

The Post-COVID Conundrum

 mitchell |  genex |  coventry



Today's presenter

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- Tammy is a solutions-oriented product development professional with over 25 years of experience in the insurance industry
- Her expertise includes medical case management, disability management, and the integration of health, disability, and workers' compensation
- Tammy is responsible for strategic planning and product development for all clinical products
- Tammy holds several national certifications, including certified case manager (CCM), certified rehabilitation counselor (CRC), certified program disability manager (CPDM) and certified in critical incident stress management (CISM)





Objectives

At the end of this presentation, the audience will:

- Realize the problems that exist
- Describe the prevalence of post-COVID conditions
- Recognize the most common symptoms
- Understand current assessment tools and treatment protocols
- Identify post-COVID care clinics

Post-COVID conditions

- The Centers for Disease Control and Prevention (CDC) coined the term post-COVID conditions to describe the health issues that persist more than four weeks after a person is infected with SARS-CoV-2, the virus that causes COVID-19
- Post-COVID is frequently referred to as “long COVID”
- U09.9 Post COVID-19 condition, unspecified, is the proposed ICD-10 code
- Those experiencing symptoms are sometimes colloquially referred to as long-haulers; the name arose from a preschool teacher suffering from lasting symptoms who drew [inspiration](#) from her trucker hat
- According to a FAIRHealth [study](#), 23% of individuals infected will have at least one post-COVID condition
- There are three categories of post-COVID conditions

Common long-COVID symptoms

- Difficulty breathing or shortness of breath
- Tiredness or fatigue
- Symptoms that get worse after physical or mental activities
- Difficulty thinking or concentrating (sometimes referred to as “brain fog”)
- Cough
- Chest or stomach pain
- Headache
- Fast-beating or pounding heart (also known as heart palpitations)
- Joint or muscle pain
- Pins-and-needles feeling
- Diarrhea
- Sleep problems
- Fever
- Dizziness on standing (lightheadedness)
- Rash
- Mood changes
- Change in smell or taste
- Changes in period cycles



Multi-organ effects of COVID-19

- COVID-19 can affect and cause long-term damage in multiple body systems including those involving the:
 - Heart
 - Lung
 - Kidney
 - Brain
 - Skin
- Some adults and children experience multi-system inflammatory syndrome after they have had COVID-19; in this condition, some organs and tissues become severely inflamed

Longer-term effects of COVID-19 treatment

- Tracheal stenosis from prolonged intubation
- Post-intensive care syndrome, which refers to health effects that remain after a critical illness; these include:
 - Severe weakness
 - Brain dysfunction
 - Mental health problems such as stress disorders and depression
 - The risk can be high for those who can't work as they did before they began experiencing long-COVID symptoms

Long-term pulmonary issues



- Diagnosed through:
 - Pulmonary function tests
 - CT scan
- Common symptoms:
 - Dyspnea
 - Decrease in exercise capacity
 - Long-term oxygen requirements

Neurological and psychiatric symptoms

- A [review of studies](#) looked at 105,000 people diagnosed with COVID-19 across 30 countries; prevalence of symptoms included:



43%
loss of smell



40%
weakness



38%
fatigue



37%
loss of taste



25%
muscle pain



23%
depression



21%
headache



16%
anxiety

- Severity of illness (hospitalization vs. none) did not correlate to symptoms with some symptoms being more common in mild cases

Mental health implications

Pandemic stressors include:



Financial



Isolation



Fear



Depression



Anxiety



Brain fog



PTSD

Neurological issues

- Sleep is the most reported neurological complication
 - About 1 in 4 people experience sleep problems and fatigue
 - Sleep is non-restorative
- Loss of taste and smell
- Headaches
- Brain fog



Post-viral fatigue

- Not the same as routine tiredness
 - In addition to total exhaustion, people with post-viral fatigue feel generally unwell
- The trigger for post-viral fatigue seems to be a reaction to the virus itself and the symptoms are very similar, or identical, to those of people with [chronic fatigue syndrome](#) (CFS)/myalgic encephalomyelitis (ME)
- Non-restorative [sleep](#)
 - You don't wake feeling refreshed
 - Tiredness can intensify after very minor mental or physical exertion

Brain fog

- Brain fog is not a medical diagnosis
- Similar to cognitive impairment that you see in patients who have post-intensive care unit syndrome
- Symptoms include:
 - Difficulty remembering things and processing information
 - Concentration and attention issues
 - Disorganized thoughts
 - Speech may be slow and confused
 - Difficulty finding the right words
 - Headaches
- Neither progressive nor associated with declining intellect

Brain fog

- Researchers are still investigating the potential cause of brain fog in people who've had COVID-19
 - Physiological and psychological factors may play a role
 - Inflammation in and around the brain hinders the ability of your neurons to communicate with each
- Other possible contributing factors include:
 - [Poor sleep quality](#)
 - Feelings of [loneliness](#)
 - [Depression](#)
 - [Increased stress or anxiety](#)
 - Dietary changes
 - Decreased physical activity
 - Side effects of certain medications
- Treatment depends upon cause
- Home remedies

Different people have different symptoms

- Exposure duration and viral load is a determinant of the initial illness
- Comorbidities can affect which symptoms emerge; these include:
 - Medical history
 - Habits (smoking, exercise, alcohol consumption)
 - Age
 - Gender
- Immune status
- Inflammatory response

Long-COVID care

- Many long-COVID conditions can be managed by primary care providers, with the incorporation of patient-centered approaches to optimize the quality of life and function in affected patients
- Referral to a multidisciplinary post-COVID care center
- Use of telemedicine (phone and virtual)
- Evaluation:
 - Patient history
 - Physical exam and vital signs
 - Laboratory testing

Basic diagnostic laboratory testing

- Blood count, electrolytes, renal function
- Liver function tests or complete metabolic panel
- Inflammatory markers
- Thyroid function
- Vitamin deficiencies





Specialized diagnostic labs can help

- Rheumatological conditions
- Coagulation disorders
- Myocardial injury
- Differentiate symptoms of cardiac versus pulmonary origin

Assessment tools for evaluating conditions

- Functional status and/or quality of life
 - Patient-Reported Outcomes Measurement Information System (PROMIS) (e.g., Cognitive Function 4a)
 - Post-COVID-19 Functional Status Scale (PCFS)
 - EuroQol-5D (EQ-5D)
- Respiratory conditions
 - Modified Medical Research Council Dyspnea Scale (mMRC)
- Neurologic conditions
 - Montreal Cognitive Assessment (MoCA)
 - Mini Mental Status Examination (MMSE)
 - Compass 31 (for dysautonomia)
 - Neurobehavioral Symptom Inventory

Assessment tools for evaluating conditions

- Psychiatric conditions
 - General Anxiety Disorder-7 (GAD-7)
 - Patient Health Questionnaire-9 (PHQ-9)
 - PTSD Symptom Scale (PSS)
 - Screen for Post-traumatic Stress Symptoms (SPTSS)
 - PTSD Checklist for DSM-5 (PCL-5)
 - Impact of Event Scale-Revised (IESR)
 - Hospital Anxiety and Depression Scale (HADS)
- Other conditions
 - Wood Mental Fatigue Inventory (WMFI)
 - Fatigue Severity Scale
 - Insomnia Severity Index (ISI)
 - Connective Tissue Disease Screening Questionnaire

Assessment tools for evaluating conditions

- Exercise capacity
 - 1-minute sit-to-stand test
 - 2-minute step test
 - 10-Meter Walk Test (10MWT)
 - 6-minute walk
- Balance and fall risk
 - BERG Balance Scale
 - Tinetti Gait and Balance Assessment Tool

Medical management

- Goal is to optimize function and quality of life
- Requires comprehensive management plan based upon:
 - Presenting symptoms
 - Underlying medical and psychiatric conditions
 - Social Determinants of Health (SDoH)
 - Treatment goals



Long-COVID care centers

- Multidisciplinary comprehensive treatment centers:
 - Assessment by primary care physician
 - Referral to specialists as indicated
 - Diagnostics/labs
 - Research on the disease
 - What treatment approaches are working? Which are not?
 - Mental health teams—help patients deal with the long-term nature and creating a “new normal” to help them navigate the health care system and cope with the chronic nature of the illness
 - Treatment options

Long-COVID care centers

- Our research identified more than 150 post-COVID clinics/care centers
- These centers exist in at least 42 states
- Major systems have set up long-COVID centers including Cedars-Sinai, Cleveland Clinic, Mayo Clinic, Weill Cornell, Beth Israel Deaconess and the University of Texas
- Some facilities focus on aspects such as cardiovascular and pulmonary concerns or physical therapy

Long-COVID care centers

- Typical specialists include:
 - Cardiologists
 - ENTs
 - Infectious disease
 - Nephrologists
 - Neurologists
 - Neuropsychiatrists
 - Physical, occupational and speech therapy
 - Pulmonologists
 - Rheumatologists



Vaccination and long COVID

- There are anecdotal reports that asymptomatic patients who developed long-COVID symptoms then received the vaccine and saw symptoms lessen or disappear
- According to [Yale Medicine](#), 30 to 40 percent of those who get the vaccine have reported improvements to their symptoms
- It remains a hypothesis though researchers have noted that vaccination:
 - Could be helping the immune system fight off residual virus lingering in patients'
 - Could prevent a harmful immune response
 - May serve to reset the immune system
- Additional research is underway

Regulatory landscape

- During the last 18 months, state regulatory agencies and legislatures have focused on COVID emergency orders to address access to treatment
- States continue to leave these orders in place with some extending and/or making them permanent
- Given the variants and the cases that continue to go on long after the acute infection, it seems these types of rules will continue, and we may have additional rules being put in place in 2021 and beyond
 - Presumption rules for COVID in workers' compensation
 - Access to treatment, i.e., telehealth, tele-rehab programs
 - Access to behavioral health programs

Claims considerations

- Workers with long COVID might require long-term disability benefits
- Perhaps some will only be able to work part time or on modified duty for extended periods
- One analysis noted: “Among those infected at work, if they have a previously accepted workers’ compensation claim, the virus becomes the mechanism of injury, rather than the injury itself, with secondary symptoms that arise from the original incident, like most other industrial claims. In these cases, the challenge for employees will be proving that the symptoms are related to the original COVID-19 infection.”
- In other cases, workers might not have made a claim if the original COVID illness was mild

Network implications

- Access to specialties and programs focused on long-COVID cases will continue
- Include additional specialties in networks that historically have not been workers' compensation treating providers
- Continue to ensure the network has access to COVID testing, possible vaccination boosters and treatment options for patients and workers
- Have discussions with hospital systems' programs that treat long-COVID cases and make sure they are included in the workers' compensation networks
 - Long-COVID clinics
 - Specific specialties, e.g., respiratory specialties, primary care, mental health
 - Treatment of the long-term cases that also may assist in the general treatment of acute cases
 - Research as patients go through treatment to learn how to handle cases more efficiently



Workers remain at risk

- Some employers might consider warning workers of the dangers posed by long COVID and stressing the benefits of vaccination
- A recent [survey](#) found nearly 1 in 3 U.S. adults were unaware of long COVID and that learning about it made them more likely to consider getting vaccinated
- Those who might have already struggled with pain at work could suffer more; many who already endure chronic musculoskeletal pain [appear](#) to be at greater risk for increased pain following a serious COVID infection
- A [study](#) using wearable devices such as the Apple Watch found some of those recovering from COVID-19 had a higher heart rate months after their infection, as well as lasting disruptions to sleep and physical activity; such conditions could increase risk of poor health and of workplace injuries

Is long COVID a disability under the ADA?

- Must meet the definition of disability under the Americans with Disabilities Act (ADA)?
 - A physical impairment or mental impairment; and
 - It **substantially** limits one or more major life activities
- An individualized assessment is necessary to determine whether a person's long COVID condition or any of its symptoms substantially limits a major life activity
- Resources:
 - <https://www.hhs.gov/civil-rights/for-providers/civil-rights-covid19/guidance-long-covid-disability/index.html>
 - <https://askjan.org/topics/COVID-19.cfm>

Looking ahead

- An unfolding surge in the nation's COVID cases, particularly in areas with low vaccination rates, could add to workers' and employers' concerns about higher prevalence of long-COVID cases
- More young people are getting COVID-19
- Long-COVID issues could further strain the availability of workers, particularly those in their prime working years of 25 to 55
- Further study will continue at clinics and elsewhere
- The Long-COVID Alliance, a [group](#) of patients, providers, scientists, disease experts and drug makers, is pushing for long-term efforts to address the fallout from long-COVID conditions

In closing

- Guidelines for treating long-COVID conditions are fluid
- Check the CDC for the latest [updates](#) (most recent: June 14; July 9; July 12, 2021)
- Limited data on cost and durations to date
 - Evaluate the appropriateness of treatment for each condition
 - Cost projections may be helpful in setting reserves for Post-COVID conditions
- Network access to non-traditional WC specialties
- Now, more than ever, employers should consider embracing [transitional](#) duty
- Understanding of post-COVID conditions remains incomplete and guidance for healthcare professionals will likely change over time as the evidence evolves
- [Sign up for COVID updates with CDC](#)

Selected references

- <https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-long-term-effects/art-20490351>
- <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-care/post-covid-index.html>
- <https://time.com/6073522/long-covid-prevalence/>
- <https://www.survivorcorps.com/pccc>
- <https://www.beckershospitalreview.com/patient-safety-outcomes/13-hospitals-health-systems-that-have-launched-post-covid-19-clinics.html>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6251214/>
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