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RESPIRONICS

Patient Adherence
Management Service



Improving patient satisfaction and long-term adherence to CPAP therapy

Payments from the Centers for Medicare Services (CMS) account for nearly half of all reimbursement for providers of durable medical equipment (DME).⁽¹⁾ Since the advent of competitive bidding, DME businesses have decreased substantially, with CMS estimating a 40% decline in both number and locations between 2013 and 2017.⁽²⁾ The CMS reimbursement policies have been impacting commercial payers, and there are instances where reimbursement from third-party payers is below Medicare rates.⁽³⁾

At the same time, heightened awareness of sleep disorders, particularly obstructive sleep apnea (OSA), is leading to increased demands on DMEs. Healthcare providers and patients expect a high level of service from the DME, which presents problems in the era of reduced reimbursement. This is true for both continuous positive airway pressure (CPAP) devices and critical replacement accessories such as masks.⁽⁴⁾ Despite technical improvements to equipment – smaller and quieter CPAP devices, more types of masks, heated humidification, flexible expiratory pressure, mobile applications, and so on – successful initiation of and adherence to CPAP therapy is an exacting undertaking.⁽⁵⁾ In combination, these factors suggest that there is significant demand among DMEs for an affordable service to initiate therapy and support patients in order to achieve better adherence rates.

When therapy telemonitoring is used in conjunction with psychological strategies, such as cognitive behavioral therapy (CBT) and motivational interviewing, improvements in adherence have been observed.^(5, 6) Non-adherence to therapy, which is estimated to be 30% to 40% for CPAP therapy, may lead to the termination of reimbursement, resulting in a significant revenue loss for the DME.⁽⁶⁾ Conventional efforts to improve adherence, including phone calls to patients, home visits, and clinic or DME visits, are time-consuming and not consistently effective. Fortunately, CPAP therapy with telemonitoring, cognitive behavioral therapy, and motivational interviewing have shown promise in improving adherence.^(5, 6)

Philips Respiroics structured a patient adherence management solution (PAMS) to help patients achieve adherence to therapy. This solution utilizes telemonitoring of therapy device adherence data via **EncoreAnywhere** and a call center with support staff that include sleep coaches and respiratory therapists. Communication with patients is initiated based on adherence and contact preferences, including phone calls, text messaging, and emails. Through customized contact, barriers to adherence are quickly identified. Support staff leverage motivational enhancement techniques to assess obstacles to therapy and set realistic adherence goals. Positive reinforcement comes from the support staff and through a mobile app called DreamMapper, which patients are encouraged to download on their mobile device. The call schedule is adjusted based on adherence, and mutually agreed-upon adherence issues are referred back to the DME or healthcare provider.

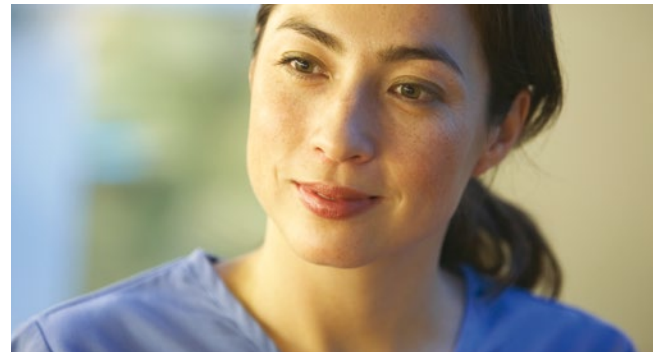
Case Study: Owens Healthcare

Employing the PAMS program was very beneficial for Owens Healthcare, a DME in Northern California. Patients who participated showed marked improvement in adherence relative to those not in the PAMS program. In addition, there were other associated benefits for the DME, clinicians, and patients, including

- (1) improvement among other aspects of patient care,
- (2) increased job satisfaction for clinical staff, and
- (3) new opportunities for other areas of clinical care.

With the PAMS program, patients had an improved experience initiating CPAP therapy than before. The clinical staff had previously struggled to complete a large volume of new setups, especially when required to spend extra time with some patients. But with the remote contact provided by the PAMS program, patients received consistent and predictable support that catered to their needs. Any issues patients had were addressed and their questions were answered in a timely manner. This enabled the local clinical staff to focus on patients with more complicated therapy issues, as identified by the PAMS sleep coaches. Overall, the streamlined communication between the clinical staff and sleep coaches facilitated extraordinary patient care. The *EncoreAnywhere* reports were also tailored to the needs of the DME and the referral sources.

The collaborative approach of the PAMS program was reassuring to the clinical staff. After working with its partners to understand their patients and referral sources, the program established criteria so the clinical staff could focus on patients who are in urgent need of specialized attention. Those with more routine needs, who accounted for almost two-thirds (64%) of post-setup calls, were handled by the PAMS staff.



With PAMS coaches taking care of basic questions and problems, the clinical staff were able to spend less time trying to communicate with patients and performing non-clinical tasks. The PAMS coaches even helped make sure adherent patients were scheduled for routine follow-up physician visits.

As a group, patients expressed a high degree of satisfaction with the PAMS program, according to a survey conducted in September of 2017. A total of 135 PAMS patients who provided email addresses were invited to participate in a survey to evaluate the quality of their setups, and 25 of them (19%) completed it. Based on a 0-10 scale, with 10 representing “most helpful” and 0 representing “not helpful at all,” the PAMS program scored 8.7 or higher for questions related to (1) improving confidence in adapting to the new therapy, (2) offering tailored recommendations specific to patients’ needs, (3) garnering appreciation for calls from the sleep coach, and (4) providing easy-to-follow directions. The results are shown below in (Figure 1).

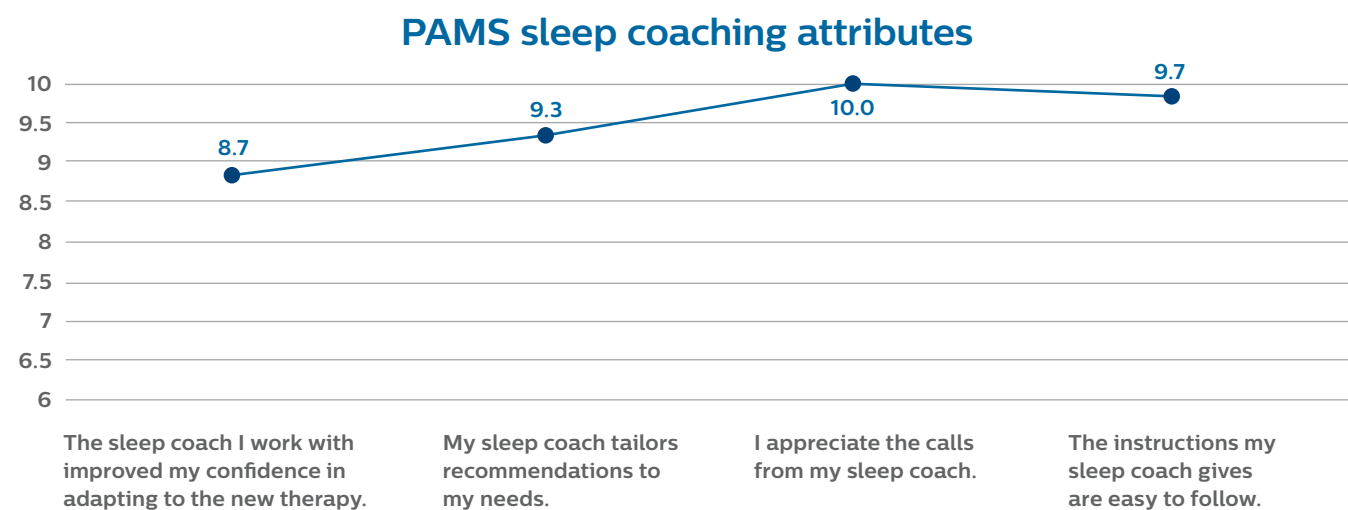


Figure 1: PAMS Survey Results

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Case Study: Owens Healthcare (continued)

Since CPAP therapy patients required less time, the clinical staff had the opportunity to care for more challenging home care patients, such as those requiring mechanical ventilation. Caring for these patients can be more rewarding for the clinical staff and presented an opportunity for growth. Owens Healthcare saw a 15% increase in adherence, with adherence rates going from 60% before PAMS to 75% after PAMS (Figure 2). By achieving high compliance rates with their sleep patients, Owens Healthcare opened doors to new referral sources and a new patient population. And by leveraging clinical manpower and a unique skillset to accommodate home mechanical ventilator patients, Owens Healthcare was able to capitalize on opportunities to provide new services.

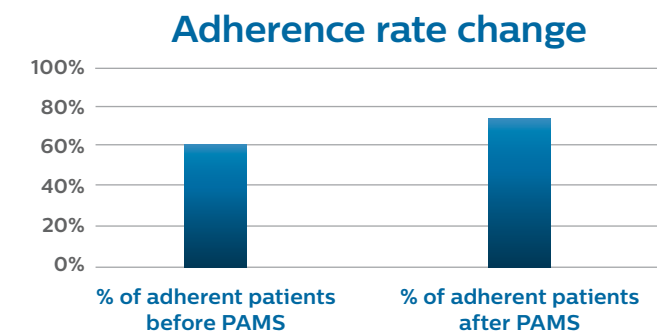


Figure 2: Adherence before and after PAMS

Owens Healthcare also saw more resupply orders, which were driven by increased referrals and improved patient retention. In particular, mask resupply has been presented as a reliable indicator of adherence to therapy in sleep patients,⁽⁷⁾ further validating the impact of the PAMS program and thereby contributing to the growth of the business.

The PAMS program represents a collaborative approach to patient care that facilitates the initiation and, ultimately, the adoption of therapy for patients with sleep-disordered breathing. Through this partnership, patient care and satisfaction are enhanced. The DME also realizes operational efficiencies and is recognized for providing high-quality patient care. In short, Philips research suggests that the PAMS program can help drive opportunities to expand a DME’s business, even during these challenging times for the home care industry.

Increase in adherence seen by Owens Healthcare:

- There was a 25% increase in the number of compliant patients, from 60% before PAMS to 75% after.
- The 30-day adherence rate with PAMS (61%) was higher than the previous 90-day adherence rate without PAMS (60%).

Decrease in the number of post-setup patient interactions by Owens Healthcare staff:

- PAMS respiratory therapists handled 64% of all post-setup clinical issues that would have required time from Owens Healthcare staff.
- PAMS sleep coaches ensured that compliant patients who needed physician visits had them scheduled and noted in *EncoreAnywhere*.

Customized reporting for referral sources to demonstrate results:

% of adherent patients before PAMS	% of adherent patients after PAMS	% increase
60	75	25

References

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7. Patel N, Sam A, Valentin A, Quan SF, and Parthasarathy S, Refill rates of accessories for positive airway pressure therapy as a surrogate measure of long-term adherence, *Journal of Clinical Sleep Medicine*, 8(2):169-175, 2012.