

# Making Sense of Telehealth & Virtual Exercise Programs

May 8, 2020



1

## Introductory Remarks



Corinne Costa Davis  
Chief Executive Officer  
COPD Foundation



2

## DISCLAIMER

***The information presented on this webinar should not serve as a substitute for medical advice and any content discussed should not be used for medical advice, diagnosis or treatment. Please consult with a physician before making changes to your own COPD management plan and if you have any concerns about COVID-19 symptoms.***

***The information presented on today's webinar about COVID-19 was current as of Friday, May 8, 2020. The information about the disease and the recommendations discussed today are changing rapidly and if you are viewing the recording of the webinar, this information may no longer be accurate.***



3

## TODAYS AGENDA

1. Introductions
2. Recent COVID-19 Updates
3. Telehealth
4. Virtual Exercise Programs
5. Additional Tools & Resources
6. Q and A



4



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 Professor of Medicine,  
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 Medicine & Vice Chair-  
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 RRT, RCP, FAARC,  
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**Susanne Howell**  
 COPD Patient Advocate



**Stephanie Williams, RRT**  
 Director of Community Programs,  
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**Jamie Sullivan, MPH**  
 VP of Public Affairs,  
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**Today's Speakers**



5

**Recent COVID-19 Updates**

***Dr. Byron Thomashow***

- COVID-19 Situation Update
- New Learnings-Remdesivir
  - New Learnings-Vaccines
- New Learnings-Smoking and COVID-19
- New Learnings Hydroxychloroquine

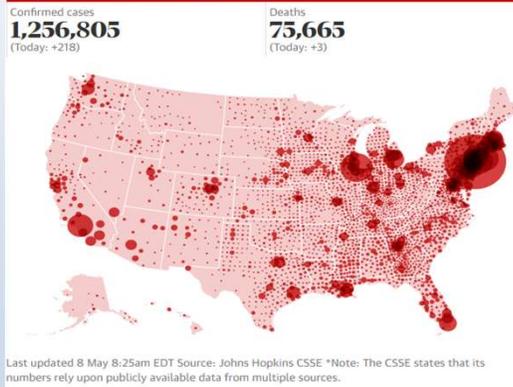


6

## COVID-19 Situation Update

COVID-19 is a new disease caused by a **novel coronavirus** that is different than the common cold, flu or pneumonia. COVID-19 emerged in China in late 2019 and is now present in multiple other countries, including the U.S.

### Confirmed cases of Covid-19 in the US



<https://www.theguardian.com/world/ng-interactive/2020/apr/16/coronavirus-map-of-the-us-latest-cases-state-by-state>

### Current Global Situation:

Total Cases: 3,875,995

Total Deaths: 270,404

7

## New Learnings: Remdesivir

- Anti viral agent
- Preliminary results indicate that patients treated with Remdesivir had a 31% faster time to recovery than those who received placebo. The median time to recovery was 11 days on Remdesivir, 15 days on placebo. This was statistically significant. The results also suggested a potential survival benefit. Mortality rate 8% with Remdesivir vs 11.6% with placebo. (<https://www.niaid.nih.gov/news-events/nih-clinical-trial-shows-remdesivir-accelerates-recovery-advanced-covid-19>)
- In addition in a manuscript just released by NEJM, a cohort of patients with severe COVID 19 who received Remdesivir by compassionate use, an improvement in Oxygen support status was observed in 68% of patients. (<https://www.nejm.org/doi/full/10.1056/NEJMoa2007016>)

8

## New Learnings: Vaccines

- Oxford University-able to move swiftly because they had developed a vaccine candidate for Middle East Respiratory Syndrome (MERS), a similar coronavirus.
- Tests last year showed vaccine appears safe and provides potential immune response for at least a year.
- In January based on these results, they began adapting technique to develop a vaccine for COVID-19 using a genetically engineered virus, an adenovirus, similar to the “common cold”
- 6 monkeys given this new vaccine did not fall ill despite subsequent heavy viral exposure

90 different vaccines for COVID-19 are under development, at least 6 have moved to human trials

(<https://www.popsci.com/story/health/covid-19-vaccine-oxford-september/>)

9

## New Learnings: Smoking and COVID-19

- WHO and CDC have suggested smoking increases risks
- Recent NEJM preprint publication-meta analysis –
  - 12 studies-9000 COVID-19 patients
  - current smokers have double risk of developing severe disease vs never smokers (18% vs 9%)
- Several smaller studies from China and France have suggested that the incidence of active smoking was less than expected in COVID-19 patients.
  - In French study 5.3% of COVID-19 patients were active daily smokers compared to the 25% overall French smokers in population.
- WHO stresses that whatever other risks smoking carries, that the act of smoking means fingers and potentially contaminated cigarettes, water pipes, vaping devices could increase possible transmission risk. (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-on-smoking-and-covid-19#>)

10

## New Learnings: Hydroxychloroquine

- Small French study with 26 patients suggested benefit in reducing viral burden. (Gautret et al Int J Antimicrob Agents 2020 March 20)
- A clinical trial testing 2 doses of Chloroquine was halted because of excessive QTc prolongation and an indication of higher mortality in high dose group. (Borba et al JAMA Netw Open 2020;3(4):e208857)
- Observational study with 1376 patients, median follow= 22.5 days & 58.9% received hydroxychloroquine.
  - Hydroxychloroquine use was not associated with significantly higher or lower risk of intubation or death.
  - The results do not support its use at present, outside randomized clinical trials. (Geleris et al NEJM May 7, 2020. DOI:10.1056/NEJMoa2012410)

11

## Making Sense of Telehealth What Has Changed?

**Jamie Sullivan**

- Telehealth terminology review
- COVID-19 related telehealth policy changes



12

### Telehealth Terminology Review

**Telemedicine:** The use of medical information via electronic methods between at least two different locations.

**Telehealth:** Like telemedicine but used more broadly to include other non-clinical services like education, counseling and more

**Virtual Visits:** Typically used to refer to a live appointment with a healthcare professional, likely using video

**Remote Patient Monitoring:** When someone uses medical equipment to monitor or perform a test and transmit the results to a healthcare facility or healthcare professional, sometimes automatically via Bluetooth or by manual recording and completion of a log, patient portal or email, i.e. pulse oximetry, glucose monitoring

**Mobile (m) Health:** medical care supported by a mobile device such as a tablet or smart phone

**Asynchronous:** communication is not live, i.e. you send a message and your healthcare professional reads/watches it and sends a message back

**Synchronous:** live communication transmitting information in both directions at the same time, i.e. video chat, chat box, phone call etc.

Adapted from <https://thesource.americantelemed.org/resources/telemedicine-glossary>

13

### COVID-19 Has Caused Telehealth Policies to Change

#### Temporary Medicare Telehealth Changes

**SITE:** You can now use telehealth at home

**DEVICE:** You can now use a mobile device, tablet OR computer

**STATUS:** You can now receive telehealth services with a new healthcare professional

**STATE:** You can now receive telehealth services from a provider in another state (in most cases)

**PROVIDERS:** You can now receive telehealth services from any provider previously eligible to bill Medicare

**SERVICES:** You can now receive a broader list of services by telehealth, including, in some cases, education and counseling



14

## Making Sense of Telehealth How to Prepare & Make the Most of Your Visit

***Dr. Jill Ohar***

- When should telehealth be utilized
- What vitals would be useful to provide before or during a telehealth visit
- What should I bring up during a telehealth visit
- How can I effectively communicate with my doctor that something is wrong via telehealth
- What should I do to prepare



15

## When Should Telehealth Be Utilized?

- Anytime
- All the time
- Benefits
  - Convenience for patient: travel cost, physical burden, schedule disruption
  - Convenience for physician: efficiency, better sense of schedule, less distractions

16

### **What Vitals Would be Useful to Provide Before or During a Telehealth Visit?**

- Not everyone has the resources to purchase vital sign monitoring equipment
- Many home health companies &/or the VAH can provide this equipment for free or a small charge (you may need a prescription)
- Rest and exercise O2 saturation
- BP, pulse, respiratory rate – especially changes from baseline
- Weight (especially any changes – anticipated or otherwise)

17

### **What Should I Bring Up During a Telehealth Visit?**

- New patient visit
  - Dates and locations of previous testing (PFTs-lung function data, CT, hospitalizations)
  - Smoking and exposure history (older exposures can be more important, biomass fuels)
  - Family history, past medical history (asthma, COPD, TB, frequent respiratory tract infections, PNA)
  - Birth weight/gestational age
  - Get a phone number to call for questions or concerns

18

## What Should I Bring Up During a Telehealth Visit?

- Return patient visit
  - Changes since last visit in: cough, mucus (amount, color, viscosity), shortness of breath (quantified by activity such as stairs, distance walked on flat surface etc), sleep patterns or position
  - New therapies: pulmonary and non-pulmonary
  - new devices and your understanding of how to use them (be prepared to demonstrate inhaler technique)
  - Sense of efficacy of therapy
  - Get a phone number to call for questions or concerns

19

## How Can I Effectively Communicate That Something is Wrong During a Telehealth Visit?

- Quantify it specifically:
  - What new symptom? Cough, mucus, shortness of breath
  - What new sign? Ankle swelling, wheezing, weight change, heart racing or erratic heartbeat, cyanosis
  - How is it different?
  - Triggers ? What provokes or lessens it
  - How long has it been this way?
- Be concise – do unto others as you would have them do unto you

20

## What Should I do to Prepare?

- Write it down
  - everything already mentioned
  - All new plans (change in meds, tests ordered, procedures, return appointments)
- Have all medications at your elbow
- Have a family member or friend to assist with technology, note taking and to keep you honest
- Test drive your equipment!!!!

21

## A Patient's Perspective on Telehealth *Susanne Howell*

- Have you been using telehealth visits before the COVID-19 situation?
- What kinds of telehealth visits have you had recently? (PCP, Pulmonologist, tele-doc)
- How were these visits similar or different?
- Did you feel prepared for what the visit would be like? Do you think you could have benefited from some helpful hints of tips to prepare for your telehealth visit?
- Now that you have had a telehealth experience, do you feel that you would be more likely to use a telehealth service in the future?



22

## Virtual Exercise Programs for Pulmonary Patients

**Connie Paladenech, RRT, RCP, FAARC, FAACVPR**

- Review of terminology
- How do I get started if I haven't been doing a formal program
- How do I know when I'm doing too much
- How to facilitate interaction and educational components
- Wake Forest Pulmonary Rehabilitation Exercise Video
- Where do I find resources



23

## Options for Home Pulmonary Rehabilitation

- Traditional
- Virtual
  - Video chat with enhanced security
  - Skype
- Videos
- WebEx presentations
- Phone
- Hybrid programs
- Self-directed



24

## Benefits of Regular Exercise

- Improve ability to do activities needed for everyday tasks
- Reduce breathlessness
- Improve arm, body and leg muscle strength
- Clear mucus (or sputum) from chest
- Improve balance
- Improve mood and make you feel more in control
- Make you more independent
- Assist in weight control
- Improve bone density
- Reduce the need for hospital admission

25

## How do I get started if I haven't been doing a formal program?

*Exercising with a lung condition can be daunting; even scary. But it's crucial for managing your lung condition, and with the right support, you can include regular exercise into your daily routine, and feel better for it.*

### Before You Begin

- Is it safe for you to begin an exercise program?
- Will I need to use supplemental oxygen during exercise?

### Exercise Guidelines

- Start slow
- Know your limits
- Stop and rest if you feel tired or start to get short of breath
- Exhale during the hardest part of an activity
- Find exercises that you like to do
- Ask a family member or friend to exercise with you
- Learn to pace your activities
- Wear comfortable clothing
- Ask for help when you need it

26

## Pursed-Lip Breathing

Chronic Obstructive Pulmonary Disease (COPD), and other lung diseases can cause airways to collapse when you breathe out (exhale), trapping stale air. This leaves less room in your lungs for fresh air to enter. When this happens you are likely to feel short of breath.

Pursed-lip breathing keeps airways open longer during exhalation. This helps release trapped air from your lungs and allow fresh air to come in. Practice pursed-lip breathing while you are resting so you can use this technique when you are feeling short of breath.

1. Breathe in or inhale through your nose at a normal rate and depth. Feel your lungs fill with air.
2. Purse your lips together as if you going to whistle or play a flute.
3. Breathe out or exhale slowly and gently through your mouth, keeping your lips pursed. The time it takes to exhale should be 2 to 3 times longer than the time you inhale. Do not force air out.



Adjust your breathing rhythm and the amount you purse your lips to increase your comfort.

Use this technique during exercise or activities that cause you to be short of breath. However, this technique also may be used at anytime.

**Additional instruction and video demonstration at:**  
<https://www.copdfoundation.org/Learn-More/I-am-a-Person-with-COPD/Breathing-Exercises-for-COPD.aspx>

27

## How Do I know When I'm Doing Too Much?





**Oxygen Saturation**

Aim to keep oxygen saturation 90% or higher

YES: Safe to Exercise	NO: Not Safe to Exercise
I feel tired	I feel nauseated
I feel shaky	I am experiencing leg pain that I cannot explain
I have a headache	I am experiencing chest pain
I am coming down from a steroid burst	I am out of oxygen
I am having a bad day	I have a fever
I am too busy	
I am bored and feeling lazy	

Adapted from COPD Big Fat Reference Guide on COPD, Ver 2.0

28

## Options for Facilitating Interaction and Educational Components of Pulmonary Rehabilitation

- Phone Calls
- Video chat with enhanced security
- WebEx presentations

29

## Wake Forest Baptist Exercise Videos

[www.youtube.com/channel/UCqfQQTJvYyup6NxXqObud4Q/videos](http://www.youtube.com/channel/UCqfQQTJvYyup6NxXqObud4Q/videos)

The screenshot shows a YouTube channel page for 'Wake Forest Baptist Health Cardiac & Pulmonary' with 14 subscribers. The page features a navigation bar with 'HOME', 'VIDEOS', 'PLAYLISTS', 'CHANNELS', and 'ABOUT'. Below the navigation bar, there are tabs for 'Uploads' and 'PLAY ALL'. The main content area displays a grid of 24 video thumbnails, each with a title, duration, and view count. The videos are organized into three rows. The first row contains six videos, all titled 'Bill's Pulmonary Exercise video #12' through '#17'. The second row contains six videos, all titled 'Bill's Pulmonary Exercise video #8' through '#13'. The third row contains six videos, including 'Jamaica's cardiac exercise video', 'Lydia's seated stretching video', 'Makalina's Pulmonary Exercise Video', 'Caroline's cardiac exercise video', 'Jamaica's Pulmonary Exercise Video - seated', and 'Demetrius's Pulmonary exercise video'. The fourth row contains six videos, including 'Isaac's Pulmonary exercise video', 'Maurice's Pulmonary exercise video', 'Dimitri's Pulmonary Exercise Video', 'Wake Forest Pulmonary Bands and Weights 1', and 'Connor's Cardiac exercise video'.

30

## Additional Free Resources

- **Toronto Western Hospital Home Pulmonary Rehab Exercise Program**  
<https://www.youtube.com/Watch?v=nwxy9FLBMjk>
- **Living Better with COPD CHUS**  
<https://www.youtube.com/watch?v=jEC7baXw4TM>
- **Canadian Pulmonary Rehabilitation Program**  
<https://www.livingwellwithcopd.com>

31

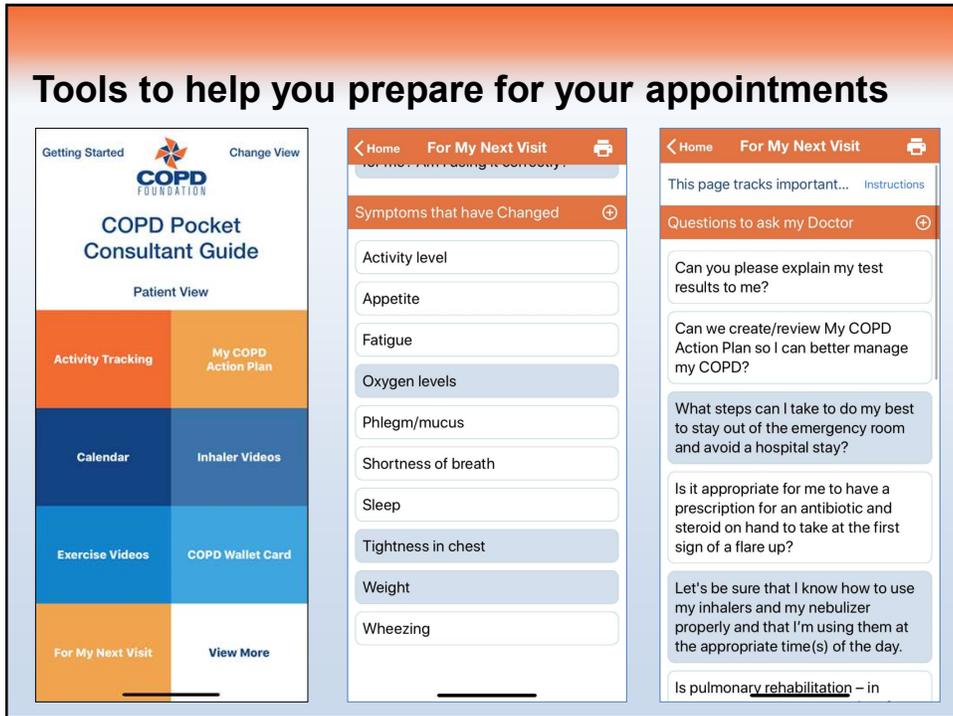
COPD Pocket Consultant Guide Tools

***Dr. Byron Thomashow***



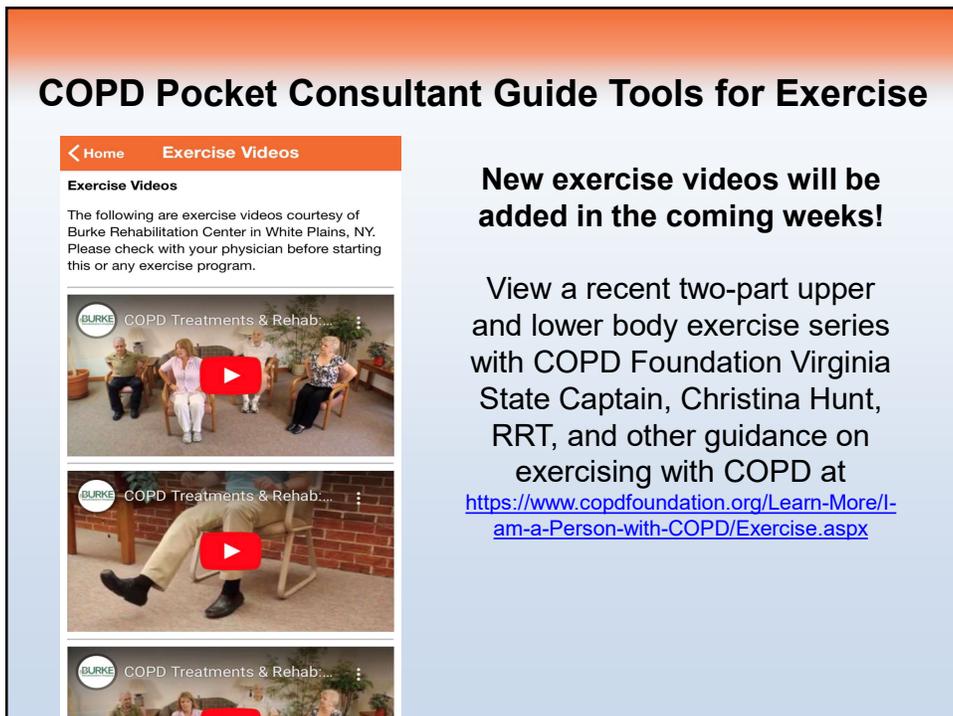
32

## Tools to help you prepare for your appointments



33

## COPD Pocket Consultant Guide Tools for Exercise



34

## Share Your Experiences

We need to hear from you! Please share your experiences during the COVID-19 pandemic by completing this short survey. Your responses help inform future research and the types of resources and programs that are developed for the COPD community.

Complete the anonymous survey at <https://bit.ly/2W9kDOC>.



35

Visit us at [www.COPDFoundation.org](http://www.COPDFoundation.org)

- 🔗 Ask and answer questions from peers on COPD360social
- 🔗 Check-in and share how you are coping
- 🔗 Read updates on our COPD Digest Blog
- 🔗 Tune in for future webinars and Facebook Live chats



36

## Other Resources for COVID-19 Information

**1. The Centers for Disease Control and Prevention:**

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>

NEW-Added guidance for older adults: [https://www.cdc.gov/aging/covid19-guidance.html?deliveryName=USCDC\\_944\\_DM27862](https://www.cdc.gov/aging/covid19-guidance.html?deliveryName=USCDC_944_DM27862)

**2. The World Health Organization:**

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>

**3. Johns Hopkins University:**

<https://coronavirus.jhu.edu/>

**4. Public Health On Call Podcast:**

<https://www.jhsph.edu/podcasts/public-health-on-call/>

**5. COPD Foundation-COVID-19 Page:**

<https://www.copdfoundation.org/Learn-More/I-am-a-Person-with-COPD/Coronavirus-Information.aspx>

**6. COPD Foundation-COVID-19 Blog Updates:**

<https://www.copdfoundation.org/COPD360social/Community/COPD-Digest/Article/1553/A-Coronavirus-Update-for-the-COPD-Community.aspx>

37

## Question and Answer Period

***Please submit your questions in the control panel. In the likely event that we are unable to answer all the questions, we will work to post answers to questions on our website next week.***



38

It is our great pleasure and privilege to provide these resources to you  
– all of which are made possible by our community's generosity.

If you would like to make a gift to support this vital work, please visit our website  
at [www.copdfoundation.org/donate](http://www.copdfoundation.org/donate) or **click on the 'Donate Now' button:**



We are sincerely grateful for your support and generosity!

Be safe and be well,

A handwritten signature in cursive script that reads "Corinne".

Corinne Costa Davis  
Chief Executive Officer