



Long Covid - Fundamentals

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Eric Herman, MD
Jordan Anderson, DO

Chief Primary Care and Population Health Officer
Assistant Professor, Neuropsychiatrist, Dept. Of Psychiatry

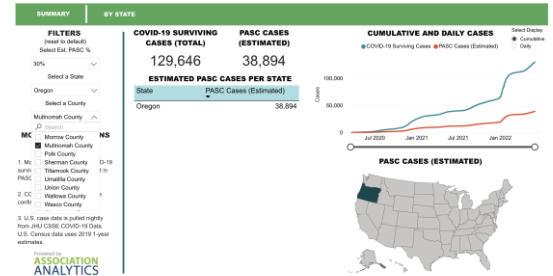
Focus Points For Presentation

- Long COVID – The Basics
- Long COVID – The Mental Health Aspects
- Patient Examples
- Long COVID Clinic at OHSU
- Moving Forward

What is Long COVID?

- New and persistent health problems experienced **four or more weeks** after the initial COVID infection
- Also known as:
 - Chronic COVID
 - **PASC** = Post Acute Sequela of SARS-CoV-2 (Research term)
- Patients often refer to themselves as **Long-haulers**

Epidemiology



- Long COVID prevalence ranges from **10 - 30%** of all COVID-19 cases
- COVID-19 cases
 - US: **80 million**
 - Oregon: **734,000**
- Long COVID cases
 - US: **8 - 24 million**
 - Oregon: **73,000 – 230,000***
- Small percentage of COVID, **yet significant impact on public health**

Who is At Risk to Get Long COVID?

- **Anyone who had COVID-19!**
 - **All ages. Mild or asymptomatic** illness
 - Every county and social demographic
- Commonly seen in 35-69 y.o., females, chronic conditions (e.g. diabetes)
 - Minority populations are likely at greater risk
- The risk of getting long COVID is reduced in persons that are vaccinated
- Possible causes: dysfunctional immune response, inflammation, viral reservoir, dysfunctional clotting, etc.

What are the Characteristic Symptoms?

- **Fatigue**
Post-Exertional Malaise
- **Cognitive Impairment (Brain Fog)**
- **Depression / Anxiety / PTSD**
- **Breathing Discomfort**
- **Palpitations**
Racing heart
- **Sleep disruption**
- **GI (bloating, nausea)**
- **Anosmia**
- **Headache**
- **Nerve abnormalities**
- **Joint & muscle pain**
- **Many others - less frequent**

Post-Exertional Malaise (PEM)

- Increased physical or mental exertion on a 'good day' followed by profound exhaustion & symptoms -> **several days / weeks of recovery**
- **Onset is delayed** 12 to 72 hours
- **Triggered by simple physical activities** (e.g. laundry, bathing, getting mail), cognitive activities, and stress

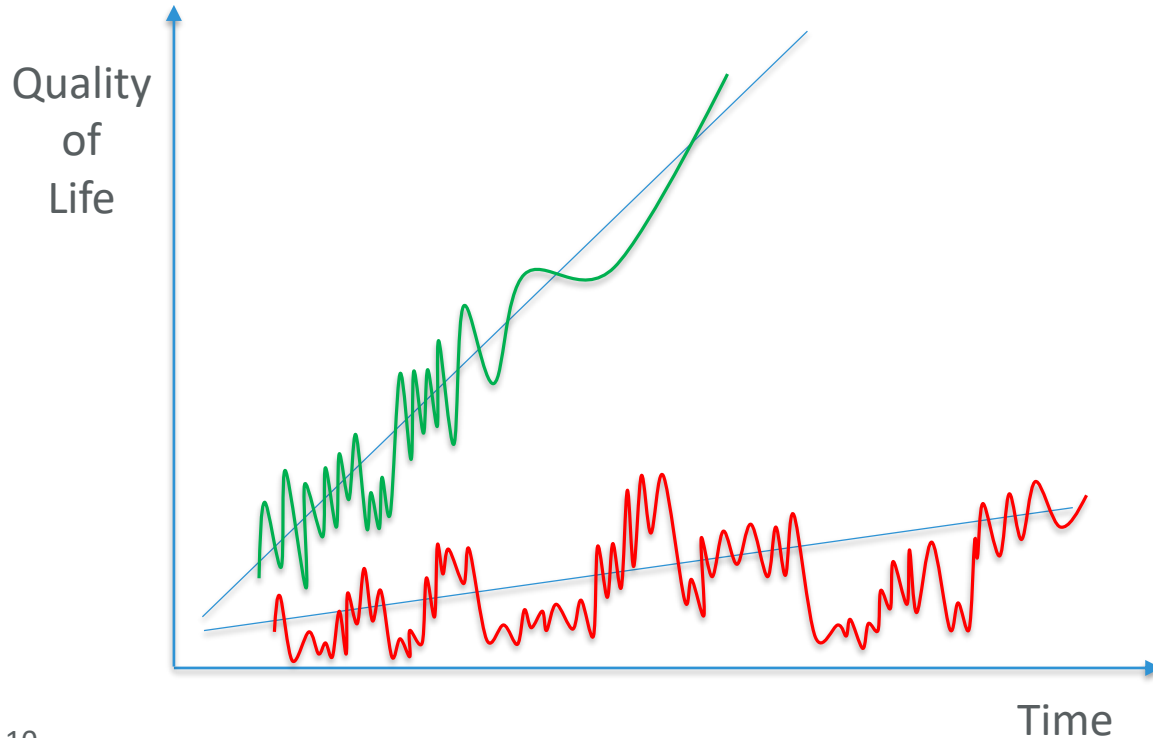
Cognitive Impairment (Brain Fog)

- Primary cognitive symptoms include difficulty with:
 - **Word retrieval**
 - **Problem solving and reasoning**
 - **Working memory**
 - Attention
 - Executive functioning
- Presents similarly to patients with Post-Concussion Syndrome

Recovery & Prognosis

- Symptoms are unpredictably remitting and relapsing
- Recovery timeline is variable
 - Weeks – Months - Years
- Unable to predict the timeline for recovery
- **Pacing and avoiding over-exertion are key factors to a faster recovery!!!**

Improving Recovery Trajectories



Goals:

- Accelerate and smoothen improvement trajectory
- Decrease number of relapses
- Empower patients with a vision of recovery

Mental Health Symptoms

- Depression, anxiety moderate or severe
- Suicidal thoughts common
- Pre-existing mental health problems typically mild, commonly made worse with Long COVID

Mental Health Themes

- Isolation
- Grief
- Helplessness
- Hopelessness

Social Themes

- Lack of awareness in community and healthcare
- Lack of social and financial support
- Troubled access to disability income

Examples

- Woman in her 40s, previously worked in healthcare full time, supported 3 kids, outgoing, energetic, healthy with no prior medical history. After >6 months of LC **unable to work or take care of kids**, due to physical limitations.
Led to failing of marriage, attempted suicide.

Examples

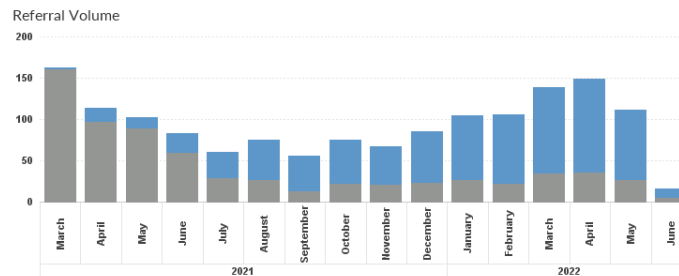
- Woman in her 30s, business manager, step-mother of 2, even-keeled source of stability for family, no significant medical history. LC symptoms severe >2 years: daily panic attacks, emotional outbursts, severe brain fog – **unable to work, lost her job, provide her family, and can't independently complete forms for financial support.**

Long COVID Clinic @ OHSU

- Consulting service for PCPs
- Evaluate patient, order labs, studies, make recommendations & referrals, prescriptions as needed
- Nurse Navigation is a critical ingredient to support complex patient needs
- Special Programs
 - Return to physical activity program (PT)
 - Brain Fog program (Speech Language Pathology)
 - Referrals to Mental Health (aka. Dr. Anderson)

Long COVID Clinic

- Program launch March 16, 2021
- 1000 visits
 - 890 distinct patients
 - 337 patients scheduled
- **Demand is still increasing!**
- New patients scheduled 4 months out



How Do We Act?

- **Develop community awareness**
Media campaigns, public service announcements
- **Prevent worsening Mental Health crisis & suicide**
Increased funding to community mental health programs
- **Prevent unemployment, bankruptcy, kids out of school**
Protected time to recover, financial assistance programs, social work support
- **Improve access and funding to Long COVID programs & PCP education**
Funding for Multi-Disciplinary Practices, Care Management, and PCPs
OHSU pediatric program is suspended due to resource limitations!