

Accredited by UBC CPD



CONTINUING PROFESSIONAL DEVELOPMENT
FACULTY OF MEDICINE



BC ECHO for
Post-COVID-19
Recovery

Post-COVID19 perspectives for primary care

Renée Janssen MD FRCPC
General Internal Medicine

No disclosures / Conflicts of interest



Complex Chronic Diseases Program (CCDP)

We treat and manage Myalgic Encephalomyelitis/Chronic Fatigue Syndrome, Fibromyalgia, and symptoms attributed to Chronic Lyme Disease.



HEALTH SERVICES

- Heart/Lung
- Kidney/Renal
- HIV/AIDS
- Urban Health
- Mental Health
- Seniors' Services
- Surgical Services
- Hospital + Residential Services
- Outpatient Programs + Clinics
- Health Care Support Services
- Additional Services

POST-COVID-19 RECOVERY CLINIC

Providence Health Care, in collaboration with Vancouver Coastal Health, Fraser Health Authority and others, has developed a new clinic at St. Paul's Hospital to provide specialized care and follow-up for people who were diagnosed with COVID-19 and are now in recovery. This clinic connects patients with a network of specialists providing care to people diagnosed with COVID-19 and who are now in recovery.

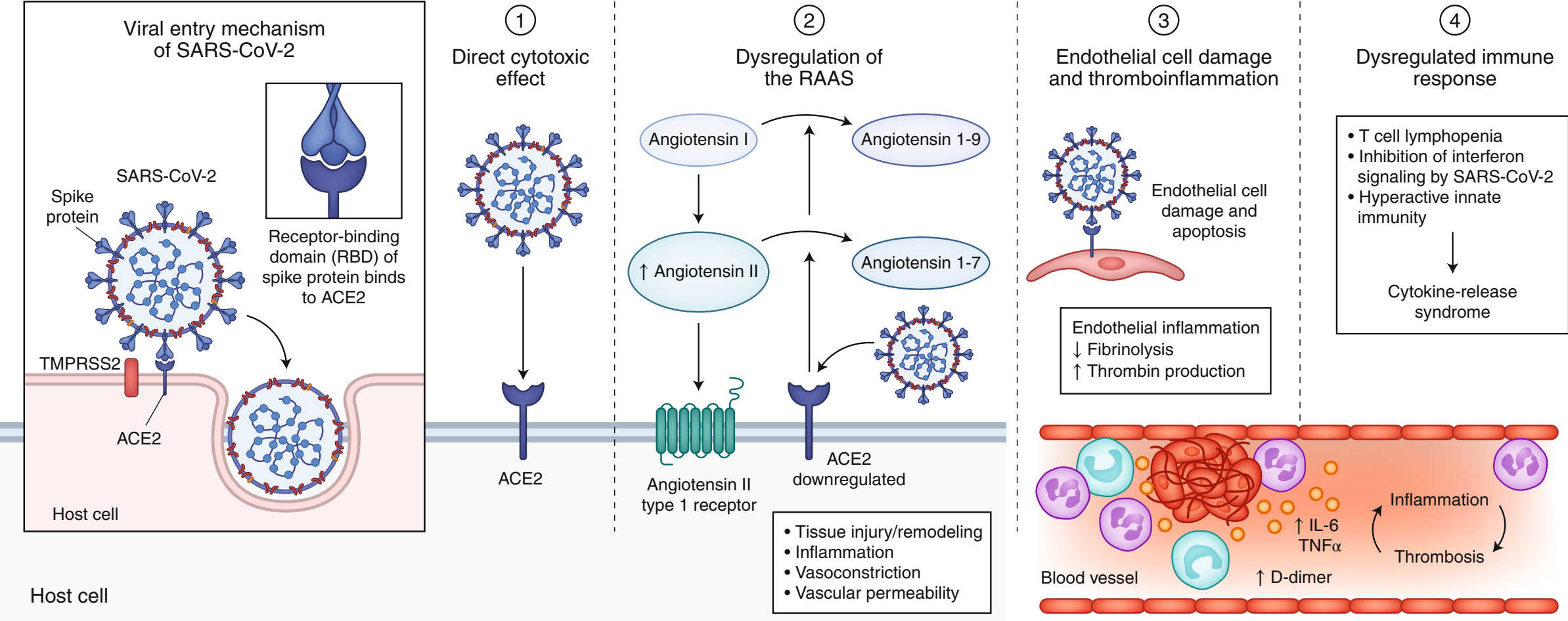
The purpose of the clinic is to provide access to care, services, and education for people who have had COVID-19. We provide care through a novel mix of on-site and telehealth-enabled clinics that allow for multidisciplinary engagement with patients, their GP's, our allied health team, and our network of subspecialists.

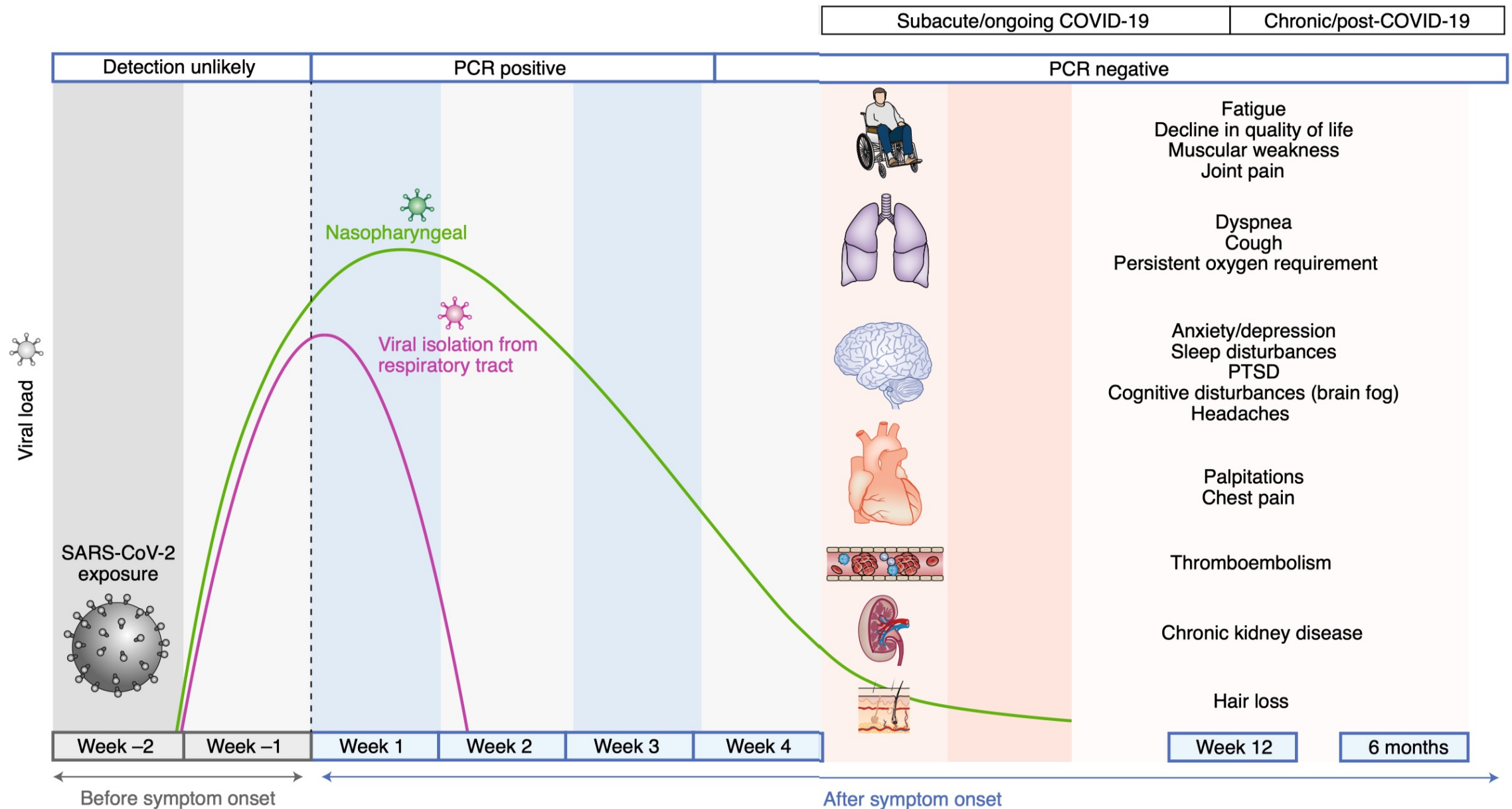
Objectives

- Understand an approach to evaluation of patients with prolonged symptoms following SARS CoV2 infection
- Identify who requires additional evaluation
- Discuss approach to investigation of focal symptoms
- Identify patients who require referral to subspecialists
- (Treatment of post-COVID sequelae will not be discussed)

- Discussion of cases – mine and yours

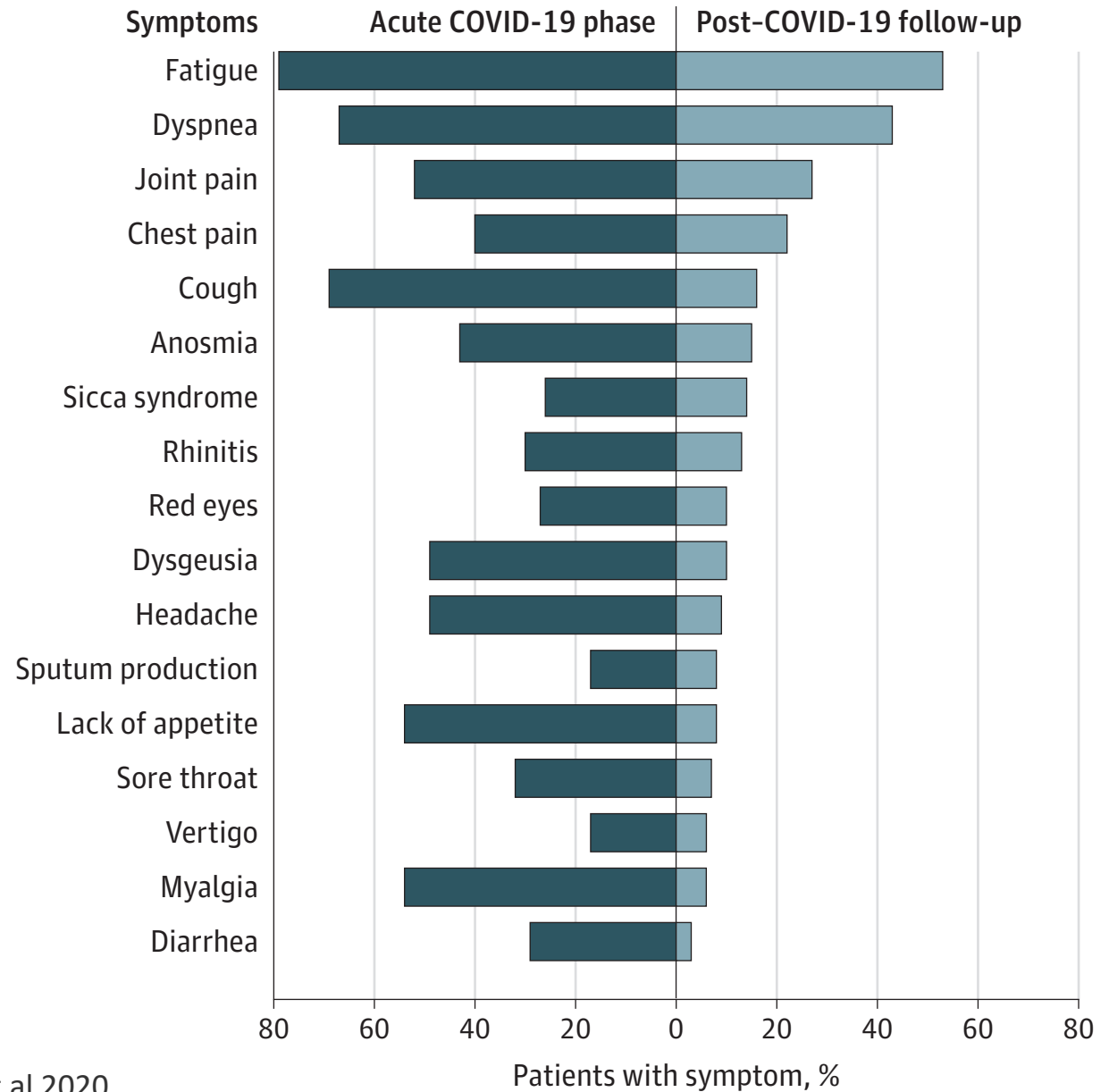
Pathophysiology of SARS-CoV-2





Symptom Reports

Figure. COVID-19-Related Symptoms



10% of people infected with SARS-CoV-2 will develop long COVID, with persistent symptoms after 4 weeks

COVID19 – British Columbia numbers

Cases
148,000

Recovered
145,000

Deaths
1,759

14,800

<https://ourworldindata.org/coronavirus-data>

What to call it?

Post acute sequelae of COVID19 (PASC) – research term

Long COVID

Long-haul COVID

Post-acute COVID syndrome

Chronic COVID

(Myalgic encephalomyelitis/chronic fatigue syndrome?)

Definitions: timeline

There is no agreed-upon definition, but here is one from the CDC



Acute COVID-19: symptoms of COVID-19, up to four weeks following the onset of illness



Post-COVID conditions: broad range of symptoms (physical and mental) that develop during or after COVID-19, continue for ≥ 4 weeks, and are not explained by an alternative diagnosis

Most common symptoms

- Fatigue
- Brain fog
- Dyspnea
- Cough
- Painful joints or muscles
- Chest pain
- Depression or anxiety
- Headache
- Fever
- Palpitations
- Dizziness on standing
- Post-exertional malaise

Who gets long COVID?

- **SEX: more common in women**
 - Eg 23% of women and 19% of men still had symptoms 5 weeks after infection
- **AGE: most common in younger to middle-aged adults**
 - E.g. prevalence was 25.6% at 5 weeks for those between 35 and 49 years old
- **SEVERE COVID:** Patients with more severe acute symptoms were more likely; **HOWEVER** also seen in a large percentage of those with mild or even asymptomatic acute cases

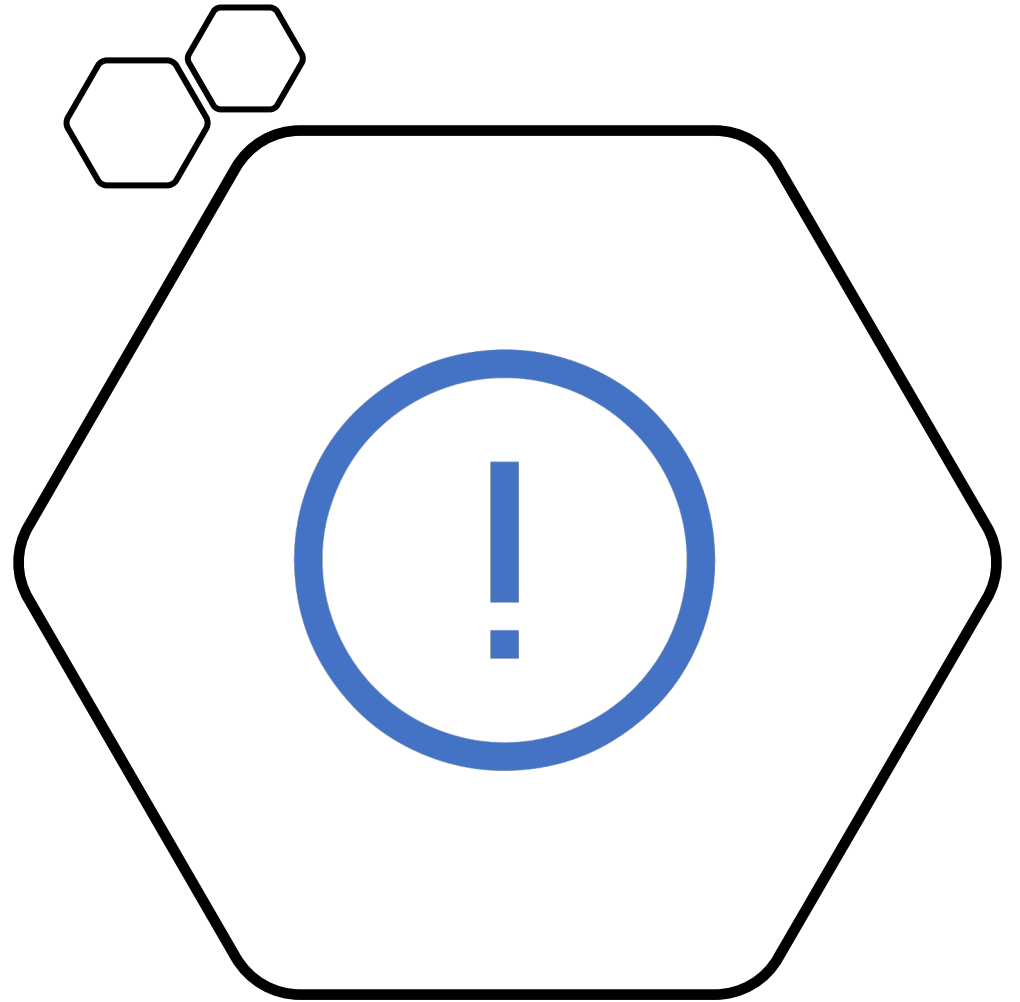
Medically unexplained symptoms

“Everything has come back negative”

“There is nothing wrong with you”

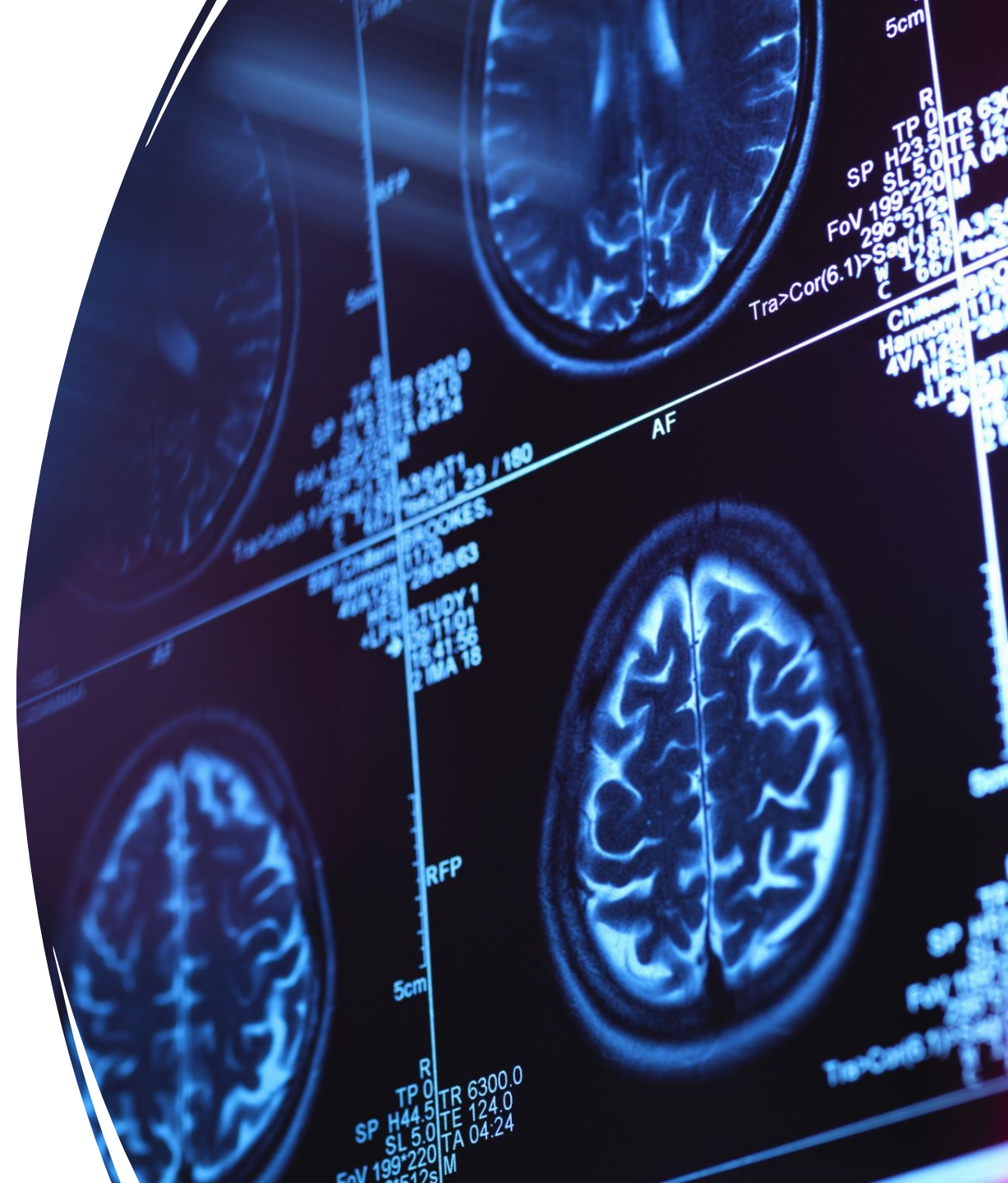
Persistent symptoms and loss of function despite normal labs, imaging, electrophysiology, and other objective measures of organ function

NOT PSYCHOSOMATIC/SOMATIFORM



Pathophysiology of long COVID

- Organ damage resulting from acute phase infection?
- Complications from a persistent hyperinflammatory state?
- Ongoing viral activity?
- Inadequate antibody response?
- Worsening of co-morbidities?
- Extrinsic factors e.g. lockdown, isolation?



How to approach long-COVID patients



Complete review
of systems,
screening for
common
symptoms



Target
investigations to
patient symptoms



Exhaustive
investigations are
not required to
rule out objective
end-organ disease



Validate patient
symptoms



Refer to
subspecialty for
red flags or
objective findings
of disease

Approach to symptoms – what we do

- **Dyspnea, cough:** PFT, CT chest, echocardiogram, 6 minute walk test
- **Palpitations:** Holter, ECG
- **Chest pain:** ECG, exercise treadmill test, CCTA
- **Orthostasis:** orthostatic vitals, screen for POTS, am cortisol
- **Mood symptoms** – refer to Psychiatry (I am GIM!), trial of e.g. SSRI

Approach to Fatigue

- Review of focal symptoms to direct investigations
- Screening labs:
 - CBC + diff
 - Lytes, urea, creatinine
 - Mg, Phos, Ca
 - Fasting blood sugar
 - CRP Liver tests
 - CK TSH Ferritin Urinalysis
 - HIV HBV HCV FIT test
- >6 months fatigue, PEM, brain fog, unrefreshing sleep ?= ME/CFS?

How to approach long-COVID patients



Complete review
of systems,
screening for
common
symptoms



Target
investigations to
patient symptoms



Exhaustive
investigations are
not required to
rule out objective
end-organ disease



Validate patient
symptoms



Refer to
subspecialty for
red flags or
objective findings
of disease

When to refer



**RAPID ACCESS TO
CONSULTATIVE EXPERTISE**

- Referral to subspecialty will depend on your access in your community, and your comfort with post-COVID patients
- NO referral: If a patient has normal investigations and symptoms are typical for long COVID, and are slowly improving
- We often refer to other specialists with objective findings of organ dysfunction (cardiac, respiratory, mental health, neurologic, dermatologic, thrombosis, voice dysfunction)
- I consider referral to the CCDP at BCWH in cases of severe fatigue, inability to work who have plateaued wrt recovery after 6-9 mo

Post-COVID19: Key points (CDC)

- The term “Post-COVID Conditions” is an **umbrella term** for the wide range of physical and mental health consequences experienced by some patients
- Objective laboratory or imaging findings should **not be used as the only measure** or assessment of a patient’s well-being
- Lack of laboratory or imaging abnormalities **does not invalidate** the existence, severity, or importance of a patient’s symptoms or conditions
- Approach treatment by **focusing on specific symptoms**
- Understanding of post-COVID conditions remains incomplete

How to approach long-COVID patients



Complete review
of systems,
screening for
common
symptoms



Target
investigations to
patient symptoms



Exhaustive
investigations are
not required to
rule out objective
end-organ disease



Validate patient
symptoms



Refer to
subspecialty for
red flags or
objective findings
of disease



Post-COVID-19 Care & Recovery

Support your understanding and management of symptoms as you recover from COVID-19.



Quick links

[Post-COVID-19 recovery clinics](#)





Questions/discussion

- rjanssen3@providencehealth.bc.ca

Accredited by UBC CPD



CONTINUING PROFESSIONAL DEVELOPMENT
FACULTY OF MEDICINE



BC ECHO for
Post-COVID-19
Recovery