

# Behavioral Health ECHO

November 30, 2021

## Long Term Manifestations of COVID Disease

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Professor

John A. Burns School of Medicine

# Disclosures

No financial disclosures

# Objectives

- Magnitude of Post Acute Sequelae of COVID-19 (PASC) or “Long COVID”
- Symptoms
- Definition
- Possible mechanisms
- Appreciate the pulmonary, cardiac, neurologic, and psychiatric complications
- Potential treatments
- Public health implications

# COVID-19 Timeline

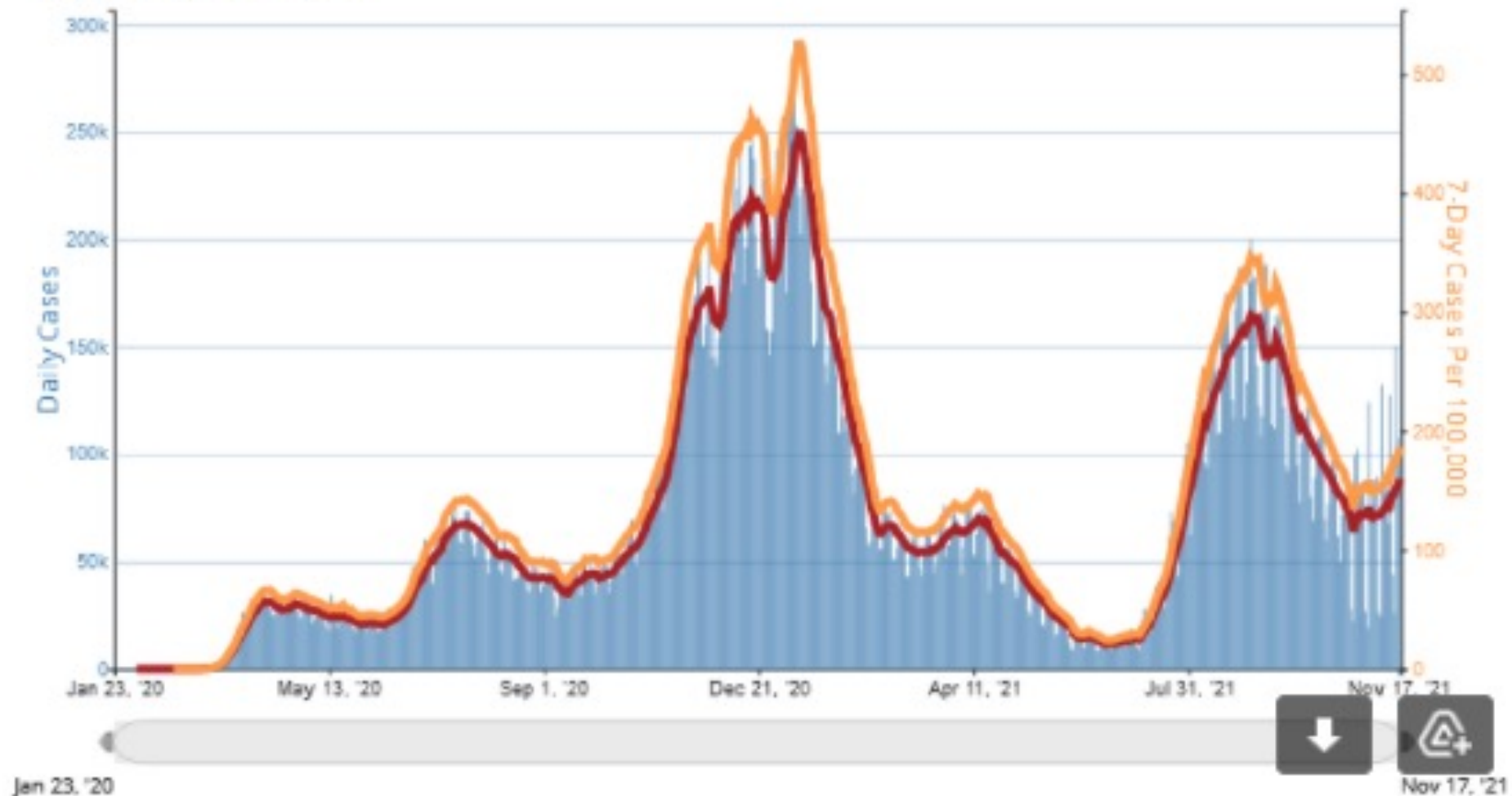
- December 31, 2019 ~ clusters of pneumonia reported in Wuhan, China
- January 11, 2020 ~ first death in China reported
- January 21, 2020 ~ first US case reported
- March 06, 2020 ~ Hawaii 's first case of COVID-19, cruise to Mexico on Grand Princess ship
- March 31, 2020 ~ Hawaii's first death, Oahu man who traveled to Las Vegas
- November 24, 2021 ~ First mention of Omicron
- November 28, 2021 ~ Hawaii achieves 72.5% full covid vaccination and 85.4% at least one dose

	Global	U.S.	Hawai'i (HiEMA data)
Confirmed Cases Nov 28, 2021	259,502,031	47,802,459	87,514
Deaths Nov 28, 2021	5,183,003	771,529	1,018
New Cases Nov 28, 2021	611,528	100,455	169



# Possible 5<sup>th</sup> COVID Surge in the United States

Daily Trends in Number of Cases and 7-Day Cumulative Incidence Rate of COVID-19 Cases in The United States Reported to CDC, per 100,000 population.



10/16/20 - 105 (105/911 = 11.5%) patients results as positive/detected.

# Queen Emma Clinics

Count of Ethnicity	Total	10/16/2020
Ethnicity	Total	
Arab/Arabian (Middle East)	1	1%
Black/Other	1	1%
Chinese	1	1%
<b>Chuukese</b>	<b>47</b>	<b>45%</b>
Declined	1	1%
Filipino	4	4%
Japanese	2	2%
Japanese/Okinawan	1	1%
Korean	3	3%
Laotian	1	1%
<b>Marshallese</b>	<b>6</b>	<b>6%</b>
Mexican	1	1%
Other Micronesia	3	3%
Part Hawaiian	6	6%
Pohnpeian	2	2%
Puerto Rican	1	1%
<b>Samoan</b>	<b>14</b>	<b>13%</b>
Thai	1	1%
Tongan	1	1%
Vietnamese	1	1%
White/Caucasian	7	7%
Grand Total	105	

Count of ETHNICITY	Total	12/31/2020
ETHNICITY	Total	
Arab/Arabian (Middle East)	3	2.2%
Black/Other	1	0.7%
Chinese	1	0.7%
<b>Chuukese</b>	<b>47</b>	<b>34.8%</b>
Declined	1	0.7%
Filipino	6	4.4%
Japanese	4	3.0%
Japanese/Okinawan	1	0.7%
Korean	3	2.2%
Laotian	1	0.7%
<b>Marshallese</b>	<b>12</b>	<b>8.9%</b>
Mexican	1	0.7%
Other Micronesia	5	3.7%
<b>Part Hawaiian</b>	<b>10</b>	<b>7.4%</b>
Pohnpeian	3	2.2%
Puerto Rican	1	0.7%
<b>Samoan</b>	<b>21</b>	<b>15.6%</b>
Thai	1	0.7%
Tongan	1	0.7%
Vietnamese	3	2.2%
<b>White/Caucasian</b>	<b>9</b>	<b>6.7%</b>
Grand Total	135	

Count of ETHNICITY	Total	3/2/2021	
ETHNICITY	Total		
Arab/Arabian (Middle East)	3	2.1%	
Black/Other	1	0.7%	
Chinese	1	0.7%	
<b>Chuukese</b>	<b>47</b>	<b>33.3%</b>	
Declined	1	0.7%	
Filipino	7	5.0%	
Japanese	4	2.8%	
Japanese/Okinawan	1	0.7%	
Korean	3	2.1%	
Laotian	1	0.7%	
<b>Marshallese</b>	<b>12</b>	<b>8.5%</b>	
Mexican	1	0.7%	
Other Micronesia	5	3.5%	
<b>Part Hawaiian</b>	<b>8</b>	<b>5.7%</b>	
Pohnpeian	3	2.1%	
Puerto Rican	1	0.7%	
<b>Samoan</b>	<b>24</b>	<b>17.0%</b>	
Thai	1	0.7%	
Tongan	1	0.7%	
Vietnamese	5	3.5%	
<b>White/Caucasian</b>	<b>10</b>	<b>7.1%</b>	
Portuguese	1	0.7%	
Grand Total	<b>141</b>	<b>1416</b>	<b>10%</b>



# Race of COVID-19 Cases, Hawaii 2021

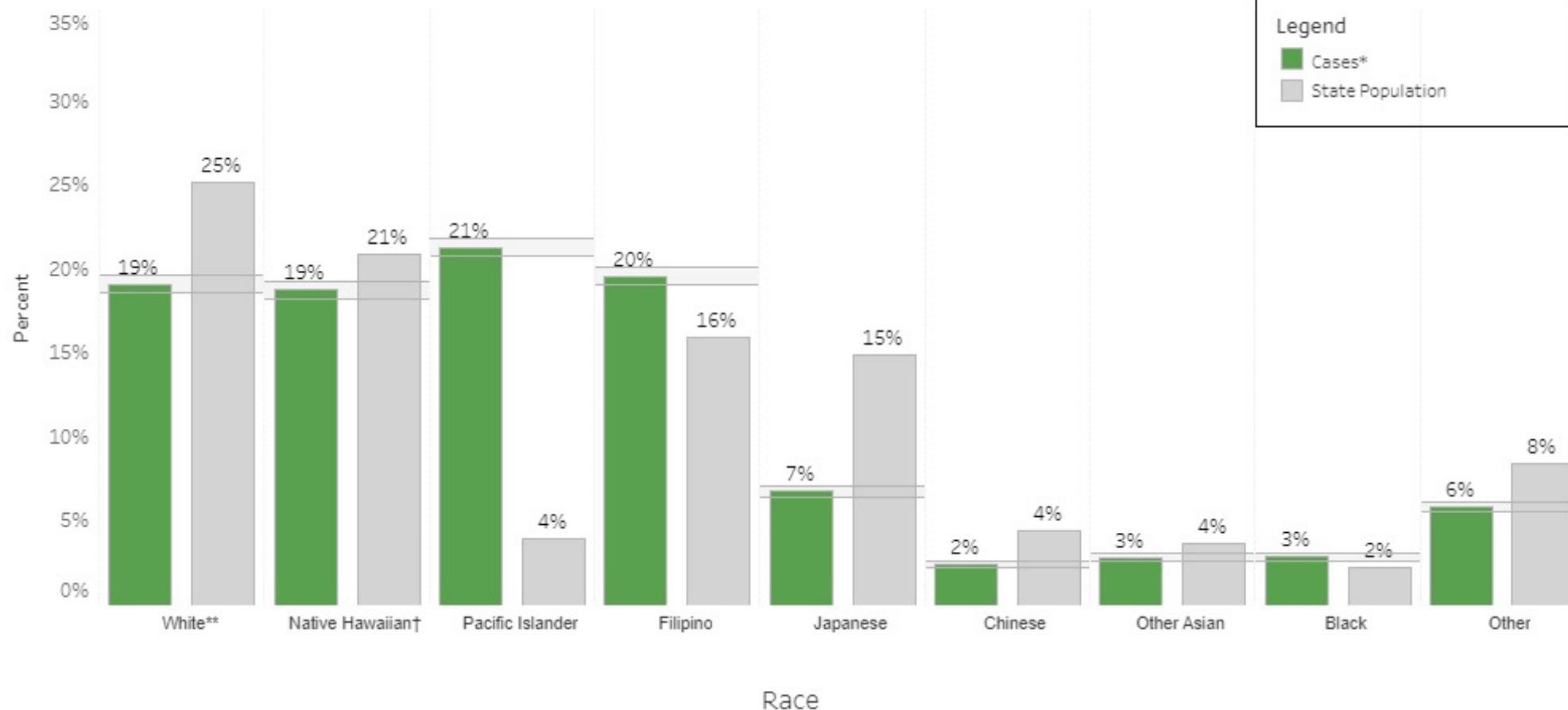
Last updated Monday, April 5, 2021 (updated weekly)

Metric

- Cases\*
- Hospitalizations
- Deaths

Total Number:

21,180



Footnotes: Based on first non-White race listed; \*\*White with no other race listed; †Native Hawaiian as any listed race.

\* Excludes residents diagnosed out-of-state (n=1,010), non-residents (n=904), and cases with no specific race information available (n=7,134); Hospitalization status is unknown for 2,544 cases with known race information. Horizontal bands indicate 95% confidence interval for Case, Hospitalization, or Death %

Pacific Islanders and Filipinos are disproportionately effected.

[Hawai'i's Micronesian migrants get limited access to health care](#)

# The Next Epidemic...

## Post Acute Sequelae of Sars-COV-2 (PASC) – “Long COVID”

- 10-40% of all COVID infections
- Duration unknown, possibly permanent
- High degree of disability

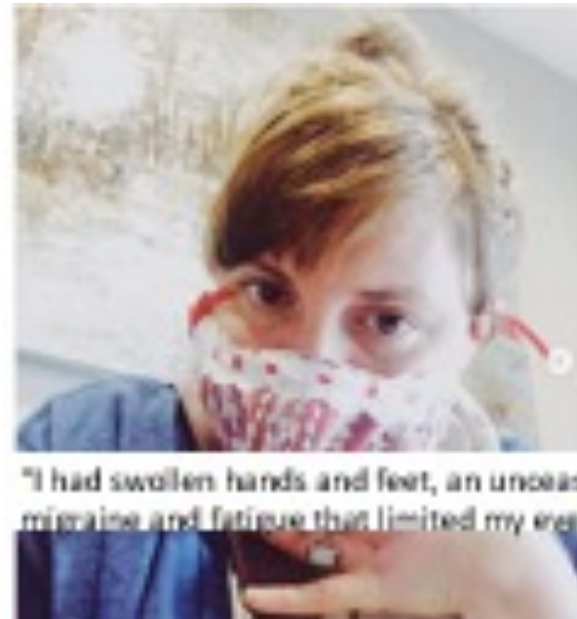
### 7 Celebrities With Scary Long-Term COVID Symptoms

THESE STARS ARE STILL STRUGGLING TO MANAGE TERRIFYING SYMPTOMS, MONTHS AFTER TEST COVID.



Alyssa Milano via Twitter

Celebrities are not immune to the dangers of COVID-19. Dozens of celebrities have been infected, and some have had scary long-term symptoms. Alyssa Milano is in an effort to help raise awareness about the way COVID-19 can wreak. While many celebrities have recovered, a handful are



### Hawaii state Sen. Kalani English stepping down due to long-term COVID-19 symptoms

By Sophie Code · April 27, 2021



CRAIG T. KOJIMA / CRAIGT.KOJIMA@STARADVERTISER.COM

Sen. Kalani English spoke today in the Capitol rotunda.





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[WEBMD NEWS BRIEF]

# More Than 100 Million People Worldwide Have or Had Long COVID: Study

By Carolyn Crist



Nov. 18, 2021 -- More than 40% of COVID-19 survivors across the world have or had long-term effects after recovering, according to a new study by researchers at

## Coronavirus Outbreak

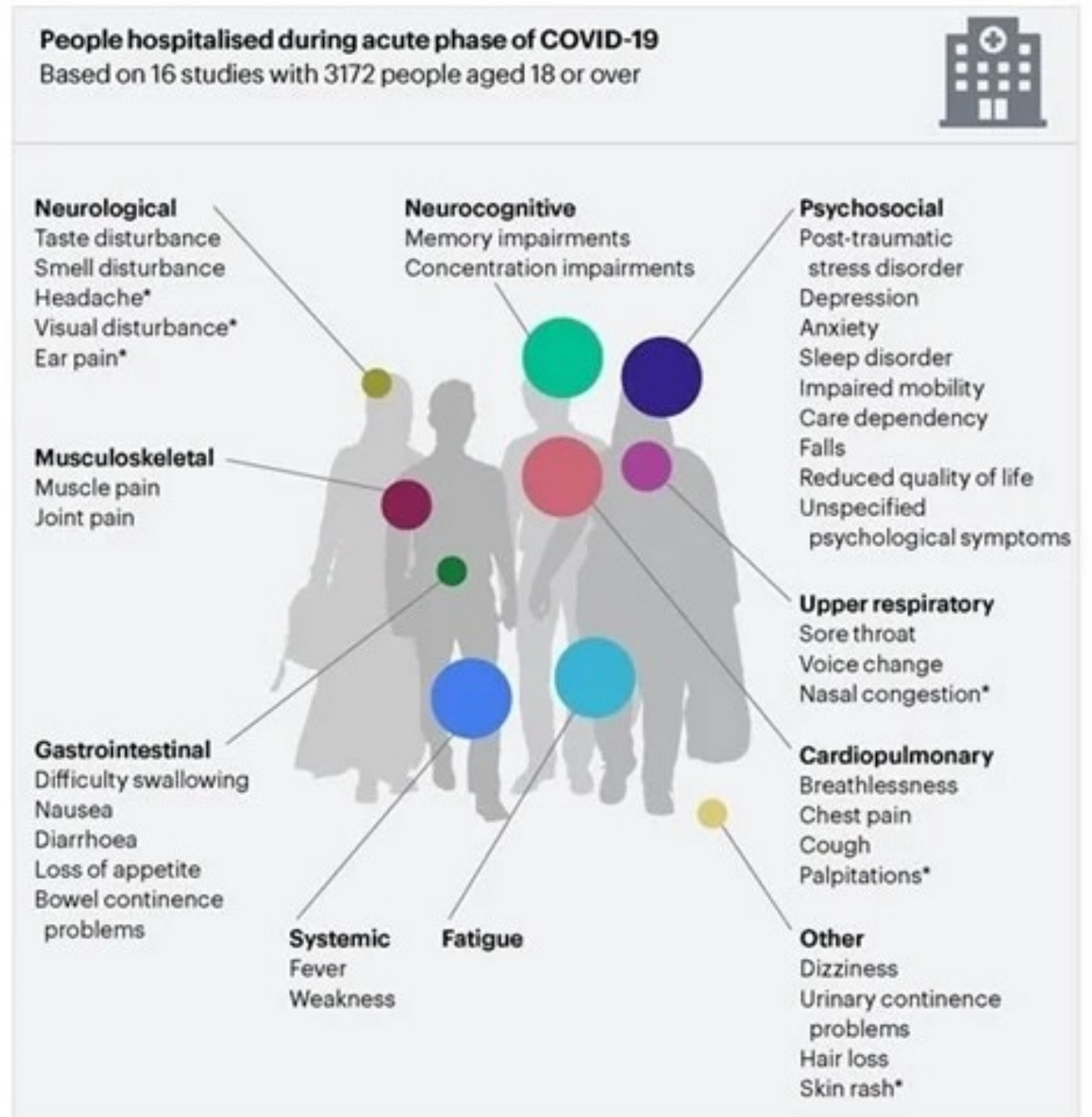


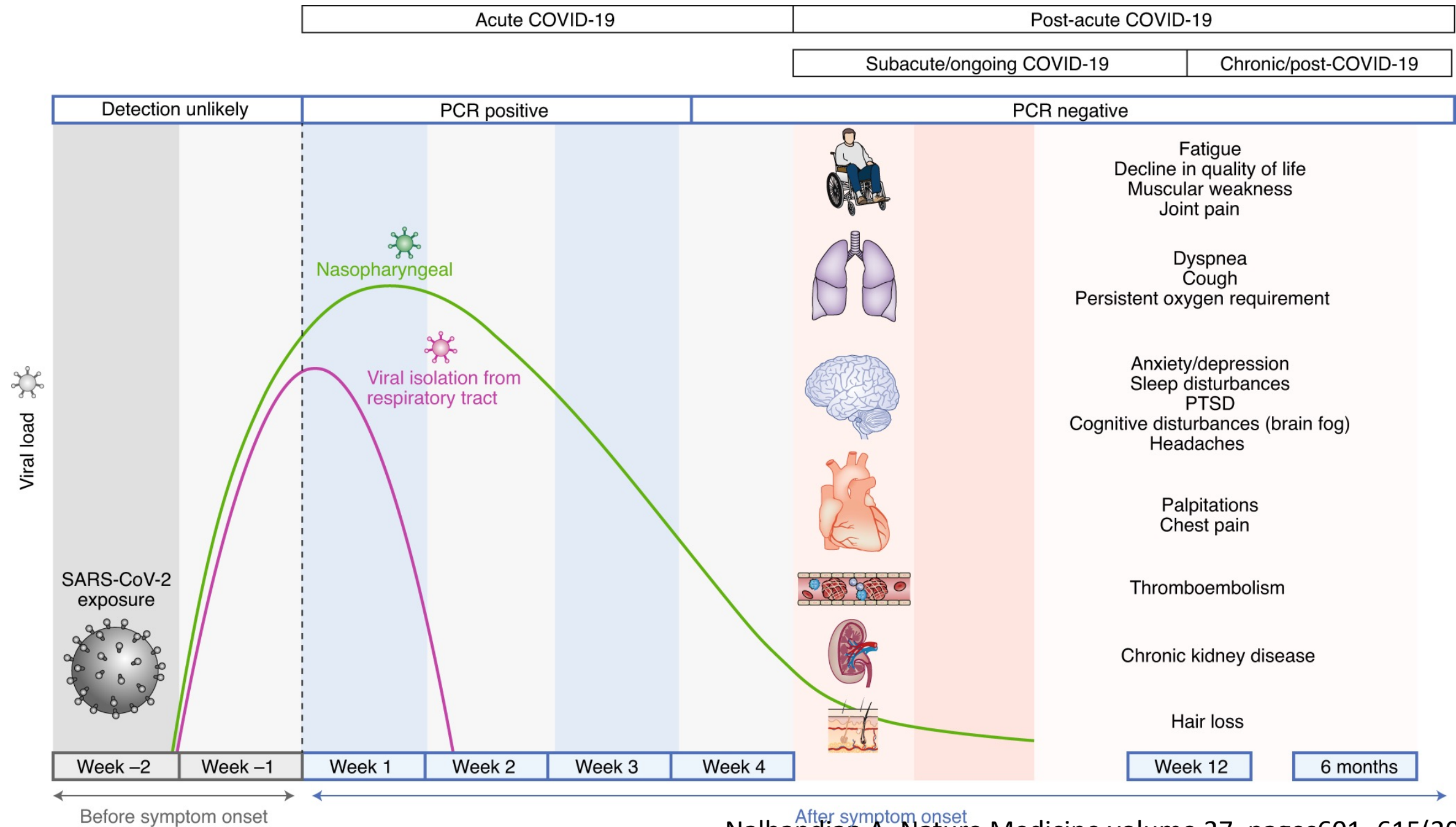
CORONAVIRUS HOME

# Symptoms of Long COVID

## Top symptoms

- Fatigue
- Dyspnea
- Anxiety
- Concentration / cognitive changes





# WHO Releases First Official Long COVID Definition

By [Carla Delgado](#) | Published on October 25, 2021 **NEW**



Fact checked by [Nick Blackmer](#)



FG Trade / Getty Images

**A clinical case definition of post COVID-19 condition by a Delphi consensus**

6 October 2021



## Key Takeaways

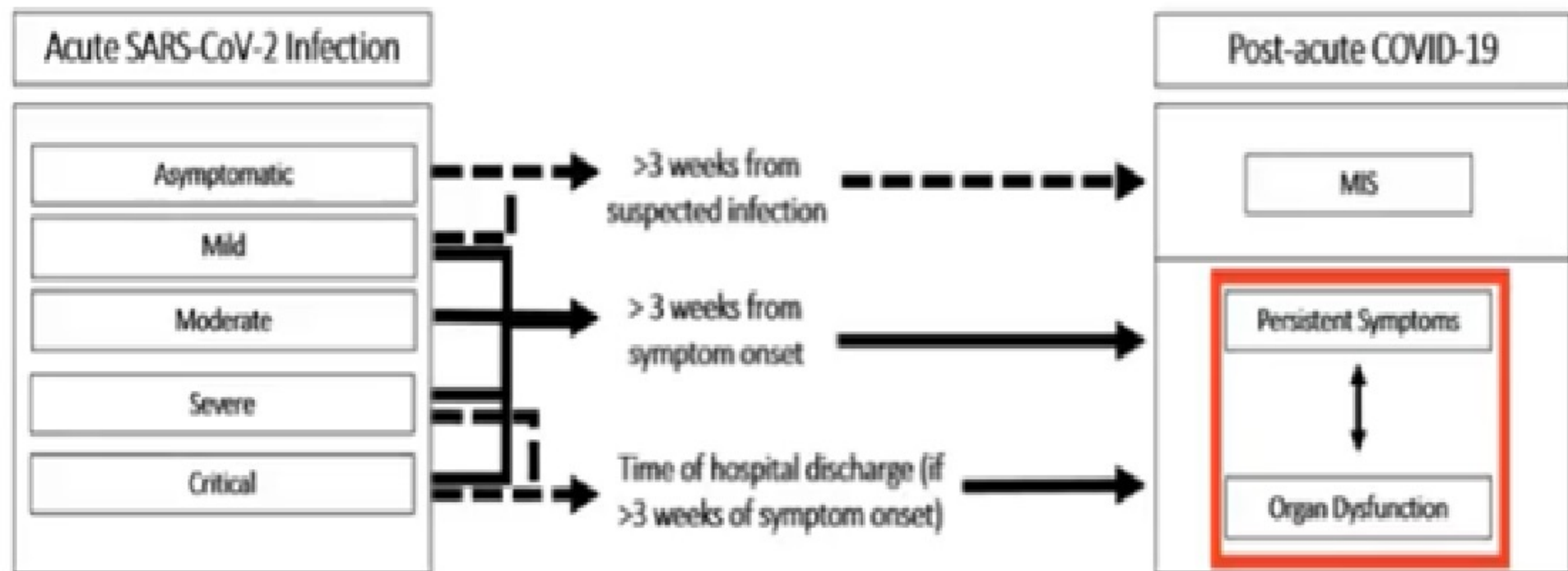
- Long COVID has been used to refer to a range of new, returning, or ongoing symptoms after initial COVID-19 infection.
- This month, the WHO has published an official definition of post-COVID-19 to advance research and help diagnose individuals.
- The definition can change and be refined further as new evidence emerges regarding the condition.



**Table 3.** A definition of post COVID-19 condition

Post COVID-19 condition occurs in individuals with **a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.** Common symptoms include **fatigue, shortness of breath, cognitive dysfunction** but also others\* and generally have an **impact on everyday functioning.** Symptoms may be **new onset** following initial recovery from an acute COVID-19 episode or **persist** from the initial illness. Symptoms may also **fluctuate** or **relapse** over time.

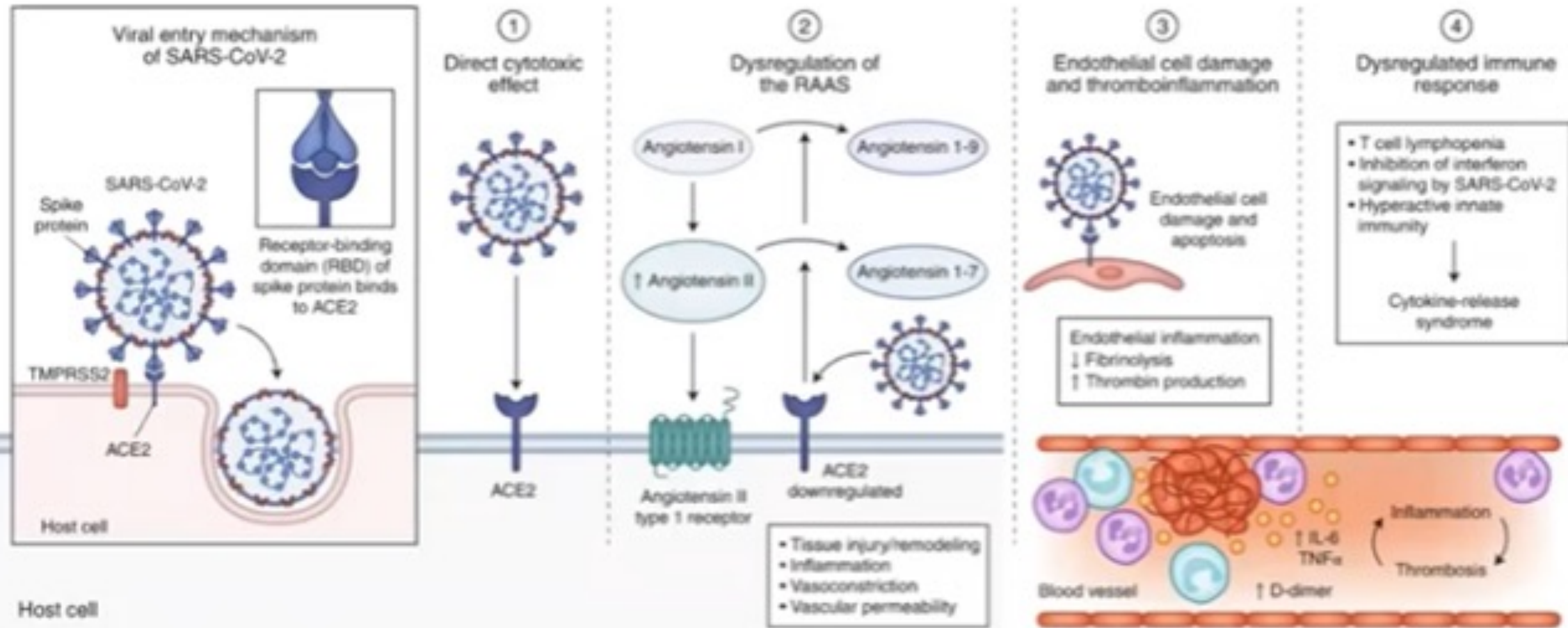
A separate definition may be applicable for children.



**MIS** = Multisystem  
Inflammatory Syndrome

**There is likely a relationship between organ dysfunction and persistent symptoms that is not yet completely understood.**

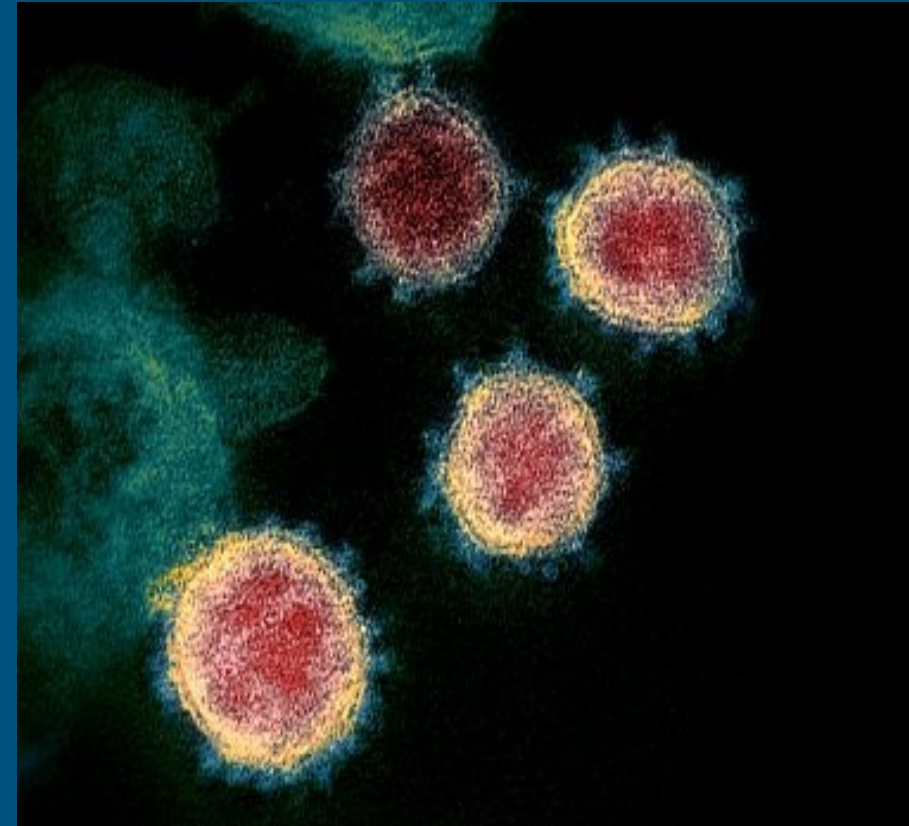
# Pathophysiology of shared multiorgan injury



# Potential Mechanisms of Long COVID

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- Autoantibodies
  - Woodruff M, medRxiv, 2021.09.21.21263845
- Post viral transcripts
- Viral latency
- Monocyte activation
  - Patterson BK, bioRxiv, 2021.
- Inflammation
  - Peluso MJ, Cell Rep. 2021 Aug 10;36(6):109518.
- Micro clots
  - Pretorius E, Cardiovasc Diabetol 20, 172 (2021).



# Cardiovascular Complications

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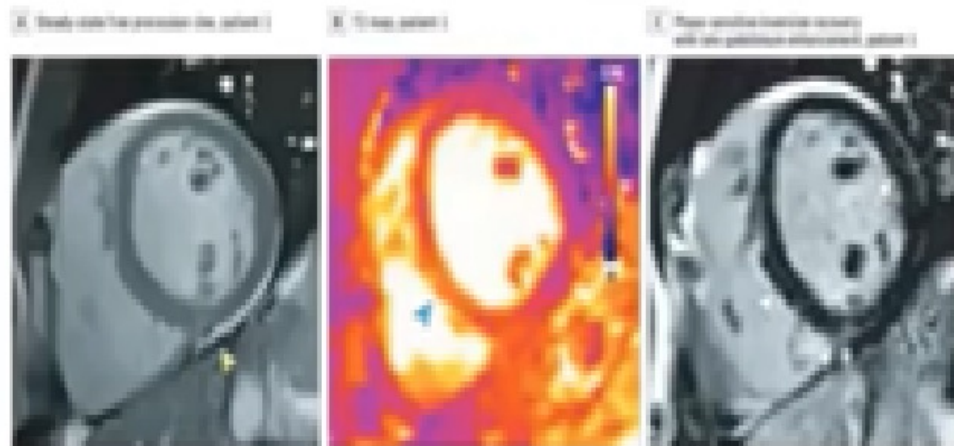
- Myocarditis
  - Cardiomyopathy
  - Myocardial infarction
  - Heart failure
  - Arrhythmias
  - Cardiac arrest
  - Thromboembolic events
- Poor prognosis
  - Increased troponin
  - Increased BNP (brain natriuretic peptides)



## RESEARCH LETTER

### Cardiovascular Magnetic Resonance Findings in Competitive Athletes Recovering From Coronavirus Disease 2019 Infection

Figure. Cardiovascular Magnetic Resonance Findings in Competitive Athletes Recovering From Coronavirus Disease 2019 Infection



- 26 competitive college athletes diagnosed with COVID-19 (RT-PCR)
- None were hospitalized
- Majority did not report symptoms
- 12 (46%) had evidence of myocarditis or prior myocardial injury by cardiac magnetic resonance imaging routinely performed for positive testing results (range, 12-53 days)



A CT scan of the chest of a 66-year-old male reveals patchy rounded hazy spots throughout the lungs. He had tested positive for the coronavirus and experienced shortness of breath.  
Steven Needel/Science Source

## Radiology: Cardiothoracic Imaging

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Original Research

Free Access

### Chest CT Findings in Cases from the Cruise Ship "Diamond Princess" with Coronavirus Disease 2019 (COVID-19)

Shohei Inui, Akira Fujikawa, Motoyuki Jitsu, Naoaki Kunishima, Sadahiro Watanabe, Yuhi Suzuki, Satoshi Umeda, Yasuhide Uwabe

Author Affiliations

Published Online First: May 27, 2020 | <https://doi.org/10.1148/radi.2020200410>

## Pulmonary Sequela Common

- Asymptomatic cases showed more ground glass opacity (GGO) over consolidation (83%), while symptomatic cases more frequently showed consolidation over GGO (41%).
- This study documented a high incidence of subclinical CT changes in cases with COVID-19. Compared to symptomatic cases, asymptomatic cases showed more GGO over consolidation and milder extension of disease on CT.

# Neurological Complications

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- Headache
- Seizure
- Ischemic and hemorrhagic strokes, including large vessel stroke in young people
- Corticospinal tract involvement
- Cognitive dysfunction
- Olfactory and gustatory dysfunctions (can present as first or sole symptom)
- Acute encephalitis, necrotizing encephalopathy, disseminated encephalomyelitis, transverse myelitis
- Guillain-Barre syndrome

risks for long term cognitive impairment and neurodegenerative diseases



# Psychiatric Complications

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- Depression
- Anxiety
- Fatigue
- Post-traumatic stress disorder
- Dysexecutive syndrome (brain fog)

## Long Haulers

**I used to go to the gym three times a week. [Now,] my physical activity is bed to couch, maybe couch to kitchen.**

*Athena Akrami, University College London*

# Thromboembolic Complications

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- Pulmonary embolism
- Peripheral deep vein thrombosis
- Disseminated intravascular coagulation
- Ischemic strokes

cumulative incidence is 20-30% across several studies

Middeldorp. J Thromb Haemost. 2020 Aug;18:1995-2002

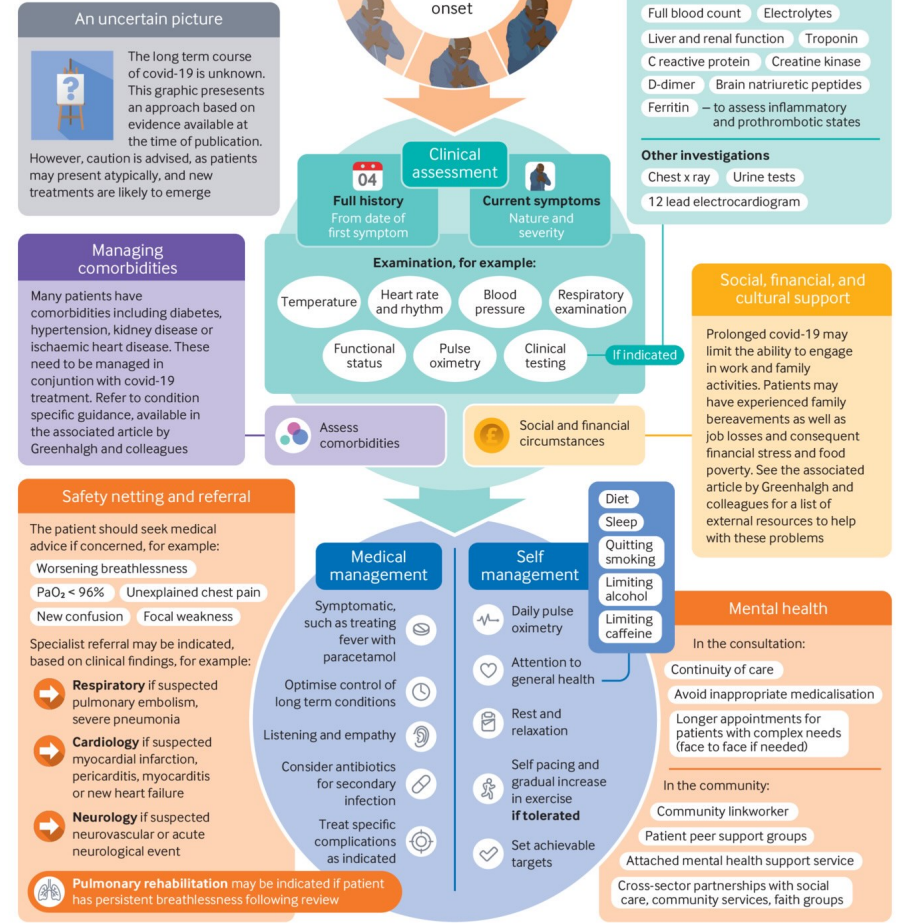
Flok. Thromb Res. 2020 Jul;191:145-147

Lodigiani. Thromb Res. 2020 Jul;191:9-14

# Long COVID in Primary Care

- Highly variable
- No current guidelines on treatment
- Long term disability

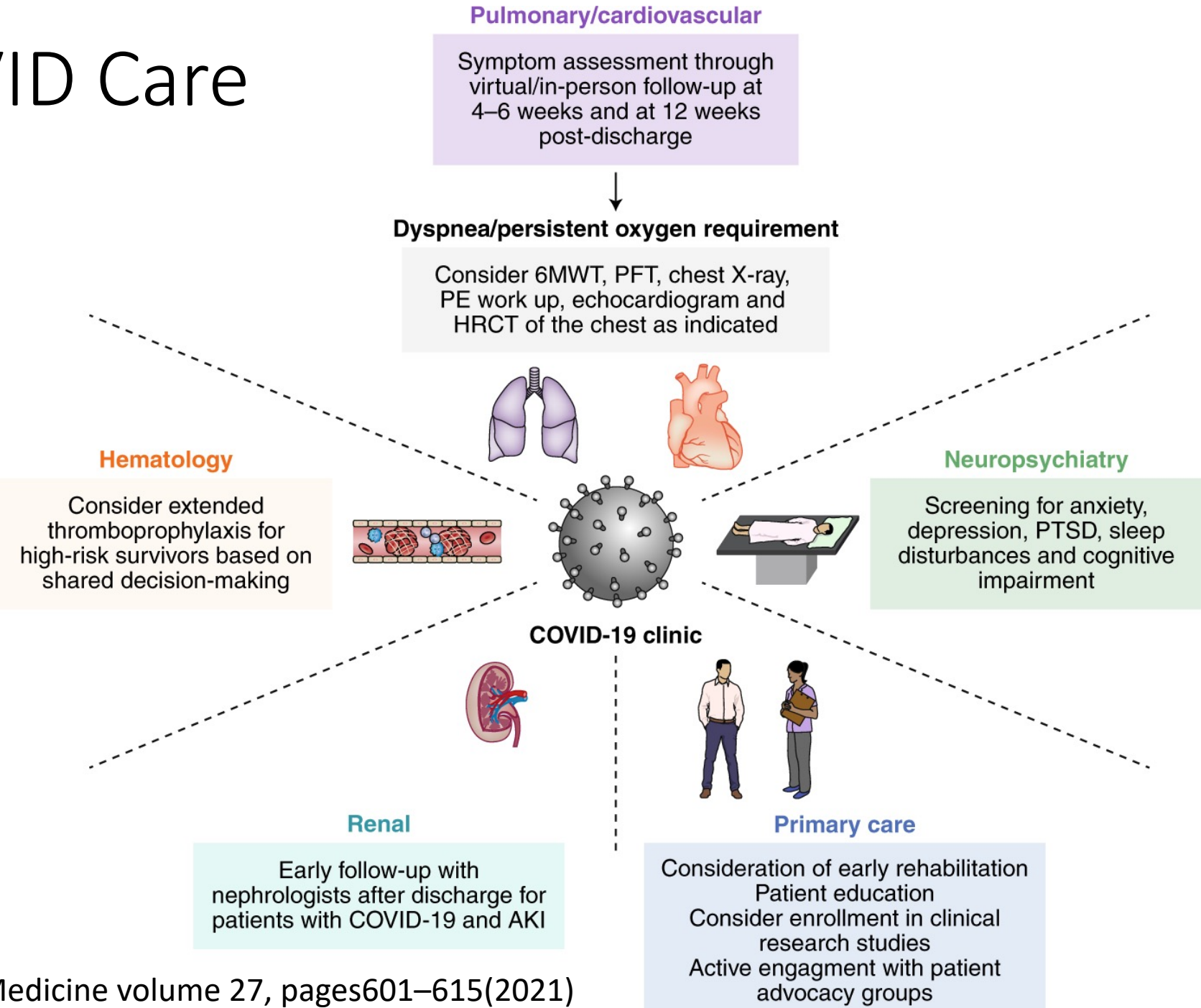
Post-acute covid-19 appears to be a multi-system disease, sometimes occurring after a relatively mild acute illness. Clinical management requires a whole-patient perspective. This graphic summarises the assessment and initial management of patients with delayed recovery from an episode of covid-19 that was managed in the community or in a standard hospital ward.



# 'Long-COVID': a cross-sectional study of persisting symptoms, biomarker and imaging abnormalities following hospitalisation for COVID-19

- In those discharged with elevated biomarkers, 30.1% and 9.5% had persistently elevated d-dimer and C reactive protein, respectively. 38% of chest radiographs remained abnormal with 9% deteriorating.

# Post COVID Care

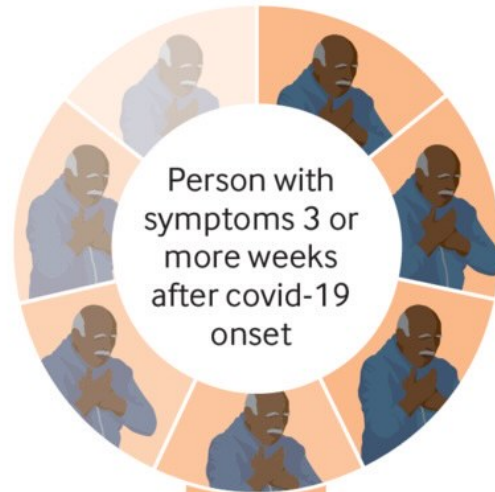





# “Long covid” in primary care

Assessment and initial management of patients with continuing symptoms

Post-acute covid-19 appears to be a multi-system disease, sometimes occurring after a relatively mild acute illness. Clinical management requires a whole-patient perspective. This graphic summarises the assessment and initial management of patients with delayed recovery from an episode of covid-19 that was managed in the community or in a standard hospital ward.



### An uncertain picture

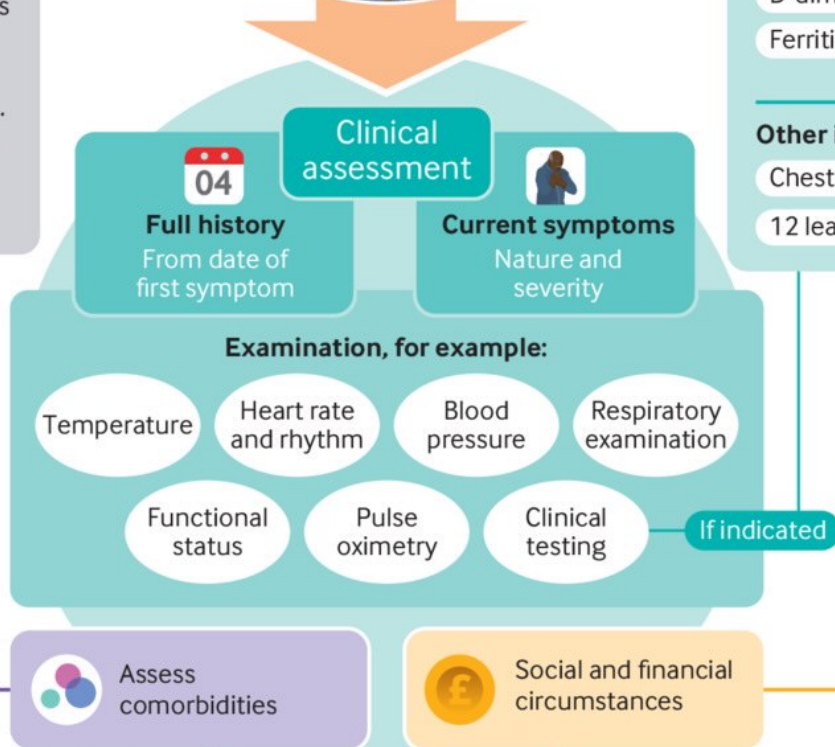


The long term course of covid-19 is unknown. This graphic presents an approach based on evidence available at the time of publication.

However, caution is advised, as patients may present atypically, and new treatments are likely to emerge

### Managing comorbidities

Many patients have comorbidities including diabetes, hypertension, kidney disease or ischaemic heart disease. These need to be managed in conjunction with covid-19 treatment. Refer to condition specific guidance, available in the associated article by Greenhalgh and colleagues



### Investigations

Clinical testing is not always needed, but can help to pinpoint causes of continuing symptoms, and to exclude conditions like pulmonary embolism or myocarditis. Examples are provided below:

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**Blood tests**

- Full blood count
- Electrolytes
- Liver and renal function
- Troponin
- C reactive protein
- Creatine kinase
- D-dimer
- Brain natriuretic peptides
- Ferritin – to assess inflammatory and prothrombotic states

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**Other investigations**

- Chest x ray
- Urine tests
- 12 lead electrocardiogram

### Social, financial, and cultural support

Prolonged covid-19 may limit the ability to engage in work and family activities. Patients may have experienced family bereavements as well as job losses and consequent financial stress and food poverty. See the associated article by Greenhalgh and



job losses and consequent financial stress and food poverty. See the associated article by Greenhalgh and colleagues for a list of external resources to help with these problems

### Safety netting and referral

The patient should seek medical advice if concerned, for example:

Worsening breathlessness

PaO<sub>2</sub> < 96%

Unexplained chest pain

New confusion

Focal weakness

Specialist referral may be indicated, based on clinical findings, for example:

➔ **Respiratory** if suspected pulmonary embolism, severe pneumonia

➔ **Cardiology** if suspected myocardial infarction, pericarditis, myocarditis or new heart failure

➔ **Neurology** if suspected neurovascular or acute neurological event

🫁 **Pulmonary rehabilitation** may be indicated if patient has persistent breathlessness following review

### Medical management

Symptomatic, such as treating fever with paracetamol

Optimise control of long term conditions

Listening and empathy

Consider antibiotics for secondary infection

Treat specific complications as indicated

### Self management

📊 Daily pulse oximetry

📖 Attention to general health

📅 Rest and relaxation

🚶 Self pacing and gradual increase in exercise **if tolerated**

✅ Set achievable targets

Diet

Sleep

Quitting smoking

Limiting alcohol

Limiting caffeine

### Mental health

In the consultation:

Continuity of care

Avoid inappropriate medicalisation

Longer appointments for patients with complex needs (face to face if needed)

In the community:

Community linkworker

Patient peer support groups

Attached mental health support service

Cross-sector partnerships with social care, community services, faith groups

# The Queen's Medical Center Post COVID Care Paradigm



## Local Studies at Queens

- COVID Seroprevalence Study
  - Myra W. and Jean Kent Angus Foundation
- Telmisartan – Inpatient / Ambulatory
- RECOVER COHORT NETWORK



# Actual Patient Visit

## • Clinical Portion

- Patient registers
- Vital conducted (temperature, BP, Pulse ox, Resp Rate, HT and wt), PQS4 for anxiety and depression
- COVID Questionnaire
- International Physical Activity Questionnaire
- Beck's Depression Questionnaire
- Hamilton Anxiety Questionnaire
- MOCA
- Frailty Questionnaire
- Physical examination
- NIH Stroke Scale
- Regular neuro test – vibration, DTR's, strength
- 6 minute walk test



# Actual Patient Visit

## Procedures / Tests

- Order the following procedures:
  - CXR
  - PFT
  - ECG
  - ECHO with cardiac strain
- Patient obtain blood test
  - CBC with diff – to look at % monocytes and lymphocytes
  - Chem – to look at renal and liver function
  - COVID antibody quantification
  - 5<sup>th</sup> generation troponin
  - Inflammatory markers – IL6, D-Dimer, fibrin/fibrinogen, procalcitonin
  - Thrombotic markers





# Long COVID Treatment

- Early in the disease course – No clinical guidelines
- May provide insight into complications in the future
  - Cardiovascular - Referral to Cardiology
    - Primary / secondary prevention
  - Pulmonary – Referral to Pulmonary group
    - Use of anticoagulants in thrombi
  - Neuro/psych – Referral to Neurology and Psychiatry
    - Cog Rehab
  - Other – GI, Rheumatology and Nephrology Services
- May help in getting your patients into seeing the subspecialists more quickly
- May help in coordinating care with PT/OT, social services
- Clinical trials

# Current Therapies

## Fatigue / Chronic fatigue syndrome

- Exercise target of 80% Max heart rate
- Improve sleep
- Get vaccinated with COVID vaccine
- SSNI
- Counseling
- Aspirin and Statin

## Unclear use

- Hydroxychloroquine
- Ivermectin
- Maraviroc
- Iodine, high doses of vitamin A,D, E and hydrogen peroxide

## Current Therapies - Pulmonary disease

- Exercise / deep breathing
- Oxygen supplementation of <88% RA or drop of 3% from baseline
- ~~ICS/LABA~~
- ACEI/ARB
- Oral steroids - Following SARS-CoV-2 pneumonitis, a cohort of patients are left with both radiological inflammatory lung disease and persistent physiological and functional deficit. Early treatment with corticosteroids was well tolerated and associated with rapid and significant improvement.\*
- Herbal Supplements
  - Allium sativum, Althaea officinalis, Andrographis paniculate, Commiphora molmol, Cymbopogon citratus, Echinacea sp, Eucalyptus globulus, Hedera helix, Justicia pectoralis, Magnolia officinalis, Malva sylvestris, Mikania glomerata, Pelargonium sidoides, Pimpinella anisum, Platycodon chinensis, Polygala senega, Scutellaria baicalensis, Silybum marianum, Thymus vulgaris, Cinchona

# Telmisartan Studies

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- Fewer Deaths in Hospitalized COVID Patients on an ACEI or ARB.  
[MedRxiv.org](https://www.medrxiv.org/).



# Current therapies

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## Brain Fog

- Cog Rehab, reminders, supportive therapy
- Stimulants

## Anxiety

- Counseling
- Zoloft or SSRI's
- Benzodiazepine
- Medical Marijuana / CBD

# Current therapies

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## Postural orthostatic tachycardia syndrome (POTS)

- Exercise on recumbent bicycle
- Oral rehydration
- Increase salt intake
- Mineralocorticoids/ BB/ Midodrine

## Thrombotic events / Endotheliitis

- NOAC
- Aspirin
- ? Apheresis (plasma exchange)



# Current therapies

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Loss of smell and taste

- Cog Rehab using essential oils and foods
- Flonase
- Dymista

# Herbal remedies that are not recommended

- Ginkgo (*Ginkgo biloba* L., Ginkgoaceae), St. John's wort (*Hypericum perforatum* L., Hypericaceae), and valerian (*Valeriana officinalis* L., Caprifoliaceae) because they may increase the effects of sleep agents. They may also cause irregular heart rhythms.
- Ginseng (*Ginseng* sp., Araliaceae), licorice (*Glycyrrhiza glabra* L.), and milk thistle [*Silybum marianum* (L.) Gaertn.], because they may cause high blood pressure and a rapid heart rate.
- Garlic (*Allium sativum* L., Amaryllidaceae), ginkgo, green tea [*Camellia sinensis* (L.) Kuntz., Theaceae], feverfew (*Tanacetum parthenium* L., Asteraceae), ginger (*Zingiber officinale* L.) and Saw palmetto [*Serenoa repens* (W. Bartram) Small, Arecaceae], because they may cause prolonged bleeding.
- • Garlic, in addition, can increase the effects of some OTC pain relievers.
- Ephedra: Several studies and clinical trials have been carried out to identify drugs that can effectively treat the disease, but, at the moment, the strategies to deal with the infection are only supportive

# Potential Therapies in the future

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- Antivirals
  - Pfizer – PAXLOVID
  - Merck - Molnupiravir
- Mast cell inhibitors: Covid-19 hyperinflammation and post-Covid-19 illness may be rooted in mast cell activation syndrome\*
- Inhaled Telmisartan

# COVID-19 Community Ambulatory Recovery and Evaluation (CARE) Center



## Prevention

**COVID Vaccine Program**  
Linda Goss / Infection  
Preventionist

## Early Infection

**COVID Hotline**  
Dr. Ron Kuroda / CMO QMC WO & COVID Hotline Director

## Late Infection

**Transitional Case Management Program (TCMP) Team**  
Mia Taylor / QHS Community & Post-Acute Care Services Dir

## **Hospitalist Team**

Dr. Malia Ramirez / QMC Hospitalist Program Assoc. Medical  
Director

## **Critical Care**

Dr. Gehan Devendra / QMC  
Division Chief Pulmonary &  
Critical Care Medicine

## Post Infection

**Post COVID Care Clinic**  
Dr. Fritzie Igno / QEC Medical  
Director/Internist  
Dr. Dominic Chow / Internist

## **Research**

Dr. Todd Seto / QMC Director, Academic Affairs and Research



## Post-COVID CARE Clinic

THE QUEEN'S HEALTH SYSTEMS



The Queen's Health Systems COVID-19 Community Ambulatory Recovery and Evaluation (CARE) Program provides specialized after-care to patients diagnosed with COVID-19 and are in recovery.

As part of the program, the Post-COVID CARE Clinic provides QHS and community patients with diagnostic services and complete cardiovascular, pulmonary, and neuropsychiatric evaluation.

COVID-19 may increase the risk of long-term health problems, prolonged illness, and persistent symptoms—even in young adults and persons with no underlying medical conditions or those who were not hospitalized.

 **Queen Emma Clinics**  
Queen Emma Tower, Ground Floor  
1301 Punchbowl Street, Honolulu, HI 96813

 **(808) 691-4970**

 **[www.covid.queens.org/clinic](http://www.covid.queens.org/clinic)**

Patients recovering from COVID-19 often experience symptoms that can indicate long-lasting side effects to body systems and organs, including:

#### *Heart*

- Damage to heart muscle
- Heart failure

#### *Lungs*

- Pulmonary disease/embolism
- Damage to lung tissue
- Restrictive lung failure

#### *Brain and Nervous System*

- Stroke
- Loss of memory/ability to concentrate
- Loss of sense of smell

#### *Mental Health*

- Anxiety and/or depression
- Post-traumatic stress disorder
- Sleep disturbance

#### *Joints and Muscles*

- Pain or weakness in joints and muscles
- Chronic fatigue
- Loss of stamina



If you are a patient experiencing post-COVID symptoms, or a provider who would like to refer a patient, please contact us at **(808) 691-4970** or visit **[www.covid.queens.org/clinic](http://www.covid.queens.org/clinic)** to learn more about the clinic and download the Patient Referral Form.

THE QUEEN'S HEALTH SYSTEMS

# COVID-19 Care Center

## COVID-19 Infoline

Mon. - Fri.: 8:00 a.m. - 8:00 p.m.  
Sat. - Sun.: 8:00 a.m. - 4:30 p.m.

[1-808-691-2619](tel:1-808-691-2619)

## How You Can Help

[Donate Supplies Or Make a Gift](#)



COVID-19 Home



Vaccine  
Information



Post COVID Care  
Clinic



Telehealth



Visitor Guidance



Prevent COVID-19  
Spread



Coronavirus Self  
Checker



News Archive

## Post COVID Recovery and Care Clinic

Dedicated to the treatment and management of patients who are suffering from complications stemming from their COVID infection.

### The Queen Emma Clinic Post-COVID Eligibility Criteria:

- Patient must have a confirmed positive COVID-19 infection diagnosis.
- Patient must be at least 10 days' post COVID infection with no current signs and symptoms of active infection (i.e. - fever  $\geq 100.4^{\circ}$  F or chills, cough, shortness of breath or difficulty breathing, etc.)
- Patient referral from assigned PCP.
- PCP may refer patient via Post COVID care referral form.

### Post COVID Recovery Referral and Questions

Call: (808) 691-4970

[Download Referral Form](#)



THE QUEEN'S HEALTH SYSTEMS

COVID-19 COMMUNITY AMBULATORY RECOVERY AND EVALUATION

### The Queen Emma Clinic Post-COVID Eligibility Criteria:

- Patient must have a confirmed positive COVID-19 infection diagnosis.
- Patient must be at least 10 days' post COVID infection with no current signs and symptoms of active infection (i.e. - fever  $\geq 100.4^{\circ}$  F or chills, cough, shortness of breath or difficulty breathing, etc.)
- Patient referral from assigned PCP.
- PCP may refer patient via Post COVID care referral form.
- QEC accepts most insurances **except** the following:
  - o Medicare HMO
  - o Commercial HMO
  - o Kaiser health plans
  - o No Fault
  - o Seoul Medical Group (SMG)
  - o Tricare Prime
  - o Worker's Compensation

**Referring Provider:** \_\_\_\_\_

**Reason for referral:** \_\_\_\_\_

**ICD-10 code (s):** \_\_\_\_\_

### Patient contact information:

Name: \_\_\_\_\_ DOB: \_\_\_\_\_

Address: \_\_\_\_\_

Contact number (s): \_\_\_\_\_

Email: \_\_\_\_\_

Insurance: \_\_\_\_\_ Insurance #: \_\_\_\_\_

Preferred Language: \_\_\_\_\_

**Date of positive test:** \_\_\_\_\_

**Test site of positive COVID-19 test:** (if applicable) \_\_\_\_\_

### PCP contact information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

Referring MD signature: \_\_\_\_\_ Date: \_\_\_\_\_

Please fax this form with a COVER Sheet to **(808) 691-4614**. Once we receive the patient's information, we will call the patient to schedule them at the information provided above.

If you have any questions, please feel free to call us at **(808) 691-4970**.

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[https://covid.queens.org/post\\_covid\\_clinic/](https://covid.queens.org/post_covid_clinic/)





***MAHALO!***