

This COViMS (COVID-19 Infections in MS & Related Diseases) is a joint effort of the National MS Society, the Consortium of MS Centers and the Multiple Sclerosis Society of Canada to capture information on outcomes of people with MS and other CNS demyelinating diseases (Neuromyelitis Optica Spectrum Disease, or MOG antibody disease) who have developed COVID-19.

We ask you to register any appropriate patient, regardless of severity (including asymptomatic patients detected through screening). Please report only after a minimum of 7 days and sufficient time has passed to observe the disease course through resolution of acute illness or death. Reporting a case to this database should take approximately 10 minutes.

We hope to capture outcomes of COVID-19 in people with CNS demyelinating diseases (MS, Neuromyelitis Optica Spectrum Disorder, or MOG antibody disease).

Definitions:

- Laboratory Confirmed COVID-19 - Positive viral RNA tests or positive serology for SARS-CoV-2
- Suspected COVID-19 but not confirmed - Fever with Dry cough, +/- anorexia, myalgias, dyspnea, anosmia/ageusia and potential exposure.

This registry has been determined "not human subjects research" under US Federal Guidelines by the IRB at Washington University in St. Louis. The database contains only de-identified data, in accordance with HIPAA Safe Harbor De-Identification standards. Please note: You can save your answers and return, but once "SUBMIT" is clicked, you cannot return to update or change any information submitted. The COViMS clinical database uses Branching Logic. Click "reset" if you make a mistake.

After you submit your report, you will not be able to edit the entry any longer. A copy of your entry will be available for download after you submit the entry.

Fields marked with a red asterisk (*) are required.

If you have any questions, please reach out to info@COviMS.org

Thank you!

Name of Reporter

Email Address of Reporter

Are you a health care provider, or reporting on behalf of a healthcare provider?

- Yes
 No

Name of Physician Providing Care for MS

Name of Center/Practice Providing Care for MS

PATIENT BASELINE DATA

Patient Gender

- Male
 Female
 Non-binary

Patient Age

(years)

Race

- White
 Black or African American
 Asian
 American Indian, Alaska Native or Indigenous Canadian
 Native Hawaiian or Other Pacific Islander
 Other
 Unknown

Please specify

- Asian Indian
 Japanese
 Chinese
 Korea
 Guamanian or Chamorro
 Filipino
 Vietnamese
 Samoan
 Other Asian (i.e, Thai, Pakistani, Cambodian)
 Unknown

Other race

Ethnicity

- Hispanic or Latino
 Not Hispanic or Latino
 Unknown
 Other

Other Ethnicity

Height

- Feet/Inches
 Centimeters
 Unknown

Height (feet)

1
 2
 3
 4
 5
 6
 7
 (ft)

Height (in)

0
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 (in)

Height (in cm)

(cm)

Weight

Pounds
 Kilograms
 Unknown

Weight (in lb)

(lb)

Weight (in Kg)

(Kg)

Smoking History and Use

	Never	Past	Current	Unknown
Cigarettes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cigars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cannabis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vaping	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MS HISTORY

Year Onset of Symptoms

(YYYY)

MS or Other Demyelinating Disease Type

- CIS
 RIS
 Confirmed MS
 Neuromyelitis Optica Spectrum Disorder (NMOSD)
 MOG antibody Disorder (MOG = myelin oligodendrocyte glycoprotein)

MS Type

- Relapsing/Remitting
 Primary Progressive
 Secondary Progressive
 Unknown

NMOSD Type

- NMO-IgG or Aquaporin-4 antibody -positive
 NMO-IgG or Aquaporin-4 antibody -negative
 Unknown

Ambulatory Status

- Fully ambulatory
 Walk with Assistance
 Non-ambulatory

Taking Disease Modifying Therapy (DMT) at Time of COVID-19 Infection?

- Yes
 No
 Unknown

DMT at Time of COVID-19

- Alemtuzumab
 Azathioprine
 Cladribine
 Dimethyl fumarate
 Diroximel fumarate
 Eculizumab
 Fingolimod
 Glatiramer acetate
 Hematopoietic Stem Cell Transplant (HSCT)
 Inebilizumab
 Interferon-beta
 IVIG
 Methotrexate
 Mitoxantrone
 Monomethyl fumarate
 Mycophenolate
 Natalizumab
 Ocrelizumab
 Ofatumumab
 Ozanimod
 Ponesimod
 Rituximab
 Sarilumab, Satralizumab, or Tocilizumab
 Siponimod
 Teriflunomide
 Ublituximab
 Other

Other current DMT

Length of Time on Current DMT

- < 6 months
 6 or more months
-

Immediately Prior DMT?

- Alemtuzumab
 Azathioprine
 Cladribine
 Daclizumab
 Dimethyl fumarate
 Diroximel fumarate
 Eculizumab
 Fingolimod
 Glatiramer acetate
 Hematopoietic Stem Cell Transplant (HSCT)
 Inebilizumab
 Interferon-beta
 IVIG
 Methotrexate
 Mitoxantrone
 Monomethyl fumarate
 Mycophenolate
 Natalizumab
 Ocrelizumab
 Ofatumumab
 Ozanimod
 Ponesimod
 Rituximab
 Sarilumab, Satralizumab, or Tocilizumab
 Siponimod
 Teriflunomide
 Ublituximab
 Other
 None
 Unknown
-

Other DMT

Glucocorticoid for treatment of demyelinating disease during the last 2 months?

- Yes
 No
 Unknown
-

COMORBIDITIES

Comorbidities
 Cancer
 Cardiovascular disease
 Cerebrovascular disease
 Chronic kidney disease
 Chronic liver disease
 Chronic lung disease
 Chronic neurological and/or neuromuscular disease
 Diabetes
 Hypertension
 Immunodeficiency disease
 Morbid obesity

Does the patient have any of the comorbidities listed above?

- Yes
 No
 Unknown

Please indicate any comorbidities

- Cancer
- Cardiovascular disease
- Cerebrovascular disease
- Chronic kidney disease
- Chronic liver disease
- Chronic lung disease
- Chronic neurological and/or neuromuscular disease
- Diabetes
- Hypertension
- Immunodeficiency disease
- Morbid obesity
- Other

Other Comorbidity _____

Please indicate the specific chronic lung disease comorbidity (if known)

- Asthma
- Bronchiectasis
- Chronic bronchitis
- Cystic fibrosis
- Emphysema/COPD
- Pulmonary fibrosing disorders
- Pulmonary hypertension
- Pulmonary vasculitis

Type of cancer _____

	Currently Treated	Treated within in the past year	Treatment >1 year ago	Never	Unknown
Chemotherapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radiation Therapy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Pregnant

- Yes
- No
- Unknown

Post Partum (< 6 week)

- Yes
- No
- Unknown

COVID-19 Diagnosis

Country at time of COVID-19 onset:

- United States
- Canada
- Mexico
- Other

US state at time of COVID-19 onset

- Alabama - AL
- Alaska - AK
- American Samoa - AS
- Arizona - AZ
- Arkansas - AR
- California - CA
- Colorado - CO
- Connecticut - CT
- Delaware - DE
- District of Columbia - DC
- Federated States of Micronesia* - FM
- Florida - FL
- Georgia - GA
- Guam - GU
- Hawaii - HI
- Idaho - ID
- Illinois - IL
- Indiana - IN
- Iowa - IA
- Kansas - KS
- Kentucky - KY
- Louisiana - LA
- Maine - ME
- Marshall Islands* - MH
- Maryland - MD
- Massachusetts - MA
- Michigan - MI
- Minnesota - MN
- Mississippi - MS
- Missouri - MO
- Montana - MT
- Nebraska - NE
- Nevada - NV
- New Hampshire - NH
- New Jersey - NJ
- New Mexico - NM
- New York - NY
- North Carolina - NC
- North Dakota - ND
- Northern Mariana Islands - MP
- Ohio - OH
- Oklahoma - OK
- Oregon - OR
- Palau* - PW
- Pennsylvania - PA
- Puerto Rico - PR
- Rhode Island - RI
- South Carolina - SC
- South Dakota - SD
- Tennessee - TN
- Texas - TX
- Utah - UT
- Vermont - VT
- Virgin Island - VI
- Virginia - VA
- Washington - WA
- West Virginia - WV
- Wisconsin - WI
- Wyoming - WY

Canadian province at time of COVID-19 onset

- Alberta - AB
- British Columbia - BC
- Manitoba - MB
- New Brunswick - NB
- Newfoundland and Labrador - NL
- Northwest Territories - NT
- Nova Scotia - NS
- Nunavut - NU
- Ontario - ON
- Prince Edward Island - PE
- Quebec - QC
- Saskatchewan - SK
- Yukon - YT

Mexican state at time of COVID-19 onset

- Aguascalientes
- Baja California
- Baja California Sur
- Campeche
- Chiapas
- Chihuahua
- Coahuila
- Colima
- Distrito Federal
- Durango
- Guanajuato
- Guerrero
- Hidalgo
- Jalisco
- México
- Michoacán
- Morelos
- Nayarit
- Nuevo León
- Oaxaca
- Puebla
- Querétaro
- Quintana Roo
- San Luis Potosí
- Sinaloa
- Sonora
- Tabasco
- Tamaulipas
- Tlaxcala
- Veracruz
- Yucatán
- Zacatecas

Other country at time of COVID-19 onset

Year of COVID-19 diagnosis

- 2019
- 2020
- 2021

Type of COVID-19 Diagnosis

- Laboratory Positive
- Suspected COVID-19 but not confirmed

	Yes	No	Unknown
Lab positive using PCR?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lab positive using serology?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Reinfection

Has the patient had a prior infection with COVID-19

Yes
 No
 Unsure

Was the first SARS-CoV-2 infection reported in the COViMS registry?

Yes
 No
 Unsure

How was the COVID-19 diagnosis made for the first infection?

Lab confirmed
 Suspected
 Don't know

How severe was the first infection?

Asymptomatic
 Not hospitalized
 Hospitalized
 ICU
 Unsure

How was recovery from the first SARS-CoV-2 infection established?

One negative nasal PCR/ \geq 2 negative nasal PCR
 No laboratory confirmation
 Unknown

How many days between symptom onset of the first infection and symptom onset of current infection?

_____ (Number of days)

COVID-19 Vaccination

Did the patient receive a coronavirus vaccine?

Yes
 No
 Unknown/Don't know

Which vaccine did the patient receive?

BNT162b2 (Pfizer-Biontech mRNA-based vaccine)
 mRNA-1273 (Moderna mRNA-based vaccine)
 AZD1222 (Oxford/AstraZeneca viral vector vaccine)
 JNJ-78436735 (Johnson & Johnson viral vector vaccine)
 NVX-CoV2373 (Novavax nanoparticle vaccine)
 INO-4800 (Inovio DNA vaccine)
 Other
 Unknown

What was the time between receiving the vaccine and subsequent COVID-19?

< 2 weeks
 2 weeks - 6 months
 >6 months
 Vaccine received after COVID-19
 Unknown

Work Status:

Is the patient an ESSENTIAL WORKER (e.g., healthcare, delivery worker, security, building maintenance) or living with an ESSENTIAL WORKER?

- Yes
 No
 Unsure

What type of workplace?

- Health care
 Delivery
 Grocery
 Retail
 Security
 Other
 Unknown

Other, please describe:

-

-

COVID-19 Characteristic Lung Imaging
 Such as ground-glass opacities or patchy shadowing, fine reticular opacities, abnormalities mainly bilateral, with a peripheral distribution, and involving the lower lobes.

- Yes
 No

Symptoms

Please specify the approximate number of days of symptoms from COVID-19 (if known)

- 0
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21+

Symptoms

(check all that apply)

- Fever
- Dry cough
- Fatigue
- Pain (joint, bone, muscle)
- Sore throat
- Shortness of breath
- Chills
- Ageusia (loss of taste)
- Anosmia (loss of smell)
- Headache
- Neurological
- Diarrhea
- Productive cough
- Nausea
- Other
- Asymptomatic
- Unknown

Other symptoms

Type of neurological symptoms

- Cognitive dysfunction / mental status decline
- Visual Dysfunction
- Cranial nerve dysfunction
- Motor/strength dysfunction
- Sensory dysfunction
- Incoordination/ cerebellar dysfunction
- Decreased Bowel-Bladder Function
- Other (seizures, spasms, etc.)
- Unknown

Other Neurological symptoms

COVID-19 Severity

	Yes	No	Unknown
Emergency Room visited?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospitalized?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Admitted to ICU?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ventilation?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ECMO (Extracorporeal membrane oxygenation)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Length of Hospital Stay

- 1 - 3 days
- 4 - 6 days
- 7 - 9 days
- 10 - 12 days
- 13 - 15 days
- 16 - 18 days
- 19 - 21 days
- 22 - 24 days
- 25 - 27 days
- 28 - 30 days
- 30+ days
- Unknown

 Ventilation type?

- Invasive
 Non-invasive

 Outcome

- Recovered
 Recovering
 Death
 Symptoms never developed(Positive Laboratory Test Only)
 Unknown

 Cause of death

COVID-19 TREATMENTS

COVID-19 Treatments

- Antiviral
 Chloroquine
 Hydroxychloroquine
 Systemic Glucocorticoids
 Other Anti Inflammatory Agent
 Azithromycin
 Other Antibiotics
 Oxygen Therapy
 Intravenous Immunoglobulins (IVIG)
 Convalescent Plasma
 Tocilizumab or other anti-IL6 or anti-IL6 receptor therapy
 Bamlanivimab
 Casirivimab
 Etesivimab
 Imdevimab
 No medications and/or investigational therapies were used
 Other
 Unknown

 Antiviral name

- Remdesivir
 Oseltamivir
 Lopinavir/ritonavir
 Other
 Unknown

 Other antiviral name

 Name of Anti Inflammatory Agent

 Other antibiotic

 Other treatment

COVID-19 RADIOLOGICAL DATA

Chest imaging done? Yes
 No
 Unknown

COVID-19 Characteristic Lung Imaging
 Such as ground-glass opacities or patchy shadowing,
 fine reticular opacities, abnormalities mainly
 bilateral, with a peripheral distribution, and
 involving the lower lobes. Yes
 No
 Unknown

Chest imaging type X-ray
 CT
 MRI
 Other

Other chest imaging _____

Results of chest imaging Normal
 Abnormal

Abnormal result Ground glass
 Interstitial abnormalities
 Consolidation
 Patchy shadowing
 Pneumonia

Was the pneumonia unilateral or bilateral? Unilateral
 Bilateral

Additional Description: _____

LABORATORY DATA BEFORE COVID-19

Last white blood cell count before COVID-19 diagnosis
 (within the past 6 months) Normal or NCS
 Abnormal and CS
 Not done
 Unknown

NCS=Not Clinically Significant
 CS=Clinically Significant

White blood cell count abnormal Abnormal - LOW
 Abnormal - HIGH

Last lymphocyte count before COVID-19 diagnosis
 (within the past 6 months) Normal or NCS
 Abnormal and CS
 Not done
 Unknown

Lymphocyte count abnormal Abnormal - LOW
 Abnormal - HIGH

EKG

- Normal
- Abnormal
- Not done
- Unknown

Echocardiogram

- Normal
- Abnormal
- Not done
- Unknown

Additional notes*

* Please do not enter specific dates. That information should not be included as it constitutes PHI. The information should be stated as "labs done 6 months prior," not, "labs done on X/X/2019."
