PRN-BC

Pulmonary Rehabilitation Network of British Columbia

December 2014 Edition 5

Hello PRN-BC! It's December!!!

In this issue there is an article written by Jennifer Butler, who is a 1st Year Pharmacy Student in the University of Manitoba's College of Pharmacy. In her article, Jennifer explains the role of the pharmacist in pulmonary rehabilitation. Traditionally, pharmacy may not have had a prominent role in PR, as in many programs RTs would cover the education and training related to inhaled medications. However, we are increasingly aware of the many comorbid conditions that our chronic lung disease patients have, and these also need optimal medical management if PR is to be truly effective. In the SPH program, a pharmacist delivers the education related to oral medications for the treatment of interstitial lung diseases. As many of those medications have the potential of serious adverse events, having a pharmacist discuss these medications with patients has been invaluable.

We hope you enjoy this newsletter. See you in 2015!

Yours truly,

Pat Camp, PT, PhD

Assistant Professor & Clinician Scientist, UBC

Director, UBC Pulmonary Rehabilitation Research Laboratory

Research Corner – Pat Camp

A talk I gave at the 2014 Fraser Health Authority Research Week centered around three questions:

1.How do you come up with a research question?

2.How do you get partners/collaborators?

3.How do you decide on where to get participants?

This issue, I address Question 3:

This is probably the easiest question to answer, because it is directly related to the answers of Questions 1 and 2. Where you get your research participants is based on what question you want to answer. In addition, if you have a lot of collaborators with access to patients, you may want to involve them in helping you recruit appropriate candidates. But the answer to this may depend on whether you are doing a program evaluation or a research project.

If you are conducting a 'program evaluation' or some sort of clinic assessment, then you need to get the information from your own patients. We recently did this kind of assessment in a health authority in BC, where 4 pulmonary rehab programs wanted to know what kind of health benefits their patients were seeing, and if their programs differed in terms of organization and health outcomes. Each program did a chart audit and collected information on pre-established variables, then worked with UBC to understand their data and answer their questions. If your results will be kept within the clinic, and not discussed with others outside of your hospital, then you may not need to have an ethics application (check with your health authority).

However, if you want to ask a question and possibly publish the findings, then you may need to get permission from the research ethics board, and this may limit where you can find participants. If you want to recruit people from other hospitals in your health authority, you might just need hospital approval. But if you are doing a more ambitious study and need to recruit patients from other health authorities, you may need to get ethics approval from every health authority AND every hospital that you are approaching.

For most studies we often just recruit from our own clinical areas to make life easier. But if we are trying to answer a question but only recruit from our own small clinic, then it is hard to know if the answer we get would be the same if we recruited from other clinics. So it is always a trade-off.

Next newsletter: March 2015

Journal Club

McDonnell LM, Hogg L, McDonnell L, White P. **Pulmonary rehabilitation and sleep quality: a before and after controlled study of patients with chronic obstructive pulmonary disease.** Primary Care Respiratory Medicine 2014; 24:14028

Introduction: People with chronic obstructive pulmonary disease (COPD) frequently suffer from insomnia (a sleeping disorder) due to cough, breathlessness, and nocturnal oxygen desaturation (NOD). Impaired sleep quality may cause an impact on disease severity and quality of life. Pulmonary rehabilitation (PR) may ameliorate sleep quality through improving quality of life, exercise capacity, depression, and anxiety.

Purpose: to determine the effectiveness of PR for sleep quality in people with COPD.

Methods: COPD patients referred to PR were invited to participate in this study and assigned to either observation or control group. Pittsburgh Sleep Quality Index (PSQI), a questionnaire used to measure sleep quality, were be given to participants in the observation group before and after they attended an 8-week PR program. Participants in the control group completed PSQI twice at baseline and 8 weeks later, respectively. Lung function, quality of life, exercise capacity, anxiety, and depression were measured on participants in the observation group.

Results: Twenty-eight participants in the observation group completed PR and PSQI and twenty-four participants in the control group completed PSQI. The overall prevalence of poor sleep quality (PSQI $\geqslant$ 5) in both groups was 75%. Poor sleep quality was correlated with high anxiety and depression scores, and poor quality of life, but not associated with COPD severity and age. Although there was a trend toward improving sleep quality after an 8-week PR program, PR did not improve sleep quality significantly in the observation group. Similarly, there was no significant difference between before and after PSQI scores in the control group. However, PR improved quality of life, exercise capacity, anxiety and depression.

Conclusion and implication: The effectiveness of PR on improving sleep quality is still uncertain. PR can improve quality of life, exercise capacity, and mood states. Future studies with a larger sample size and incorporated new strategies or intervention in PR are required to improve poor sleep quality in people with COPD.

Submitted by Yi-Wen Chen, BSc, MPhEd, PhD student, UBC Rehabilitation Sciences Program

Pulmonary Telerehabilitation

We are working on a number of projects related to pulmonary telerehabilitation.

1. ***Understanding the patient's needs related to pulmonary telerehab.***
   We are conducting focus groups of patients to gain their perspectives on what are necessary parameters for pulmonary telerehab. What do they feel they need to be safely exercising in their community, with the right supports, feedback, and technology?
   Please contact Pat.Camp@hli.ubc.ca if you are interested in helping us recruit patients and having a focus group at your site.
2. ***Understanding the health care professional's needs related to pulmonary telerehabilitation.***
   The technology may be emerging but do we really understand what pulmonary telerehabilitation needs to look like? How will we deliver this care? What is our liability? What is the minimum capacity of the technology? How does it change how we practice?
   If you are interested in exploring these questions in a focus group format (either in person, or via webinar) please contact Pat.Camp@hli.ubc.ca.

Great PR Tweets

@PR_Assembly (Twitter Account of ATS Pulmonary Rehabilitation Assembly)
Gait speed is a promising simple test that can inform the clinician about important functional aspects of COPD.
http://www.ncbi.nlm.nih.gov/pubmed/25473277

@pulmonary_rehab (Twitter Account of Martijn Spruit, PT and researcher in the Netherlands)
Exercise training improved 6mwd and HRQoL in people with dust-related pleural and interstitial respiratory diseases.
http://www.biomedcentral.com/1471-2466/14/180/abstract

Events, Resources & Opportunities

UBC PULMONARY REHABILITATION INTEGRATED TRAINING UNIT

Health care professionals in pulmonary rehabilitation are often working in small communities, or are removed from a traditional hospital setting. It can be difficult to feel engaged in the pulmonary rehabilitation community, or to continue to enhance your continuing professional development. In response to this, we are launching the UBC Pulmonary Rehabilitation Integrated Training Unit. This unit will offer a three different programs for health care professionals working in pulmonary rehabilitation.

LEVEL 1. BC-PRN Continuing Professional Development (CPD).
Participate in webinars, workshops, and journal clubs. You can sign up for different CPD opportunities based on your schedule and interests. You can lead a journal club, suggest topics, and engage with other network members.

LEVEL 2. Online Masters of Rehabilitation Science (Pulmonary Rehabilitation)
For those clinicians that want to enhance their critical thinking, ask clinical questions, read and understand journal articles, learn about outcome measures in clinical practice, and how to develop effective rehabilitation programs.
This is an online program that can be done full-time or part-time.
There is no thesis, but there is a project requirement.
This project can be done in your pulmonary rehabilitation program, and there is the option of partnering with other members of the BC-PRN to ask your project question.
The project can help you learn more about how your program is performing, and what you can do to improve patient outcomes.

LEVEL 3. MSc or PhD programs – Thesis-based.
For those clinicians who want advanced research training, there are opportunities to complete a thesis-based research degree in pulmonary rehabilitation.

CONTACT PAT CAMP AT PAT.CAMP@HLI.UBC.CA FOR INFO.

Clinician's Corner

How could a Pharmacist enhance a Pulmonary Rehabilitation Team?
An interprofessional pulmonary rehabilitation program (PRP) team can utilize the expertise of a pharmacist to assist their clients with a variety of pulmonary disorders (i.e. Chronic Obstructive Pulmonary Disorder, Pulmonary Fibrosis). As an expert in medication management, the pharmacist can review the patient's profile to determine if there are any drug-related problems that may hinder the patient's ability to exercise while in the PRP. Throughout an 8-10 week program, the pharmacist can continue to review the patient's medical chart, answer questions the patient may have about their medication, and assess adherence issues. Other members of the PRP team can also connect with the pharmacist to bring forward any concerns they may have. For example, the program physiotherapist may consult with the pharmacist regarding shortness of breath, blood pressure, and/or risks for falling. If the client's medications are not being 'maximized' (right drug, right strength, proper technique etc), then the client may not achieve full benefit from the PRP. This goes for both the respiratory medications and all other medications the person may be taking. The pharmacist can connect with additional health care providers involved in the patient's care to ensure the medication therapy is maximized. The pharmacist may contact the patient's physician or respirologist if they require a potential medication change. Upon discharge, the pharmacist can summarize the changes in the final assessment and send it to the patient's physician/respirologist.
By Jennifer Butler, 1st Year Pharmacy Student, University of Manitoba, College of Pharmacy

Pulmonary Rehabilitation Programs in BC

Check out the directory at
http://prrl.rehab.med.ubc.ca/bc-pr-network/
Password = pulmonary

UPCOMING EVENTS

Canadian Respiratory Conference
April 23-25 2015 Ottawa, Ontario
http://crc.lung.ca/crc/home-accueil_e.php

American Thoracic Society International Conference
May 15-20 2015 Denver, Colorado
http://conference.thoracic.org/2015/

Do you have a journal article, event, or newsletter topic that you would like to share with other members of the BC PRN? Please email Ashley Kirkham at ashley.kirkham@hli.ubc.ca

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