

Today, on this episode, we are continuing our conversation about Quality Indicators in Pulmonary Rehabilitation Part 3.

This paper describes a CTS supported project where we identified 14 key indicators of quality for Canadian PR programs. In our first episode, we talked about indicators 1-5 and then we covered in the next episode 6 - 10. In this episode, we'll cover Indicators 11 to 14. And also to remind you about what an indicator is – it's a statement that provide information about the quality of a health care service. They can be thought of in terms of Structures, Processes and Outcomes that should be in place for a service to be considered of acceptable quality.

And, in case you haven't listened to the episode where we talked about the methods, how did we identify them for PR? Well, the project team first conducted a systematic review of the literature where we looked at numerous clinical trials, guidelines, white papers, and other types of documents related to pulmonary rehab and created a very large list of what the indicators might be. Then, we invited a number of PR experts from across the country, in several different disciplines, to review this large list and evaluate each item on a number of criteria. We also had discussion groups with these experts to give them an opportunity to consider and talk about each potential indicator where there wasn't consensus. Finally, we ended up with a list of 56 possible indicators. Back to the project team leaders, this list was further refined, consolidated and revised to create a short list of 14 indicators.

As I said, I'll give you the link to the paper in the show notes, so you can have a look at it while you're listening, if you can.

So let's move onto those final indicators.

Quality Indicator 11. Oxygen saturation, heart rate, blood pressure, Borg dyspnea ratings and rating of perceived exertion (RPE) are regularly monitored during exercise training for patient safety.

This indicator acknowledges that the rehab participant does need to be monitored regularly to both ensure they are not exercising at unsafe levels, but also to make sure they *are* training at an intensity that will elicit a physiological response. As a clinician, and with experience, we learn to take all the information we get from this monitoring to adjust the exercise prescription.

You'll notice that the quality indicator says "regularly monitor", as opposed to "monitor at each session". It is likely that you will monitor your patient quite closely during the first few sessions. As the program proceeds, you will likely have less monitoring unless your patient tells you of a change in their health status. You may also encourage your patient to take on the responsibility of monitoring. In the 'old days' of pulmonary rehabilitation, many programs would closely monitor their patients at every exercise session and chart the values, but not involve the patient in either understanding the values and/or measuring them themselves. However, this approach does not contribute to the patient's self-efficacy, or confidence, that they can continue their exercise regimen safely once they leave the program. Instead, it might be more helpful for the patient to learn about how their body feels during exercise, through their self-report of exertion and dyspnea, and also how their body is responding, through measures of oxygen saturation, heart rate and blood pressure. So the more that you can involve the patient to learn their body's response to exercise, the better. And also see if you can reduce the intensity of the monitoring as the sessions go on, so your patient understands that they can safely exercise when they leave you without the need for complex monitoring equipment. Of course, some patients may choose to purchase their own oximeters – in this situation, you can show them how to interpret all the signs and symptoms, and not be fixated on a particular number.

Quality Indicator 12. The pulmonary rehabilitation program has education and self-management components that foster long-term adherence to health-enhancing behaviors.

This is a short statement that encompasses a large component of pulmonary rehabilitation. Most programs offer educational / self-management material and training, but how much and on what topic does vary between programs. At a minimum, your participants should have knowledge of their condition, what risk factors contribute to flare-ups, what medications are involved and how to take them, how to handle the day-to-day variability of their condition, including dealing with stress and using their energy wisely, and how to handle their dyspnea, cough, sputum, and other symptoms. Nutrition, using supplemental oxygen, and advance care planning are other common topics. There are many great resources out there to help you with education, there is no need to have to create your own educational materials. However, learning teaching approaches, including creating dynamic 'lectures', fostering group discussions, and understanding how different people take in and use information, are important skills. Many health care professionals who work in pulmonary rehabilitation have additional training as respiratory educators. In Canada, there is a training program where you can be certified as a respiratory educator. I'll provide the link in the show notes.

Quality indicator 13. At a minimum, the following health outcomes are measured before and after the program: Aerobic exercise endurance, Muscle function, Health status.

This indicator reinforces the importance of outcome measures. Why is it important? For several reasons:

1. measuring outcomes reinforces to the patient that their hard work paid off, if there is an improvement
2. measuring outcomes confirms to the referring physician that their patient saw an improvement, and they can continue to reinforce these health behaviours.
3. measuring outcomes can help you determine the quality of your program. If patients in your program are not achieving improvements in the aerobic exercise endurance, muscle strength, and health status, why not? We know pulmonary rehab works, but it must be delivered correctly for health benefits to be realized. If your patients, as a group, are not achieving an average improvement in 6MWD that is at least the minimally important clinical difference, then its important for you to explore why. Is your patient population very different, perhaps extremely frail? Are you starting them at too low a level? Are you never progressing their intensity? Are you not offering the necessary components?

By measuring outcomes, you are fulfilling an important obligation to your patient, and the referring health care professional, as well as providing important data to yourself and your program leaders about how well your program is performing.

You'll notice that we didn't specify the exact outcome measures that should be used. There are resources that can help you select – I'll link to those in the show notes. You should remember that you need to measure outcomes that are valid for your patient population, and have been seen to be responsive to change. You should also understand *how* to use the measure – if you conduct a 6MWT incorrectly, you will not be able to measure change accurately. And of course, the measure needs to be done before the program starts, and then again at the end. You may also use these measures partway through the program to determine if improvement is detectable, or if changes to the program for that patient are needed.

Quality Indicator 14. Guidance for ongoing exercise, physical activity and self-management is provided to participants at the completion of the pulmonary rehabilitation.

And finally, the last indicator. This is often an element of the program that is neglected – providing the patient with a program that will guide them once they leave you. Many programs provide this at the end of the

program, but another way is to provide it partway through, and assign some activities as 'home work'. This allows your patient to try out the program and give you some feedback on how it went, in case adjustments are needed. If your patient plans to exercise in a gym, they could visit the gym and show the exercise people there the exercise program and start the transition from exercising at a rehab program to exercising in the general public. Starting those behaviours while your patient is still in the rehab program is extremely important, as it can be quite daunting for patients to leave the comfort and security of exercising in a clinical environment to being faced with the intimidating equipment, music, and general population of an exercise gym. Arming them with a well-described program, and being available to talk about it (perhaps even with the exercise leader at the gym) enables your patient to develop the confidence they can continue with their exercise program after they leave you.

So those are the 14 core indicators that were created by the Canadian Thoracic Society. As mentioned, there is a larger list of 56 indicators that gets into more detail. Those indicators may be useful if a program is just starting, and wants to make sure everything is covered, or if an existing program wants to go through a complete audit to identify their strengths, and areas that need improvement.

I'd like to encourage you to now take this list of 14 and start looking carefully, and critically, at your program. Now is not the time to be sensitive! Or feel judged! As a professional, you need to understand the strengths and weaknesses of your own program. And personally, I like to identify areas of improvement, instead of someone else (like a funder) doing this for me! So take these indicators and consider them like a checklist. Are you meeting each one? If not, how can you achieve it? It might require a small change, such as introducing a new measure, or a large one, like adding more equipment, or training for more skills. Take it step by step, set yourself some goals, and don't forget to measure, measure, measure so you know the quality of the program you provide.

Thanks to our listeners for joining us on this episode. I'm Pat Camp and we'll be back soon with a new episode of LungFIT.