PULMONARY SOLUTIONS INTRODUCES:

NIV AT HOME PROTOCOL

HELPING YOUR PATIENTS STAY SAFE AT HOME

The HOT-HMV study: 51% reduction in risk of hospital readmission or death in hypercapnic COPD patients treated with home non-invasive ventilation and oxygen therapy

Qualifying criteria for patient's discharging from the hospital:

- Written prescription: Pt name and demographics, physician name, NPI and signature, HPCS Code, length of need, hours of use, setting details
- Qualifying Dx: Chronic Respiratory Failure consequent to COPD or NMD
- ABG results showing PaCO2 >52 mmHg and/or FEV1 showing <50% of predicted
- Complete medical history: including hospitalization and treatment course(s), including NIV use as inpatient
- Written statement of need: details rationale for the treatment to continue in the home environment

Post discharge respiratory protocol:

- Setup completed by licensed Respiratory Therapist at hospital or home
- Day 3: follow-up visit performed
- Day 7-14: follow-up visit performed, and detailed visit delivered to PCP/Pulmonologist
- Day 30: follow-up visit performed, data download completed, circuit/mask change and detailed visit delivered to PCP/Pulmonologist
- Day 60+: monthly follow-up visit performed, data download completed, circuit/mask change and detailed visit delivered to PCP/Pulmonologist

Account Executive:

NON-INVASIVE VENTILATION IS APPROVED FOR HOME USE OF RESPIRATORY SUPPORT IN A CHRONIC STABLE PATIENT.

Market-leading versatility – expanded

New updates expand the versatility of the **Trilogy Series** ventilators

Philips Respironics has refreshed its Trilogy mixed-mode ventilators to include powerful updates that enhance the functionality of the devices for the clinician and patient. Lightweight, versatile, and easy to use, Trilogy ventilators are designed for use in the home, hospital and alternative care sites and provide invasive and noninvasive ventilator support for a wide range of adult and pediatric patients.

Expanding ventilatory support

Mouthpiece ventilation (MPV). A 'kiss' trigger with signal flow technology detects when a patient engages and disengages from the mouthpiece to deliver on-demand ventilation. It combines with an optional MPV support system to enhance patient ease of use. In addition, Trilogy Series ventilators allow for **pressure support up to 40 cm H_2O.**

Expanding clinical control

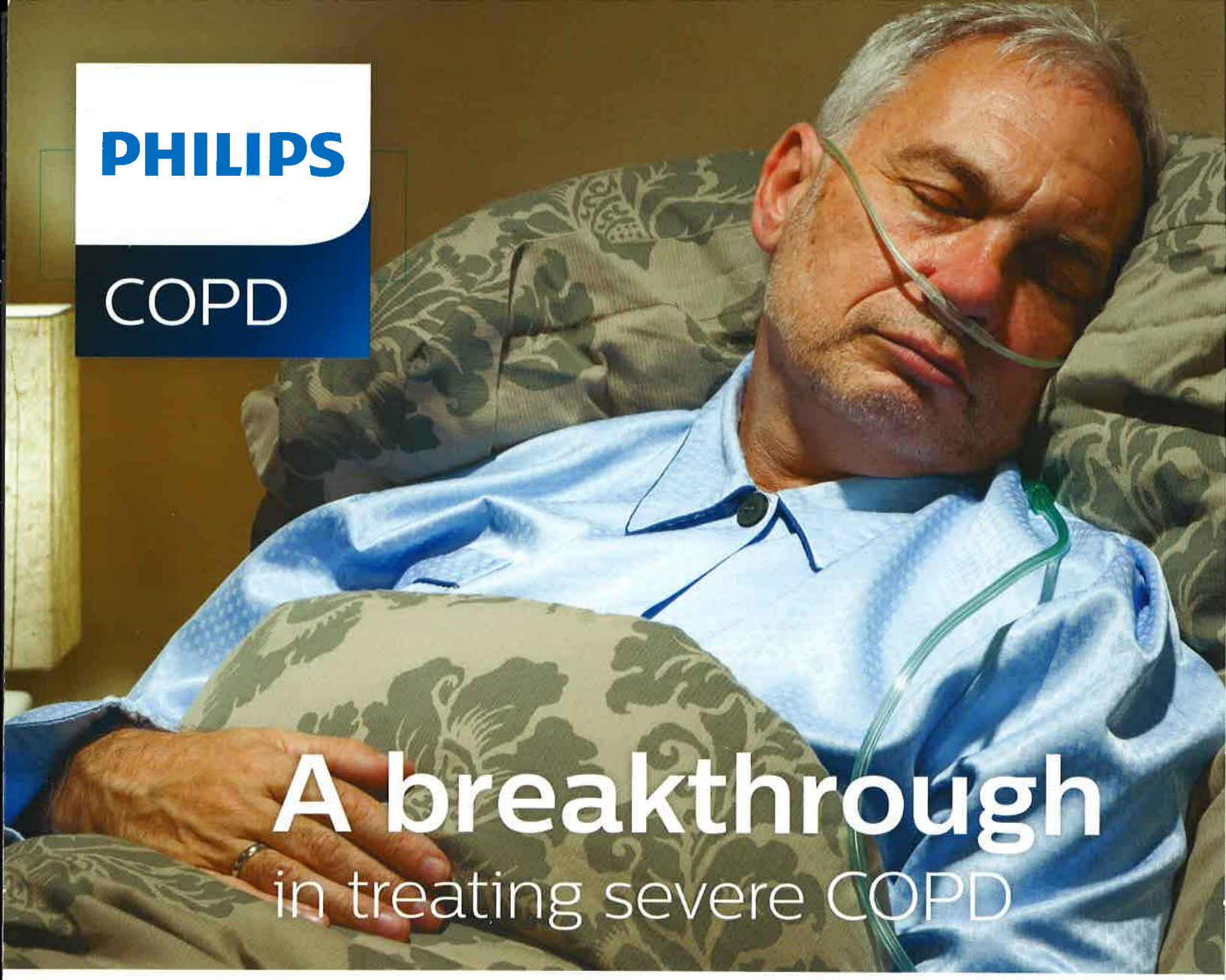
Trilogy Series ventilators are now able to display **waveforms** on screen allowing clinicians to check patient triggering, cycling and synchrony. **Sensitive Auto-Trak** provides an enhanced triggering response for patients with minimal respiratory effort. **Inline nebulizer treatments** can be performed with nuisance alarms minimized.

Expanding volume targeting

Building on patented AVAPS technology, AVAPS-AE and Adjustable AVAPS automatically adjust to changing patient needs. **AVAPS-AE** combines AVAPS, Auto EPAP and Auto backup rate. AVAPS maintains a targeted tidal volume, Auto EPAP helps maintain airway patency, and Auto backup rate targets the patient's spontaneous respiratory rate. **Adjustable AVAPS** allows the clinician to control the speed at which pressure will change.

At Philips Respironics we're listening carefully to you and working toward solutions that contribute to healthy patients and healthy businesses.

PHILIPS
RESPIRONICS



Severe COPD is a major cause of hospitalizations

Home use of noninvasive ventilation (NIV) plus oxygen versus oxygen alone has been shown to reduce hospitalization and readmissions for patients with persistent hypercapnia and severe COPD within 12 months[1]

Limited therapy options and poor outcomes characterize challenges in treating patients with severe COPD and persistent hypercapnia

- COPD is a major cause of morbidity and mortality, and a cause of substantial increases in health care costs, mainly as a result of inpatient admissions[2]
- National data indicate that more than 20% of patients hospitalized because of COPD are re-hospitalized within 30 days[3,4]
- Hospitals may be penalized for 30-day readmission of patients with COPD[1]
- Few treatments have worked thus far to prevent hospital readmission and death in this patient population[1]

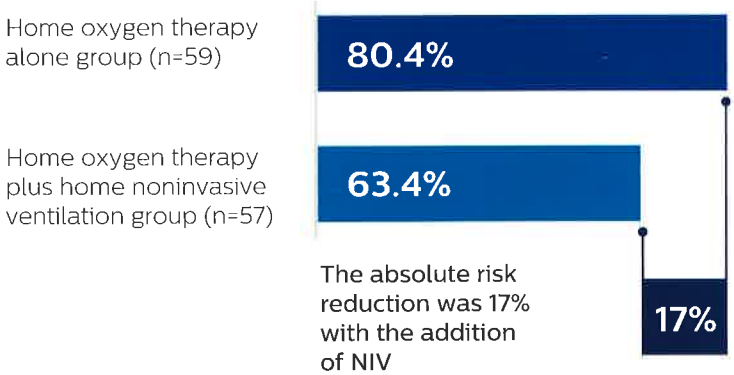
Home use of noninvasive ventilation (NIV) **plus oxygen versus oxygen alone reduces hospitalizations and hospital readmissions within 12 months**[1]

Home oxygen therapy and the addition of home NIV prolonged time to readmission or death within 12 months[1]

According to a prospective study reported in the Journal of the American Medical Association (JAMA) home oxygen therapy plus home noninvasive ventilation improved outcomes in severe COPD.

- A 12-month clinical trial in which 116 COPD patients with persistent hypercapnia were randomized to home oxygen alone (n =59) or oxygen plus home NIV (n=57)
- NIV was delivered using equipment manufactured by Philips Respironics and ResMed with each center restricted to a single model

The 12-month risk of readmission or prolonged death



The median follow-up times were 8.1 months (interquartile range, 2.3-12.6 months) for the home oxygen therapy alone group and 12.2 months (interquartile range, 8.9-12.9 months) for the home oxygen therapy plus home noninvasive ventilation (NIV) group.

Learn more about it

Read the JAMA article:
Go to JamaNetwork.com and search "NIV with Oxygen Therapy"

Watch a video presentation:
Go to rtmagazine.com and search "NIV and COPD Readmissions"

Or read the data write up and watch a video at Touch Respiratory:
Go to Touchrespiratory.com and search "HOT-HMV Interview"

Access medical education at CHEST® CME Resource Center: "HOT HMV: Improving Admission-Free Survival in Persistent Hypercapnic COPD":
http://journal.cme.chestnet.org/copd-hot-hmv

Hospitals and payers can save millions in admission costs for severe COPD patients as part of a multifaceted care program using Trilogy with AVAPS-AE[5]

According to an economic model study published in Value in Health, hospitals and payers saved money when using advanced NIV in an interventional multifaceted care program[5]

- Hospitals have the opportunity to reduce COPD admission-related costs with advanced NIV
- With advanced NIV, payers have the opportunity to reduce costs associated with managing patients on the basis of reduced admissions
- This was an economic model study of clinical and cost data, obtained from a quality improvement program and published reports, developed to calculate savings associated with the use of advanced NIV averaged volume assured pressure support (AVAPS) with the auto expiratory positive airway pressure, Trilogy100, by Philips Respironics, Inc, compared against respiratory assist-device (RAD) with bi-level and no NIV.[5]

Savings with a multi-faceted program* using Trilogy with AVAPS-AE in severe COPD[5]

For hospitals

30-Day cumulative admission savings versus no NIV or RAD

$402,981

(N=250 severe COPD patients)

For payer

3-Year cumulative savings vs no NIV

$326 million

3-year cumulative savings vs RAD

$1.04 billion

(N=100,00 severe COPD patients)

*The multifaceted clinical intervention program involved initiation of noninvasive positive pressure ventilation, respiratory therapist-led care, medication reconciliation, appropriate oxygen therapy initiation, and patient education compared with RAD and NIV or advanced NIV.

Learn more about it

Read the abstract:

ValueInHealthJournal.com and search "Use of Home Noninvasive Ventilation for COPD"

Missed savings opportunity[6]

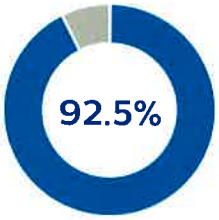
Despite reduction in COPD-related hospitalizations, NIV is underused[6]

- This retrospective analysis of administrative claims data published in the American Journal of Medicine with over one million patients who had been hospitalized for severe COPD found that **only 7.5% of patients with COPD received some form of positive airway pressure (PAP) therapy**[6]

- Data were from patients hospitalized with COPD, who received or did not receive PAP therapy in the form of continuous positive airway pressure (CPAP), or bi-level positive airway pressure (BiPAP), or noninvasive positive pressure ventilation in a home ventilator (NIV)
- Initiation of PAP therapy was associated with a reduction in hospitalization among patients with COPD

The gap in PAP[6]

92.5% of >1 Million COPD patients did not receive any form of PAP therapy, which is associated with the reduction in hospitalizations



Learn more about it

Read the abstract:

Go to amjmed.com and search "Positive Airway Pressure Therapies"

Are you using NIV with your severe COPD patients?

Data demonstrate value in changing patient care plans for severe COPD:

- Home noninvasive ventilation helps decrease readmissions and overall costs of caring for patients with severe COPD and persistent hypercapnia[1]
- Multifaceted RT lead care programs prove to optimize patient outcomes and includes[5]
  - Noninvasive positive pressure ventilation with AVAPS-AE*
  - Respiratory therapist-led care
  - Medication reconciliation
  - Appropriate oxygen therapy initiation
  - Patient education
- Despite reduction in COPD-related hospitalizations, NIV is an underused strategy[13]

*Averaged volume assured pressure support (AVAPS) with the auto expiratory (AE) positive airway pressure (PAP) was delivered by Trilogy100, by Philips Respironics, Inc. An additional benefit of AVAPS-AE is that titration does not require hospitalization.

VENTILATOR PRESCRIPTION & CERTIFICATE OF MEDCIAL NECESSITY

Phone: 866-361-2334
Fax: 888-522-6861

REQUIRED ATTACHMENTS: Patient Demographics, Insurance Card, Medical Records

Patient Name: _____ DOB: _____

Address: _____ City: _____ State: ____ Zip: _____

Phone: _____ Cell Phone: _____ Insurance: _____ 2nd Ins: _____

Diagnosis ICD-10: ☐ Chronic Respiratory Failure, Consequent to COPD

☐ Restrictive Thoracic Disease / Progressive neuromuscular disease with progressive respiratory failure.

☐ Neuromuscular Disease Amyotrophic lateral sclerosis (ALS)

☐ Neuromuscular Disease: Muscular Dystrophy ☐ Other Neuromuscular Disease: _____

☐ Other _____

Required Documentation:

- Face to face evaluation/hospital medical records within last 6 Months
- Documents of two or more respiratory related hospital admissions within the past 12 months
- (COPD) One of the following tests- pC02 > 52 mm Hg or FEV1 < 50% of predicted; **OR** pC02 between 48-51 mm Hg or FEV1 < 51-60% of predicted
- (Hospital discharge only) Support that patient has completed trial usage of requested device during hospital stay.
- If patient was previously on bi-level as outpatient. Supporting documents to why NIV is being used over Bi-level

☐ **Medical Necessity: Without ventilator, patient diagnosis may aggravate leading to harm or death.**

☐ **Other Documents:**
Neuromuscular patients- FVC or MIP.NIF test results
Restrictive Thoracic patients- pc02 or FVC test results

Equipment:

☐ (E0466) Non Invasive ventilator ☐ (E0465) Invasive ventilator

☐ (E0562) Heated humidifier

☐ Supplemental Oxygen at ____lpm

☐ Overnight oxyimetry test on day of setup (with oxygen if applicable)

☐ Mouthpiece ventilation (MUST select AC mode with MPV ON*

Device modes and settings: *(Select two different modes for dual settings- nighttime/daytime use)*

☐ **AVAPS-AE**: Max pressure___ PS Max___ PS Min ___EPAP Max___ EPAP Min___ Tidal v ___ BURate ___ AVAPS RATE___

☐ **AVAPS (S)**: IPAP Max___ IPAP Min___ EPAP___ Tidal v ___

☐ **AVAPS (ST)**: IPAP Max___ IPAP Min___ EPAP___ Tidal v___ BURate ___

☐ **AVAPS (T)**: IPAP Max___ IPAP Min___ EPAP___ Tidal v ___ BURate ___

☐ **AVAPS (PC)**: IPAP Max___ IPAP Min___ EPAP___ Tidal v ___BURate ___

☐ **CV**: PEEP___ Tidal v ___ BURate ___

☐ **AC**: PEEP___ Tidal v ___ BURate ___ MPV ON or OFF for daytime (*If MPV on select another mode for nighttime settings)*

Estimated length of need: _____ months (99 = lifetime, if blank=99) Patient height:_____ Patient weight: _____

Hours of use: ☐ During sleep ☐ PRN while awake or _____

Other: (Inspiratory time, Rise time, Ramp time, Flow trigger, Flex, Titrate O2 sats to 90% or ___%)

Physician Name: _____ **NPI:** _____

Address: _____ City: _____ State: ____ Zip: _____

Phone: _____ Fax: _____

Signature _____ Date: _____