



# Continuing Care & Rehabilitation

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## Notes from the Chair

by Trina M. Limberg, BS, RRT, FAACV

Reimbursement continues to be the primary topic of concern among the members of our section. The last year has seen several significant developments in this area, and more are on the way.

In California, Blue Cross is drafting a new policy on pulmonary rehabilitation, and the respiratory care profession and its supporters are playing a vital role in that process. When the draft was released, Dr. Paul Selecky held conference calls for the California Thoracic Society to discuss and respond to the various components of the policy. Dr. John Hodgkin worked directly with Blue Cross, providing feedback to the physician drafting the policy. Cheryl West, the AARC's director of government affairs, and I prepared a report for AARC Executive Director Sam Giordano. And several respiratory therapists from the California Society for Respiratory Care prepared their response. All of this was coordinated and submitted within two weeks of receiving the draft for comment. If you ever wondered what your professional organizations do for you, this is a perfect example. Being organized and ready to challenge policy changes is critical to the continued viability of our programs.

The final policy from Blue Cross is due out soon. In the meantime, we are still waiting to see what the Health Care Financing Administration (HCFA) will do with the national policy recommendations put forth by the American Association for Cardiovascular and Pulmonary Rehabilitation (AACVPR) Task Force. The American College of Chest Physicians, the American Thoracic Society, and the National Association for Medical Direction of Respiratory Care have also been invited to participate in discussions with HCFA.

The latest report from Phil Porte, legislative analyst for the AACVPR, appears in the Summer issue of the *AACVPR News and Views*. In it, Porte

lists key discussion points. Basically, HCFA has been reluctant to formalize a policy that may widen coverage and increase costs. Porte writes about concerns that HCFA may want to use the FEV1 as a qualifying selection criteria, which would most likely narrow the beneficiary population. He also notes that the Task Force will need to convince HCFA that pulmonary rehabilitation differs from cardiac rehabilitation, and adds that pulmonary physicians plan to make clear distinctions between the two interventions as well. The National Emphysema Treatment Trial (NETT) protocol will be referenced by both of these groups, as this is a HCFA- and National Heart, Lung and Blood Institute-supported trial. Lastly, he notes that HCFA billing instructions include code use for individual and group interventions in the areas of skill and exercise training.

For more information on the Task Force's activities, you may want to visit the AACVPR web site at [www.aacvpr.org](http://www.aacvpr.org).

Reimbursement aside, I have another question for the membership. Where are your submissions for our section's Specialty Practitioner of the Year? I know they are out there! Please take the time to nominate a colleague who goes above and beyond the call of duty (you know who we're talking about) to support his or her profession and patients. Nomination forms were mailed to all section members, but if you failed to receive one or have misplaced it, drop me an e-mail (address on page 2) and I'll send you a copy. The AARC would like to recognize outstanding clinicians at the International Respiratory Congress in December, so we need to get our nominations in as soon as possible.

Lastly, if you have comments about the *Bulletin* or would like to contribute an article, please contact me. We are always in need of submissions and will be glad to assist you in any way we can. ■

## Pulmonary Rehab: Collecting Outcomes in Ohio

by Gretchen Horstman, rehab and continuing care chair, secretary, OSRC

Pulmonary rehabilitation has been shown to improve exercise capacity, desensitize participants to dyspnea, and improve quality of life (QOL) in individuals with chronic lung disease. In order to evaluate the effect of our pulmonary rehab program at Marymount Hospital in Garfield Heights, OH, on these parameters and on health care utilization, we decided to conduct a study of our own.

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We hypothesized that exercise capacity and QOL would increase, while the patient's perception of severity of dyspnea and health care utilization would decrease post completion of pulmonary rehab. We followed 84 participants who exercised twice a week for a total of 12 weeks and were taught disease management by a multidisciplinary team of health care professionals.

Participants had an average FEV1 of 1.2 L (1 STD 0.46). We measured their exercise capacity on the treadmill and stationary bike. QOL was assessed via the SF-35 Health Survey and Psychological General Well Being Index (PGWB) Survey. Dyspnea was measured by the University of California, San Diego (UCSD) Shortness Of Breath (SOB) Questionnaire pre- and post-program.

We tracked 51 graduates (1995/1998) for 2 years (1 yr. pre-/1 yr. post-program). Patients demonstrated improvements in exercise capacity and on the QOL health questionnaires. We also tracked hospital admissions, length of stay (LOS), and hospital charges. Results showed that hospital admissions dropped 43%, from 32 in the year preceding rehab to just 18 in the year following rehab. Hospital days declined 50%, from 199 pre-rehab to 99 post-rehab, and hospital charges went from \$274,383 to \$145,352, or a savings of \$129,031.

We concluded that our multidisciplinary pulmonary rehabilitation program is effective in significantly improving exercise capacity in patients with severe COPD, improves their perception of the impact of dyspnea on their activities of daily living, and improves QOL. What's more, the program reduces hospital admissions, shortens LOS, and reduces health care utilization among these patients.

Despite this study, however, little is known about pulmonary rehab outcomes in the state of Ohio in general. Because the Ohio Society for Respiratory Care (OSRC) is deeply interested in fostering respiratory health through rehabilitation and validating the effectiveness of rehabilitation professionals in Ohio, the OSRC decided to conduct a study of its own measuring the outcome of rehab services in the state. This prospective study intends to answer

the following questions: What change in common outcome measures is demonstrated by conducting outpatient pulmonary rehabilitation in Ohio? How do the outcomes of participant programs compare to those of all programs?

Criteria for participation in the state outcomes project include:

- Rehab program in the state of Ohio with a dedicated rehab staff (may be part-time).
- Rehab program is a comprehensive outpatient program offering education, exercise, and skill training.
- Program has been offering rehab services for at least one year.
- Program conducts sessions with at least 30 patients per year.
- Program *must* be willing to commit to the collection of demographics and pre- and post-program outcomes, and will be strongly encouraged to participate in follow-up data collection.

Programs that participate in this study are expected to reap several benefits, including:

- Increase the awareness of pulmonary rehabilitation to physicians, other health care professionals, and the general public.
- Increase physician support for pulmonary rehabilitation.
- Establish benchmarking that will improve the quality of individual programs through the sharing of data with prospective patients, programs, physicians, and third party payers.
- Collect data suitable for publication.
- Serve as a marketing tool to support pulmonary rehabilitation services for managed care and other third party payers.
- Utilize data to improve reimbursement of pulmonary rehabilitation.

For more information about the OSRC pulmonary rehab study, contact Phil Hoberty at (614) 292-8445, e-mail: hoberty.2@osu.edu. ■

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## Pulmonary Rehabilitation After Treatment For Lung Cancer: A Pilot Study

by Dawn Sassi-Dambron, BS, RN,C, University of California, San Diego

Despite all that is being done to prevent lung cancer, it is likely to remain a major health problem for many years to come. Lung cancer survivors, like other cancer survivors, deserve the best in treatment, care, support, and education. To that end, the Alliance for Lung Cancer Advocacy, Support, and Education (ALCASE), a nonprofit organization, was founded to help people living with lung cancer improve the quality of their lives. ALCASE is dedicated to helping lung cancer survivors through various programs: a newsletter, phone buddies, a peer-to-peer support program, customized information searches using medical databases and the Internet, a resource and referral list of services, and finally, quality of life (QOL) research studies.

Because many lung cancer patients suffer from shortness of breath and fatigue and have limited levels of activity, a collaborative effort was undertaken by ALCASE and the University of California, San Diego to answer the question: Can an 8-week pulmonary rehabilitation program be utilized for lung cancer patients? Can it reduce their symptoms of dyspnea and fatigue and improve QOL?

Rehabilitation programs are well established as a means of enhancing standard medical therapy to restore the patient to the highest possible level of independent function. We accomplish this through a combination of supervised and guided exercise training, education about the disease and how to take a more active role in its management, and psychosocial group support. This comprehensive program is provided by a multidisciplinary team of professionals. A physician serves as medical director, with therapists, physiologist, nurse, psychologist, pharmacist, and dietician completing the team.

There is abundant evidence supporting the benefits of pulmonary rehab in patients with COPD. After rehabilitation we know that patients feel better, know more, and do more. There is significantly less literature on patients with restrictive disease and very little experience with patients with lung cancer.

We hypothesized that lung cancer patients, who may be symptomatic from

underlying lung disease such as COPD as well as from the cancer treatment itself, could benefit from pulmonary rehab. This would provide their physicians with another treatment option in addition to current standard medical therapy.

To determine if a rehabilitation model could be applied to lung cancer patients, a pilot study evaluating the effects of progressive pulmonary rehab on symptoms, exercise tolerance, and QOL was undertaken. Individuals with diagnosed and treated nonsmall cell lung cancer who had stage I-IIIa with dyspnea but no significant co-morbidity besides CLD and had been stable for at least three months after completing cancer treatment were eligible for the study.

Measures of lung function, exercise tolerance, symptoms, and QOL were collected before and after a 12-visit, 8-week program. Measures of lung function included flow rates and lung volumes. Exercise tolerance was measured in two ways. First, by a maximum symptom-limited treadmill test and then by a 6-minute walk (6MW) distance test.

Since improving a patient's QOL is an important goal in any pulmonary rehab program, we used a variety of QOL instruments to evaluate different aspects of treatment outcome, including functional capacity, symptoms, and perceptions reflecting satisfaction about health. The three measures chosen for this pilot were:

- *The Chronic Respiratory Disease (CRD) Questionnaire:* A disease specific measure evaluating four dimensions: dyspnea, fatigue, emotional function, and mastery (one's ability to be in control of his symptoms).
- *The Medical Outcomes Study Short Form-36:* A general health profile that taps into eight health concepts evaluating functional status, well-being, and overall health.
- *The Functional Assessment of Cancer Therapy (FACT)-L:* A cancer QOL measure that evaluates functional impairment and the perceived effect of that impairment. It includes a section specific for lung cancer.

Patients were recruited from the University of California, San Diego;

community medical centers and pulmonologists; and local survivor organizations. We also featured the study in newsletters and ran an ad in the local newspaper. Although we screened over 80 patients, many were unable to participate due to pain, distance from our center, absence of shortness of breath, co-morbid conditions, or recurrence.

We enrolled nine patients and have preliminary results on four: three females and one male ranging in age from 58 to 74. One of the patients had undergone chemotherapy and radiation. One had a pneumectomy and radiation, and two underwent lobectomies. The mean FEV1, percent of predicted, was 81%, with a range of 59% to 104%. The mean total lung capacity, percent of predicated, was 84%, with a range of 65% to 101%. These data suggest mild to moderate reduction in lung volume, with a concomitant reduction in flows.

Although we cannot make any significant conclusions based on these four patients, results of the treadmill tests showed that the workload increased while the perceived symptoms of breathlessness and muscle fatigue decreased pre- and post-rehab. However, individual results were mixed. Although mean distance walked did not change on the 6MW test, mean symptom scores of PB and PMF improved in each of the four patients.

The QOLmeasures indicated the following:

- On the CRD, the disease specific questionnaire, mean scores improved for dyspnea, fatigue, and mastery, but did not change for emotional function. Additionally, in the dimensions of dyspnea and fatigue, all four patients exceeded the minimal clinically important difference suggested by the authors of the questionnaire.
- On the Short Form-36, the general health measure, the mean scores improved modestly in the dimensions of physical function, energy/fatigue, pain, and general health. Interestingly, scores for pain symptoms improved strikingly in three out of four patients. The other categories on the questionnaire did not change.

"APilot Study" continued on page 4

"A Pilot Study" continued from page 3

- On the FACT-L, mean scores improved in physical and functional well-being and in the lung cancer-specific category. However, scores did not improve in social and emotional well-being categories, suggesting that a cancer-directed rehab program may need to focus specifically on these areas.

So what have we learned? One of our goals in this pilot study was to determine if rehab was a viable treatment option for lung cancer patients. Could we successfully apply the principles of rehab? Could we integrate these patients into our ongoing program and would they fit in? How would we modify the program to better meet their needs? Essentially, would the rehab model work with these patients?

The data may not be conclusive or compelling, but as clinicians working

with these individuals, we believe they benefited from rehab. They benefited from the guidance and support they received as we worked with them to develop an exercise program, from the enthusiasm of the staff when they reached their first exercise goal, and from the belief they gained that they could do more with fewer symptoms. But we also learned that their issues in group therapy are different from our usual patients with chronic lung disease, and that carrying the diagnosis of cancer is a major factor.

Although the efficacy of pulmonary rehab for this population hasn't been proven by this limited experience, we believe that pulmonary rehab can be useful in the management of a subset of lung cancer patients, particularly if these patients are not added to traditional pulmonary rehab programs but served through a new, lung cancer rehab program model. Key components of this

model should include:

- Rehab focused on general fatigue and weakness; include people without dyspnea
- Apain management program
- The addition of other potential candidates, such as individuals in different phases of their cancer work-up and treatment or patients preparing for cancer surgery
- Separate psychosocial groups to address cancer-specific issues

We'd like to close with comments from two of our graduates –

"I have enjoyed these eight weeks very much. I learned a lot and believe I am much better for coming."

"In my opinion, rehabilitation has helped me a great deal in as far as what is to come and coping with and relearning how to breathe to prevent anxiety attacks. The more you are aware of, the less you get scared of . . ." ■

## **Request for Assistance: New Technology**

Susan Blonshine is writing a "clinical perspectives" article for *AARC Times* on new technologies in 1999 and would

like to know what new technology this year has had the greatest impact on your specialty area and why.

Please respond by October 10 to Susan by email ([sblonshine@aol.com](mailto:sblonshine@aol.com)) or fax (517-676-7018). ■

## **Come Celebrate AARC's Cultural Diversity**

by Janyth Bolden, AARC Cultural Diversity Committee Chair

The AARC would like to hear your ideas on how "cultural diversity" should be addressed within the organization. In keeping with this goal, the Cultural Diversity Committee would like to invite you to attend a forum on cultural diversity. This first forum is being held at the Las Vegas Hilton Monday, Dec. 13, 1999 in conjunction with the 45th International Respiratory Congress. We are eager to listen to your ideas and suggestions, so please come share them with us.

We would like to make this a festive occasion — so why not dress the part? We invite and encourage you to wear something that identifies your ethnic, religious, or other cultural group. And keep in mind, "cultural diversity" does not refer only to Black, White, Brown and Yellow. It also includes Jewish, Hindu, German, Assyrian, Italian, American Indian, Greek, etc. Come prepared to show off!

The AARC Cultural Diversity Committee is made up of managers,

educators, staff, and entrepreneurs who represent regions from around the globe. Please join us Dec. 13 for insightful, constructive conversation about our varied backgrounds. Let us not just point out our differences; let us also learn about and appreciate our similarities. It is by recognizing and utilizing our diversity that the AARC can become a "Fortune 500" association.

By the way, have you utilized the information found in the AARC Online cultural calendar? If not, why not? Check out this new feature on AARC Online at [http://www.aarc.org/times\\_plus/calendar.html](http://www.aarc.org/times_plus/calendar.html). This special feature is just the beginning of things to come. If you have any comments or suggestions, feel free to contact me at [jbolden@chw.edu](mailto:jbolden@chw.edu). ■

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