

Could My Patient Have Long COVID?

Jane Rudd, MD, Essentia Health

Stephanie Grach, MD, Mayo Clinic

Jay Desai, PhD, MN Department of Health

Long COVID Guiding Council

Convened by the Minnesota Department of Health
Long COVID Program in partnership with Stratis Health.



Session Objectives:

- Describe scope and impact of long COVID in Minnesota and United States
- Identify key features in the clinical presentation of common COVID phenotypes
- Discuss options available for symptom management and support for patients presenting with symptoms consistent with long COVID

Impacts of the virus that causes COVID-19

- Signs, symptoms, and continue or develop after a SARS-CoV-2 infection.
- Present 4+ weeks after infection
- May be multisystemic
- May be relapsing-remitting
- Progression may worsen over time, be severe, and last years

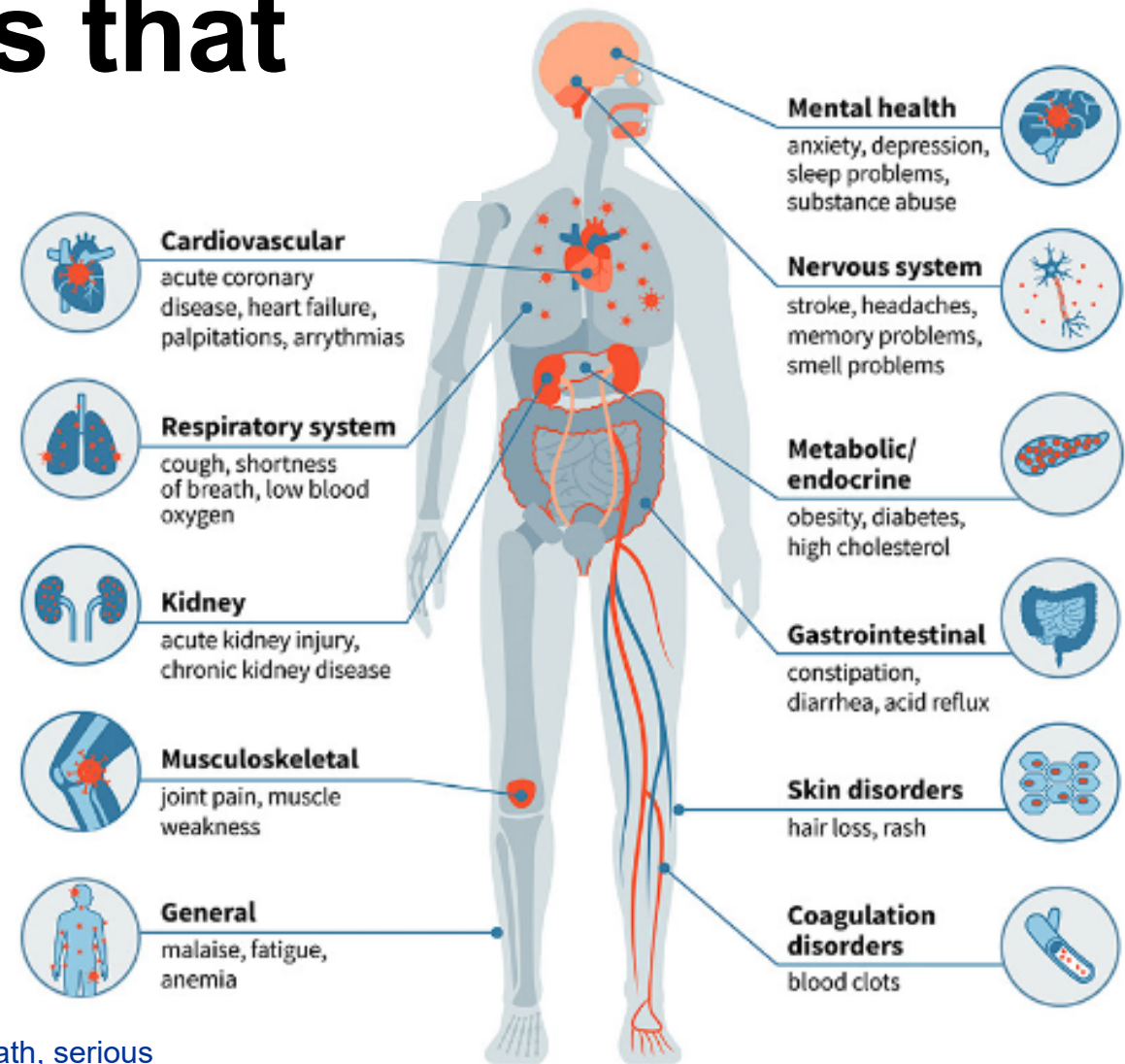
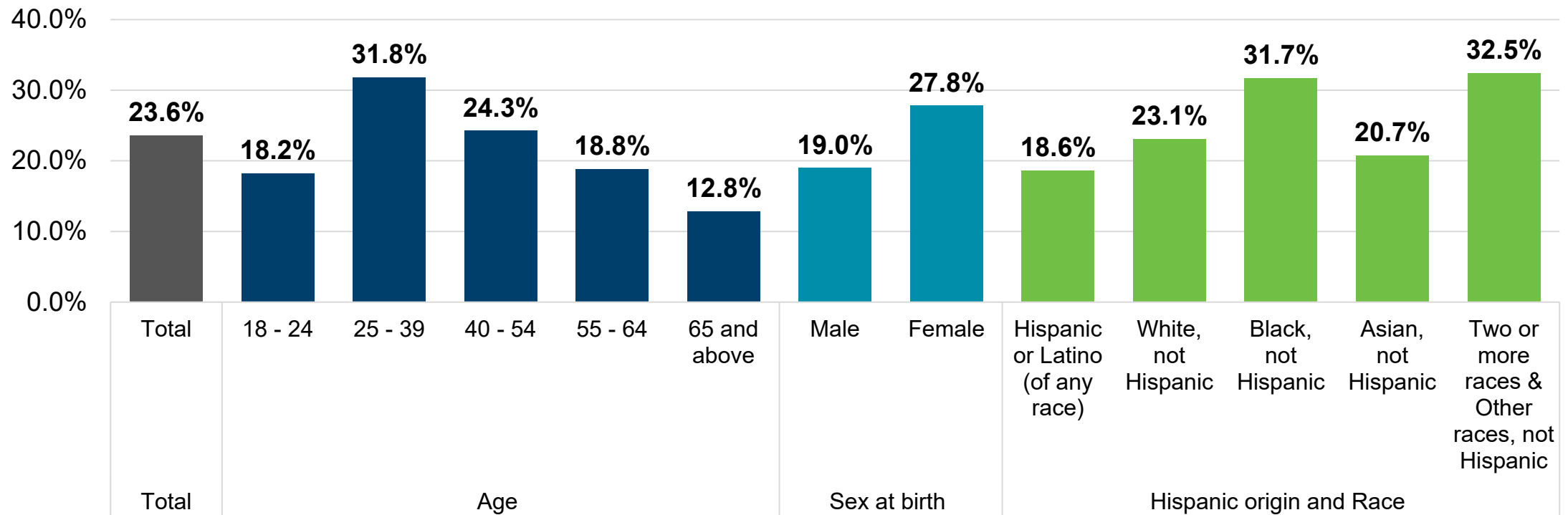


Image by Sara Moser, "[Among COVID-19 survivors, an increased risk of death, serious illness,](#)" Washington University School of Medicine

MN Long COVID: Household Pulse Survey

Percent of self-reported COVID-19 symptoms lasting 3 months or longer in persons reporting a COVID-19 infection, by age, sex, and race/ethnicity



Source: Census Bureaus Phase 4.0, Cycle 02 Household Pulse Survey (February 2, 2024 through March 4, 2024).

MDH Post-COVID Survey Findings

Persistent Symptoms (4 weeks or longer)

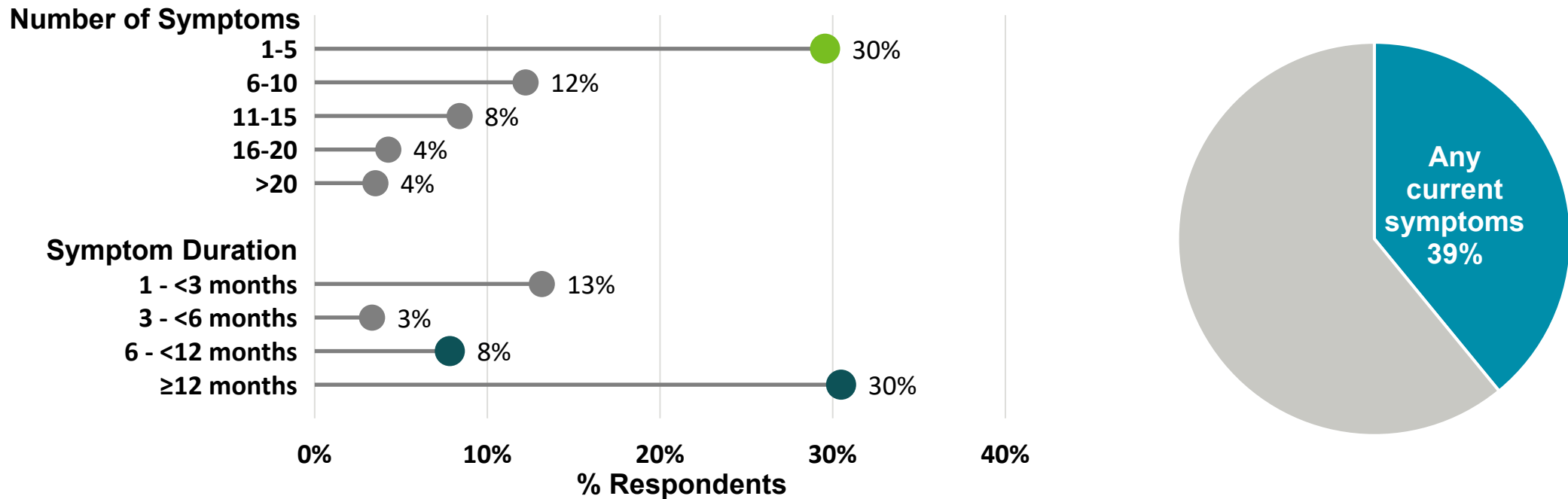
(n=1,597 with SARS-CoV-2; March 15 – July 31, 2023)

- 58% reported at least one symptom that lasted a month or longer
- 24% reported at least one symptom as severe

MDH Post-COVID Survey Findings

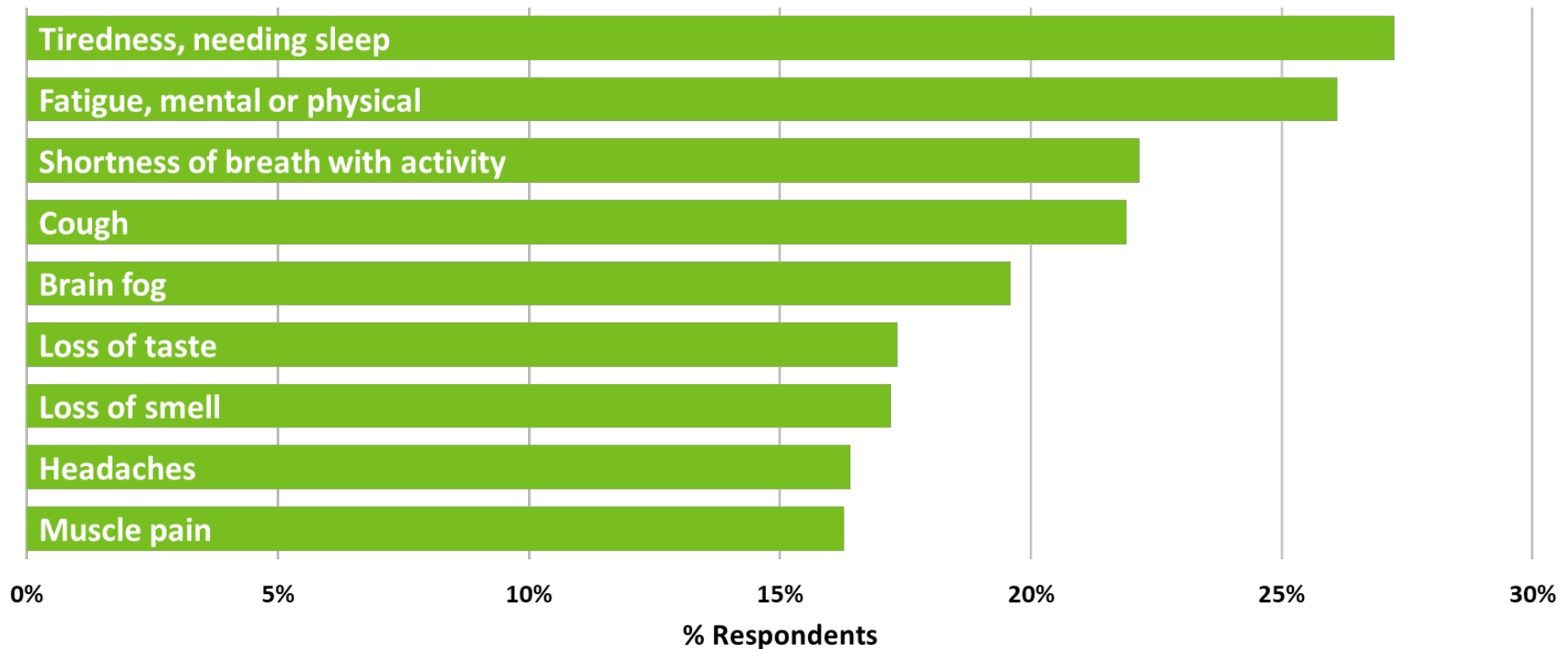
Number and Duration of Persistent Symptoms in Individuals with a Confirmed SARS-CoV-2 Infection (n=1,597; Mar 15 –July 31, 2023)

Most respondents with symptoms **reported 5 or fewer symptoms**. However, many respondents reported **current symptoms** that had already persisted for **at least 6 months** at the time of interview



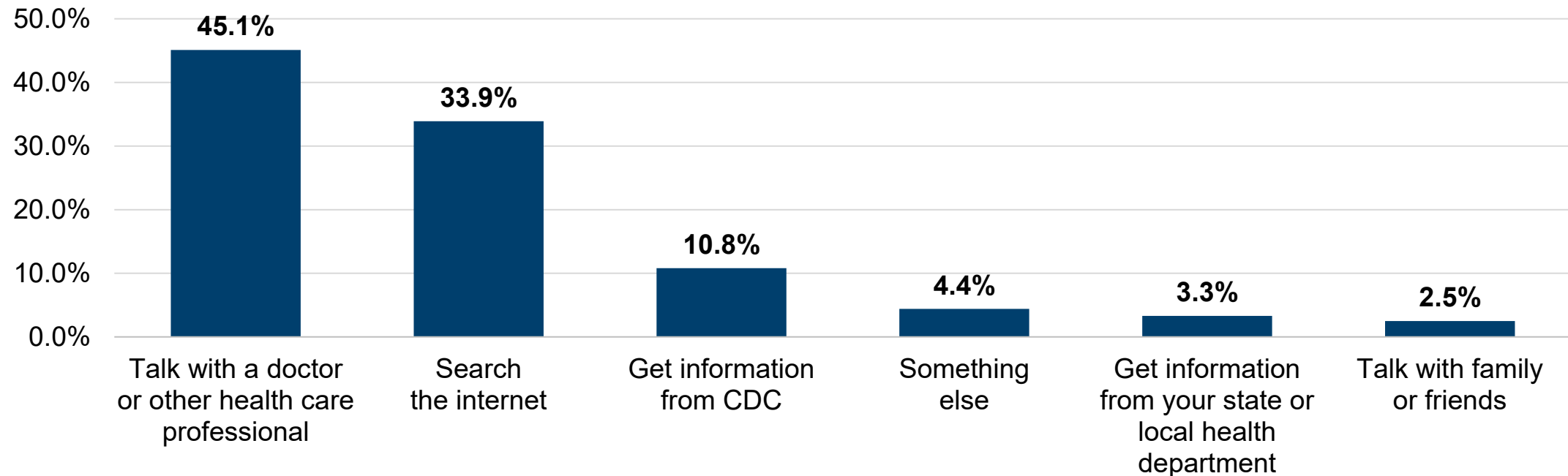
MDH Post-COVID Survey Findings

Most Frequently Reported Persistent Symptoms in Individuals with a Confirmed SARS-CoV-2 Infection (n=1,597; March 15 – July 31, 2023)



Long COVID: Importance of providers

Percent distribution of where adults would go first to learn more about Long COVID, United States, August 2023



Source: National Center for Health Statistics, Rapid Surveys System, Round 1, August 2023.

Identifying Long COVID in Primary Care

- Have you had a viral illness or COVID recently?
- Do you feel back to normal?
- Consider Long COVID for any symptoms lingering longer than 2 months.

Identifying Long COVID (Specialist Perspective)

Two buckets:

“Familiar” Conditions

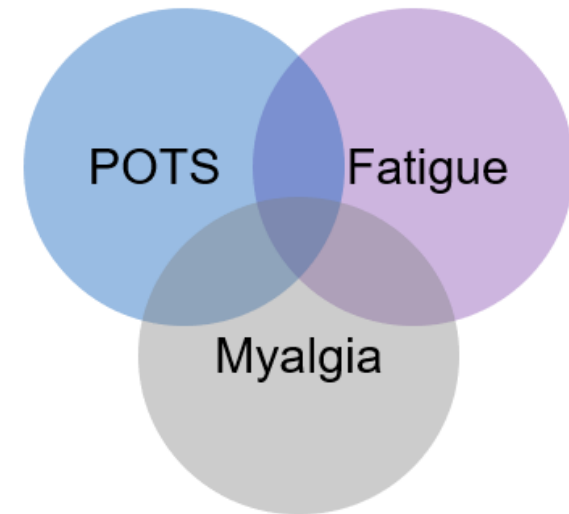
- Rheumatoid arthritis
- Asthma
- Dementia
- Myocarditis
- Etc.

“Less Familiar” Conditions

- ME/Chronic Fatigue Syndrome
- Fibromyalgia
- Postural Orthostatic Tachycardia Syndrome
- Mast Cell Activation
- Etc.

Long COVID Phenotypes

- When in the “less familiar” realm:
 - Fatigue Phenotype ~ ME/CFS
 - Myalgia Phenotype ~ Fibromyalgia
 - Orthostasis Phenotype ~ POTS
 - Dyspnea, Other phenotypes depending on symptoms



Patients often have multiple phenotypes

Management Options in Primary Care

- Consider additional testing for: neurologic, cardiac and pulmonary symptoms
- Past history of concussion - COVID may have a TBI-like appearance. Consider therapies, PM&R, neurology referrals.
- Vague symptoms: consider referral to therapies (PT, OT, ST) for evaluation
 - Remember pacing
 - Therapy availability in rural communities
- Behavioral health support for brain fog, cognitive concerns, mood changes
- FMLA or Disability for Long COVID. Link to document (includes resources for social supports and workplace accommodations template letter):
https://stratishealth.org/wp-content/uploads/2024/04/Workplace-accommodation_Provider-FAQ-letter-template-.pdf

Management – Specialist Perspective

- Once post-COVID dysautonomia / post-exertional malaise is confirmed, **pacing is key**
 - *Other therapies cannot be fully effective if there is no energy left to work with!*

POST-EXERTIONAL MALAISE (PEM)

PEM is an increase in the severity of symptoms and/or the appearance of new symptoms after physical or cognitive exertion, often manifesting after a characteristic 24-hour delay. However, 12-48 hours is common. Some symptoms that may be part of PEM presentation are outlined below, with common-language descriptions.

Sensory

New or increased sensitivity to light, sounds, smell or temperature

Autonomic

Nausea
Vertigo, dizziness
Increased sighing & yawning
Drop in core temperature
"The shakes"
Heart pounding

Cognitive

Can't process words
Trouble retrieving words
Thinking is effortful
"Brain fog",
Trouble starting & changing tasks

Pain

Headache, aches and pains,
Pain where the skull meets the spine

Immune

Flu-like symptoms
Fever, sore throat
Swollen lymph nodes

Neuromuscular

Muscles less responsive/
non-responsive
Feels "heavy", "leaden", like
"wet concrete"
Muscles painful, burning
tingling or 'buzzing'

Energy level

A falling, pooling, or
"pulled plug" sinking
sensation
in "shutdown"
"locked in my body"
"my battery is low"
"Wired but tired"

Metabolism

Feeling "poisoned"
"like a hangover"

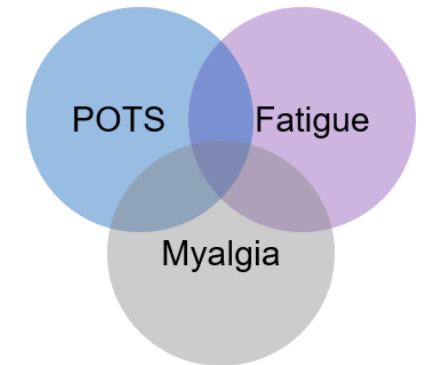
PEM is not:

- being more tired than usual after activity
- second-day muscle soreness
- deconditioning
- necessarily relieved by sleep

Grach, SL, Seltzer J, Chon TY and Ganesh R. Diagnosis and management of myalgic encephalomyelitis/chronic fatigue syndrome. Mayo Clin Proc. 2023

Phenotype/Symptom-Based Tx

Phenotype	Fatigue	Dyspnea	POTS	Myalgia
Treatment options	<ul style="list-style-type: none"> • Low dose naltrexone • Low dose Abilify • Guanfacine 	<ul style="list-style-type: none"> • Inhaled corticosteroids • Antihistamines (1st generation) 	<ul style="list-style-type: none"> • Rate Control – β-blocker, Ca channel blocker, ivabradine • Vessel constriction – midodrine • Salt and water retention – fludrocortisone • Pyridostigmine 	<ul style="list-style-type: none"> • SNRI – duloxetine, milnacipran • TCA – amitriptyline, nortriptyline • Gabapentinoid – pregabalin, gabapentin



Patients often have multiple phenotypes

To conclude...

Long COVID Tips

- Invisible Illness is not the same as Absent Illness
 - Ask about recovery from recent viral illnesses
 - Listen carefully and keep Long COVID on your differential
 - Patients need to feel heard and believed
 - Stay curious, there is so much still to learn about Long COVID

Long COVID Resources

- [Long COVID A Post-COVID Condition - MN Dept. of Health](#)
- [Long COVID Guiding Council](#)
- [Long COVID or Post-COVID Conditions | CDC](#)



Long COVID ECHO in partnership with MN Academy of Physicians - Scan QR code to sign up!

Registration link: [Long COVID ECHO Registration](#)

Long COVID Guiding Council - Provider Representation

- Carris Health/CentraCare
- Community-University Health Care Center (CUHCC)
- Essentia Health
- Genevieve
- HealthPartners Clinics and Hospitals
- Hennepin Healthcare
- M Health Fairview/University of Minnesota
- Mayo Clinic
- Minneapolis Veterans Affairs Health Care System
- Minnesota Community Care
- Minnesota Department of Health
- Minnesota Department of Human Services
- St. Mary's Health Clinics

Thank you! We appreciate your participation. See you on ECHO!

ECHO Registration: [Long COVID ECHO Registration](#)

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