

Study Shows Use of ResMed myAir™ Patient Engagement Platform is Associated with High Adherence to CPAP Therapy

A ResMed retrospective descriptive study of myAir™ usage data demonstrated a connection between continuous positive airway pressure (CPAP) device usage, digital health applications and high compliance. According to the study of 2,343 de-identified patient records, researchers found 83.9% of new CPAP users who received standard care and used the ResMed myAir application achieved Medicare adherence in the first 90 days of their treatment. Equally impressive, 75.4% of users achieved adherence in 30 days, with a median time to achieve Medicare adherence of 23 days.

“The high level of CPAP adherence this study shows is evidence that myAir is a best practice for getting patients engaged in their care,” said Raj Sodhi, president of ResMed’s Healthcare Informatics Global Business Unit. “It reflects the potential for connected patient engagement tools to spur compliance in a cost- and resource-effective manner, for the benefit of providers, health systems, payers, and patients alike.”

Consistent and ongoing adherence to CPAP therapy—considered the gold standard treatment for sleep apnea—is essential for the health benefits to be realized, and for home medical equipment providers (HMEs) to meet the strict compliance regulations required for them to receive reimbursement. With this in mind, ResMed developed myAir based on principles of behavior therapy. The free online support system allows patients to track their nightly sleep data, and through tailored coaching, empowers patients to stay engaged with therapy.

Study Design

Many adherence studies focus on the first three months of CPAP treatment, but because sustained benefits will only be achieved with consistent and ongoing adherence to therapy, usage beyond that point is equally important. Researchers for this study queried the myAir database for records created between October 2014 and March 2015 that had been activated, had at least 90 days of data, and had a realistic treatment start month. Two different categorizations of user experience were used: (1) brand new users (CPAP use for 0-30 days) vs. others (CPAP use for >30 days); (2) novice (CPAP use for 0-90 days), intermediate (CPAP use for >90 to 180 days), experienced (CPAP use for >180 days) and strugglers (defined as users who had 0-30 days experience using CPAP treatment prior to activating their myAir account and <2 hours average usage in the first 14 days on myAir).

2,343 patient records met the inclusion criteria; 70% of patients were male, 29% were female, and 1% did not disclose gender. Novice (n=1,731), intermediate (n=37), and experienced (n=575) users had 16.2±21.7 days, 121.1±21.0 days and 7.9±4.6 years of experience using CPAP treatment prior to using myAir, respectively. 1,067 patients were identified as brand new users and 86 patients were classified as strugglers.

Study Results

The proportion of brand new users who achieved the criteria for Medicare adherence – defined as objective evidence of CPAP use for four or more hours per night on at least 70% of nights during a consecutive 30-day period anytime during the first three months of initial usage – in 90 days was 83.9%, and 75.4% within 30 days. The median time to achieve Medicare adherence was 23 days, and was similar in males and females. Of 86 strugglers, 19.8% went on to achieve Medicare adherence in 90 days; female strugglers took longer than males to achieve adherence.

The results compare favorably to a study that examined CPAP adherence over a 24-month period in 3,100 Mediterranean patients with newly-diagnosed moderate sleep apnea who received either standard care (i.e., physician consultation where data were discussed) or high-touch intensive care (e.g., education, role models, monitoring, regular follow-up, and other simultaneous strategies).[1] Use of labor-intensive approaches to maintain or improve adherence led to 79.8% of patients in the standard group and 92.8% of those in the high-intensive group using CPAP regularly for four or more hours per night on 70% of days.


[Click here to download a copy of the study.](#)

About myAir™

myAir is an easy-to-use web program that enables patients using ResMed’s industry-leading AirSense™ 10 or AirCurve™ 10 devices to wirelessly track their own nightly sleep data and to receive interactive coaching. myAir empowers patients to stay engaged with therapy – an important part of helping them stay compliant long term.

Since launching in [October 2014](#), ResMed has seen consistent double-digit month-over-month increases in patient registrations for myAir. Following the recent launch of myAir version 2.4, full functionality is now available in English, French and Spanish.

[1] Bouloukaki I, Giannadaki K, Mermigkis C, Tzanakis N, Mauroudi E, Moniaki V, et al. Intensive versus standard follow-up to improve continuous positive airway pressure compliance. Eur Respir J. 2014; 44:1262-74.

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