**HME TODAY** **TOOLS AND TACTICS FOR HOME HEALTH PROVIDERS**

ASCEND media

>> About HME
>> Contact Us
>> Subscribe
>> Read Weekly eNewsletter

Search [GO]

HOME | NEWS | CALENDAR | BUYER'S GUIDE | CAREERS | RESOURCES | CURRENT ISSUE | ARCHIVES

**Issue: December 2002**

# Data Dreaming
**by Roberta Domos, RRT**

**Choosing the right software tools can improve your OSA business.**
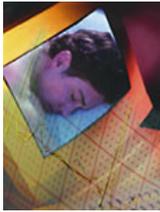
It is no secret that providing products and services for people with obstructive sleep apnea (OSA) is a hot niche. Sales of devices used to treat this breathing disorder reached nearly $400 million per year in 2000, and some industry analysts project the annual growth rate in sales of sleep therapy products to be as high as 19%.

It is also no mystery what is driving this growth. According to many research studies, the incidence of OSA among middle-aged people stands at 2% to 4% and is even higher among the elderly. While this may not sound like much, those percentages translate into estimates of 18 to 25 million adults who experience OSA, with large numbers of those still remaining undiagnosed despite the fact that public and physician awareness of OSA has grown tremendously over the past decade. A retrospective analysis of data completed by the National Center for Health Statistics and the Centers for Disease Control and Prevention found a 12-fold increase in the diagnosis of sleep apnea between 1990 and 1998.

Clearly, there remains a tremendous opportunity for HME providers to further develop and grow the sleep therapy segment of their businesses. To help make that happen, manufacturers—who naturally have a vested interest in seeing their HME customers succeed—have developed software programs that can assist HME dealers in managing inventory, monitoring patient compliance, reducing labor costs, and marketing products and services.

Four of the software tools are the DeVilbiss e-Compliance system, the Tyco Healthcare/Puritan Bennett SilverLining2 system, the Respironics Encore system, and the ResMed Boomerang system. Each has varying features, so it pays to study them all to determine which will be the best fit for your company's needs.

**Issue 1: Compliance**
Nearly all clinicians agree that the primary challenge they face when treating OSA patients with sleep therapy devices is ensuring patient compliance. Continuous positive airway pressure (CPAP) humidification systems help, but the most powerful motivator for patients to continue to use their CPAP or bi-level positive airway pressure (bi-PAP) devices as prescribed is the relief they get from excessive daytime sleepiness.

Unfortunately, it can take up to 30 days' use of a CPAP or bi-PAP device before some patients experience this relief. Frequent follow-up with the patient by the HME provider can improve compliance, but in the past it was difficult for HME providers to determine which patients needed the repeated follow-up and which didn't. That left the HME provider with a difficult choice: Either invest in a costly treatment protocol that entailed home visits to all patients, or make no visits.

The DeVilbiss e-Compliance system's ability to communicate patient data directly to the HME provider on a day-to-day basis solves this problem. The system works with several of the company's CPAP device models and is installed when the CPAP device is initially delivered to the patient's home. Once the system is set up, an external smart modem automatically calls into a secure computer server at DeVilbiss once a day and sends information about when and how the CPAP device was used in the past 24 hours. Authorized users with special software installed on their computers can then view the data sent to the server to see which patients are using their devices correctly and which patients may need extra help.

In addition, the HME provider can set the system to notify its clinicians via email if a patient's compliance drops below a designated threshold. As a result, clinicians are able to intervene when compliance problems are first detected, without making home visits to gather compliance information. Once the patient is successfully on his or her way to effective use of the CPAP device, the modem can be mailed back to the HME provider for use with another patient.

The Puritan Bennett SilverLining2 system also provides compliance information as well as data on average pressure and events such as apneas (cessation of breathing), hypopneas (shallow abnormal breathing), and acoustical vibrations (snoring) in graphic and written form. With an advanced CPAP model, it is also possible to get information on flow limitation inspiratory periods and detailed information on all detected events, the leak, and the pressure variations during the past 12 hours.

The information is downloaded from the positive airway pressure device either directly to a laptop computer with SilverLining2 software or through an external modem attached to the positive airway pressure device that automatically calls up the provider's computer at set intervals. In addition, with the external modem the provider's computer can also call the positive pressure device for the latest data whenever it is needed and—with the more advanced positive airway pressure devices—adjust the pressure levels over the phone.

Respironics' Encore system also collects compliance data, but instead of a modem, it uses a credit card-sized "smart card" that fits inside a slot on many of its positive airway pressure devices. To download the compliance data stored on the card to the Encore software on the provider's computer for viewing, the provider or the person using the positive airway pressure device simply removes the card and replaces it with a new one. The frequency of follow-up with the Encore system is determined by how often the provider chooses to exchange smart cards with the patient, either through a home visit, or by mailing the cards back and forth.

Finally, ResMed's Boomerang software emphasizes reports to assist providers with inventory and patient management and marketing strategy, but it gives a nod to compliance reporting as well. With Boomerang, the clinician records information from a meter on the flow generator and then manually enters that data into the software program, which in turn calculates compliance information. The clinician can set compliance threshold levels for reporting purposes that will highlight which patients may require more frequent follow-up. In addition, the company's Autoscan software provides more detailed compliance information that can be directly downloaded from the device to the provider's computer. However, Autoscan software works only with ResMed's higher end flow generators. The Boomerang software works with any flow generator device.

### Issue 2: Patient and Inventory Management

ResMed's Boomerang software makes patient and inventory management its specialty. Once an HME provider adds patient and equipment data to the system, and defines time frames for replacement and follow-up, that provider can generate various reports useful in maintaining proper inventory levels, tracking the location of equipment, managing labor costs associated with clinician follow-ups, and providing replacement supplies in accordance with the patient's payor utilization guidelines.

The Encore software provides the capability to track when mask replacement is due through the use of a "Patient Mask Report." In addition, the Encore software can produce a report that shows percent compliance by mask type, assisting the HME provider and its referral sources in deciding which patient interfaces are best tolerated by the patient population as a whole. This, of course, can result in providing patients with the right mask the first time, and help eliminate costly mask replacements for which reimbursement is typically difficult.

The Encore system can also generate individual patient reports that show a record of clinician contact, a record of equipment currently provided, patient outcome data, and prescription data. If the proper data are entered into the software, these reports can essentially serve as the patient documentation required by accrediting organizations.

Finally, the Encore system allows you to set reminders that you can use to schedule equipment or patient follow-ups and mask changes.

### Issue 3: Marketing

Touting your company's excellent patient compliance outcomes is always a useful marketing strategy, and all four software systems give you the capability to accomplish that. For example, Encore's software reports include a "Functional Outcomes of Sleep Questionnaire" that measures patient perception of well-being. Once the patient's responses from this questionnaire are entered into the computer, the software automatically scores the test and adds the test score to the patient's record in the system. Reports can then be generated on a patient-by-patient basis, or the scoring can be included in aggregate reports. Individual patient scores can be provided to referring physicians for their patient records along with compliance reports, or to sleep laboratories that must track patient outcomes for accreditation purposes.

In addition, aggregate or "cross patient reports" can be sorted and grouped several different ways, including by referring physician or sleep laboratory, and insurance provider. This type of reporting can help HME providers target marketing activities appropriately, and enable them to provide aggregate reports to referral sources and insurance payors that are drawn from outcomes and compliance data specific to their individual patients. ResMed's Boomerang software offers essentially the same aggregate reporting capabilities.

The Puritan Bennett SilverLining2 system offers a variety of custom reports including a synthesis report, which is a snapshot of everything that has happened during the download period. Current Puritan Bennett devices can record 124 sessions at a time, so an important feature of the software is that it can generate a report for a specific night, a specific week, or all 124 sessions together. SilverLining2 also produces a pressure report, which can help clinicians determine the most efficient pressure setting. And because referral sources sometimes differ in how they want their reports, SilverLining2 can customize which report pages it prints for which referral sources.

Finally, although the DeVilbiss software's main function is to track patient compliance closely and reduce labor costs, it also offers HME providers the ability to supply daily or monthly compliance reporting to their referral sources—an attractive selling point. This reporting capability is accomplished when the HME provider submits the referral source as an authorized viewer of the information that resides on the DeVilbiss server. The data are accessed by the referral source through an Internet connection and a free software program. Best of all, the referral source can view data from all the HME providers they refer to that use the e-Compliance system because viewer data are tied to the referral source's log-in instead of to individual HME providers.

With so many varying features to choose from, it may be hard to decide which system makes the most sense for use in conjunction with your company's sleep therapy program. Keep in mind that none of these systems is free so you will want to compare pricing as part of your cost benefit analysis. However, depending on your company's specific needs, any of these systems has the potential to greatly enhance the profitability of your sleep therapy business.

*Roberta Domos, RRT, is owner and president of Domos HME Consulting Group, a consulting firm in Louisville, Ky, and Redmond, Wash. For more information, contact her at (425) 882-2035, or visit her Web site at www.hmeconsulting.com.*

Article Tools

›› **Email This Article**
›› **Reprint This Article**
›› **Write the Editor**

**Access our Annual Buyer's Guide**
Your online resource for products and services

**News** | **Calendar** | **Buyer's Guide** | **Careers** | **Resources** | **Current Issue** | **Archives**
**About HME** | **Contact Us** | **Subscribe** | **Read Weekly eNewsletter**
**Media Kit** | **Editorial Advisory Board** | **Advertiser Index** | **Reprints**

**Allied Healthcare**

24X7 | Chiropractic Products Magazine | Clinical Lab Products (CLP) | Orthodontic Products | The Hearing Review
Hearing Products Report (HPR) | HME Today | Rehab Management | Physical Therapy Products | Plastic Surgery Practice
Imaging Economics | Medical Imaging | RT | Sleep Review

**Medical Education**

SynerMed Communications | IMED Communications

**Practice Growth**

Practice Builders