Your Mileage May Vary

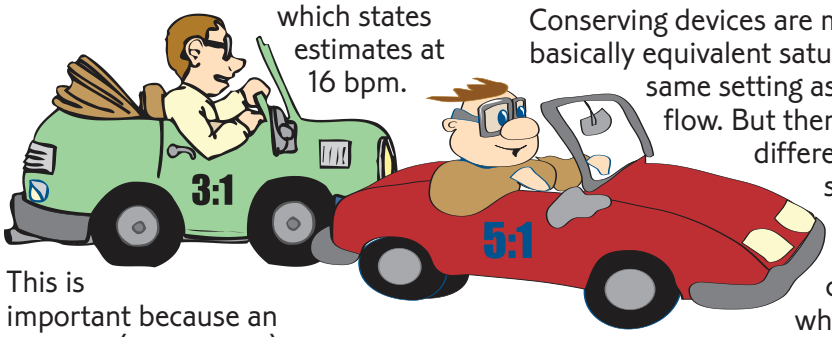
PRODUCT EDUCATION

If you watch the news regularly, you may have noticed that the media has caught on to something most of us commuters have known for years: the inaccuracy of the EPA mileage estimate stickers in new car windows. But did you know that the savings ratio and tank duration of your oxygen conserving devices are subject to a number of variables as well? That "5:1" savings ratio you count on might not be what it seems, depending on how the ratio is calculated and how the device is used. Let's look at some of the variables involved.

Forget the Lemons: Beware of Oranges

Since all conserving devices operate slightly differently and are calibrated to give pulse volumes based on their delivery methods, the way they calculate savings ratios may be a bit different. If you're not aware of these differences ahead of time, you might very well find an orange lurking in your apples-to-apples comparison.

First, in the last ten years, most manufacturers have standardized their savings ratio and duration times based on a breath rate of 20 breaths per minute (bpm). Despite this unofficial standard, you may still find literature which states estimates at 16 bpm.



This is important because an increase (or decrease) of even 4 bpm can result in a tank duration variable of 17%! Suddenly, your savings ratio has dropped from 5:1 to 4:1, and the device isn't even out of the box yet.

Second, the advertised savings ratio may not apply to all settings. This is not necessarily a drawback, depending on your patient mix. For example, a conserving device advertises a 5:1 savings ratio, but really only gives that ratio at a setting of 2 and 3. The ratio drops to 4:1 and 3:1 at settings 4 and 5. This may not be all that disturbing to you, when 90% of your patients require a setting of 2.

But if your expected 5:1 savings ratio applies only to settings 5 and 6, and all your patients need a setting of 2, you are not getting the full benefit of a conserving device for your patient population. There could well be many other devices with better savings ratios or performance characteristics that would be preferable for your business.

Make sure you are comparing actual performance and not marketing claims on an advertisement. A reputable manufacturer will always be able to provide you with specifications to help you make an informed decision.

Choose the Right Product for the Job

With all the talk about savings ratios, it's easy to forget that there are other considerations in choosing a conserver. And surprisingly, these considerations can affect savings ratios and tank duration times as well.

Conserving devices are meant to give basically equivalent saturations at the same setting as continuous flow. But there are many different disease states, as well as patient variables, that can affect which setting is most appropriate for a patient. An oxygen user with a 2 lpm continuous flow prescription may need a 2 setting on one conserver, and a 3 setting on another. The important consideration is that the patient is titrated properly on his device to achieve the desired blood oxygen saturation. Often, the conserver can be operating perfectly normally and still need to be set higher to accommodate the patient's needs.

Other times—and if you make a practice of titrating all your patients on a particular conserver, you will see a pattern emerge—no matter the user, the conserver just won't saturate at expected levels. Again, by titrating at a higher setting, turning the dial from 2 to 3 can drop your effective savings ratio from 5:1 to 3:1. Finding a conserver that can saturate your patients at the lowest possible setting is a great way to meet patient needs and business goals at the same time. To achieve this, you might have to use two or three different conservers to achieve the right balance for your patient mix.

Be an Informed Consumer

There are many good conserving devices out there. Some will work better for your patient base than others. The most important point is to be aware of the variables that may affect the cost of ownership through oxygen contents and delivery trips before you buy. After all, when we browse an auto dealership, we're well aware that how we drive will affect the estimate on the window. Be informed, and you will be well-prepared for any variables in the mileage of your conservers.

GLOSSARY

Breath Rate: How fast a patient breathes per minute (bpm); used to calculate savings ratio and cylinder duration.

Savings Ratio: The increase in time a conserver yields over continuous flow on the same setting. Usually expressed "x:y." (3:1, or 3-to-1, will last three times longer with the conserver than it would on continuous flow.)

THE O_2 REVOLUTION

by Carla Laureano

ALMOST AS SOON AS JOSEPH PRIESTLY MADE THE GROUND BREAKING DISCOVERY OF THE ELEMENT OXYGEN IN 1774, THE MEDICAL COMMUNITY LOOKED FOR WAYS TO UTILISE IT IN THE TREATMENT OF DISEASES.

In fact, as early as 1783, the French physician Caillens utilised it in the treatment of tuberculosis; and by 1799, the Pneumatic Institute had opened in Bristol, England, to research and treat patients with inhalation gas therapy. The fact that most early trials with the gas failed – due to lack of advanced knowledge of disease progression and management – did not lessen the interest in oxygen as a therapeutic tool.

While plenty of researchers were eager to delve into the physiological and psychological effects of oxygen gas in the 19th century, it was not until World War I that the period usually regarded as the modern era of oxygen therapy began. Researchers, like the British physician J S Haldane, began oxygen therapy as a treatment for soldiers exposed to mustard gas and other inhaled chemical agents. In the ensuing 30 years, oxygen therapy continued to gain acceptance as a legitimate treatment in the mainstream medical community and became common in hospitals. However, after researchers, such as Dr Cotes and Gilson, began to provide oxygen cylinders to ambulatory patients, oxygen began to move from the hospital into the home. By 1955, an estimated 30 percent of chemists in Wales and Monmouthshire supplied oxygen by prescription.

Conservers coupled with small aluminium cylinders offer unprecedented freedom

Filling an ambulatory oxygen cylinder in the home with the Total O2 delivery system

Still, the only modalities available for oxygen delivery depended on bulky, heavy, steel oxygen cylinders, which did little to encourage the ambulation and exercise that we now know is crucial to the long-term health of chronic lung disease patients. When the oxygen pioneer Alvan Barach developed a small transfillable oxygen cylinder that could be more easily transported and used for exercise, he created a rudimentary pulmonary rehabilitation tool. Equally pivotal in the development of oxygen therapy was Linde Corp.'s introduction of a transfillable liquid oxygen system in 1965, variations of which became the standard of care for oxygen patients for the next 20 years.

Yet even with the advantages in portable technology, oxygen therapy remained inconvenient and costly; two factors that hindered both patient and provider acceptance of the therapy. In addition, while oxygen therapy had so far shown demonstrable uses, it had not been conclusively proven to be essential to the treatment of lung disease patients. In 1980, the National Heart, Lung and Blood Institute (NHLBI) in Bethesda, Maryland, sponsored the Nocturnal Oxygen Therapy Trial (NOTT), which documented improvement in advanced-stage lung disease. The NOTT findings have since been confirmed by many other studies, but remains the most often cited case for long-term oxygen therapy.

The NOTT study also ushered in the second half of the modern era of oxygen therapy, lending a legitimacy to the therapy and opening the doors for development of products that would facilitate the continuous use of oxygen. The first major invention since Barach's cylinders, the oxygen concentrator was widely popularised at this time. The oxygen concentrator utilises molecular sieve technology to extract oxygen from room air, providing users with an unlimited supply of stationary oxygen in their own homes. The concentrator's shortcoming was that it could only be used with a reliable electricity source. Cylinders, which by then had shifted from steel to aluminium, still had to be used when venturing out of the home. Smaller cylinders lasted a very short time, and larger cylinders were bulky and difficult to carry.

Seeing a need for a long-lasting, lightweight portable system created by the increasingly mobile patient population, a corporation

founded by former 3M executives, California-based Chad Therapeutics Inc., opened its doors with the sole purpose of providing ambulatory oxygen solutions. In 1983, the company introduced the Oxymizer Disposable Oxygen-Conserving Device, a reservoir cannula that significantly decreased the flow rates of oxygen needed to saturate a patient. It followed up with the first electronic oxygen-conserving device in 1986, the Oxymatic conserver, which began the trend towards conserver-oriented portable systems that has continued until now.

Today's oxygen patients in North America and Europe have far more choices in their therapy and take a more active role in the management of their disease. For example, Chad Therapeutics manufactures 11 different models of conserving devices and continues to expand its product lines each year. Patients have the choice between electronic conservers like Chad's Oxymatic 400 Series, which gives a very high savings ratio and significantly extends the life of a small cylinder, and lightweight pneumatic devices like the Cypress OXYPneumatic conserver, which offers reliable, battery-free operation. With all the choices available to users, it is important to determine each patient's particular needs. A user with a low activity level may prefer a lighter weight system like the CYPRESS conserver. An avid traveller, on the other hand, may benefit from a 'stand alone' conserver like the Sequoia Oxymatic conserver, a new-and-improved version of Chad's original Oxymatic design, which allows adaptation to the cylinder valves of different countries.

In the interest of providing even more flexibility, recent technology has made it possible to combine the two most significant inventions in oxygen therapy, the concentrator and conserving device, into a single home-use product. In 1997, Chad introduced the world's first home filling concentrator, the Total O_2 Delivery System. This concentrator incorporates a high-pressure pump and filling attachment, which allows users to fill their own small aluminium cylinders safely and easily in their own homes. And, because it includes a choice of conserving devices, users have a portable system that is readily available whenever they are. Because the Total O_2 system removes the dependence on oxygen deliveries, patients no longer needed to ration their oxygen supply or carry larger, heavy cylinders simply because they hold more oxygen. This flexibility with cylinder size and refilling ability results in greater compliance with their oxygen prescriptions and exercise programmes, and consequently better overall health.

As technology continues to develop, no doubt we will see a host of revolutionary products that will impact the field of respiratory therapy and pulmonology. Portable oxygen concentrators are still in their infancy because of short battery life and low oxygen concentration. However, as technology progresses, we may see this as a more viable alternative in the future.

Regardless of the particular modality selected, timely diagnosis and early prescription of therapeutic oxygen has become one of the best ways of slowing the progression of lung-disease and preserving the patient's quality of life. With the variety of options available to today's user, prescription of supplemental oxygen does not have to be a death sentence. Thanks to the advances in modern medical technology, patients diagnosed with lung disease are now able to live full, vital and healthy lives. ■

STRAIGHT TALK ABOUT DIRECT MAIL

(Originally published in "The Pioneer" Newsletter by CHAD Therapeutics, Inc.)

by Carla Laureano

Direct mail is an often overlooked and undervalued form of marketing. Much of the time, marketers relegate it to the once-a-year blowout flyer and return to their other forms of advertising. When used thoughtfully, however, direct mail can be a powerful tool to gain new customers and drive incremental business with your existing clientele.

Direct mail can be a pricey proposition, though, and strategic planning is essential to success, as are modest expectations. The average response rate on direct mail is only 2-5% and anything into double digits is considered an overwhelming success. You may need to send a series of mailings before you recoup your investment, so budget accordingly.

Taking Aim

Defining your target— and buying or compiling a list based on that target – is the single most important component of your direct mail campaign. In fact, it's usually wise to make sure you are able to get an adequate list before you even begin crafting your message.

There are two ways to define a target market: demographics and psychographics. Demographics could be defined as the actual characteristics of a population segment: age, income, ethnicity, or location. Psychographics is the use of those demographic characteristics to define attitudes, lifestyles, or opinions. The two are tied closely together and can help you determine the proper market for your product or service.

For example, a medical travel agency might be seeking customers who already travel and are willing to spend discretionary income on ways to make travel with a disability or medical problem easier (psychographics). The agency might choose demographic criteria like married couples over 40 with a household income of $50,000 or more, who subscribe to health and/or travel publications and have opted into a mailing list for a particular medical condition. Therefore, subscriber lists for those publications could be an excellent data source. The travel agency would then sort the lists by age, marital status, income, and—if their service area was locally based – geographical area.

If you are attempting to increase business from your existing customer base, the process becomes simpler. After all, your customers know who you are, and if they are repeat customers, you can be fairly certain they are happy with your services. Still, you want to drill down into specifics, especially if you have a large customer database. Some examples of sorting criteria might be customers who have not purchased in the past twelve months, Medicare patients who have never made a retail purchase, or customers who made a single purchase but did not return.

Crafting the message
Your message will depend on your target audience and your goals. For new customer acquisition you will probably want to send a "branding" message telling who you are, what you have to offer, and why they should choose you over your competitor. It can either be wholly introductory, or it can be product focused. If you are confident in the accuracy of your list, you might plan multiple mailings centering around a single theme. These can then be a mix of branding and product messages.

For your existing customers, you can probably skip the branding message. It is always good to reinforce a slogan or special feature of your business, but it does not need to be the central theme of the mailer. One good use for direct mail to your current clientele would be to generate cash purchases for general health aids or other products normally sold retail. And don't forget the caregivers, who often have a large say in purchases. If you sell bariatric supplies, a lift system might be of interest to members of the same household. Likewise, designer carrying bags for ambulatory oxygen patients can be cash purchases above and beyond your usual reimbursable monthly services.

Whatever your message, don't forget a call to action. This can be as simple as "call us today for a free demonstration." You may include an incentive like a free gift with purchase or a coupon for dollars off the first purchase. No-strings-attached incentives can often be a good way to raise your response rate. Remember, direct mail is intended to generate leads. Once you've got their attention, that's when the selling begins! Be sure that your sales and office staff are aware of their expected role in the selling process.

Measuring success
Measuring the outcome of your direct mail campaigns is essential, but not always easy. You've probably heard the joke about the executive who knew that half his advertising was working, but didn't know which half. It's important to have a system in place to measure responses to your mailings. Common metrics include: initial responses to the mailing, how many and which ones were converted to sales, and how many contacts it took to convert a prospect to a sale. If you find that most of your sales come from a particular demographic segment, you can more narrowly focus your efforts. If you find that you make most sales after the third contact, plan mailing campaigns in groups of three.

Direct mail can be complex and challenging at times, but it can also be immensely successful. With a sensible plan and a little experience, you too can convert those mail responses directly to dollars!