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New ResMed-sponsored Study Shows Switching to Bilevel PAP Saves 56% of Patients from Therapy Termination

"Bilevel Rescue" study presented at SLEEP 2018 conference

BALTIMORE--(BUSINESS WIRE)-- A new study reveals that shifting patients who are struggling with adherence to positive airway pressure (PAP) therapy to a more advanced bilevel device in the first 90 days of treatment is an effective tool for achieving adherence in well more than half of such cases.

This research, sponsored by ResMed (NYSE: RMD, ASX: RMD), was presented this week at SLEEP, an annual joint meeting of the American Academy of Sleep Medicine and the Sleep Research Society.

Patients diagnosed with sleep apnea are usually prescribed a PAP device that provides either continuous (CPAP) or auto-adjusting (APAP) pressure. A bilevel device delivers two distinct pressures, one for inhalation and one for exhalation. Physicians may prescribe bilevel for patients who are pressure intolerant or have continued evidence of apnea at higher pressures.

In this "Bilevel Rescue" study, ResMed compared 1,496 non-compliant patients (as defined by U.S. Medicare guidelines) who switched to bilevel therapy and found that compliance was achieved by:

- 58.5 percent of patients who switched before day 60
- 54.2 percent of patients who switched between days 60–90
- 56.8 percent of patients overall

"Finding the right mode of therapy made all the difference to those patients who are struggling with initial adherence to therapy," said ResMed Chief Medical Officer Carlos M. Nunez, M.D. "This strongly suggests that bilevel devices provide a powerful alternative therapy that physicians and HMEs can utilize to help improve non-compliant patients' treatment experience and outcomes."

Study details

Compliance with Positive Airway Pressure Therapy after Switching From CPAP to Bilevel for Non-Compliant OSA Patients: A Big Data Analysis: A PAP device telemonitoring database

was queried for all patients initiated on CPAP or APAP (automatic positive airway pressure) therapy between January 1, 2015, and July 31, 2016, who were not Medicare compliant and switched to bilevel PAP therapy within the first 90 days of therapy. Anonymous PAP therapy data on all patients were compared before and after the switch. The objectives of this study were to compare average daily usage, adherence (percentage of days where usage was ≥ 4 hours), unintentional mask leak, and PAP efficacy (residual events) before and after switching to bilevel PAP therapy, as well as evaluating compliance using Medicare guidelines. An Institutional Review Board (IRB) reviewed this protocol and determined it to be exempt from IRB oversight.

Read the study's [full abstract here](#) (page A198–199).

About ResMed

ResMed (NYSE: RMD, ASX: RMD), a world-leading connected health company with more than 5 million cloud-connected devices for daily remote patient monitoring, changes lives with every breath. Its award-winning devices and software solutions help treat and manage sleep apnea, chronic obstructive pulmonary disease and other respiratory conditions. Its 6,000-member team strives to improve patients' quality of life, reduce the impact of chronic disease and save healthcare costs in more than 120 countries. [ResMed.com](https://resmed.com)

Medicare compliance, as defined by the U.S. Center for Medicare & Medicaid Services, requires using PAP 4 or more hours a night for 70% of nights in a 30-day span within the first 90 days of therapy.

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