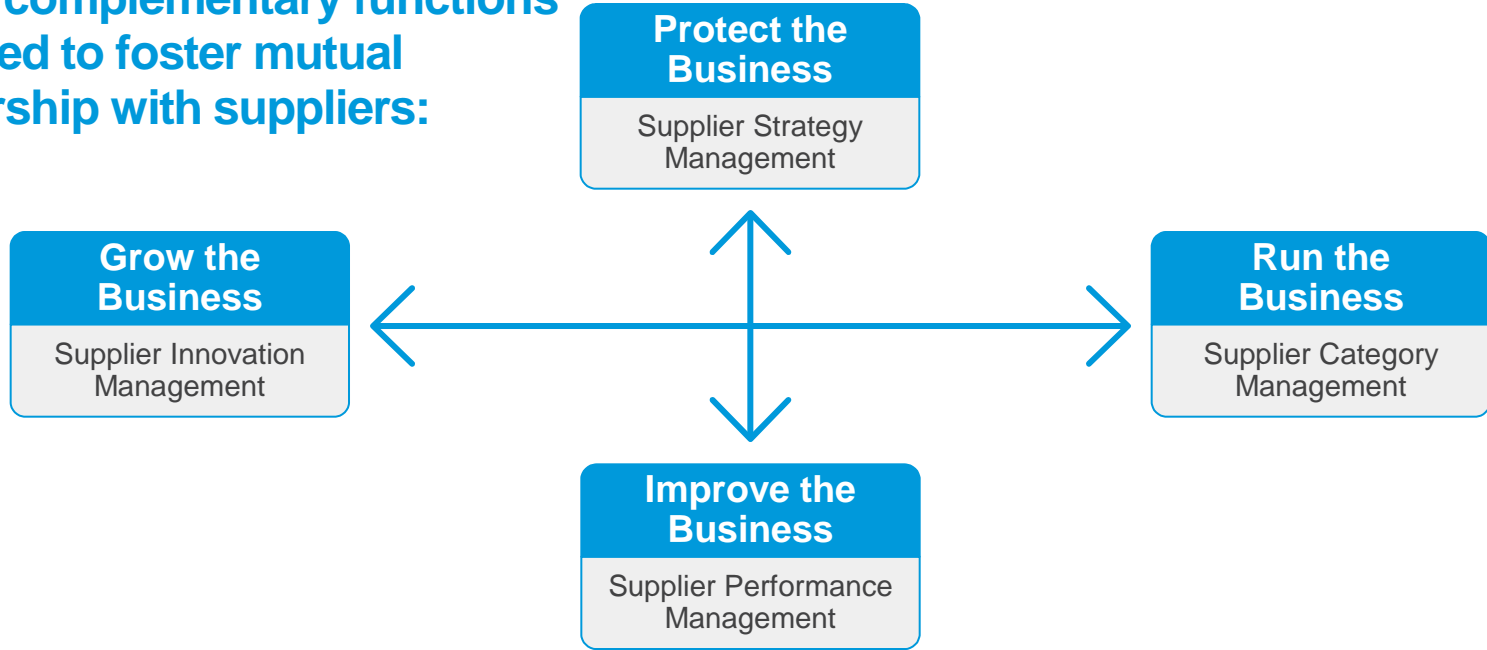
ResMed is committed to delivering innovation, quality and value to our customers.



We will deliver this through building and strengthening our alliances with suppliers and providing best practice leadership.

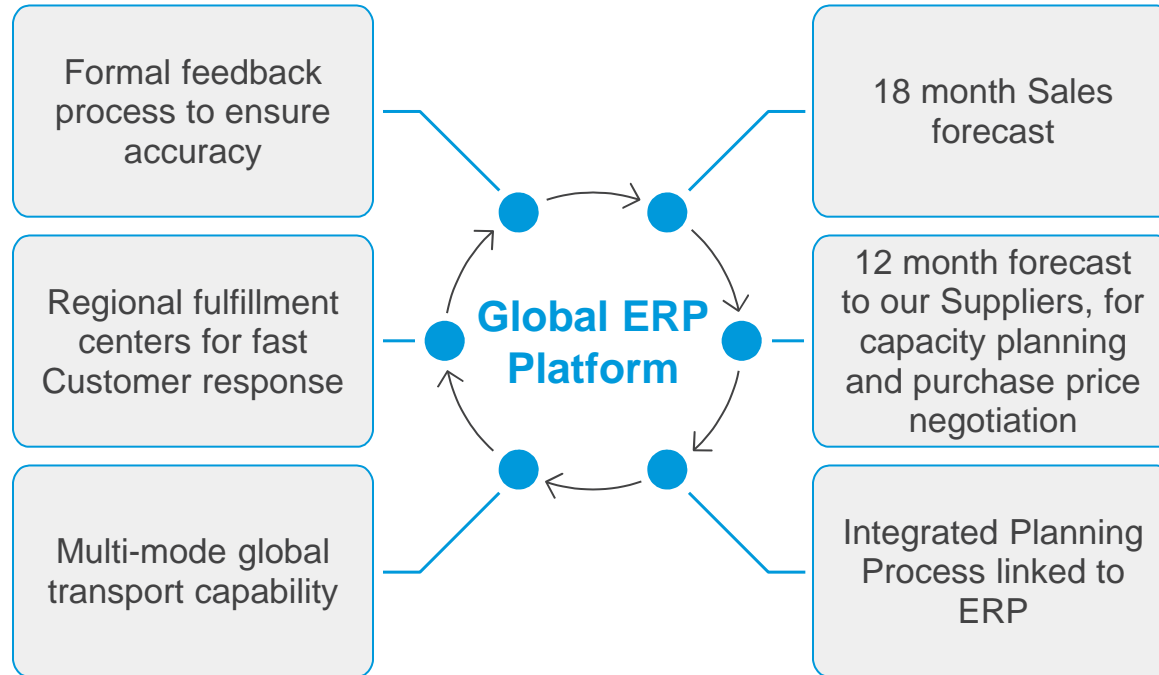
> State-of-the-art supplier management

ResMed's Global Supplier Alliance consists of four complementary functions designed to foster mutual partnership with suppliers:

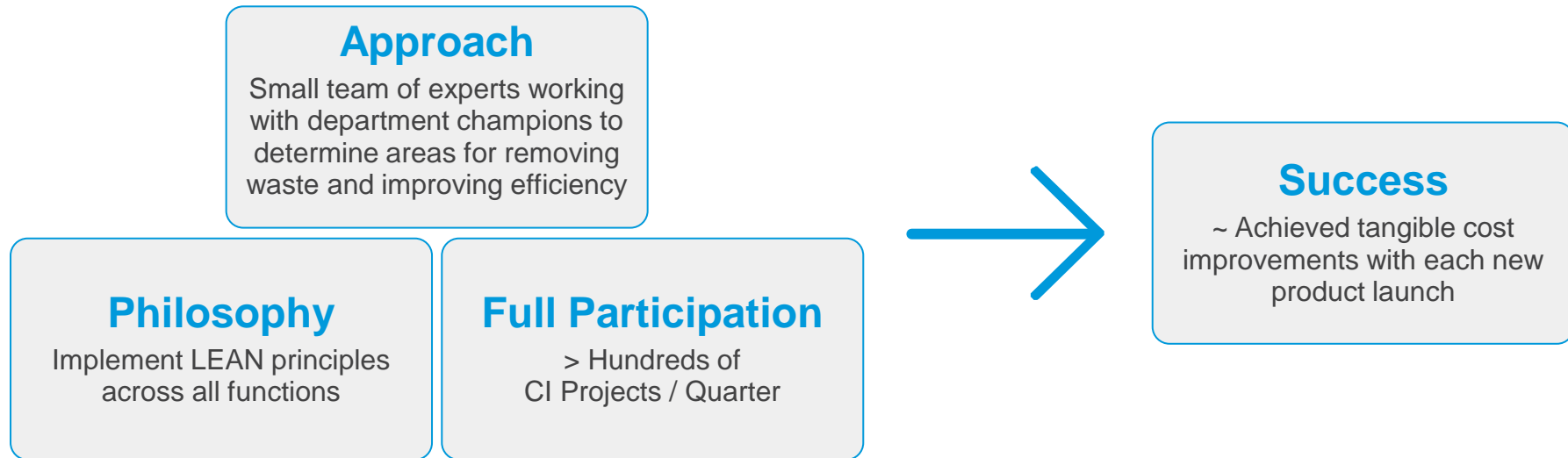


> Global logistics network

To have the right product always available...



> Continuous Improvement



➤ Continuous improvement — our culture



Continuous Improvement
ResMed

OCTOBER 2014

SENIOR VICE PRESIDENT'S AWARD

Recognising Excellence in Continuous Improvement
As Voted by the Senior Leadership Team



WINNER

**PROJECT KAKADU:
ASTRAL FASTER TO AUSTRALIANS (KOOEEEE!!)**

"Using a solid understanding of the process and a proactive approach, this team has turned a potential delay into a significant benefit for the business – great work!" Anthony Claridge

CHALLENGE: Project Kakadu enabled the Astral ventilator to be marketed in Australia 15 months earlier than expected!

TEAM: Peter Jennings, Fiona Carroll

METHOD: Under TGA regulation, ResMed Ltd had not made a ventilator before and therefore a permit to sell would require Astral to be completed and submitted for TGA assessment. Instead, the team were able to build a ResMed Ltd Stellar ventilator and submit it to the TGA well ahead of the completion of Astral, substantially reducing the time to market.

BENEFITS: Reduce time to market by 15 MONTHS!

- Identified a 15 month delay to market
- Initiated project Kakadu
- Revisited a Stellar Ventilator as a ResMed Ltd Device
- Collected evidence and obtained TGA approval
- Went to the Australian market 15 months early





Continuous Improvement
ResMed

OCTOBER 2014

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COMMENDED

ADC PAPERLESS ORDERS PROJECT - PHASE 1

"This is a great example of how eliminating waste in the office can provide efficiency, time and cost savings – more departments should follow this lead – excellent." Anthony Claridge

CHALLENGE: Phase 1 of the paperless orders project at ADC was to eliminate printing of all orders, emailed and hard copy orders.

TEAM: Balinda Parker & Leana Nicholson

METHOD: Created an email-based process and file structure to manage orders electronically from receipt to picking and closure.

BENEFITS:

- 36,000 sheets of paper saved per year
- 406,120 steps eliminated per year
- Filing of 18,460 orders eliminated
- Reduced space required for filing cabinets
- Eliminated risk of losing orders and annoying customers

Cost savings from printing & paper reduction = \$1,847 and avoiding purchase ink, stamps and filing cabinets. Time savings from reduced walking and filing = \$8,341 Total savings = \$10,188 per year

Present: Previously all orders, emailed and hard copy orders were all printed and the hard copies then scanned.

This process took time, used significant amounts of paper and took an increasing amount of filing space.

After creating a dedicated office and increasing the likelihood of orders being re-ordered.



Solution: Created an email-based process and file structure to manage orders electronically from receipt to picking and closure.



Continuous Improvement
ResMed

Q1 FY15

CONTINUOUS IMPROVEMENT AWARD

Recognising Excellence in Continuous Improvement




CI Event # 1027 Brazil product registration consolidation and simplification (Air Solutions Series)

Challenge:
LATAM product submission strategy was historically driven by the distributors or consultants without ResMed input. This led to inadequate product grouping and therefore a larger than necessary volume of licenses to submit and maintain.
LATAM licenses inefficiently structured. Excessive number of licenses due to lack of ResMed involvement in product submission strategies and lack of guidelines for submission.

CI Event leader: Larissa D'Andrea
Team: Jason Ford, Ruby Perez

Method / Benefits:
Based on the strategy employed in FY14 to consolidate product submissions into families or systems rather than individual products, the new submission for the Air Series of products (AirBart, AirSense, AirCurve) was planned to be certified by INMETRO (electrical safety certification body) and approved by ANVISA (regulatory agency) as family of products.
This effort also supported reduced risk of compliance action and potential fines due to customs holds in Brazil. Products incorrectly registered may be rejected, confiscated or the manufacturer/distributor be subject to significant fines if identified during importation. Incorrect manufacturing locations were listed. Incorrect ResMed addresses, missing distributors, etc. were identified as non-compliant issues with the licenses. Incorrect manufacturing locations subjected ResMed to the potential cost of moving the manufacturing products back to the manufacturer location when the manufacturing activity had already been translocated elsewhere.

Historically, the Air Series group of products would have been submitted by individual product groups. This means based on historical strategy there would have been 8 submissions.
AirSense CPAP, AirSense Elite, AirSense AutoSet, AirSense AutoSet FH, AirCurve VAuto, AirCurve S, AirCurve ASV, AirBart CPAP
Latin charges a consulting fee of \$3,100.00 USD per new submission. This is a cost avoided because the consolidation strategy reduces 8 submissions to 1 submission.
Submission fee cost avoided: \$21,700 (7 x \$3,100)
Regulatory resource cost avoided: 105 hours (7 x 15)

Total benefit = \$26,774

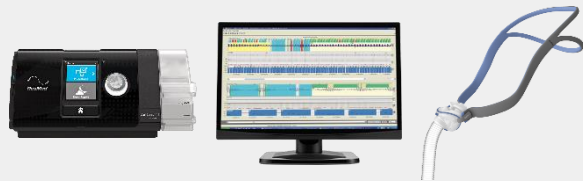
➤ Presence in over 100 countries with multiple market models



Multiple market models

- DME/HME Sales Force
- Distributor Networks
- ResMed Home Care Provider
- Government Sales
- Unreimbursed Markets

➤ Leveraging global innovation in local markets



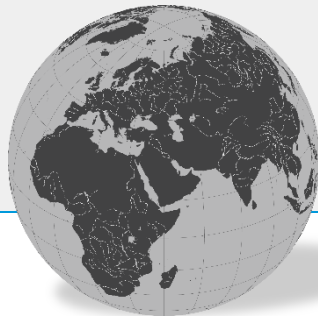
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➤ Financial Review

Brett Sandercock
Chief Financial Officer



➤ ResMed Finance Philosophy

- Strong history of financial discipline and controls
- Investing for growth
- Managing operations
- Cash generation
- Active capital management program



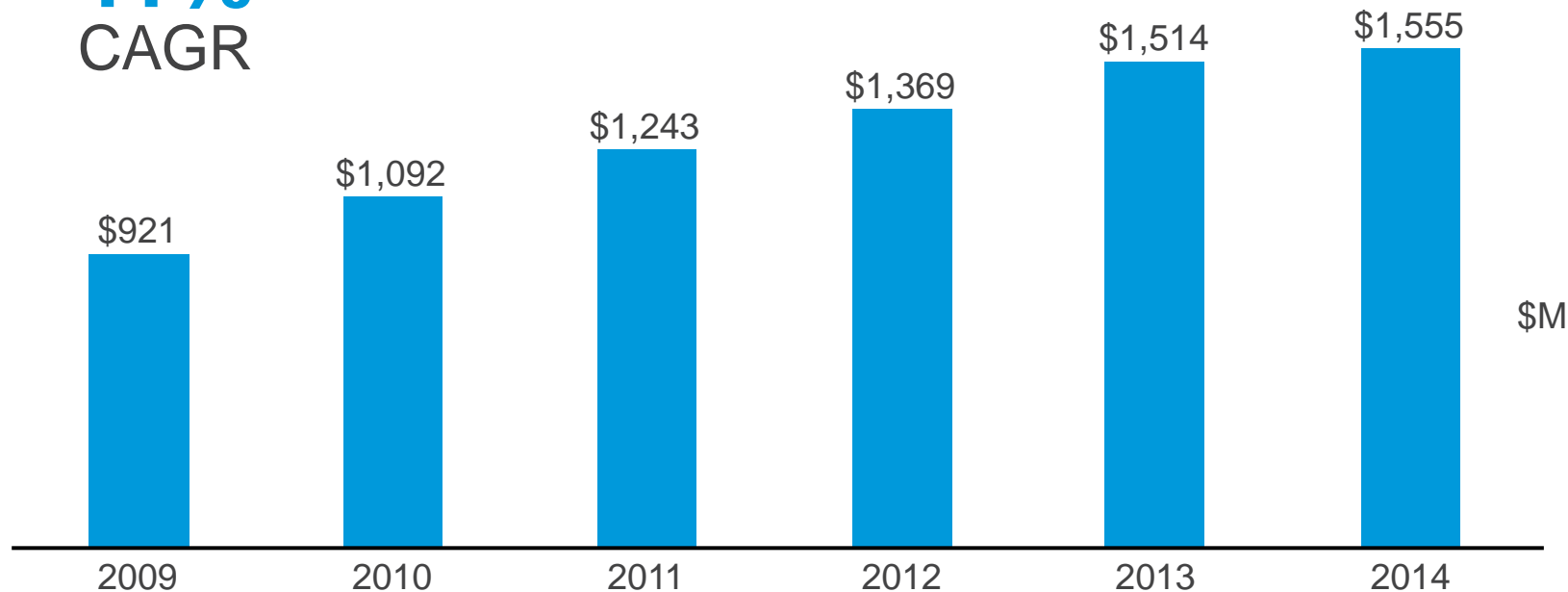
> Global Finance Organization

- Strong finance leadership team located in our main offices in Australia, California and Germany
- A deep bench
 - International experience
 - Strong commercial and technical experience
- Team has strong functional relationships; business partnering to manage for long-term outcomes



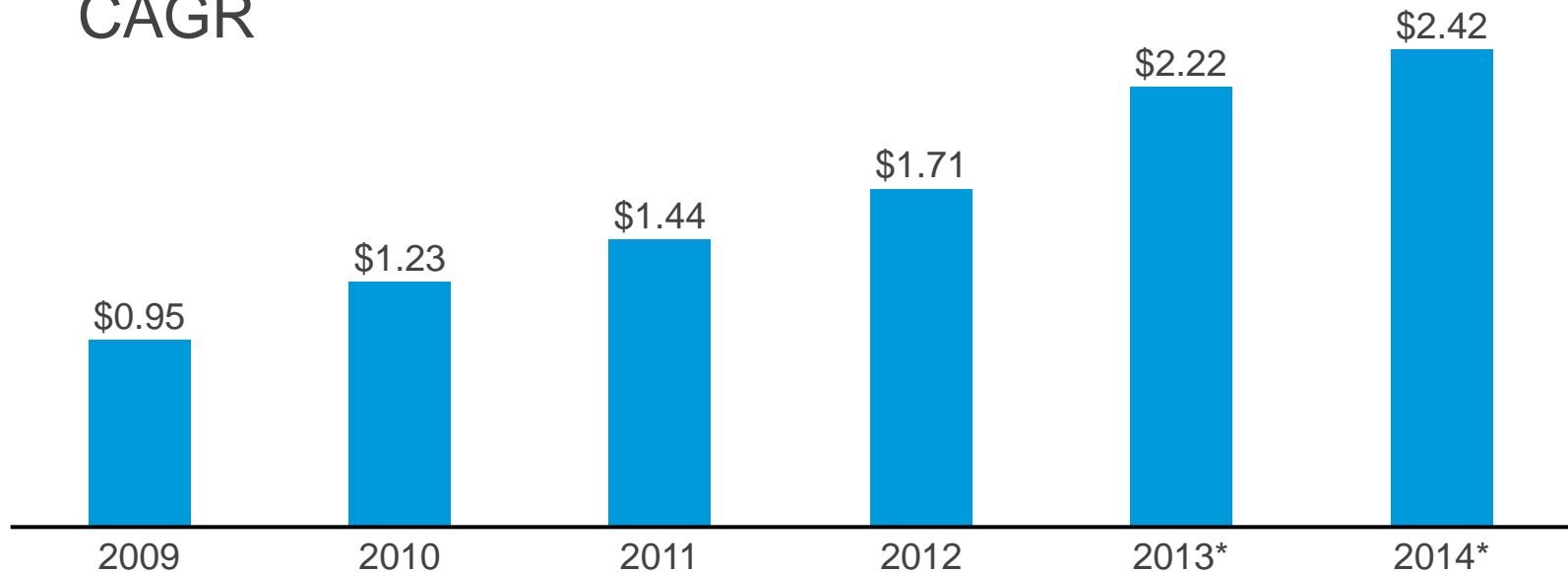
> Revenue Growth

11%
CAGR



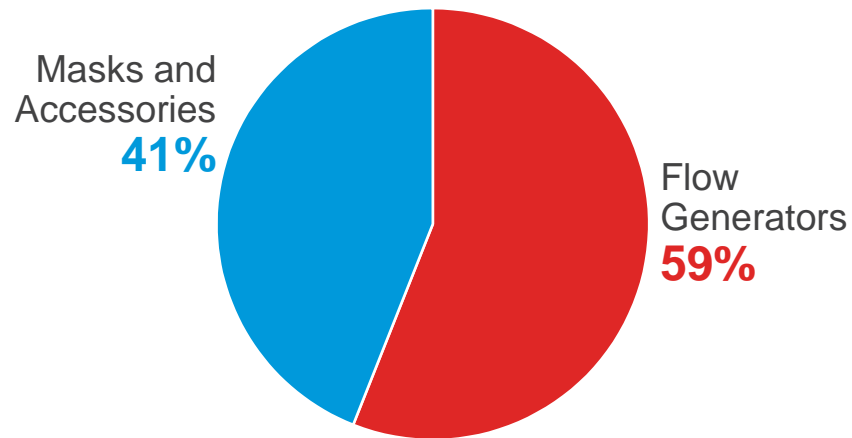
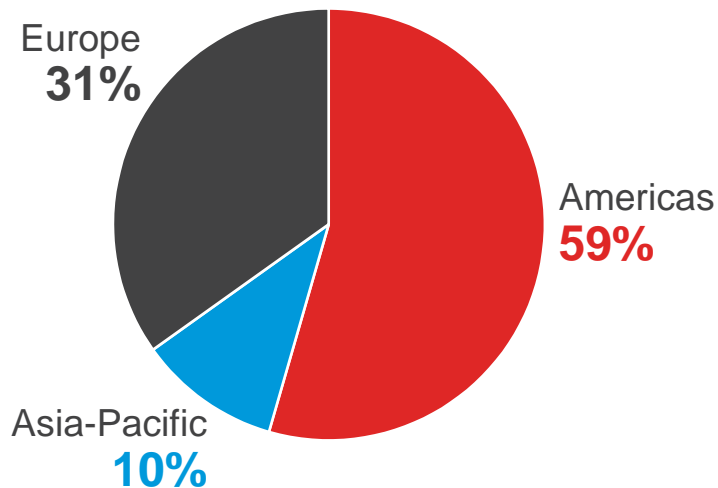
> EPS Growth

21%
CAGR



*EPS excludes 2014 restructure charges and 2013 Sydney University settlement.

> Diversified revenue sources by region and product



> Drivers of Gross Margin

Average Selling Prices



Expected to be modest decline

Geographic Mix



Outperformance of Americas

Product Mix



Outperformance of flow generators

Foreign Exchange Rates



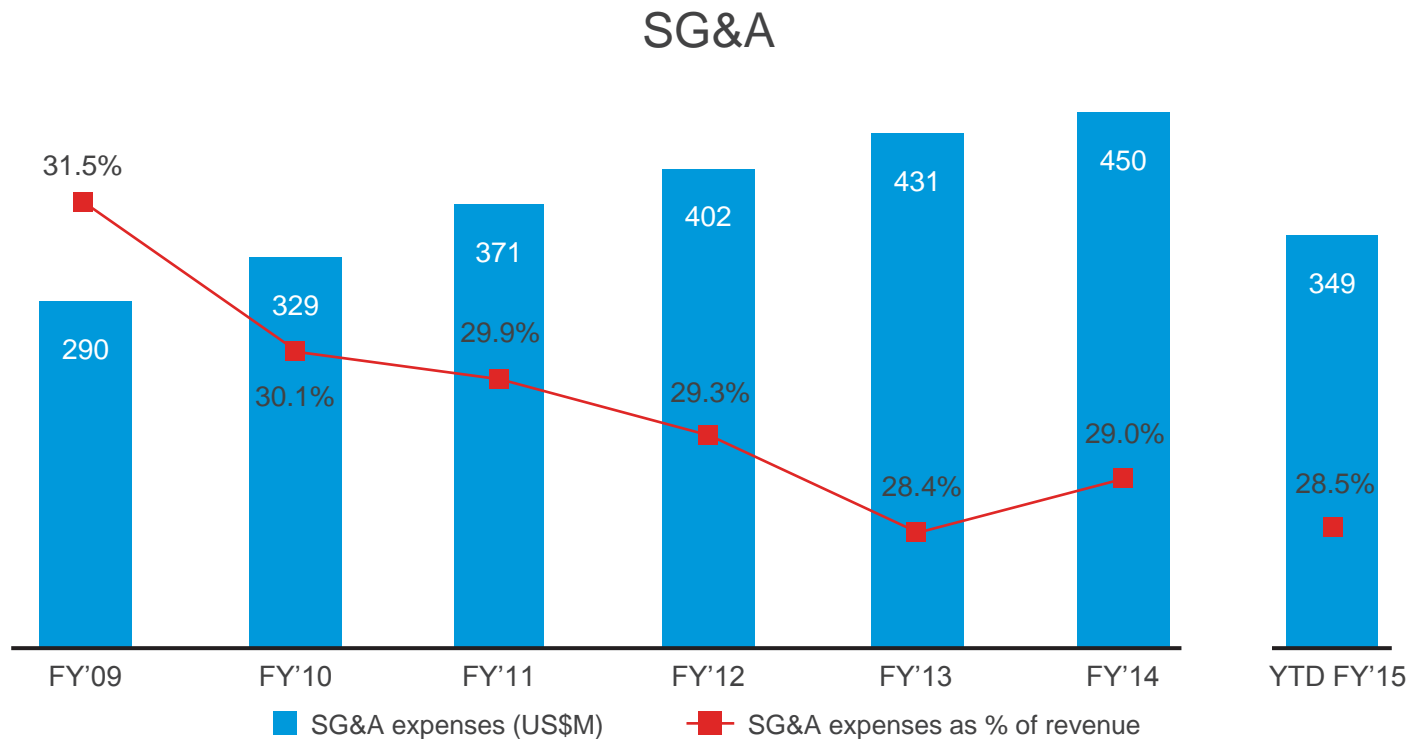
Low AUD & high EUR ideal scenario;
Weak Euro has been a headwind through FY15

Manufacturing / Logistics / COGS



Continued focus on cost-out programs

> Operating Expense Leverage



➤ Capital Deployment: Employing a Disciplined Approach

Capital Deployment



Returning Cash to Shareholders

- Combined dividend and buy-back over rolling 5 years = 98% of free cash flow
- YTD 2015 dividend payout ratio of 44% of net income
- Shares outstanding have decreased by 6% since 2009

Investing in Growth

- Investment in total solutions and new markets

UMB?AN

ideas into meaning

LABORATOIRES
NARVAL

BiancaMed

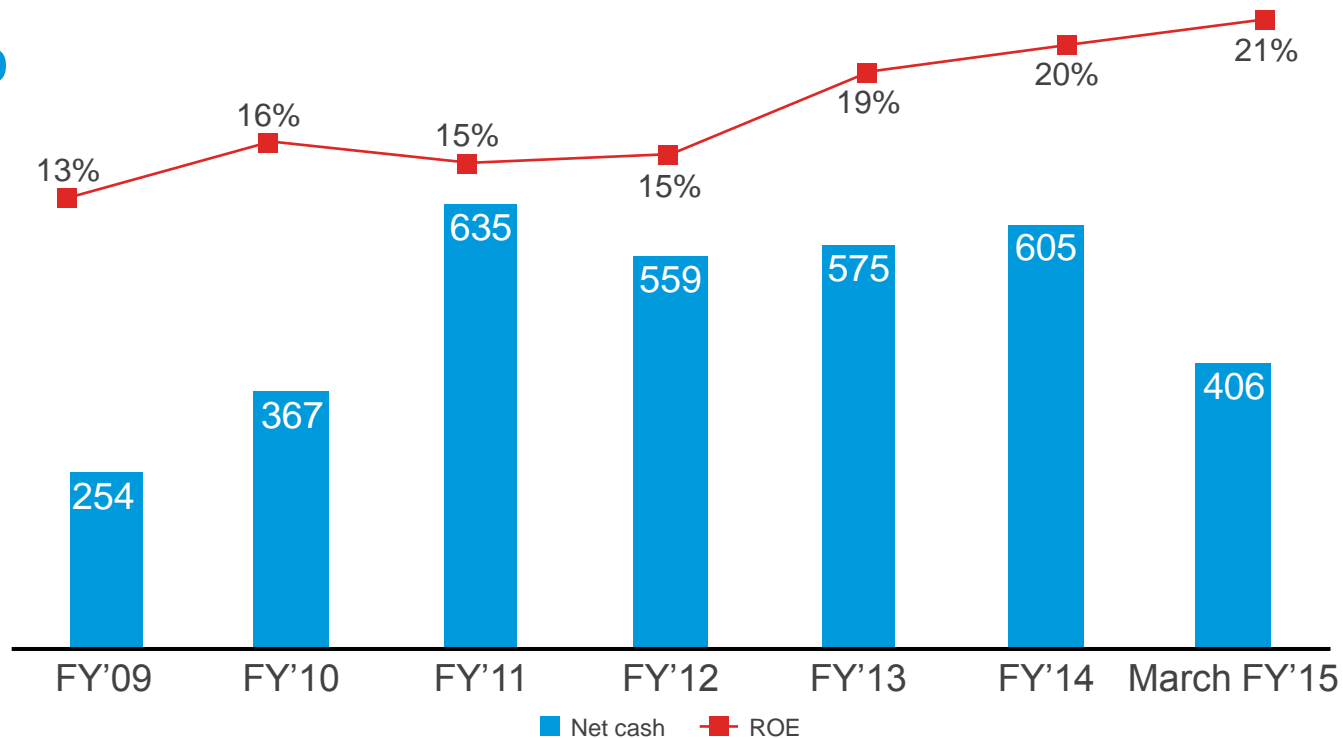
Saime

JAYSEC
TECHNOLOGIES

unimedis

> Strong Return on Equity

~20%
ROE



➤ Key Takeaways

- Strong track record of growth
- Demonstrated financial discipline
- Relentless focus on operational excellence
- Committed to an active capital management program to enhance shareholder returns



 Thank you



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➤ Healthcare Informatics Progress and Vision

Raj Sodhi

President, Healthcare Informatics Global Business Unit

➤ Why does Healthcare Informatics (HI) matter?

➤ Healthcare is shifting from the hospital to the home

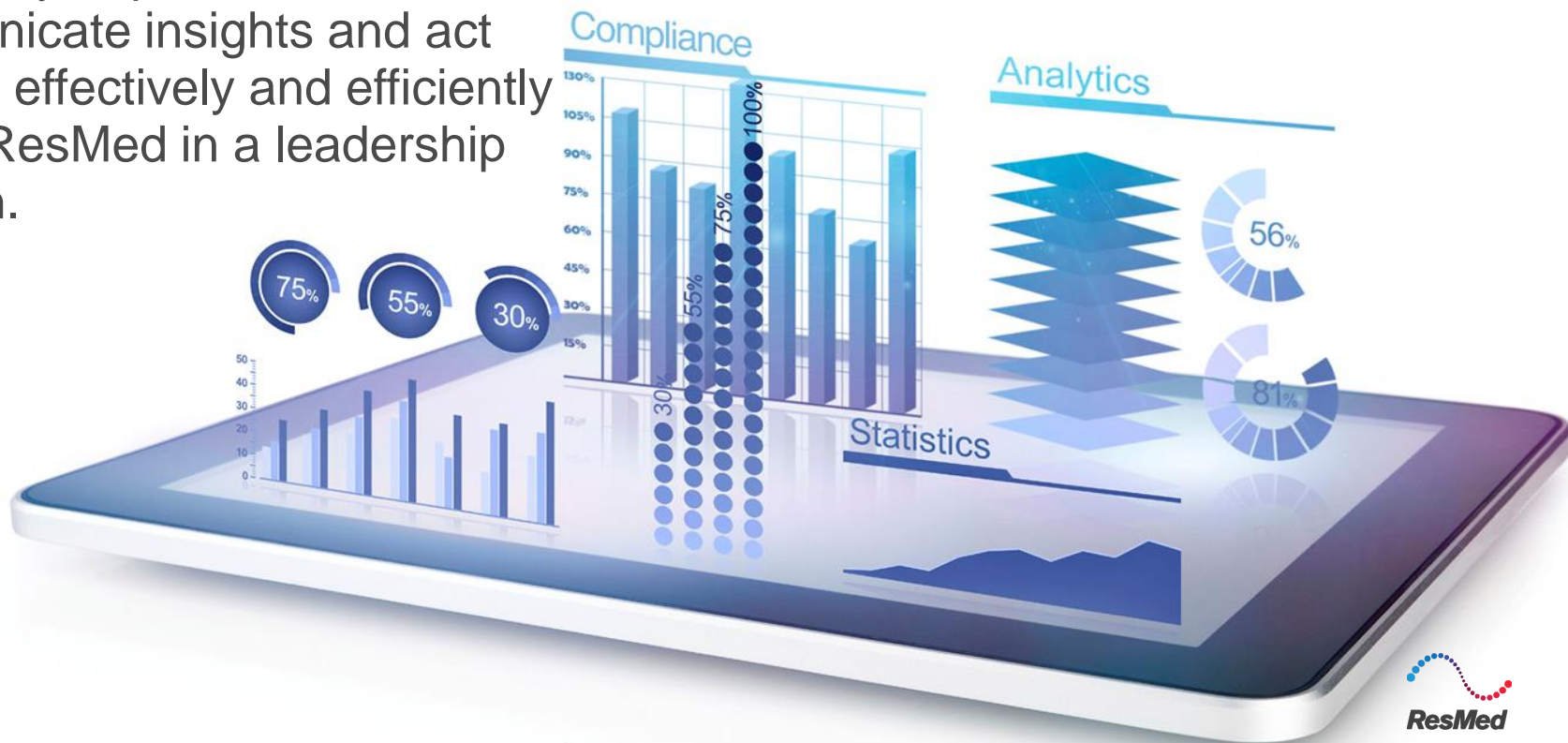
Across the globe, the future of healthcare delivery will center around patient data coming from the home.



But data alone does not provide value.

➤ Proven and evolving HI Solutions builds competitive advantage

The ability to predict outcomes, communicate insights and act on data effectively and efficiently keeps ResMed in a leadership position.



① HI can revolutionize the patient provider relationship

Care givers are looking for tools that allow **fewer** people to manage **more** patients.

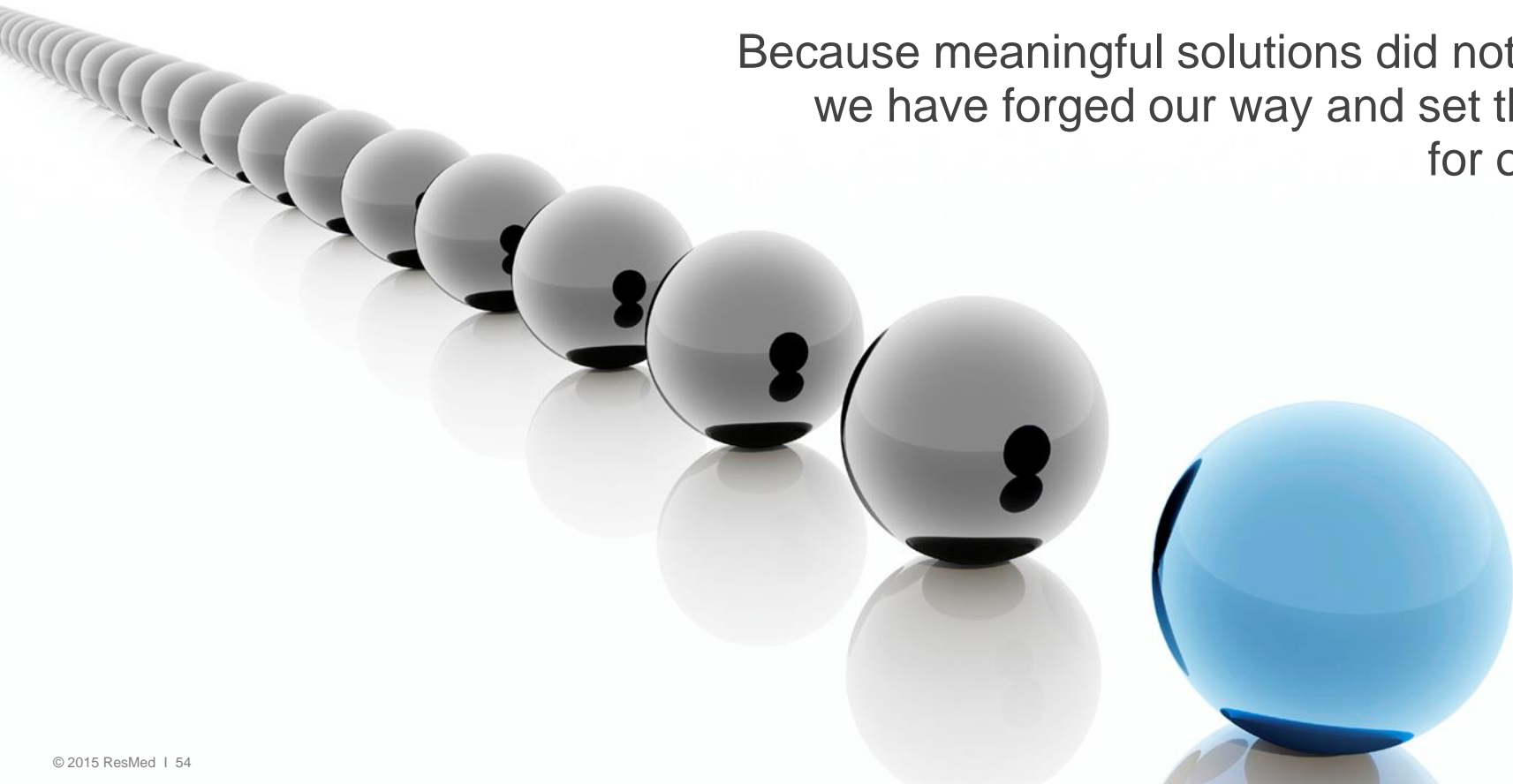


Patients are looking for **simple** ways to track their health outcomes.

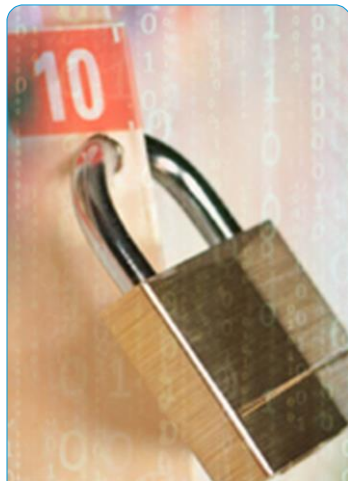


> ResMed is leading the way

Because meaningful solutions did not exist,
we have forged our way and set the bar
for others.



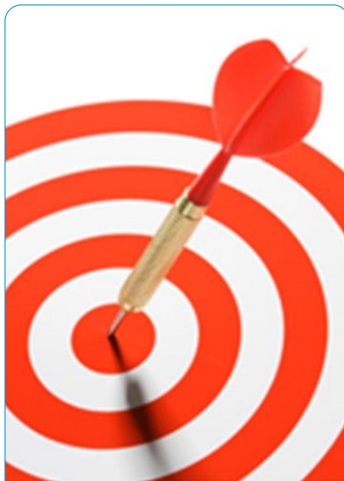
➤ ResMed's core capabilities are positioned for success



Secure and stable
IT systems



Fast and
flexible integration
capabilities



Innovative
efficiency-focused
solutions



Meaningful
action-oriented
data insights



Global localized
market readiness

Best-in-class Global HI platforms

➤ Air Solutions — a proven success

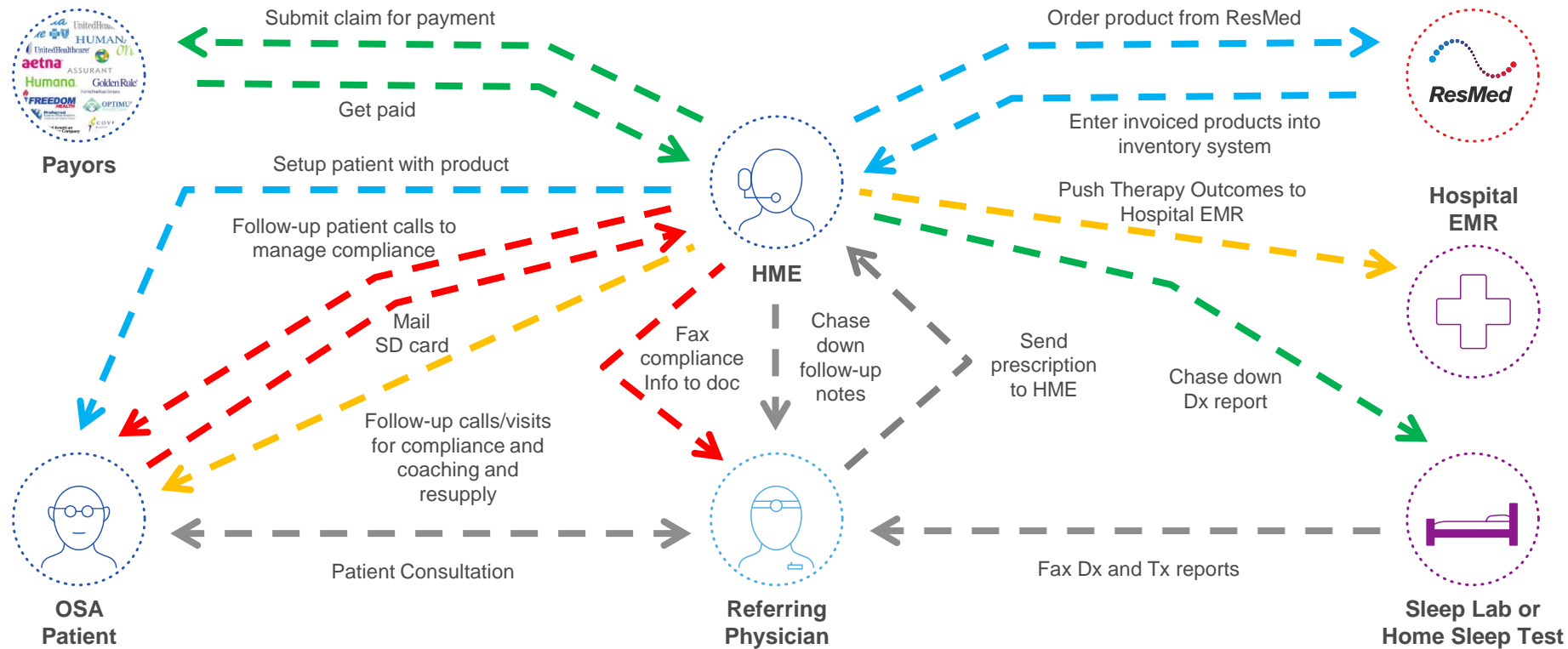
① ResMed delivers a compelling customer value proposition

ResMed Air Solutions
are not just products...

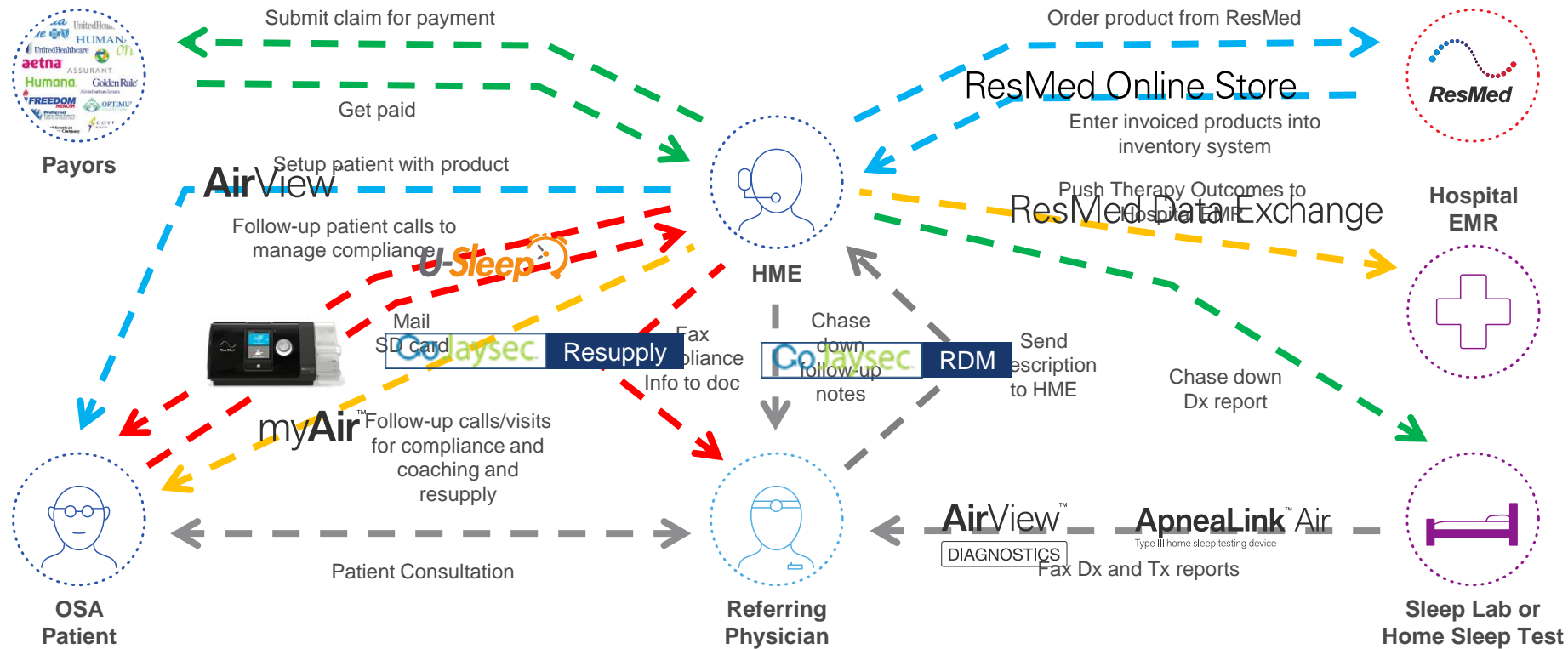


They are a suite of
innovative solutions to
help make your business
more successful.

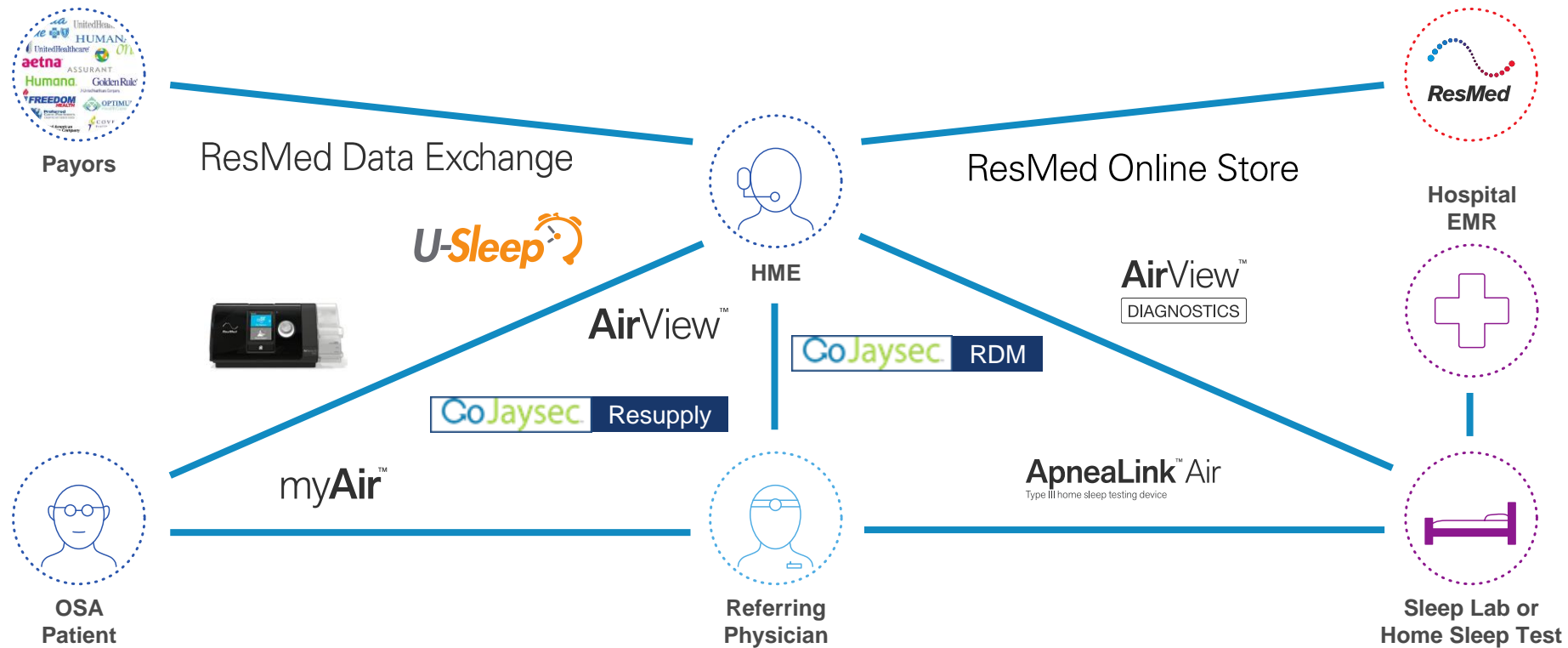
➤ ResMed is simplifying complex HME business processes



➤ ResMed is simplifying complex HME business processes



➤ The optimized delivery model with Air Solutions



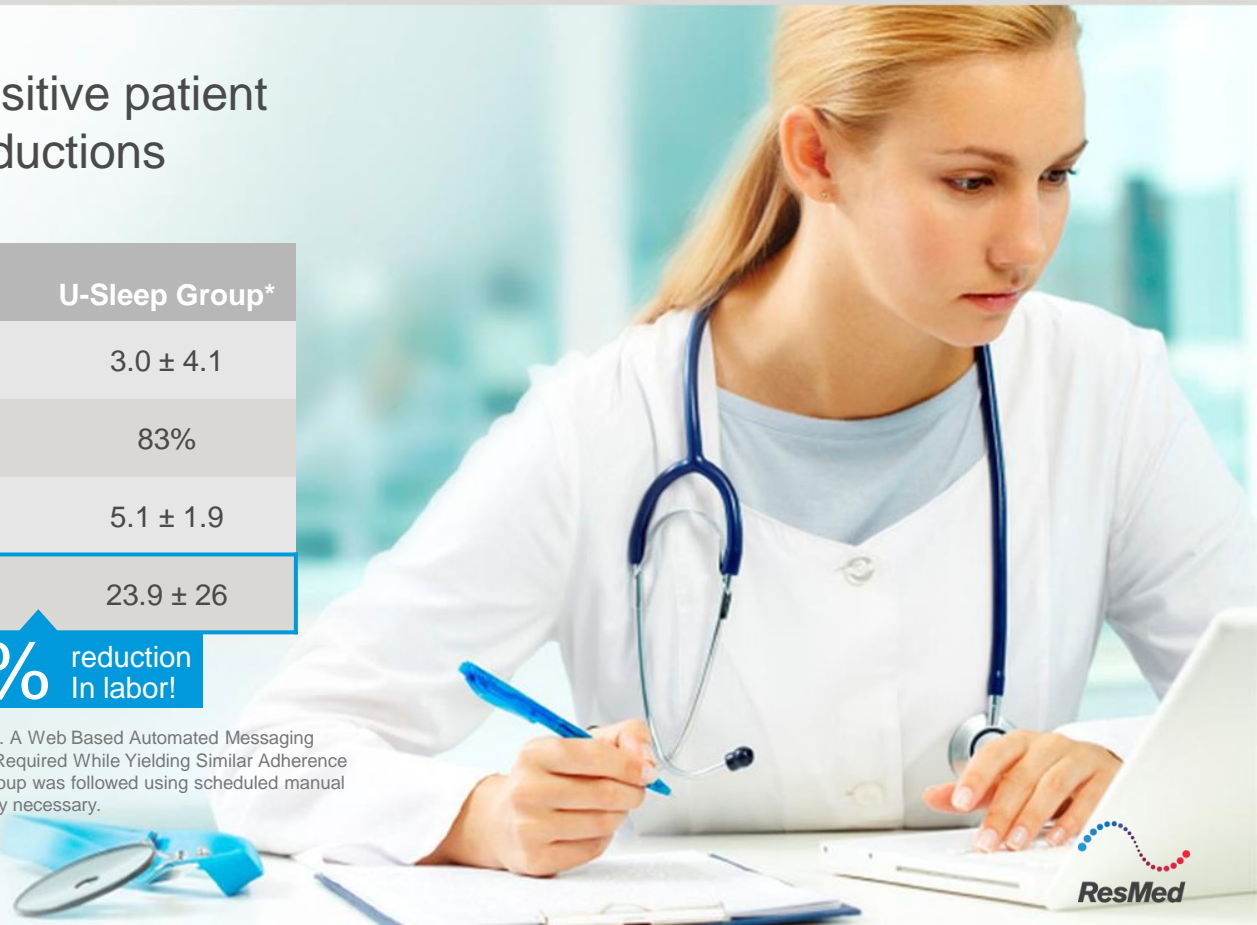
> Case Study: U.S. HME

Proven ability to maintain positive patient outcomes with significant reductions in labor.

Results	SOC Group**	U-Sleep Group*
Residual AHI	2.8 ± 3.8	3.0 ± 4.1
Medicare Adherence	73%	83%
Mean Hours of CPAP Usage	4.7 ± 2.1	5.1 ± 1.9
Mean Minutes of Coaching	58.3 ± 25	23.9 ± 26

59% reduction
in labor!

*Based on an independent study and presented at ATS 2014, San Diego. A Web Based Automated Messaging Program for CPAP Adherence Coaching Reduced the Coaching Labor Required While Yielding Similar Adherence and Efficacy to Standard of Care Coaching.; **The Standard of Care Group was followed using scheduled manual calls on days 1, 7, 14 and 30. Additional contacts were made as clinically necessary.





Case Study: Wrightington, Wigan and Leigh NHS Foundation Trust



- Background

- CPAP patient management wait times exploded due to awareness of OSA and related co-morbidities
- Ageing population and budget tightening compounding the issue

- Solution

- Implemented AirView, part of ResMed Air Solutions to increase efficiency in patient pathway with automation, reporting and remote assist



Case Study: Wrightington, Wigan and Leigh NHS Foundation Trust

• Outcomes

- Quickly identify those patients who were non-compliant or experiencing problems
- Maximize new patient set-ups whilst reducing unnecessary out-patient appointments
- Care team could remotely check device status
- Care team time freed up to focus effort on more complex patients
- Replace current six month follow up visit with targeted consultation for selected patients



➤ Case Study: Wiltshire and Dorset Sleep Service



- Background

- Different pathways in each of the two services
- Unprofitable clinic operation
- Challenges with staffing
- Unacceptable wait times for patients

- Solution

- Trial of telemonitoring and implementation of AirView
- Complete ROI assessment of old vs. new pathway

➤ Case Study: Wiltshire and Dorset Sleep Service

• Outcomes

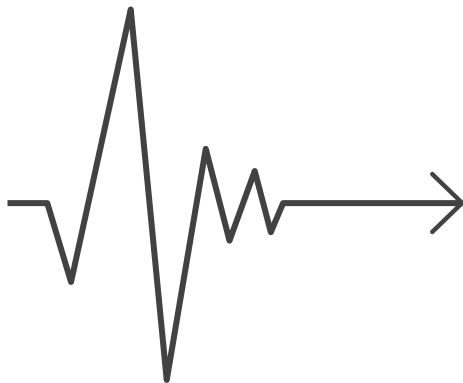
- Reduced waiting times
- Doubling of clinic capacity for assessments
- 60% increase in capacity for set up appointments
- 58% reduction in nurse time/cost
 - Total nurse time cost per patient in the old system £34.00 vs. £13.45 in the new system
- Precise therapy monitoring
- Improved Quality of Service



➤ HI and Chronic Disease Management

> Chronic Disease Management (CDM) is a key focus for ResMed

Sleep apnea is at the center of nearly every costly chronic disease.



Prevalence of Sleep Apnea



② Telemonitoring is critical for effective CDM

Chronic disease is increasingly managed in the home

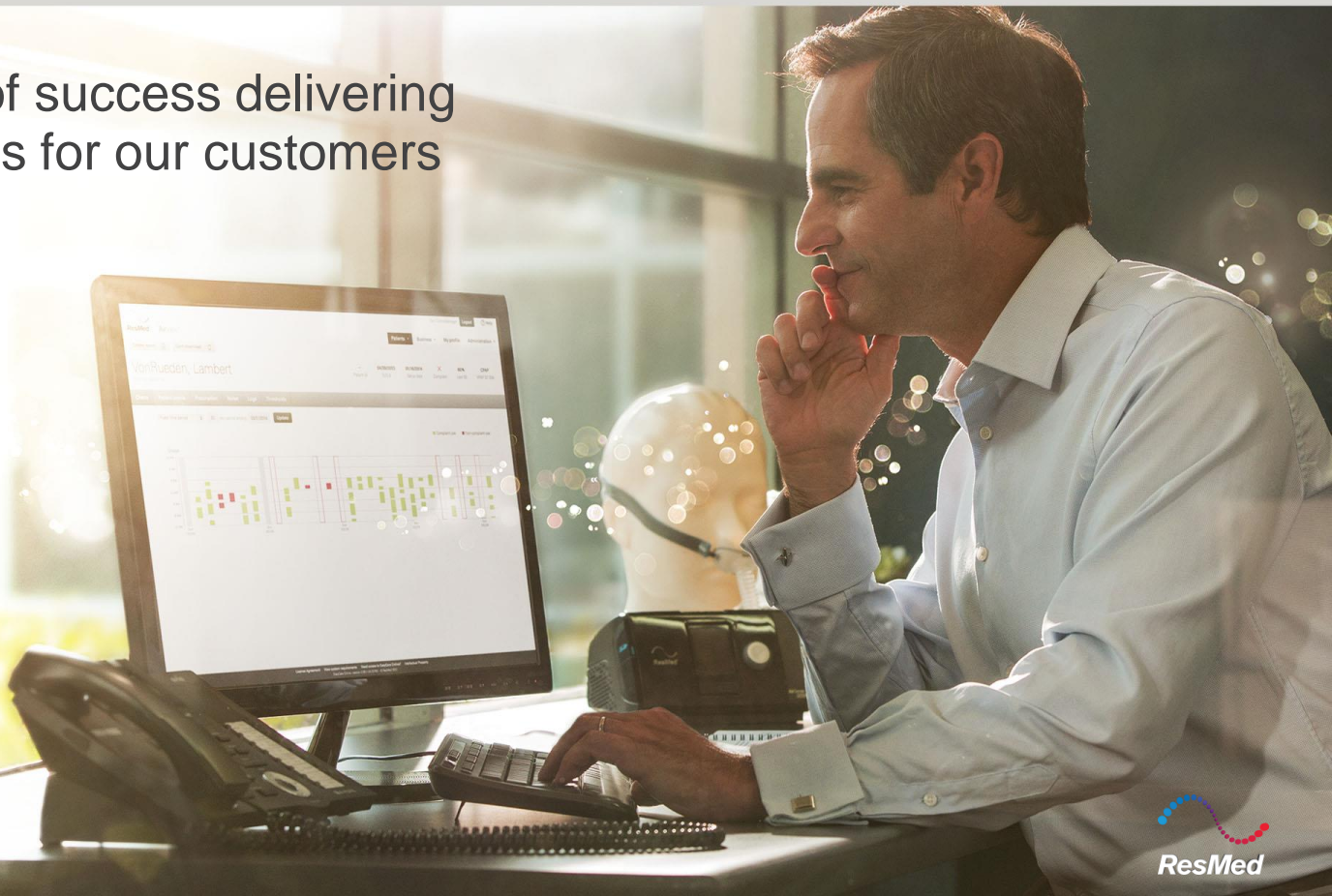


Changes in lifestyle and disease progression need to be monitored on a daily basis



➤ ResMed's OSA capabilities translate to the CDM market

ResMed has years of success delivering data driven outcomes for our customers and patients.



➤ Chronic diseases are complex for stakeholders to manage

- Multiple caring physicians
- Outpatient therapy
- HME Equipment
- Home Health Nursing
- Prescription management
- Loved ones actively involved in treatment
- Varying treatment protocols depending on the disease and its progression





HI solutions for CDM is a natural extension of our core capabilities

Existing Core Capabilities



ResMed

Healthcare
Informatics



Secure and
stable IT systems



Fast and
flexible integration
capabilities



Innovative
efficiency-focused
solutions



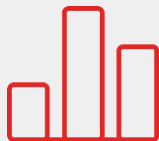
Meaningful
action-oriented
data insights



Global
localized market
readiness



Advanced workflow
management



Integration of personal
and population metrics



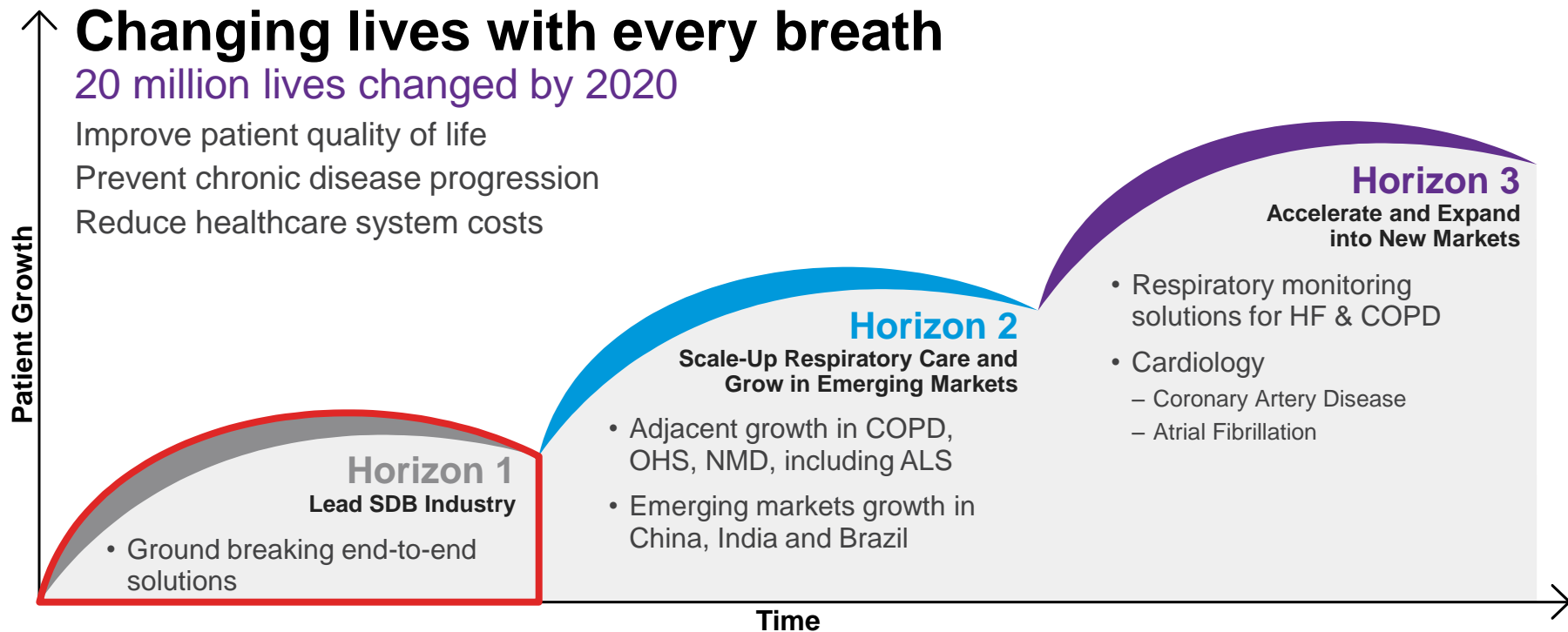
User experience
by personas



Rapid implementation
of **new** standards of care

Air Solutions for Chronic Disease Management

➤ Healthcare informatics is catalyzing ResMed's growth



 Thank you



ResMed

*Changing lives
with every breath*

➤ ResMed's Clinical Strategy- 20 million lives by 2020

Glenn Richards MD
Chief Medical Officer

➤ ResMed's Clinical Strategy — Sleep Apnea and Beyond

- Clinical Perspective on SDB
- Core market
 - Obstructive Sleep Apnea
- Adjacent Markets
 - Respiratory Failure
 - Central Sleep Apnea
- Serve HF
 - What do the results mean
- Where to from here?

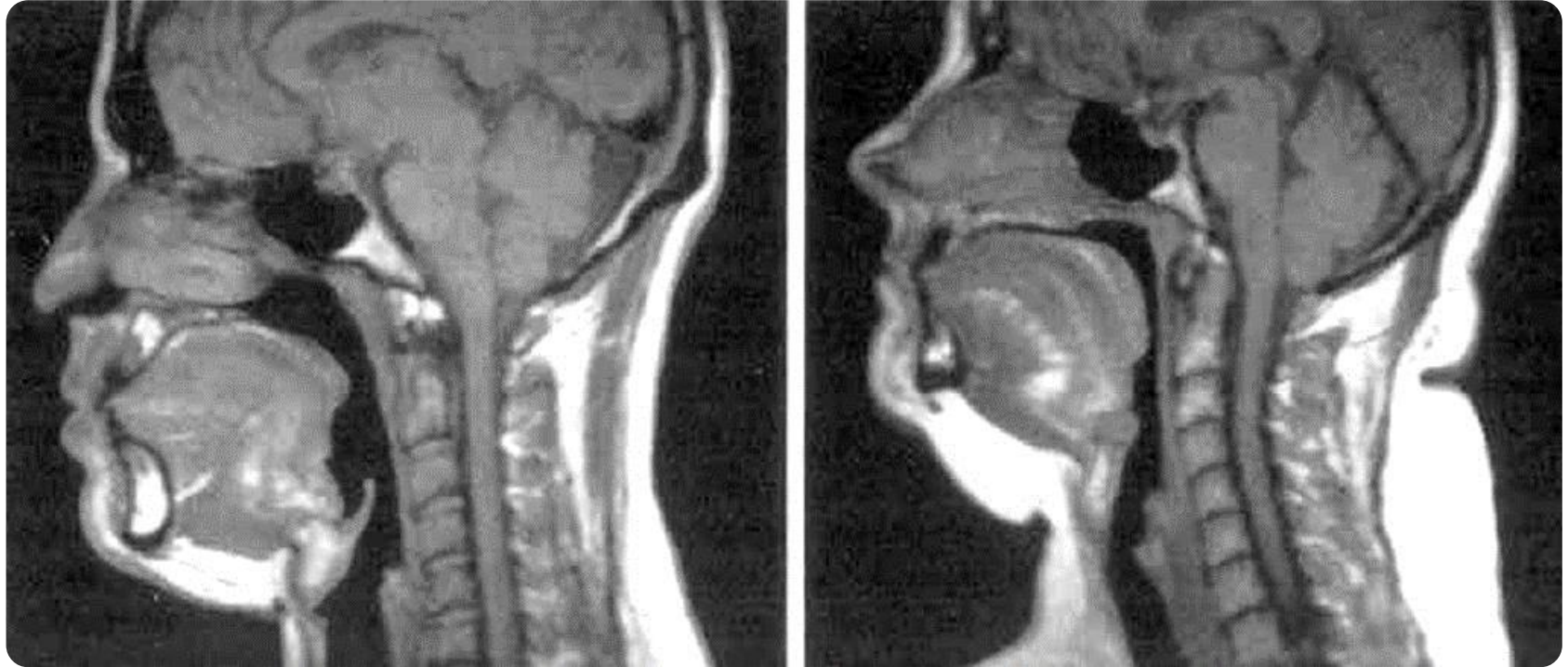


➤ Sleep Disordered Breathing

- 3 very different abnormal patterns of breathing during sleep
 - Obstructive sleep apnea
 - Central sleep apnea
 - Respiratory failure
- OSA is easily the most common — affecting approximately 26% of the general adult population
- OSA accounts for over 80% of patients
- CSA accounts for 10% of patients



⑤ OSA and Upper Airway Collapse



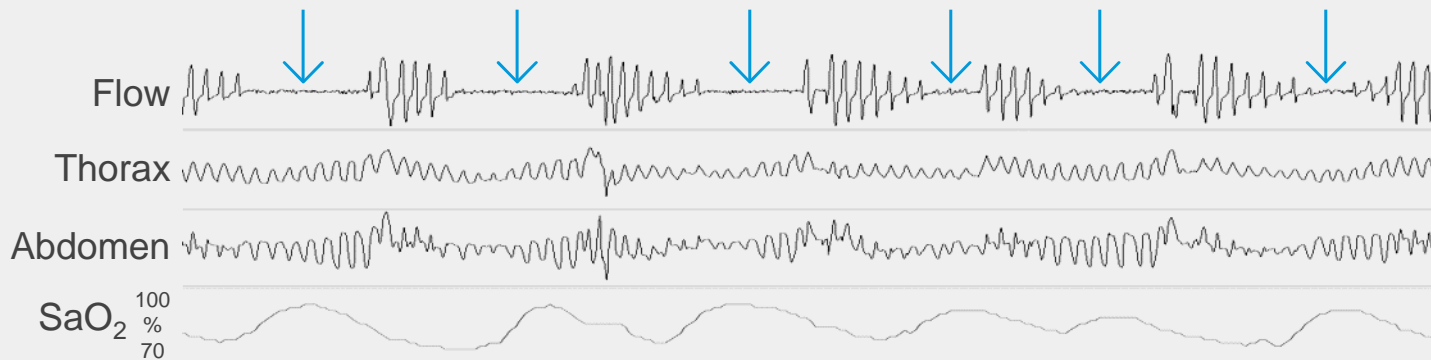


ResMed

*Changing lives
with every breath*

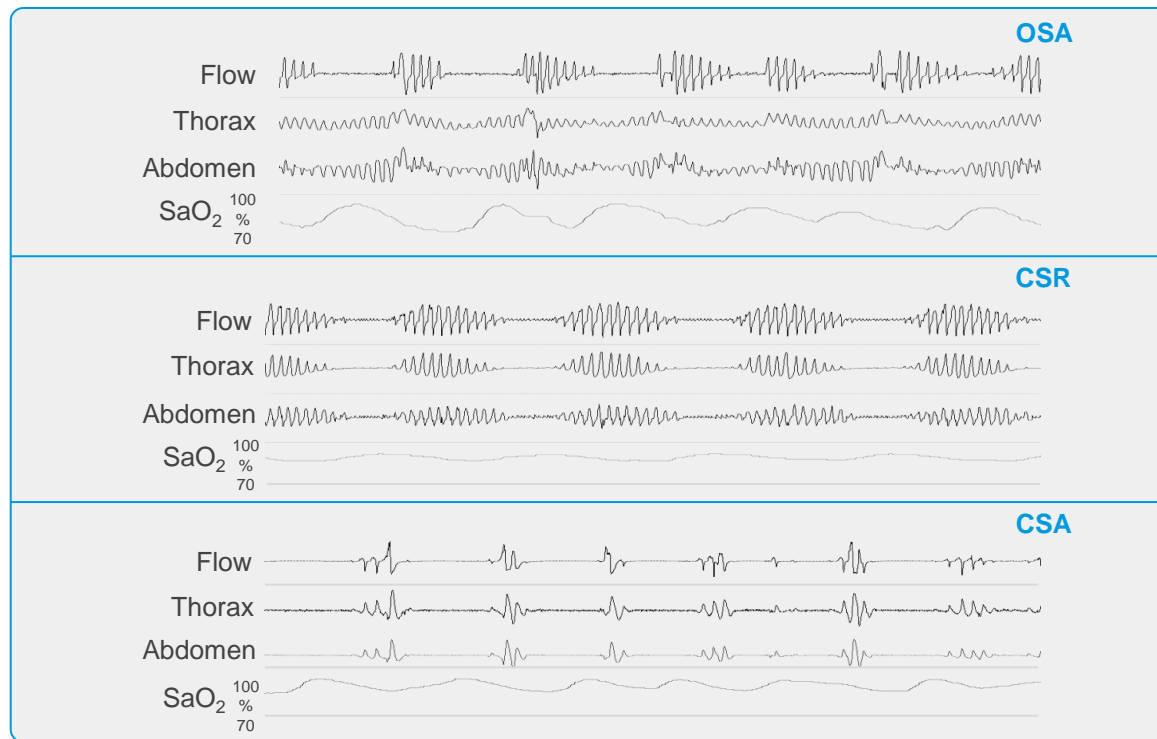


> Apnea Hypopnea Index



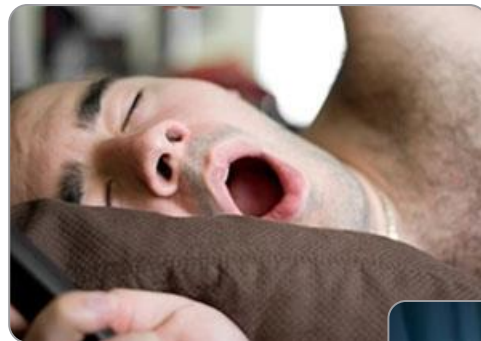
- **Apnea Hypopneas Index is a measure of severity**
- **AHI is the number of events divided by time asleep**
 - AHI less than 5 is considered normal
 - AHI from 5 to 15 is mild sleep apnea
 - AHI from 15 to 30 is moderate sleep apnea
 - AHI above 30 is severe sleep apnea

> Obstructive vs. Central Sleep Apnea



➤ Symptoms

- Men present with “typical” OSA symptoms
 - Snoring
 - Witnessed apneas
 - Daytime sleepiness
- Women often present with different symptoms, causing misdiagnosis
 - Insomnia
 - Restless legs
 - Fatigue/depression
 - Headaches and muscle pain



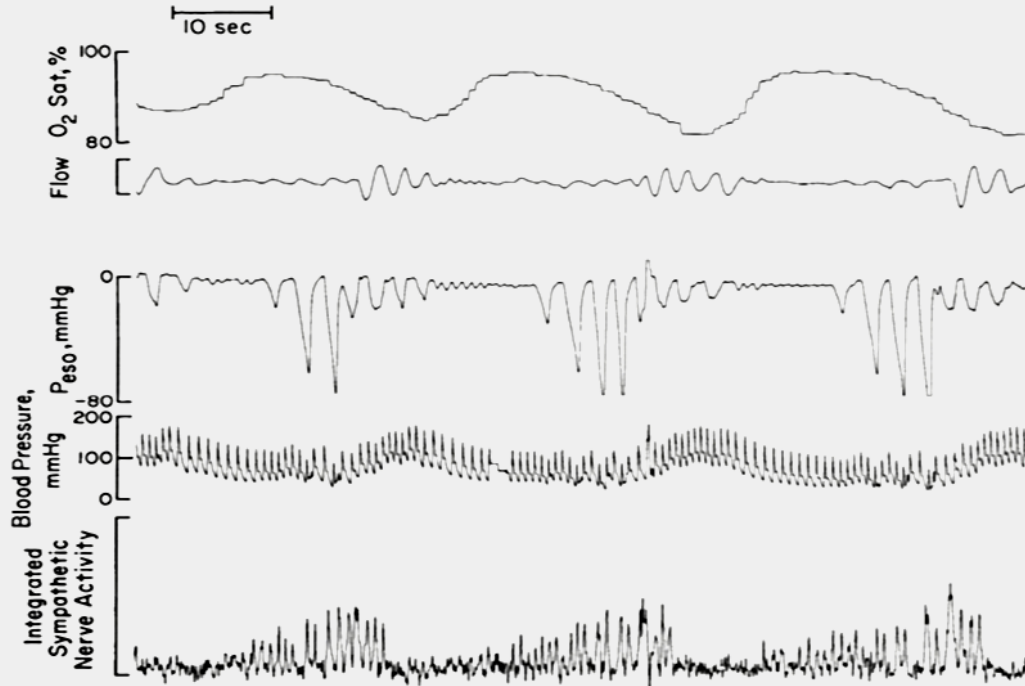
OSA reduces quality of life — CPAP improves quality of life

➤ Cardiovascular Consequences of Sleep Apnea

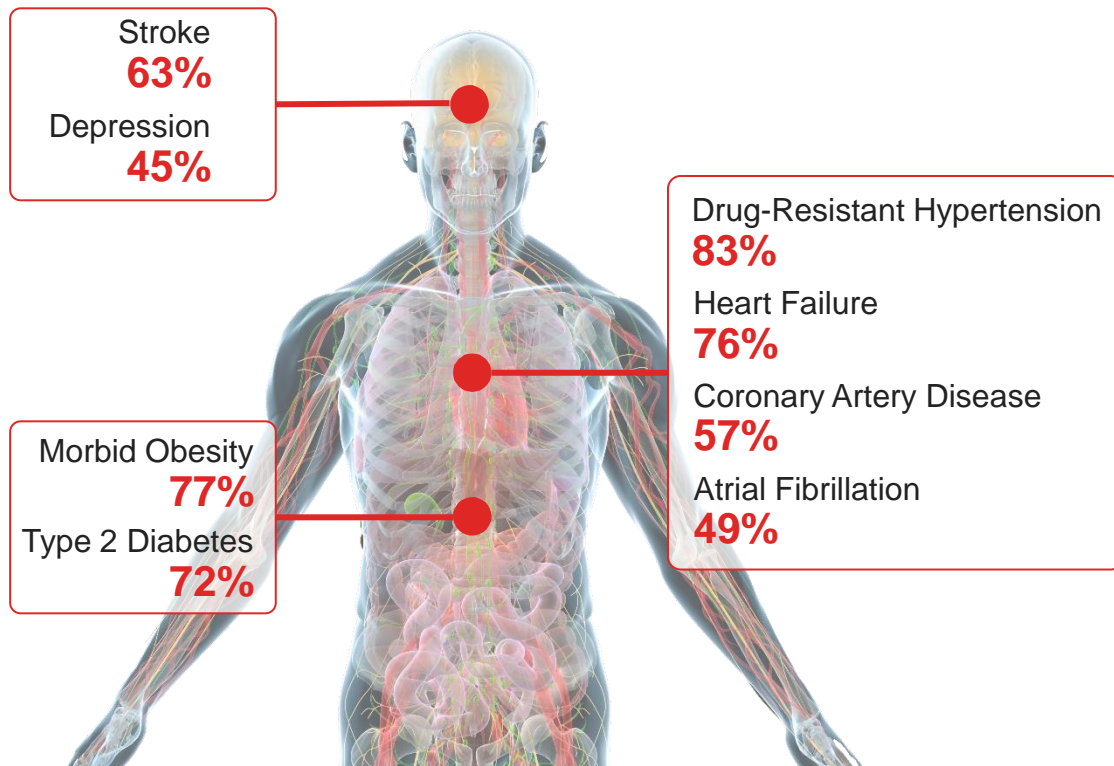
Negative swings
in intra-thoracic
pressure

Increase in
blood pressure

Surge in
sympathetic
nerve activity

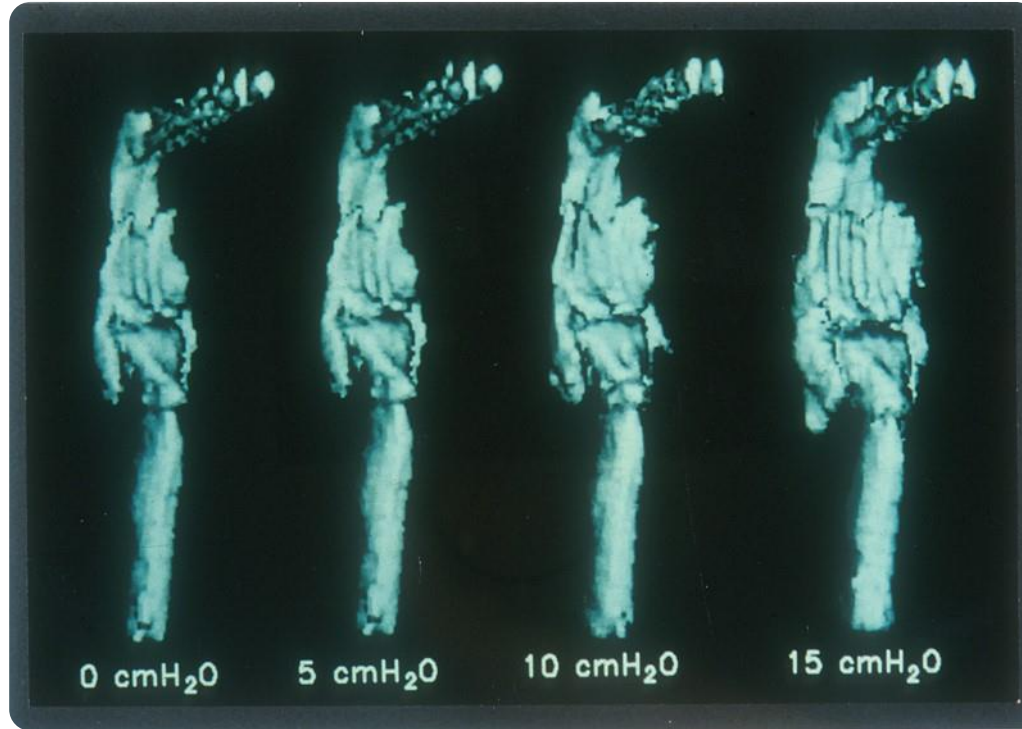


> Sleep Apnea: Highly prevalent in key chronic diseases



References: Logan et al. *J. Hypertension*; O'Keefe and Patterson, *Obes Surgery*; Oldenburg et al., *Eur J Heart Failure*; Einhorn et al. *Endocrine Prac*; Bassetti et al. *Stroke*

> Effect of CPAP on Upper Airway



➤ PAP Patient Interfaces: smaller, quieter, more comfortable

Over the past 25 years there have been large improvements in the equipment used for treatment



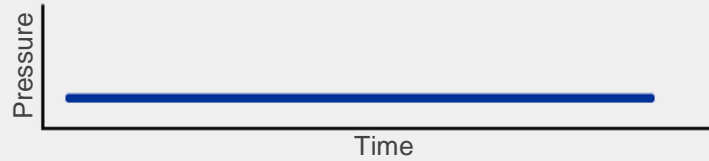
➤ PAP Flow Generators: smaller, quieter, more comfortable



> Positive Airway Pressure (PAP) Therapy

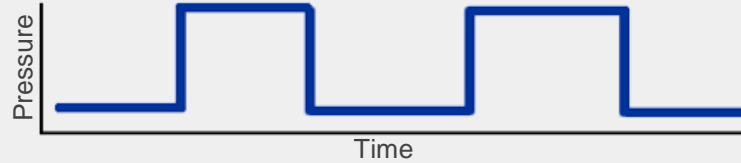
1) CPAP

CPAP

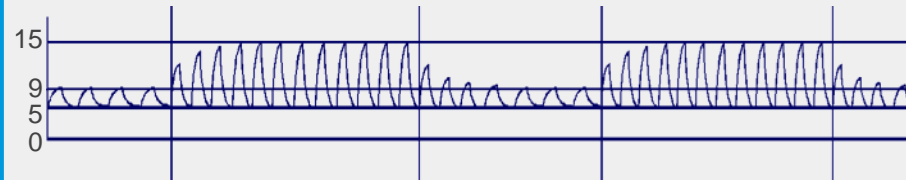


2) Bi-level (VPAP)

VPAP

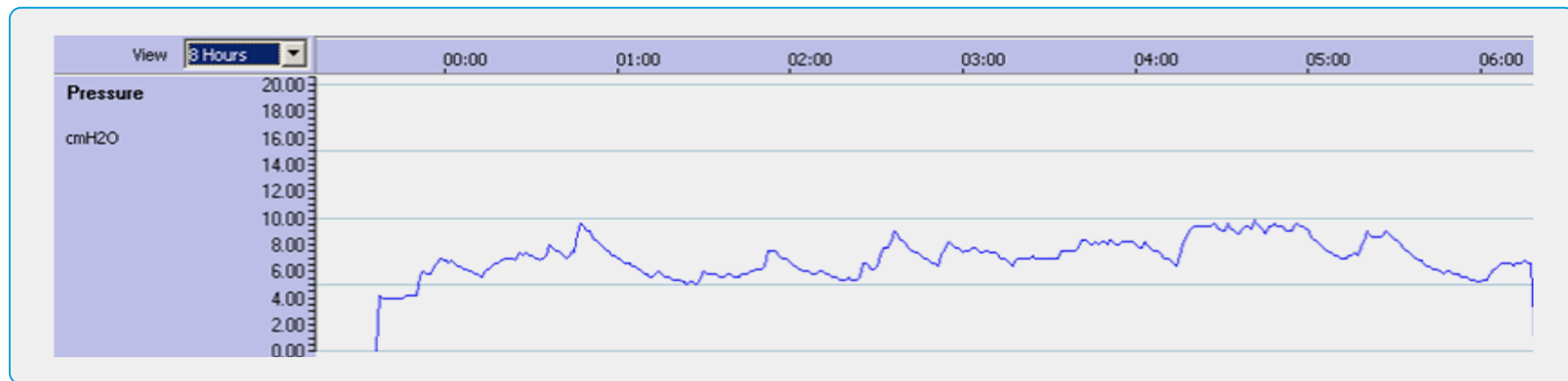


3) ASV



➤ Automatic Positive Airway Pressure (APAP)

- Used in long term therapy or titration
- Raises pressure to prevent events and lowers it if no events
- Monitor flow to predict events
 - Apnea
 - Hypopnea
 - Snoring
 - Flow limitation

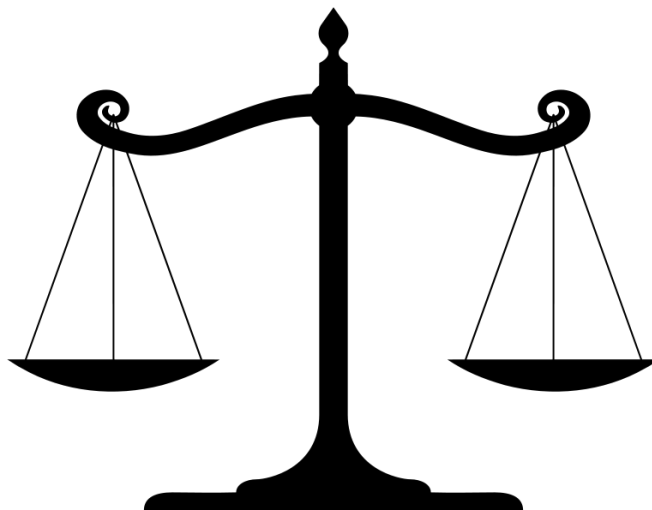


➤ Respiratory Failure and Ventilation

Ventilation

Demand

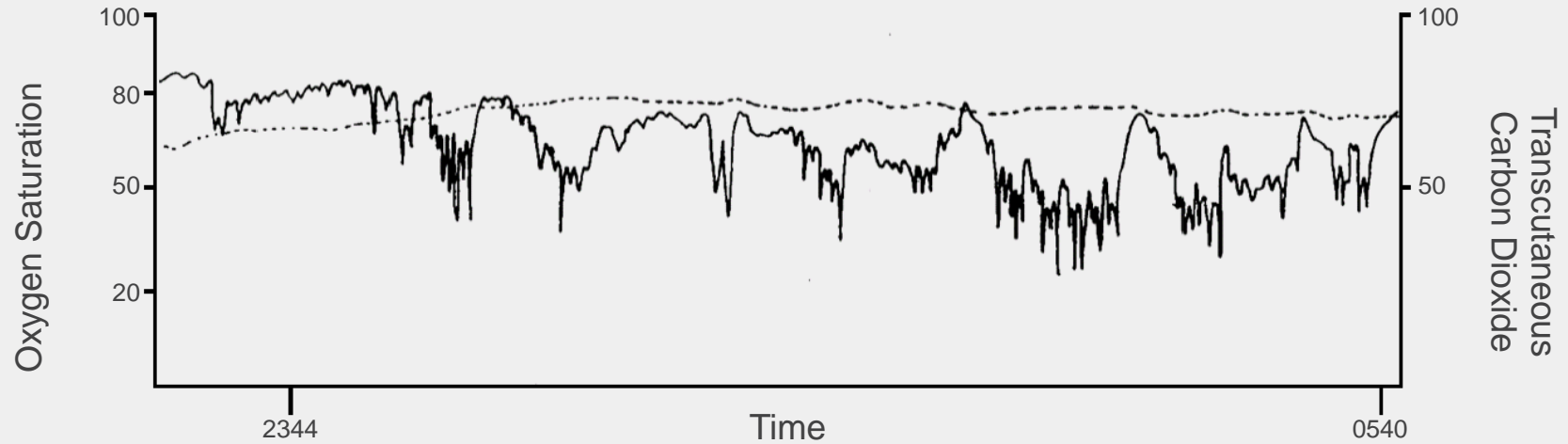
Exercise
Illness
Sleep



Supply

Weak muscles
Distorted chest
Diseased lungs

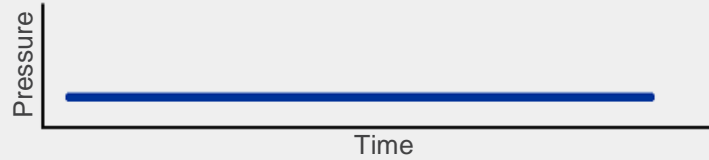
> Respiratory Failure



> Positive Airway Pressure (PAP) Therapy

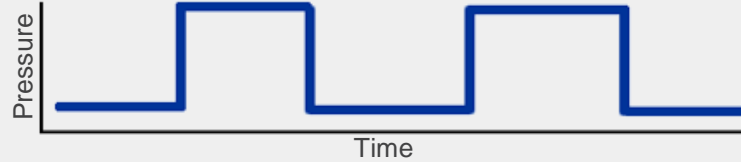
1) CPAP

CPAP

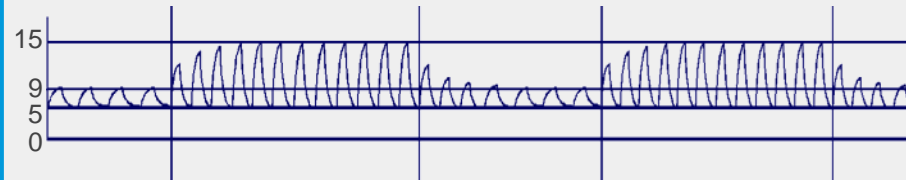


2) Bi-level (VPAP)

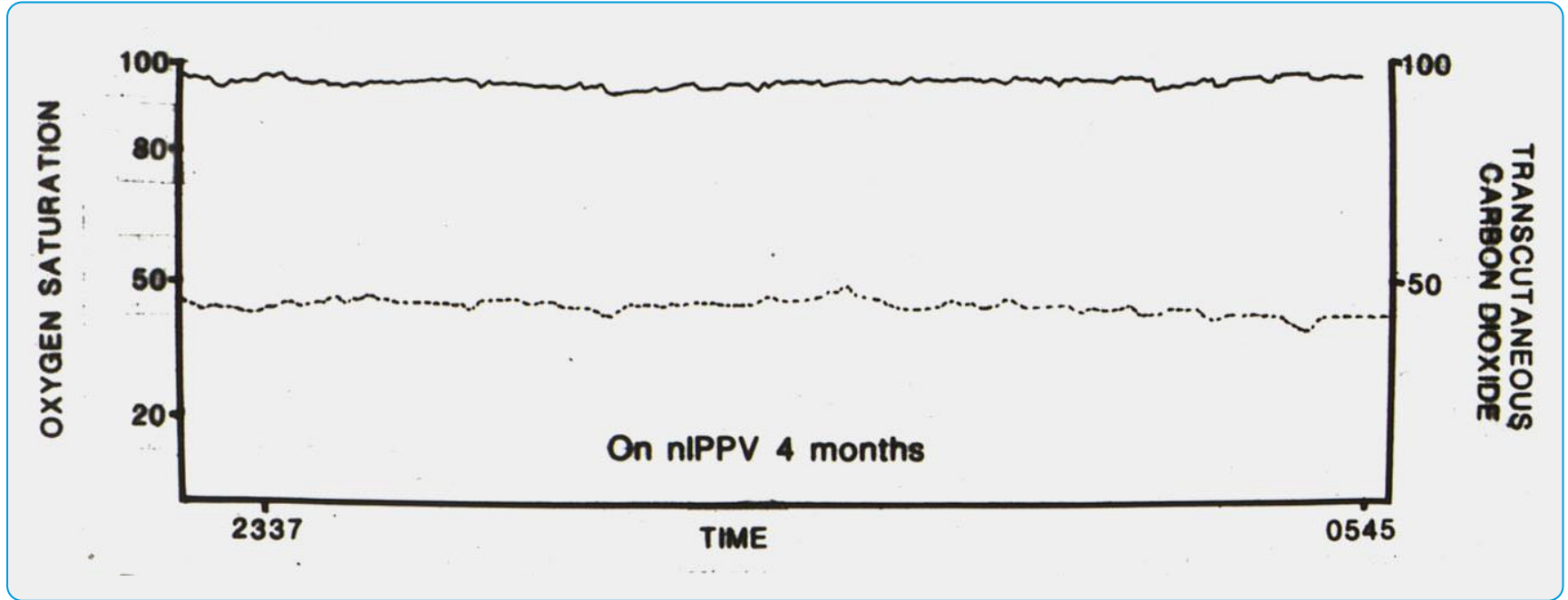
VPAP



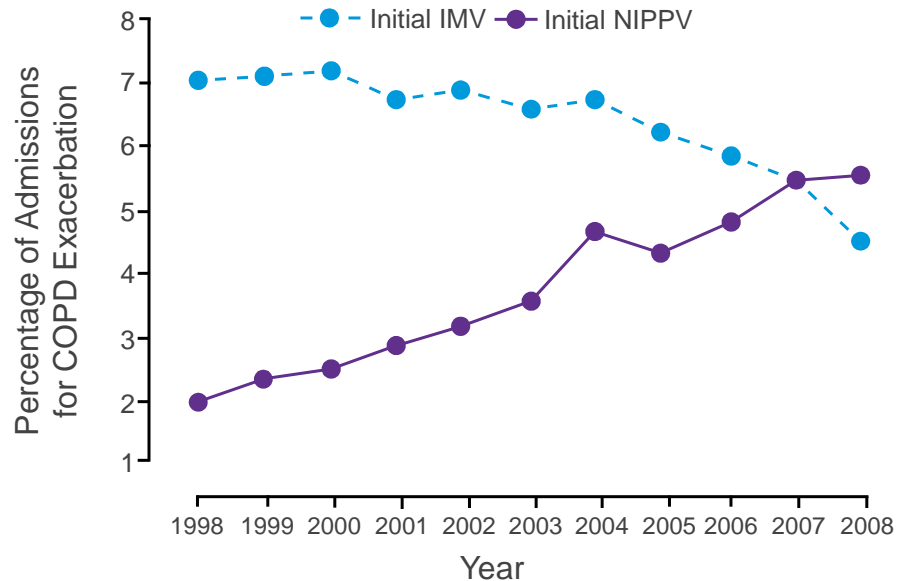
3) ASV



➤ Respiratory Failure Treated



> Ventilation for Acute COPD



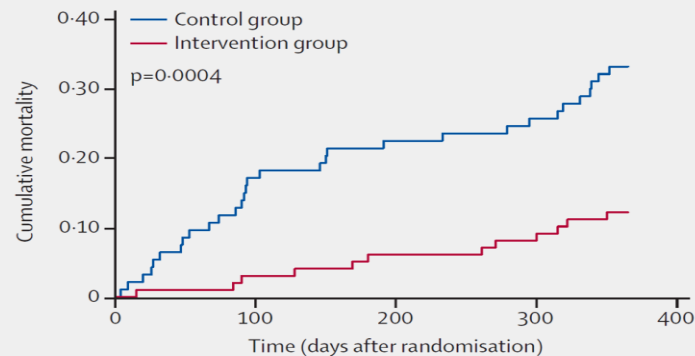
References: Chandra et al, AJRCCM online pub 20 October 2011

> Home NIV for Chronic COPD

THE LANCET Respiratory Medicine

Non-invasive positive pressure ventilation for the treatment of severe stable chronic obstructive pulmonary disease: a prospective, multicentre, randomised, controlled clinical trial

Thomas Köhnlein, Wolfram Windisch, Dieter Köhler, Anna Drabik, Jens Geiseler, Sylvia Hartl, Ortrud Karg, Gerhard Laier-Groeneveld, Stefano Nava, Bernd Schönhofer, Bernd Schucher, Karl Wegscheider, Carl P Criée, Tobias Welte



Number at risk

Control group	93	77	72	69
Intervention group	102	95	92	90

➤ Our new respiratory care platform

Life Support Ventilation



Astralis™

- Designed to enrich life for patients
 - Greater freedom
 - Versatile choices
 - Saves time, so that clinicians and staff can focus on patients



red dot design award
product design 2014

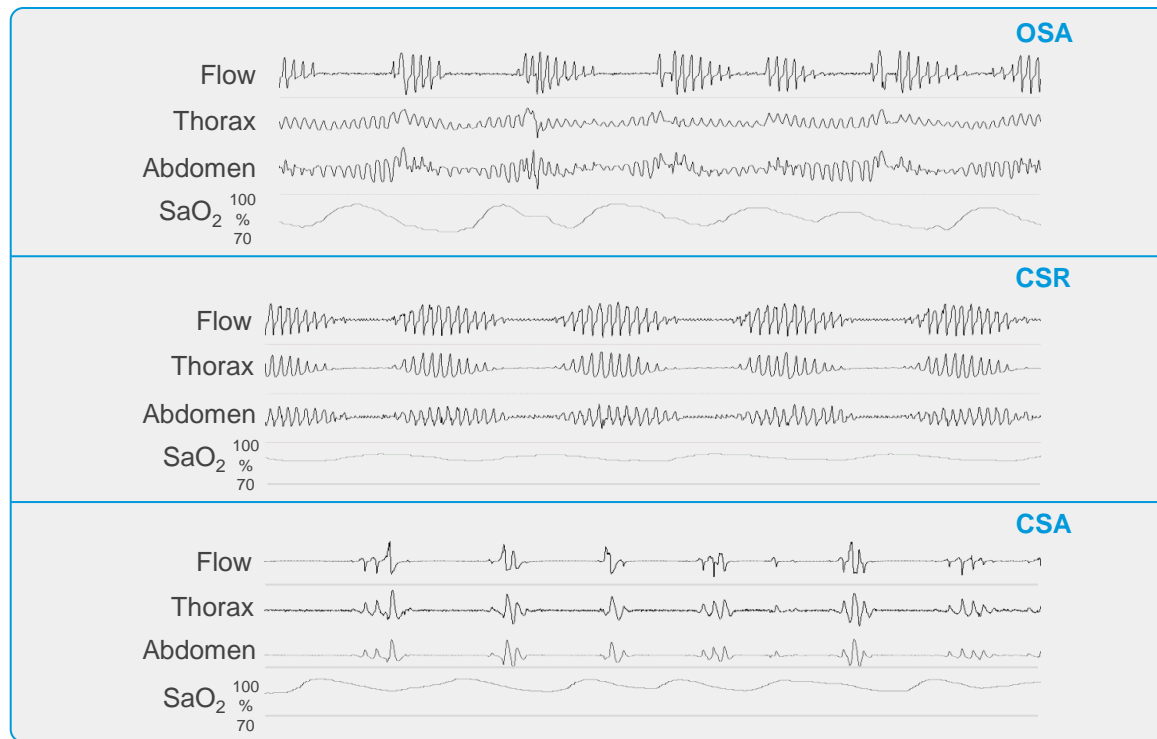
➤ Central Sleep Apnea

- Abnormal breathing due to problems with respiratory control
1. Complex Sleep Apnea/ Mixed Sleep Apnea
 - Associated with OSA (5 to 10% of sleep studies)
 2. Opioid induced CSA
 - Chronic users of prescribed narcotics
 3. Associated with chronic diseases
 - Heart failure, diabetes, renal failure, stroke

- ASV is used to treat all of these subgroups
 - Complex SA accounts for most prescriptions
 - Around 25% of scripts are for heart failure

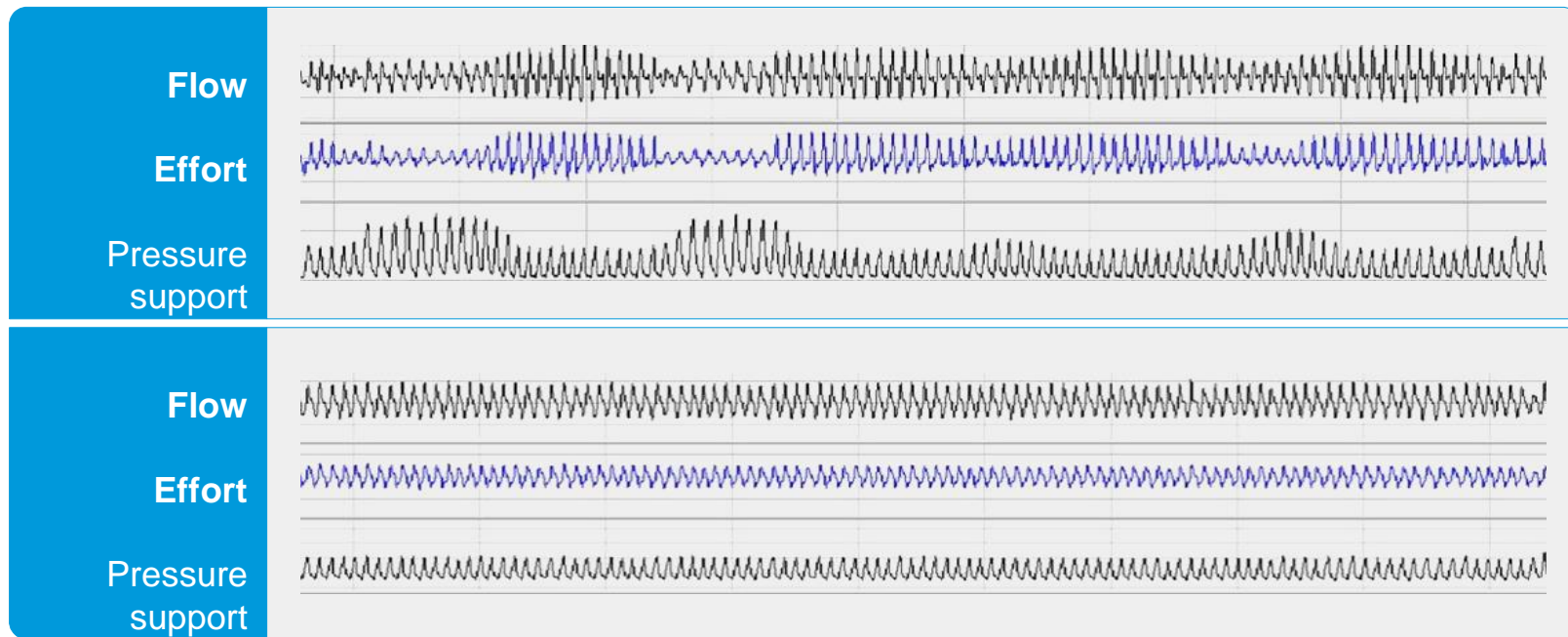


> Obstructive vs. Central Sleep Apnea



➤ Adaptive Servo Ventilation

Adaptive Servo Ventilation — mechanism of action



- Primary endpoint

- Time to first event of all cause mortality or unplanned hospitalization for worsening heart failure

- Secondary endpoints

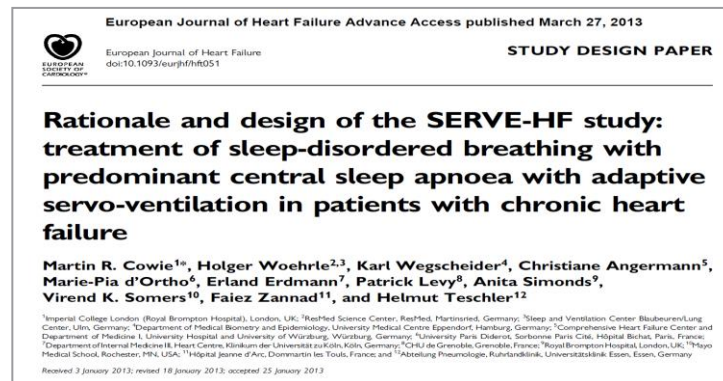
- Quality of Life (MLWHF, EuroquoL)
- Exercise Tolerance (6 MWD)
- NYHA class

- Major substudy

- Left ventricular function and BNP
- Sleep

- Multi-center, outcome study

- Comparing control (optimal medical management) with active treatment (optimal medical treatment plus ASV)
- Sample size: 1325 patients and 651 events
- 91 active centres



> Patient Selection

- Severe heart failure
 - Symptoms on maximal therapy
- Moderate and Severe Central Sleep Apnea
 - AHI>15
- Systolic heart failure = HFrEF
 - Around 50% of HF, men, coronary disease
- Diastolic Heart Failure = HFpEF
 - Around 50% of HF, women, elderly, hypertensive, obese
 - Not studied in SERVE-HF

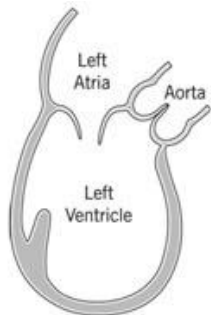


Figure 2
Systolic Heart Failure

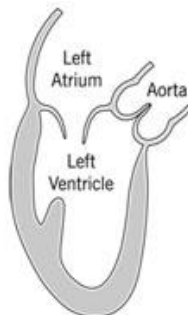


Figure 3
Normal Heart

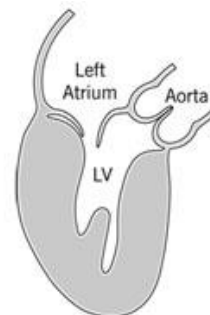


Figure 4
Diastolic Heart Failure

> Field Safety Notice — issued 13 May 2015

Numbers of events reached late April and analysis began

- Preliminary primary end-point analysis showed no significant difference between patients treated with ASV and those in the control group:
 - Time to all-cause mortality or unplanned hospitalization for worsening heart failure (HR =1.136 [0.974 - 1.325], $p=0.104$)
- However, there was a 2.5% absolute increased annual risk of cardiovascular mortality for those randomized to ASV therapy compared to the control group:
 - 10% of the ASV group experienced a CV death each year compared to 7.5% of the control group, (HR=1.335 [1.070-1.666], $p=0.010$).



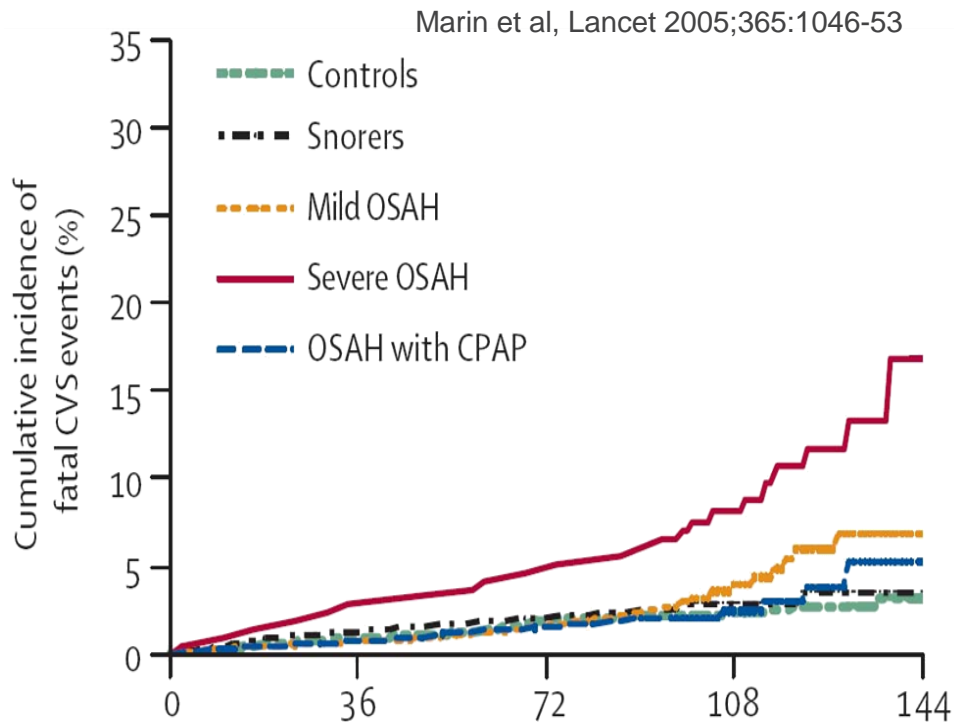
➤ Field Safety Notice — issued 13 May 2015

- The increased risk appears to be greater in those with more severe ventricular dysfunction
- The majority of excess mortality is due to death occurring out of hospital (likely sudden cardiac death).
- The risk does not diminish with time on therapy and is independent of perceived symptomatic benefit from therapy.
- Working with professional societies to reach patients at risk and with a tier one medical journal to expedite publication.



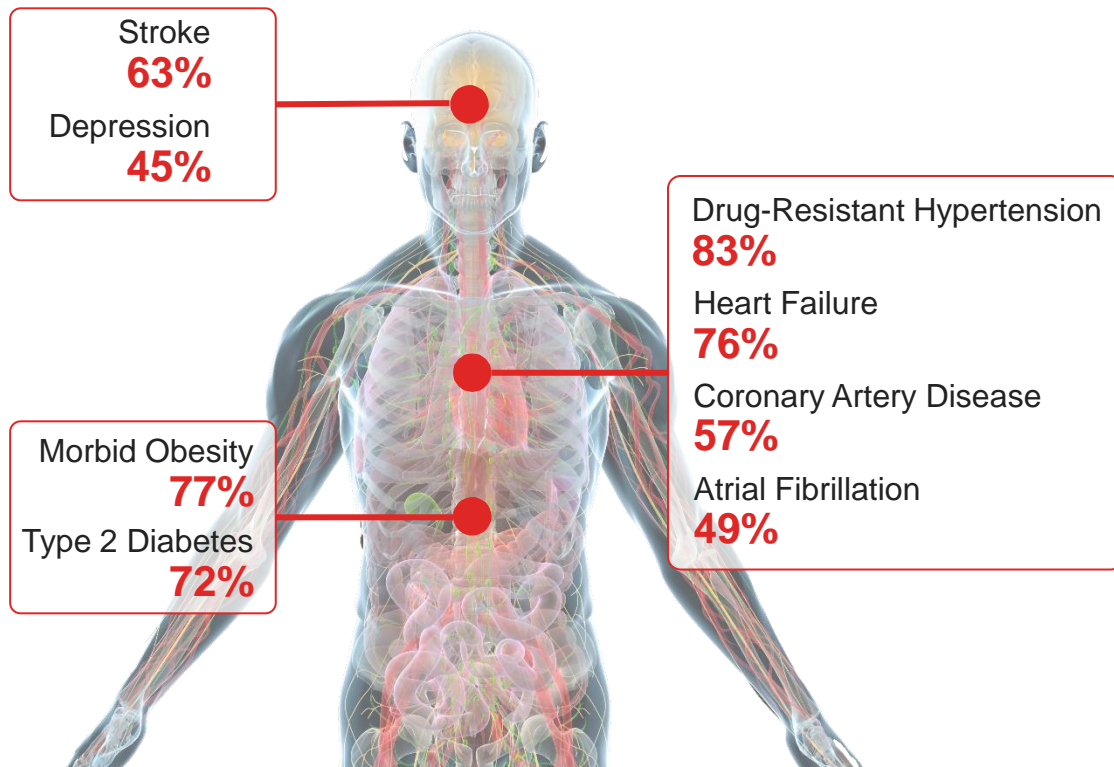
➤ PAP Therapy is Safe outside SERVE-HF patient group

- SERVE-HF population very different to other PAP users
- Untreated OSA is associated with increased CV mortality
- No safety signals among several large trials and several demonstrate a lowering of mortality with PAP therapy
- NIV reduces mortality in COPD
- Less information about ASV but no safety issues



SERVE-HF results only apply to its specific patient group

> Sleep Apnea: Many clinical targets for ResMed to focus on



References: Logan et al. *J. Hypertension*; O'Keefe and Patterson, *Obes Surgery*; Oldenburg et al., *Eur J Heart Failure*; Einhorn et al. *Endocrine Prac*; Bassetti et al. *Stroke*

➤ Where are we going next in clinical research?

- Many opportunities exist to increase market size through demonstrating the influence of therapy on chronic diseases.
- ResMed remains committed to advancing the field through scientific research.



> Thank you