LIVE FROM ATS 2021 – SOME INTERESTING PULM RHAB RESEARCH

This is going to be a very short episode this time! The American Thoracic Society is holding its 2021 Scientific Conference right now, and I had the privilege of being this year's Program Chair for content related to pulmonary rehabilitation. So my time is really being taken with conference preparation, and now attendance! And so I wont be doing a very long episode. But, because the conference is happening now, and the content is available until July 2, 2021, I thought I would use this episode to showcase some of the interesting research that is being presented. It is not too late to register for the conference like I said it is open until July 2 and everything that is being presented live is also being recorded and on demand. So if you have never been able to travel and see the great research and other programming being offered at the American Thoracic Society Conference, this might be a good year for you because obviously we do not have the cost of travel and the content is really fantastic. And, I am really interested in diving into more of what is being offered.

Of course, normally we would all be in person, and this year it would have been held in beautiful San Diego, California. Oh well! I am grateful that I am able to participate in the conference, even in a virtual format. And although the research submissions were down this year, nevertheless several thousand researchers were still able to put together results and submit them, for all of us to benefit. So, I am very grateful for that.

In this episode I'm going to touch on some interesting tidbits that I learned from different sessions relevant to pulmonary rehab. And this one was quite specific to COVID19. Some of these were also the focus of a Twitter chat I am currently hosting, from the Twitter account of the ATS Pulmonary Rehabilitation Assembly. I'll put the twitter handle and the hashtags in the show notes so that you can get into a little bit more detail about some of these studies and also be able to participate in the tweet chat as well.

We had quite a few posters submitted related to pulmonary rehabilitation and COVID19, as you would expect. Some of the interesting abstracts presented included one by Linzy Houchen-Wolloff that explored the utility of the 1 minute sit-to-stand test to determine if exercise-induced oxygen desaturation occurred in hospitalized patients with COVID19. They found that about a third of patients did desaturate and subsequently were discharged on oxygen. And I thought this study was interesting because this test may have some interesting uses in this way, as it's not always convenient or possible to do a walking oximetry test. So to have a test at the bedside to look at oxygen desturation is really interesting and might have utility in a lot of other scenerios like COVID19.

A few studies submitted looked at the effect of pulmonary rehab on patients with COVID19. Although we still don't have any or many controlled trials, nevertheless the baseline measures indicated that patients reported symptoms that may be amenable to rehab, and none of the studies reported adverse events due to rehab, so that is very encouraging. Also adherence to rehab was very high much higher than sometime what we would see in patients who have COPD or pulmonary fibrosis, so motivated patients who are quite interested in attending rehab. Now, I encourage you to look at the abstracts when they are published in the ATS journal to read more about this work.

There is another interesting study by William Sexauer and colleagues looked at patient attitudes and characteristics about returning to in-person pulmonary rehab once those in person programs are allowed again. They surveyed a small number of patients, approximately half of whom had returned and half who did not. Those who did not return reported more distress with mask-wearing in their day to day lives and more anxiety related to COVID19 compared to those who did not have those issues and those who came back to the program. It's important to realize that as we learn more about how the infection is transmitted, and more acceptance about the importance of airborne transmission, the more we'll have to consider ventilation in our program settings. Wiping down equipment and physical distancing likely won't be adequate to reduce the risk of

infection. And we really do need to think about these things if we want patients to come back to our program and be able to get the benefits of the in-person setting.

Now moving on, in a scientific symposium on COVID19 and rehabilitation, I learned about this really interesting dynamic graph related to the indication and evidence for rehabilitation after COVID19. Chris Burtin showed us the Cochrane Collaboration / World Health Organization dynamic evidence map, and I have put the link in the show notes: here . And when you look at it you can see that there's many different elements that need to be considered including understanding more about the patient population, the symptoms, the types of programs, the evidence for those programs, and that map gets updated as more evidence is published in synthesize by this collaboration. And so, the size of the circles give you a sense about the numbers of patients, the number of studies, that have addressed those particular questions. And, right now of course the evidence a real pulmonary rehab or rehab for patients with COVID-19 is much less compared to some of the other observational studies looking at clinical characteristics. But, what a fantastic resource that shows you what research is being done and where the gaps are.

I also learned about another interesting resource related to returning to physical activity after COVID19. It was referred to quickly in the presentation, but it's a paper by David Salman in the British Medical Journal in January 2021 entitled "Returning to Physical Activity after COVID-19" and it can be found in the shownotes: here . Now, it should be reinforced that the decision-making tree has patients returning to physical activity after being asymptomatic for 7 days. Of course, you and pulmonary rehab are going to likely be seeing patients who are returning to physical activity despite being symptomatic. Nevertheless, it was a nice illustration of a phased approach to physical activity return, as well as indications when referral to a rehab service may be indicated. And I thought that was quite helpful if you're dealing with patients potentially in the acute care setting or in those early post COVID days when patients are asking questions about is it safe to go out and be active again. So, this is just a very brief taste of some of the great content related to COVID-19 and pulmonary rehab. If you want to get more details about several of the research abstracts presented at the conference related to pulmonary rehabilitation, I would suggest you either register for the conference or follow us on the ATS Pulmonary Rehabilitation Assembly twitter account, you'll see the Twitter chats I led and read the summaries and discussions that continued. And, I think I've provided just enough of a summary that you get it understanding of the abstract just from the tweets.

Thanks for listening to LungFIT, and we'll see you soon! Keep moving!