

COVID Talks for DOCS #7

Managing chronic symptoms of COVID-19

March 31, 2021

Zoom technical support
(+1.888.799.9666 ext 2)

Dr. Chester Ho

Dr. Brian Cornelson

Dr. Janet Craig
(Moderator)



Live Recording

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Land Acknowledgment

We would like to recognize that we are webcasting from, and to, many different parts of Alberta today. The province of Alberta is located on Treaty 6, Treaty 7 and Treaty 8 territory and is a traditional meeting ground and home for many Indigenous Peoples.

Disclosure of Financial Support

This program has not received any financial or in-kind support.

Presenter Disclosure

- Chester Ho: AHS; University of Alberta
- Brian Cornelson: Medical Director, East Calgary Family Care Clinic; Clinical Professor, Dept. of Family Medicine, University of Calgary
- Janet Craig: AMA - physician contractor, PCN Honoraria, UofA teaching, Custom Learning Solutions, ACFP.

Session Overview

This webinar will respond to common and emerging questions from primary care and other generalist physicians (i.e., pediatricians, internal medicine) about potential long term health effects of a COVID-19 infection. Participants will have time to ask questions related to managing patients and practice needs during COVID-19, including:

- What are patients reporting as common lingering or chronic symptoms of COVID-19
- How to manage patients suffering from these symptoms & when to refer

Learning Objectives

At the end of this session participants will be able to:

- List the type, and impact of long-term symptoms following a COVID-19 infection
- Describe approaches for managing patients with long-term symptoms of COVID-19

Identification and management of post COVID symptoms

Dr. Brian Cornelson



Role of Primary Care

- Post-COVID-19 care is:
 - Community-based
 - Comprehensive
 - Coordinated
 - Continuing
 - Confidence-dependent
- Patient Medical Home fills the bill!

Definitions of Terms

- **Ongoing symptomatic COVID-19:** Signs and symptoms of COVID-19 from 4 to 12 weeks.
- **Post COVID-19 Syndrome:** Signs and symptoms that develop during, or after, an infection
 - consistent with COVID-19; continue for more than 12 weeks; and are not explained by an alternative diagnosis.
- **Long COVID:** Signs and symptoms that continue or develop after acute COVID-19. This includes both ongoing symptomatic COVID-19 and post-COVID-19 syndrome (defined above).

Source: <https://www.nice.org.uk/guidance/ng188/resources/covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-66142028400325>

Other Terms

- **Long hauler:** disparaging, discouraging, demoralizing, defeatist
- **Post-acute sequelae of SARS-Co-V2 infection/COVID-19 (PASC):** fancy scientific term struggling valiantly to gain traction

Worldwide Stats

- **25%** have symptoms beyond acute infection (4-5 weeks)
- **10%** go on to debilitating symptoms 12 weeks out
 - May last months

Source: AHS - How to Support Your Recovery and Rehabilitation after COVID-19

Alberta Stats (to date)

- > **140,000** cases
- > **2000** deaths
- > **9000** hospitalizations
 - > **1200** ICU
- **62.6%** of post-COVID-19 patients have visited ER
- **6.6%** readmitted to hospital

Source: <https://www.alberta.ca/covid-19-alberta-data.aspx>

Pathophysiology

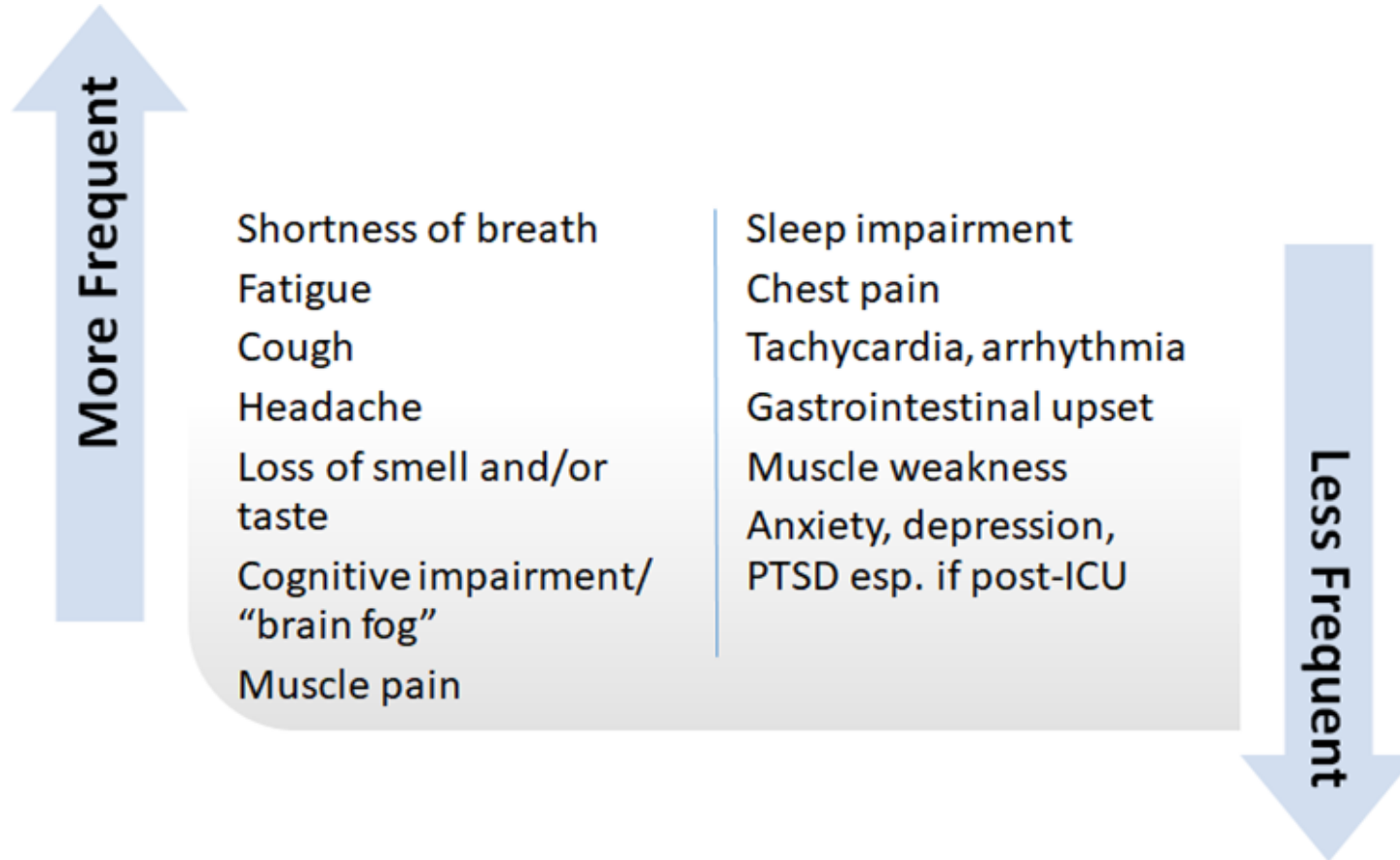
- Cellular damage
 - Direct
 - Endothelial damage
 - Microvascular injury
- Robust immune response
 - Inflammatory cytokine damage
- Pro-coagulant state
- Maladaptation of ACE2 pathway
- Sequelae of post-critical illness especially ICU

Source: Post-acute COVID-19 syndrome

Identification

- May not have had a positive COVID-19 test
 - Mild illness
 - Not readily accessible
 - False negative
- Antibody testing not reliable

Post-COVID Symptoms



Source: <https://www.nice.org.uk/guidance/ng188/resources/covid19-rapid-guideline-managing-the-longterm-effects-of-covid19-pdf-66142028400325>

Similarities

- Chronic fatigue syndrome
- Fibromyalgia
- Myalgic encephalomyelitis
- Post-viral syndrome
- Lyme disease

Risk Factors for long COVID

Severity of acute illness

Pre-existing respiratory disease

Obesity

Older age

Female

Black, Asian & minority ethnic

Association with other acute COVID-19 risk factors not clear

May have none!

Source: Post-acute COVID-19 syndrome

Severity of long COVID

- May have no relationship to initial illness
 - May have had minimal or no symptoms
- Persisting
- More/less severe
- Relapsing/remitting
- Co-incident or unique
- “Just when I thought I was over it . . .”

Confounders

- Previously undiagnosed conditions (e.g. glucose intolerance)
- Pre-existing conditions worsened (e.g. COPD)
- Coincident new conditions not related to COVID-19 (e.g. fatigue due to anemia due to colon cancer)

Triage assessment and initial management

- Post-COVID-19 Functional Scale
- Primary Care Pathway for Post COVID-19 Rehabilitation

Investigations

- No general recommendations
- Expert recommendations vary widely
 - UBC lots
 - UA minimal
- Use clinical judgement
 - Ruling out other conditions
 - Tracking trends
- Normal results can belie symptoms
 - Normal CXR with significant SOB
 - No complaints with significant hypoxia (“silent hypoxemia”)

Approach

- Accept
 - It's not all in their head
- Listen, bear witness
- Admit medicine's—and your—limitations

Advice

Positive

- Most people slowly improve over time
- Maintain optimism, positive outlook

Realistic

- Will take time, not able to predict how long
- Symptoms may come and go, don't be discouraged by relapses
- May never return to pre-COVID state

Pacing

- Pushing ahead → further behind

Management of post-COVID Symptoms

- Diet
 - Healthy
- Physio
 - Pacing
 - Rehab Advice Line
- Supplements
 - No good evidence ≠ evidence of no benefit

Stress exacerbates

- Physical (exercise)
- Cognitive (work, problem solving)
- Emotional (stress, social, mood disorders)
- “Pushing through”, “sucking it up” counter-productive
 - May reduce the threshold for relapses
- Pacing and patience are key

Referrals

Specialty post-COVID-19 clinics

- Edmonton:
 - [Post-COVID pulmonary clinic for family doctors](#)
 - [Edmonton North PCN COVID-19 Recovery Clinic](#)
- Calgary
 - [Peter Lougheed Centre](#)
 - [Rockyview General Hospital](#)

Zonal Pathways

North Zone

- COVID-19 pediatric pathway

Edmonton Zone

- Edmonton North PCN COVID-19 Recovery Clinic
- Post-COVID Pulmonary Clinic for Family Doctors
- COVID-19 pathways (adult and pediatric)

South Zone

● Contact local PCN for more info



Central Zone

- COVID-19 adult pathway
- COVID-19 pediatric pathways

Calgary Zone

- COVID-19 adult pathway
- COVID-19 pediatric pathways
- COVID-19 Variants of Concern pathway
- Post-COVID-19 Respiratory Clinic
- Specialty access for primary care

*Pathways developed by each zone

Other post-COVID-19 rehab services

- Private clinics
 - Caveat emptor
- Workers Compensation Board
 - For workplace-related infections

Further resources for providers

- COVID-19 rapid guideline: managing the long-term effects of COVID-19

<https://www.nice.org.uk/guidance/ng188>

December 2020. NICE guideline [NG188]. UK.

- Practice Pointer: Management of post-acute covid-19 in primary care

<https://www.bmj.com/content/370/bmj.m3026>

August 2020. UK.

Summary

- Long COVID characterized by being
 - Complex
 - Confusing
 - Vague
 - Variable
 - Lacking clear paths and algorithms
 - Constantly evolving

Post COVID-19 Rehabilitation Response

A System Approach

Chester Ho, Senior Medical Director, NRV SCN
March 31, 2021



Alberta Health
Services

Neurosciences,
Rehabilitation & Vision
Strategic Clinical Network™

Inspiring solutions.
Together.

Rehabilitation
is the next phase of the
COVID-19 response

Goal



To develop a provincial
rehabilitation framework for
COVID symptom assessment
& management across the
continuum of care



How?

- Sponsored by ECC and ELT
- Provincial Post-COVID Rehab Response Taskforce supported by 5 working groups
- Multidisciplinary representation from 5 AHS zones, Covenant Health, Primary Care, senior leadership, operations, SCNs, patient and family advisors
- Internal/External Communication



Guiding Principles

- Adopt/adapt existing COVID processes & infrastructures
e.g. Primary Care COVID Pathway; Health Link; Rehab Advice Line
 - Co-design with patient and family advisors
 - Broad engagement / consultation
 - Framework for customization by Zone operations
-

Key Deliverables

- Integrated Provincial COVID-19 Rehabilitation Response Pathways (across the care continuum)
 - Acute care and inpatient rehab
 - Post acute and continuing care
 - Primary Care and Community Rehab
 - Tools to support implementation and decision making
 - Standardized tools for:
 - Symptom screening (Post COVID-19 Symptom Checklist)
 - Determining rehab level of care (Post COVID-19 Functional Status Scale)
 - Educational resources for patients and providers
-

Post COVID-19 Functional Status Scale (PCFS)

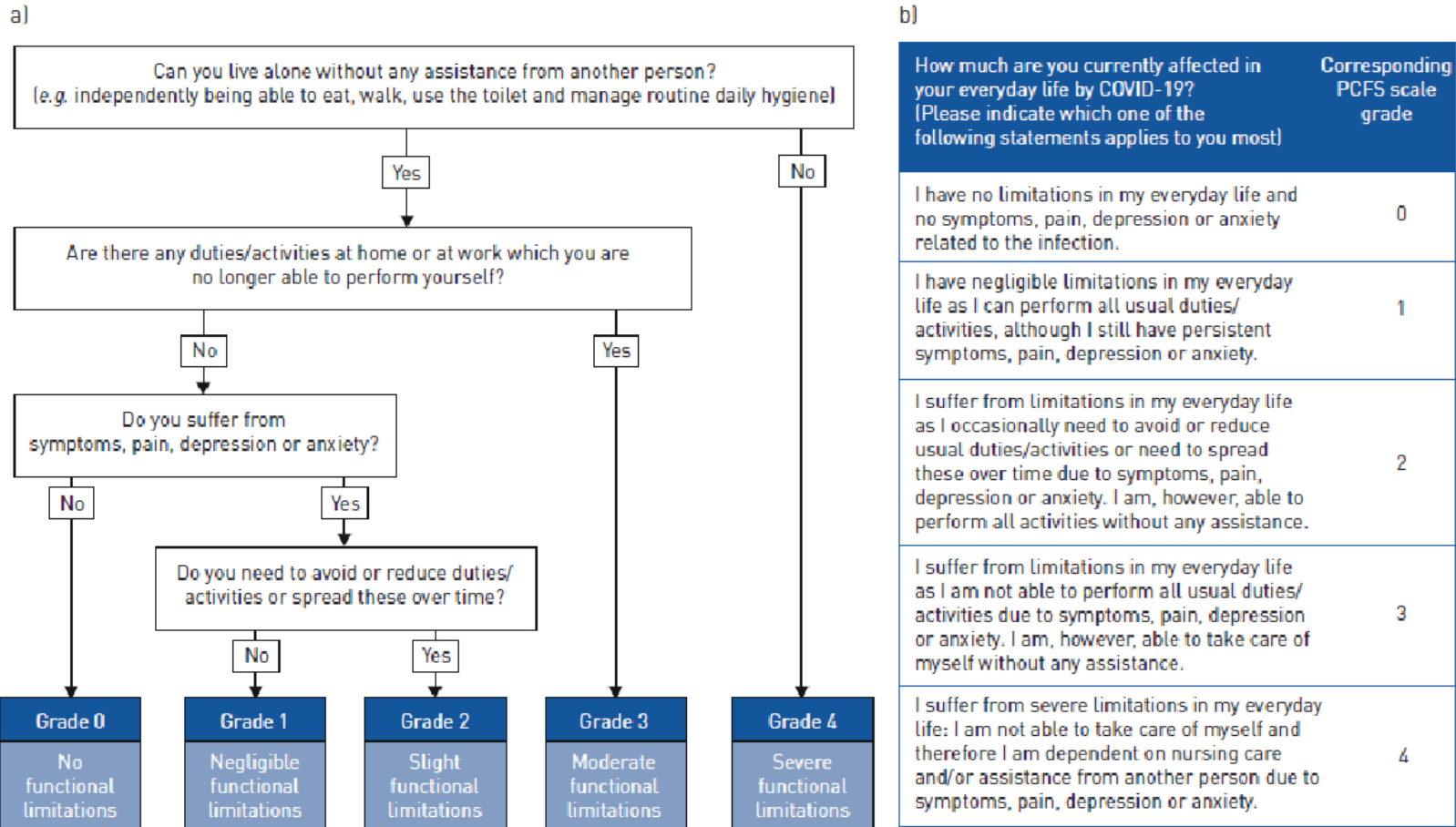


FIGURE 1 Patient self-report methods for the Post-COVID-19 Functional Status (PCFS) scale. a) Flowchart. b) Patient questionnaire. Instructions for use: 1) to assess recovery after the SARS-CoV-2 infection, this PCFS scale covers the entire range of functional limitations, including changes in lifestyle, sports and social activities; 2) assignment of a PCFS scale grade concerns the average situation of the past week (exception: when assessed at discharge, it concerns the situation of the day of discharge); 3) symptoms include (but are not limited to) dyspnoea, pain, fatigue, muscle weakness, memory loss, depression and anxiety; 4) in case two grades seem to be appropriate, always choose the highest grade with the most limitations; 5) measuring functional status before the infection is optional; 6) alternatively to this flowchart and patient questionnaire, an extensive structured interview is available. The full manual for patients and physicians or study personnel is available from <https://osf.io/qgpdv/> (free of charge).

Post COVID19 Symptom Checklist

Part 2: Post COVID Symptom Checklist

Sample Script: The next part of the survey we will be discussing any symptoms you are currently experiencing as a result of COVID-19. The symptoms are divided into categories which will help us determine how to best direct your recovery. If you have no symptoms in a category, please indicate N/A and we will move on to the next section. If you are unsure, we will ask more detailed questions. For each question, please indicate if your symptoms are worse, the same or better than before your illness.

Cardiorespiratory Symptoms? <input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> Unsure		Neurological Symptoms? <input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> Unsure	
Shortness of breath at rest? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Difficulty controlling the movement of your body? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Shortness of breath with activity? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Difficulty eating, drinking or swallowing (i.e. choking)? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Lingering cough or noisy breathing? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Difficulty controlling your Bowels? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Chest pain at rest? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Bladder? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Chest pain with activity? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Issues with concentration, thinking or memory? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Dizziness, fainting or loss of consciousness? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Difficulty hearing? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
		Difficulty seeing? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Musculoskeletal Symptoms? <input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> Unsure		Other Symptoms? <input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> Unsure	
Generalized muscle weakness? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Extreme fatigue/exhaustion? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Muscle or joint pain? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Worse after physical or mental activity?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Difficulty walking? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Have you lost your taste or sense of smell?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Difficulty doing own washing & dressing? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Have you been eating less than usual for more than 1 week?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Difficulty doing your usual activities (i.e. leisure or work)? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Have you lost or gained a significant amount of weight without trying?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Lost <input type="checkbox"/> Gained
Mood Related Symptoms? <input type="checkbox"/> Yes <input type="checkbox"/> N/A <input type="checkbox"/> Unsure		Issues with pain or discomfort? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Experiencing anxiety? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Difficulty sleeping? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better
Experiencing depression? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better	Headaches? <input type="checkbox"/> N/A	<input type="checkbox"/> Worse <input type="checkbox"/> Same <input type="checkbox"/> Better

* Upon completion, providers should ask clients about additional symptoms that may have been missed.

PCFS Scoring

Rehabilitation and recovery needs should be determined using a combination of the PCFS scale and the symptom checklist.

ANY clinician (including physicians) can administer these tools

PCFS Grade 0 to 1 (mild functional impairment):

- Consider **universal** rehabilitation interventions (self-management resources)

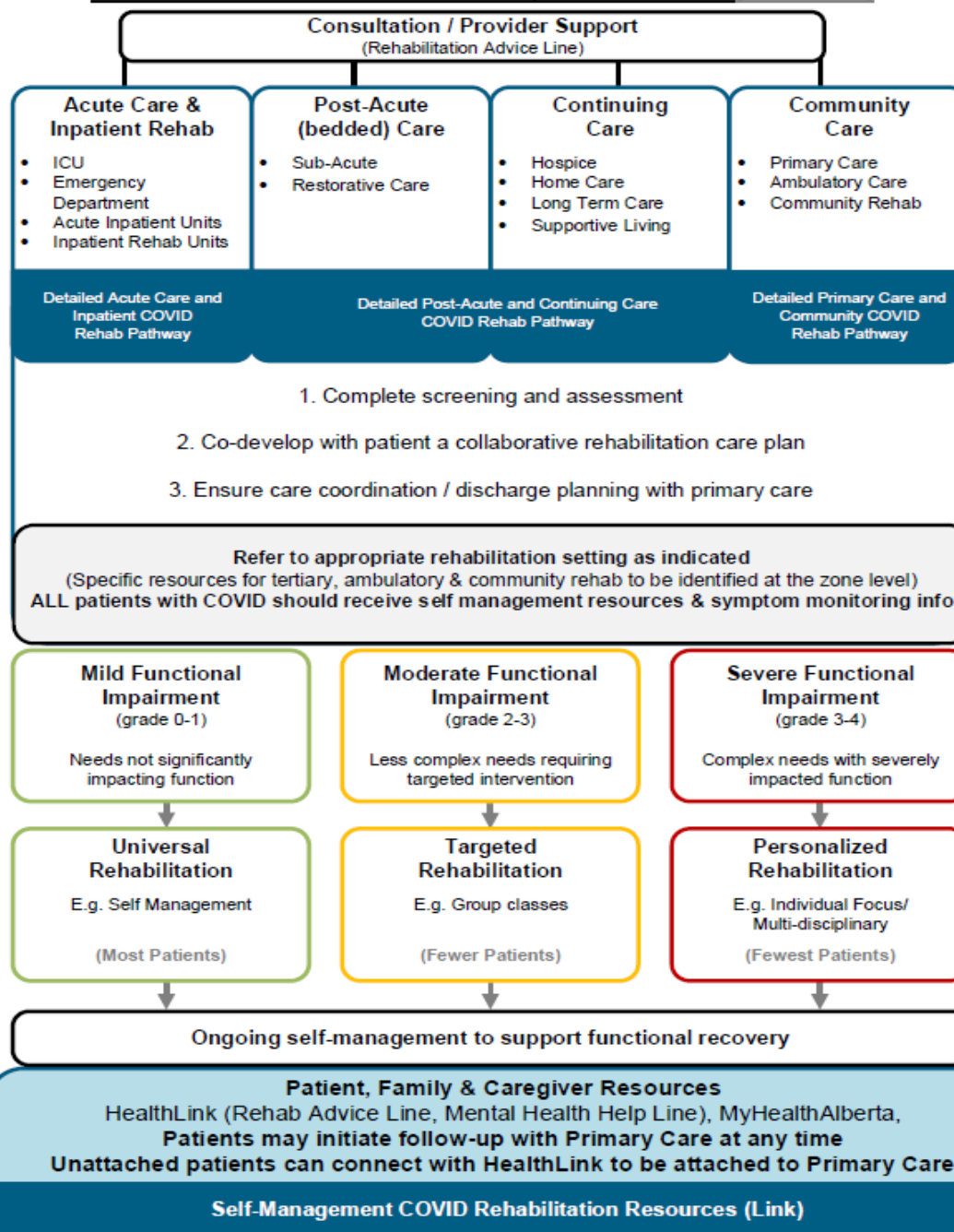
PCFS Grade 2 to 3 (moderate functional impairment):

- Consider **targeted** rehabilitation interventions

PCFS Grade 3 or 4 (severe functional impairment):

- Consider **personalized** rehabilitation interventions
-

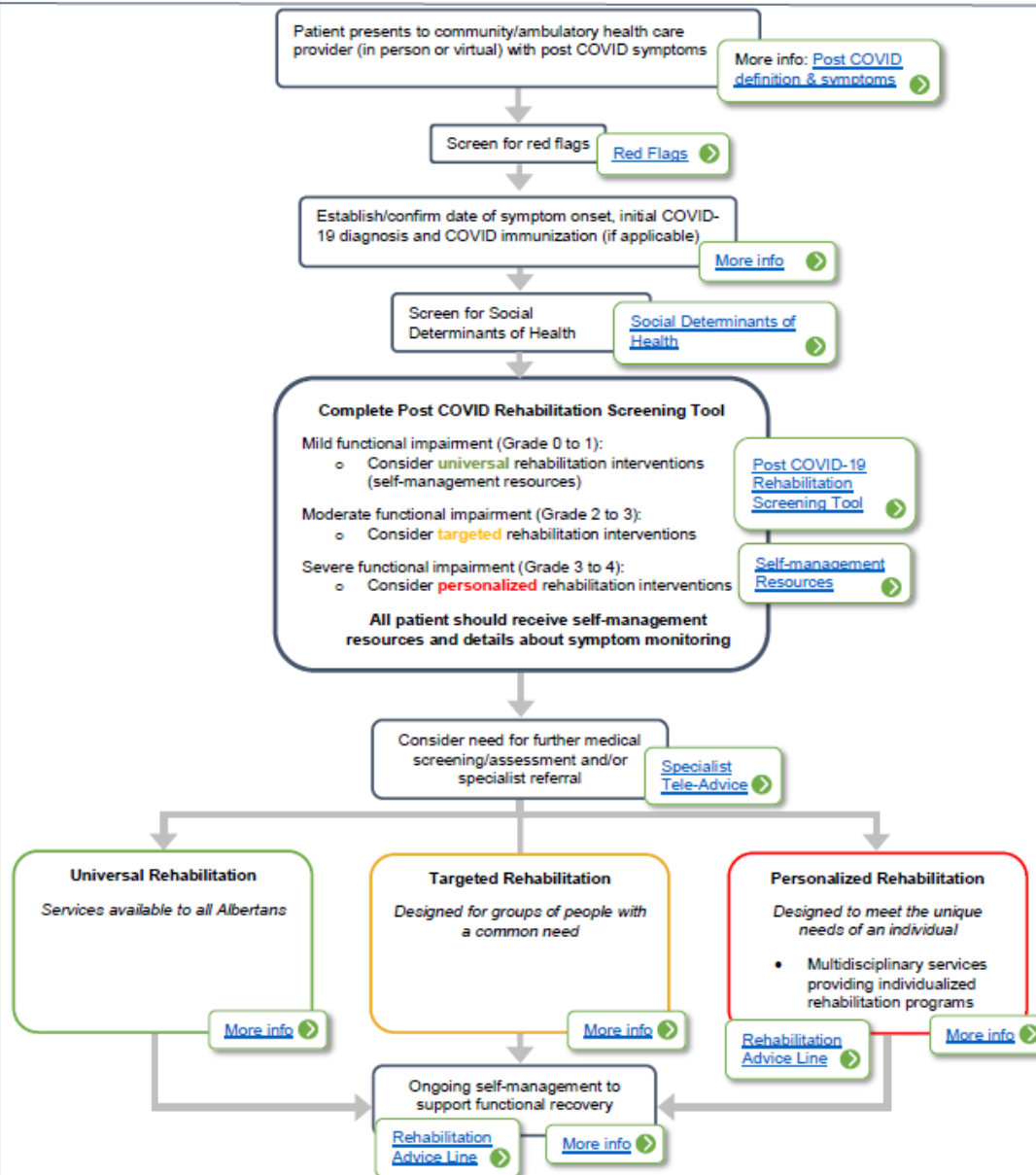
Provincial COVID Rehabilitation Response Overview (for Adults)



4. Primary Care Pathway for Post COVID Rehabilitation _____ Zone

Quick Links:

[Expanded Details](#) >



Patient and Provider COVID-19 Resources

Patient resources:

- **Rehabilitation Advice Line 1-833-379-0563**
- Self-management resource for Albertans developed by taskforce working group
“How to Support Your Recovery & Rehabilitation After COVID-19”
 - *Currently posted on internal AHS COVID-19 site [here](#)*
 - *Next step – being built onto MyHealth Alberta site*
- **List of patient rehabilitation resources**
 - *Currently an appendix to taskforce final report*
 - *Next step – post on external [AHS COVID-19 Information for Albertans](#) site under new section (under development) called “Getting Healthy After COVID-19”*

Provider resources:

- **Rehabilitation Advice Line 1-833-379-0563**
 - **List of patient rehabilitation resources**
 - *Currently an appendix to taskforce final report*
 - *Next step – post on external [AHS COVID-19 Information for Albertans](#) site under new section (under development) called “Getting Healthy After COVID-19”*
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Next Steps

- Internal and external communication through AHS, Covenant Health, Primary Care and public awareness campaign
 - Piloting tools and pathways in Edmonton Zone
 - Feedback and learnings to inform modifications to tools / pathways / toolkits
 - ECC Post COVID Taskforce – support customization and implementation at the Zone level
-

Questions and Answers



Upcoming Webinars

Date	Host	Topic	Registration Link / For More Info
TBD	AMA	TBD	https://www.albertadoctors.org/services/media-publications/webinars-online-learning/past-ama-webinars-covid-19
April 12	Pfizer Speakers: Dr. Cora Constantinescu Dr. Angel Chu	Overcoming Vaccine Hesitancy - Protecting Minorities and Marginalized Groups During Covid 19.	https://us02web.zoom.us/webinar/register/WN_323i9j-vTFWEGgUk58Helw
April 6	Calgary Zone	TBD	https://www.eventbrite.ca/e/calgary-zone-mental-health-covid-19-webinar-series-tickets-143335886495
May 12	University of Calgary - COVID Corner	TBD	https://cumming.ucalgary.ca/cme/COVID-19-Resources/COVID-Corner

Evaluation Link & CME Credits

Evaluation Link:

<https://interceptum.com/s/en/R003312021>



CME Credits:

- Specialist physicians can only claim their credits *once* at the end of the webinar series
- Family physicians can claim their credits individually after each webinar using the following session IDs. Please note that it may take two weeks or more to show in your member portal.

Date of webinar	Session ID
January 20/27 2021	192413-015
March 3, 2021	192413-018
March 17, 2021	192413-019
March 31, 2021	192413-020