Covid19 Details

Record ID	_____
Study site	◯ Edmonton ◯ Ottawa ◯ London ◯ Montreal Children's ◯ Quebec City ◯ Kingston ◯ Vancouver ◯ Winnipeg ◯ Saskatoon ◯ Toronto ◯ St John's ◯ Calgary ◯ Tehran ◯ Hamilton ◯ Ste Justine ◯ Mississauga ◯ Guayquil ◯ Costa Rica ◯ Halifax
Date of birth (MM-YYYY) - uofa_partial_date_mm_yyyy	_____
Was the child < 90 days old on the date that COVID-19 was first detected or MIS-C diagnosed?	◯ Yes ◯ No
How many days old was the infant on the date that COVID was detected or MIS-C diagnosed (If born March 4, count as 2 days old on March 6)?	_____
Gender	◯ Male ◯ Female ◯ Unknown
Date of hospital admission (D-M-Y)	_____
Which best describes the role of SARS-CoV-2 for this admission? Choose the first option if they were suspected to have COVID/ MIS-C at admission and had positive PCR or serology. Choose the second option if they had incidental SARS-CoV-2 infection. Choose the third option if i) they were admitted with another suspected diagnosis but in retrospect had COVID/MIS-C or ii) had nosocomial SARS-CoV-2 Choose the fourth option if they had MIS-C with negative PCRs and serology (or tests not d\cone).	◯ The primary reason for admission was COVID-19 infection. ◯ The child was admitted for other reasons and also had COVID-19 but this did not prolong their hospital stay ◯ The child was admitted for other reasons and also had COVID-19 which prolonged their hospital stay ◯ The child was admitted for what turned out to be probable MIS-C and did not have proven COVID-19. ◯ The child was admitted with known SARS-C0C-2 infection but only because they could not isolate at home
Which best describes this case?	◯ MIS-C ◯ acute COVID-19 ◯ incidental SARS-CoV-2 infection

Appendix 1, as submitted by the authors. Appendix to: Merckx J, Cooke S, El Tal T, et al. Predictors of severe illness in children with multisystem inflammatory syndrome after SARS-CoV-2 infection: a multicentre cohort study. *CMAJ* 2022. doi: 10.1503/cmaj.210873.

Explain the main reason for the admission and why you think that COVID did not prolong the admission (eg. The child was admitted with proven appendicitis and never required oxygen. CXR never done.) Do not complete the remainder of the form unless the children received some treatment for COVID (IVIG/ medication/ oxygen/ other) or you think that COVID played an important role in the admission.	_____
Describe the primary reason for admission, the evidence that COVID-19 prolonged the admission and your estimate of how many days it prolonged admission for. (eg. child admitted with cellulitis - COVID19 detected at admission - child stayed in hospital 5 days as required oxygen - would have likely gone home day 2 if just had the cellulitis so admission prolonged by 3 days)	_____
First three digits of postal code (Put NA for hospitals outside of Canada)	_____
Has the child been discharged to their home (Choose 'no" if went to a rehabilitation facility)?	◯ Yes ◯ No
Where is the child now? If "still in your hospital", please come back later and change the answer if the child eventually is discharged.	◯ still in your hospital ◯ went to rehabilitation hospital ◯ transferred to another acute care hospital
Date of hospital discharge (D-M-Y)	_____
Did the child die during this admission?	◯ Yes ◯ No
Number of days after admission that child died (If child was admitted May 5 and died May 15, put 10).	_____
Role that COVID-19 played in death	◯ child would not have died had they not got COVID-19 infection ◯ child might have died anyway but COVID-19 infection may have hastened death ◯ COVID-19 infection probably played no role in death
Cause of death	_____
Was SARS-CoV-2 infections hospital acquired? This is defined as onset of symptoms 7 days or more after admission with first detection of virus 7 days or more after admission.	◯ Yes ◯ No
Date of sample(s) from which SARS-CoV-2 first detected (D-M-Y) - Put NA if not detected from any site.	_____

When did the COVID-19 infection start (earliest date that child had symptoms (or viral detection if never symptomatic)?

- ◯ In retrospect the child probably had COVID-19 symptoms at admission even though it was not suspected.
- ◯ COVID-19 symptoms probably started after admission.
- ◯ 3. never got any symptoms

Which underlying conditions does this child have (choose all that apply)?

- ☐ none
- ☐ preterm birth (< 37 weeks GA)
- ☐ congenital immunodeficiency
- ☐ HIV
- ☐ cancer
- ☐ other condition requiring parenteral immunosuppressive drugs (including corticosteroids for asthma) in the preceding 6 weeks
- ☐ hemodynamically significant congenital heart disease
- ☐ cardiomyopathy/ myocarditis
- ☐ asthma
- ☐ CF
- ☐ chronic lung disease from etiology other than CF
- ☐ seizure disorder
- ☐ chromosomal disorder
- ☐ diabetes mellitus
- ☐ sickle cell disease
- ☐ chronic renal failure requiring dialysis
- ☐ on chronic NSAIDs (usually for a rheumatologic condition)
- ☐ on ACE inhibitors (usually for hypertension)
- ☐ hypertension
- ☐ obesity
- ☐ other

Which of the following did the child have prior to COVID-19/MIS-C (Choose all that apply)?

- ☐ Was on oxygen at least part of the day at home
- ☐ tracheostomy
- ☐ non-invasive ventilation (CPAP/BIPAP) at least part of the day
- ☐ on a traditional ventilator at least part of the day
- ☐ tube fed
- ☐ home TPN
- ☐ CSF shunt (most commonly VP shunt)
- ☐ ostomy for stool
- ☐ none

What type of cancer does the child have? When did they last receive chemotherapy?

_____

Which applies to the child's asthma?

- ☐ only on therapy (such as salbutomol or inhaled steroids) for exacerbations
- ☐ on continuous therapy

Type of chronic lung disease

- ☐ non-CF bronchiectasis
- ☐ chronic lung disease of prematurity
- ☐ chronic lung disease from aspiration
- ☐ other

What is the cause of the chronic lung disease?

_____

Type of diabetes mellitus	◯ insulin dependent ◯ non-insulin dependent
Provide more details about the underlying medical condition (eg. has Trisomy 21 with no congenital heart disease or other comorbidities)	_____
Provide details of any other underlying medical condition.	_____
Routine immunizations (not including influenza vaccine)	◯ up to date for age ◯ not up to date for age ◯ not recorded in chart
What routine immunizations has the child received? (eg. They received routine 2 and 4 month vaccines but none since).	_____
MRSA status	◯ colonized this admission ◯ not colonized this admission ◯ not tested for colonization this admission
Use of NSAIDS	◯ On regular NSAIDS prior to COVID-19 infection (typically for a rheumatologic condition) ◯ Received at least one dose of NSAIDS during COVID-19 infection ◯ Did not receive NSAIDs during COVID-19 infection ◯ Did not receive NSAIDS in hospital but might have at home prior to admission
Where was COVID-19 first detected from (Choose more than one if multiple sites positive on the same day)?	☐ nasopharyngeal specimen ☐ swab of the nose ☐ throat swab ☐ ETT aspirate ☐ stool ☐ blood ☐ other site ☐ diagnosis based on positive serology alone ☐ COVID-19 not detected and serology not done but enrolled as meets criteria for MIS-C syndrome ☐ COVID-19 not detected and serology negative but enrolled as meets criteria for MIS-C syndrome
The virus was	◯ wild type ◯ variant B1.1.7 ◯ variant P.1 ◯ variant P.2 ◯ variant B.1.617 ◯ variant B.1.351 ◯ other variant ◯ N501Y detected but variant not determined ◯ not typed

The MIS-C criteria require likely contact with COVID-19. Explain the contact. (eg. household contact with proven case 10 days prior to symptom onset OR No known specific contact but there were new cases occurring daily in the city where they live at the time they presented).	_____
From what other site was SARS-CoV-2 detected?	_____
Were any other samples positive after the first sample?	◯ Yes ◯ No
Date of first negative sample (D-M-Y) - Put ND if never done.	_____
Please provide dates and results of all negative and positive SARS-CoV-2 testing done during this illness (eg. May 4- NPA pos; May 6 - ETT neg; May 8 - NPA pos; then no further testing)	_____
Results of serology for SARS-CoV-2	◯ Not done ◯ Done and always negative ◯ Positive at least once
For the positive serology, provide dates and as much information as you can about the test that was done and the IgM and IgG results.	_____
Highest level of care required for COVID-19 infection or MIS-C	◯ regular ward only - did not need oxygen ◯ regular ward only - needed oxygen ◯ regular ward only - needed high flow nasal cannula (HFNC) ◯ regular ward only - needed non-invasive ventilation (CPAP/BiPAP) ◯ COVID ward - did not need oxygen ◯ COVID ward - needed oxygen ◯ COVID ward - needed HFNC ◯ COVID ward - needed non-invasive ventilation (CPAP/BiPAP) ◯ ICU for telemetry only - no oxygen or vasopressors ◯ ICU for management of impending shock but never needed inotropes or oxygen ◯ ICU - needed vasopressors only ◯ ICU - needed oxygen only ◯ ICU - needed oxygen and vasopressors only ◯ ICU - needed HFNC ◯ ICU - needed non-invasive ventilation (CPAP/BiPAP) ◯ ICU - needed mechanical ventilation ◯ ICU - needed ECMO ◯ Was on ward for other reasons and level of care required did not change during COVID-19 infection ◯ Was in ICU for other reasons and level of care required did not change during COVID-19 infection
Did the patient have more than one ICU stay during their COVID-19 infection (or MIS-C)?	◯ Yes ◯ No
Date of initial ICU admission (D-M-Y)	_____

Date of initial ICU discharge (D-M-Y)

_____

Provide ICU admission and discharge dates for the second and subsequent admissions and an explanation for each (eg. Went to ward June 6 but then had a prolonged seizure June 7 so back in ICU June 7-8).

_____

Did the patient require vasoactive infusions (including inotropes) such as epinephrine or norepinephrine during COVID-19 infection or MIS-C?

◯ Yes
◯ No

Coinfections - Which of the following occurred during the time that the child had COVID-19 infection? If none, you can leave this blank - no need to select "no" for each.

	yes	no
positive blood culture thought to be a contaminant (not treated with full course of antibiotics)	☐	☐
blood culture thought to be truly positive	☐	☐
positive ETT cultures treated with antibiotics for presumptive bacterial pneumonia	☐	☐
positive ETT cultures thought to be colonization only so not treated with full course of antibiotics	☐	☐
positive bacterial culture from another site treated with antibiotics	☐	☐
respiratory viral coinfection	☐	☐
other infection	☐	☐

Provide details of the "other infection".

_____

Provide details of the coinfection (eg. RSV pos May 4; BC grew MSSA May 6 so received 10 days cloxacillin)

_____

Which is true?

◯ The patient did not receive antibiotics this admission.
◯ The patient received antibiotics for possible secondary bacterial pneumonia.
◯ The patient received antibiotics for another reason.

What was the indication for antibiotics?

_____

Choose all that are true regarding chest imaging during the COVID-19 infection	☐ The child did not have any chest imaging performed ☐ All CXRs were normal or showed findings not related to COVID-19 (chronic changes for example) ☐ The child had one or more abnormal CXRs with findings possibly related to COVID-19 ☐ CT chest was always normal or showed findings not related to COVID-19 ☐ The child had one or more abnormal CTs with findings possibly related to COVID-19
What did the CXR show? Choose all that apply	☐ Ground glass appearance ☐ Local patchy infiltrates ☐ Bilateral patchy infiltrates ☐ Lobar infiltrate(s) ☐ Interstitial changes ☐ other
What were the other CXR findings?	_____
Summarize relevant CT chest findings, including presence or absence of ground glass appearance	_____
Did the child receive an anti-viral for influenza (typically oseltamivir at admission)?	◯ Yes ◯ No
Did the child receive any other drug or therapy directed at treatment of COVID-19 or its sequelae? Choose all that apply.	☐ lopinavir-ritonavir (Kaletra) ☐ hydroxychloroquine (Plaquenil) ☐ remdesivir ☐ tocilizumab ☐ plasmapheresis ☐ convalescent plasma ☐ IVIG ☐ other ☐ none of the above
How many doses of IVIG did the child receive?	◯ 1 ◯ 2 ◯ 3 ◯ 4 or more
Date of first IVIG infusion (D-M-Y)	_____
Date of second IVIG infusion (D-M-Y)	_____
Date of third IVIG infusion (D-M-Y)	_____
Date of fourth or subsequent IVIG doses	_____
What was the "other" treatment?	_____
Provide the name of each drug or therapy directed at COVID-19 and the dose and date(s).	_____

Did the patient receive corticosteroids during the time that they had COVID-19 infection or MIS-C ?	◯ Yes ◯ No
Were corticosteroids given for MIS-C?	◯ Yes ◯ No
Provide the name of the corticosteroid that they received, and the highest mg/kg/day given	_____
Describe any other treatment that the child received that was directed at COVID-19 or MIS-C (eg. anakinra June 4) - Put "none" if appropriate.	_____
Did the patient have symptoms of COVID-19 or MIS-C at any point?	◯ Yes ◯ No
Date of onset of COVID-19 or MIS-C symptoms (D-M-Y)	_____
Fever	◯ history of fever prior to admission but afebrile in hospital ◯ fever documented in hospital (+/- fever prior to admission) ◯ no fever prior to or during admission
Date of first fever thought to be due to COVID-19 or MIS-C (including reports of fever at home prior to admission) (D-M-Y)	_____
Date of last fever in hospital (38.2 degrees C or higher) during COVID-19 infection or MIS-C (D-M-Y) (Ignore fevers that occurred after COVID-19 symptoms resolved if patient remained admitted for other reasons))	_____

Signs and symptoms attributed to COVID-19 that occurred prior to or during admission (Choose "no" if not mentioned in chart)

	yes	no
rash	☐	☐
cough	☐	☐
chest pain	☐	☐
wheezing	☐	☐
abdominal pain	☐	☐
diarrhea	☐	☐
vomiting	☐	☐
headache	☐	☐
myalgias	☐	☐
conjunctivitis	☐	☐

rhinitis	☐	☐
sore throat	☐	☐
shortness of breath or respiratory distress	☐	☐
loss of sense of smell or taste	☐	☐
edema of hands AND feet	☐	☐
redness of hands AND feet	☐	☐
peeling of fingers or toes	☐	☐
cracked red lips	☐	☐
strawberry tongue	☐	☐
lymph node > 1.5 cm in diameter	☐	☐
syncope	☐	☐
hepatomegaly	☐	☐
splenomegaly	☐	☐
other	☐	☐

Describe the rash (location and characteristics). In particular, did it involve the fingers and toes?

_____

Conjunctivitis was

◯ purulent and bilateral
◯ purulent and unilateral
◯ non-purulent and bilateral
◯ non-purulent and unilateral

Describe the other symptoms

_____

Was there erythema, pain or swelling of the limbs during the admission?

◯ Yes
◯ No

Describe the location of the abnormal limb findings.

_____

Did they have sterile pyuria (>5 WBCs/HPF)?

◯ yes
◯ no
◯ urinalysis never done

WBC count on first CBC and diff performed after COVID-19 or MIS-C symptoms started (X 10*9/L - normal is 4-10) - Do not record a value from a CBC alone - Put ND if CBC and diff never done.

_____

Highest neutrophil count X 10*9/L (normal is about 2-7) - Put ND if never done.

_____

Lowest neutrophil count X 10*9/L (normal is about 2-7). Put ND if never done.

_____

Lowest Hb during COVID-19 or MIS-C symptoms in g/L (normal is about 120-160). Put ND if never done.

_____

First platelet count measured after COVID-19 or MIS-C symptoms started (X 10*9/L - normal is 150-400) - Put ND if never done.	_____
Lowest platelet count measured after COVID-19 or MIS-C symptoms started (X 10*9/L - normal is 150-400) - Put ND if never done.	_____
Highest platelet count measured after COVID-19 or MIS-C symptoms started (X 10*9/L - normal is 150-400) - Put ND if never done.	_____
Were burr cells noted during time child had COVID-19 or MIS-C?	◯ yes ◯ peripheral smear did not show burr cells ◯ peripheral smear was not done
Peak CRP during COVID-19 infection or MIS-C (mg/L - normal is up to 8) - Put ND if never done.	_____
Lowest serum albumin (g/L 0- normal is 30-50) during COVID-19 infection or MIS-C - Put ND if never done.	_____
Evidence for coagulopathy during COVID-19 infection or MIS-C:	◯ peak INR > 3 ◯ peak INR 2.0-2.9 ◯ peak INR 1.3-1.9 ◯ INR measured and always 1.2 or lower ◯ INR never measured
PTT during COVID-19 infection or MIS-C	◯ not done ◯ always normal ◯ at least one abnormal result
Highest PTT result	_____
D-dimer results during COVID-19 infection or MIS-C	◯ Not done ◯ Always normal ◯ Elevated at least once
What was the highest D-dimer result?	_____
Fibrinogen results during COVID-19 infection or MIS-C	◯ not done ◯ always normal ◯ at least one abnormal result
Record date (D-M-Y) and result of all abnormal fibrinogen results.	_____
Was the patient thought to have DIC during COVID-19 infection or MIS-C?	◯ Yes ◯ No
Which of the following was evidence for DIC (choose all that apply)?	☐ bleeding ☐ thrombosis ☐ compatible lab abnormalities

Describe the bleeding that was attributed to DIC (location and severity).	_____
Where were the thrombi that were attributed to DIC?	_____
Highest ALT during COVID-19 or MIS-C admission - Put ND if never done.	_____
Highest AST during COVID-19 admission - Put ND if never done.	_____
Highest total bilirubin after COVID-19 or MIS-C symptoms started (mmol/L - normal is < 25) - Put ND if never done.	_____
Lowest serum Na during COVID-19 or MIS-C illness - Put ND if never done.	_____
First ferritin level measured after COVID-19 or MIS-C symptoms started (mcg/L)	_____
Highest ferritin level measured (mcg/L) - Put ND if never done.	_____
Triglycerides - highest level in mmol/l (normal < 1.7) during COVID-19 infection or MIS-C - Put ND if never done.	_____
Highest serum creatinine during COVID-19 infection or MIS-C in µmol/L (normal approximately 40-90) - Put ND if never done.	_____
Highest BNP - Put ND if not done	_____
Troponin results	◯ not done ◯ low or normal ◯ elevated
Highest troponin value	_____
If any novel biomarkers were measured during COVID-19 infection or MIS-C, provide name of test, date and result - Put ND if never done.	_____
Did the child have a neurological complication (e.g. spinal cord, brain or optic nerve problem, as evidenced by seizure, encephalopathy, dystonia, chorea, athetosis, hemiparesis and/or abnormal CSF) ?	◯ Yes ◯ No
Echocardiogram results	◯ not done ◯ all echos normal or showed chronic findings judged to be unrelated to COVID-19 ◯ echo showed changes assumed to be acute

Describe the abnormal echo findings. If there were coronary aneurysms, specify the diameter of the largest one.	_____
Does the child have a history of thrombosis prior to their COVID-19 infection or MIS-C?	◯ Yes ◯ No
Which of the following types of thrombosis did the child have in the past (Select all that apply)?	☐ deep venous thrombosis ☐ arterial thrombosis ☐ stroke ☐ intravascular catheter-related thrombosis on imaging ☐ pulmonary embolism ☐ superficial thrombosis ☐ cardiac thrombosis
Did the patient develop new thrombosis during their COVID-19 or MIS-C admission?	◯ Yes ◯ No
What type of thrombosis did the patient develop?	☐ deep venous thrombosis ☐ arterial thrombosis ☐ stroke ☐ intravascular catheter-related thrombosis on imaging ☐ pulmonary embolism ☐ superficial thrombosis ☐ cardiac thrombosis
Was the child known to have a clotting disorder prior to COVID-19 infection or MIS-C?	◯ Yes ◯ No
What type of clotting disorder was the child known to have?	☐ Factor V Leiden ☐ Prothombin gene mutation ☐ Protein C deficiency ☐ Protein S deficiency ☐ Antithrombin III deficiency ☐ Hyperhomocysteinemia ☐ Antiphospholipid antibiodies ☐ Other
Was the child known to have a bleeding disorder prior to COVID-19 infection (ore MIS-C)?	◯ Yes ◯ No
What type of bleeding disorder was the child known to have?	☐ Hemophilia A ☐ Hemophilia B ☐ Other factor deficiency ☐ Von Willebrand disease ☐ Platelet dysfunction ☐ Other
Did the child develop any evidence for bleeding during their COVID-19 or MIS-C admission (including epistaxis or stool positive for occult blood)?	◯ Yes ◯ No
Where was the bleeding from and did it require blood products?	_____
Did the child receive any blood products (excluding IVIG) for COVID-19 or MIS-C during this admission?	◯ Yes ◯ No

What is the child's blood group?	◯ O ◯ A ◯ B ◯ AB ◯ unknown
Which of the following did the child require during their COVID-19 or MIS-C admission (typically as treatment for bleeding/ thrombosis)?	☐ none ☐ red blood cells ☐ platelets ☐ FFP ☐ cryoprecipitate/ Riastat ☐ prothrombin concentrates ☐ fibrinogen concentrates ☐ tranexamic acid/ antifibrinolytics (given for DIC) ☐ surgery to stop bleeding ☐ catheter directed thrombolysis ☐ unfractionated heparin ☐ low molecular weight heparin ☐ warfarin ☐ TPA (alteplase) ☐ other anticoagulants such as direct oral anticoagulants
What prophylactic anticoagulation measures did the child receive?	☐ none ☐ unfractionated heparin ☐ low molecular weight heparin ☐ direct oral anticoagulants ☐ aspirin
Need for central venous line (including PICC) - Choose all that apply	☐ present at admission ☐ new one inserted during admission ☐ not required
List and provide details for any other possible complications of COVID-19 infection or its treatment and provide details (eg. ARDS, acute kidney injury, myocarditis, etc). This should include any abnormal laboratory or radiographic result that was attributed to COVID-19 infection and could be clinically significant. (eg. hepatitis with peak ALT 1244, AST 1200, bili 316 on May 7 attributed to drug X; acute renal failure with peak Cr 345 requiring CRRT for May 6-15 attributed to shock; intravascular catheter infection due to CONS that resolved with vancomycin June 16-26; evidence for a thrombus at site of central venous line)	_____
Did the patient travel outside Canada within the 14 days prior to symptom onset?	◯ yes ◯ no ◯ unknown
When did they travel and where did they go?	_____
Did the child have contact with a person with proven COVID-19 infection prior to symptom onset? (If not documented, choose "no).	◯ Yes ◯ No

Date(s) of exposure and relationship of contact to the child (parent/ sibling/ other household contact, etc)	_____
Add any other comments that you think are relevant (For example if the clinical course is not adequately captured or if the virology lab did extra studies or provided you with the crossing threshold (CT) value for the molecular test)	_____

A. Neurologic exam

Check all new symptoms that the child had that were thought to be related to COVID-19 infection or MIS-C (including post-infectious complications)	☐ Seizures ☐ Lethargy ☐ Severe encephalopathy ☐ Behavioural/Personality Change ☐ Irritability ☐ Dyskinesia ☐ Altered Mental Status ☐ Speech Impairment ☐ Psychosis ☐ Ataxia ☐ Other
What other symptoms did the child have?	_____
Clinical Disability Rating Scales	
Modified Rankin Scale	◯ 0-No symptoms at all ◯ 1-No significant disability despite symptoms ◯ 2-Slight disability; unable to carry out all previous activities ◯ 3-Moderate disability requiring some help ◯ 4-Moderate severe disability; unable to walk without assistance ◯ 5-Severe Disability; bedridden and requiring constant care and attention ◯ Unknown
Indicate which of the following were detected after the onset of COVID-19 infection (check all that apply)	☐ Facial weakness ☐ Hearing loss ☐ Dysarthria ☐ Dysphagia ☐ Truncal weakness ☐ Neck weakness ☐ None of the above ☐ Other (please specify below)
Neurologic assessment - other symptoms:	_____
Did gait become abnormal during or after COVID-19 infection?	◯ Yes ◯ No
Was there muscle weakness in the limbs?	◯ Yes ◯ No ◯ Unknown

Which limb(s) is affected?	☐ Right arm ☐ Left arm ☐ Right leg ☐ Left leg
Indicate degree of weakness in Right Arm	◯ 0-No movement at all ◯ 1-Only a trace or flicker of movement is seen or felt ◯ 2- Muscle can move only if the resistance of gravity is removed (e.g. the elbow can be fully flexed if the arm is kept in horizontal position) ◯ 3-Muscle can move against gravity (e.g. the elbow can move from full extension to full flexion starting with the arm hanging down at side of body) ◯ 4- Muscle strength is reduced but essentially normal ◯ 5- Normal strength ◯ Unknown
Indicate degree of weakness Left Arm	◯ 0-No movement at all ◯ 1-Only a trace or flicker of movement is seen or felt ◯ 2- Muscle can move only if the resistance of gravity is removed (e.g. the elbow can be fully flexed if the arm is kept in horizontal position) ◯ 3-Muscle can move against gravity (e.g. the elbow can move from full extension to full flexion starting with the arm hanging down at side of body) ◯ 4- Muscle strength is reduced but essentially normal ◯ 5- Normal strength ◯ Unknown
Indicate degree of weakness in Right Leg	◯ 0-No movement at all ◯ 1-Only a trace or flicker of movement is seen or felt ◯ 2- Muscle can move only if the resistance of gravity is removed (e.g. the elbow can be fully flexed if the arm is kept in horizontal position) ◯ 3-Muscle can move against gravity (e.g. the elbow can move from full extension to full flexion starting with the arm hanging down at side of body) ◯ 4- Muscle strength is reduced but essentially normal ◯ 5- Normal strength ◯ Unknown
Indicate degree of weakness in Left Leg	◯ 0-No movement at all ◯ 1-Only a trace or flicker of movement is seen or felt ◯ 2- Muscle can move only if the resistance of gravity is removed (e.g. the elbow can be fully flexed if the arm is kept in horizontal position) ◯ 3-Muscle can move against gravity (e.g. the elbow can move from full extension to full flexion starting with the arm hanging down at side of body) ◯ 4- Muscle strength is reduced but essentially normal ◯ 5- Normal strength ◯ Unknown

Was there sensory abnormality in the limbs (eg. to touch, pain, prioprioception, etc)?	◯ Yes ◯ No ◯ Unknown
Indicate which limb(s) and severity (mild, moderate, severe) E.g. Right arm-moderate	_____
Was there cerebellar abnormality (eg. Incoodination of movement, impaired articulation, tremor, etc)?	◯ Yes ◯ No ◯ Unknown
Indicate severity	◯ Mild ◯ Moderate ◯ Severe ◯ Unknown
Changes in bowel and bladder function during or after COVID-19 infection	◯ None ◯ Mild deficit ◯ Moderate deficit ◯ Major loss of function
Any other comments on changes in neurologic function during or after COVID-19 infection	_____

C. Laboratory Data - CSF

Was CSF obtained?	◯ Yes ◯ No
Date of CSF testing (record results of the one with the highest number of WBCs if more than one CSF was obtained)	_____
WBC (cells/mm^3)	_____
% Neutrophils	_____
Protein (mg/dL)	_____
RBC (mm^3)	_____
% Monocytes	_____
% Lymphocytes	_____
Glucose (mmol/L)	_____

Oligoclonal Bands in CSF	◯ Yes ◯ No ◯ Not Done
Opening Pressure	_____

D. Neuroimmunologic Test Results

Was immunologic testing performed? If yes, please select test(s):	☐ Anti-MOG antibody ☐ Anti-NMO (aquaporin 4) antibody ☐ Anti-NMDA receptor antibody (CSF) ☐ Anti-NMDA receptor antibody (SERUM) ☐ Autoimmune encephalitis panel (CSF) ☐ Autoimmune encephalitis panel (SERUM) ☐ Other immunology test (please specify below) ☐ No immunology testing done
Anti-MOG antibody	◯ Positive ◯ Negative ◯ Equivocal
Test Date	_____
Anti-MOG antibody titer (If unknown/not determined, enter 'Unknown)	_____
Anti-NMO antibody	◯ Positive ◯ Negative ◯ Equivocal
Test Date	_____
Anti-NMO antibody titer (If unknown/not determined, enter 'Unknown')	_____
Anti-NMDAr antibody (CSF)	◯ Positive ◯ Negative ◯ Equivocal
Test Date	_____
Anti-NMDAr antibody (SERUM)	◯ Positive ◯ Negative ◯ Equivocal
Test Date	_____
Autoimmune encephalitis panel (CSF)	◯ Positive (Specify below) ◯ Negative ◯ Equivocal

Test Date	_____
List antibodies detected:	_____
Autoimmune encephalitis panel (SERUM)	◯ Positive (Specify below) ◯ Negative ◯ Equivocal
Test Date	_____
List antibodies detected:	_____
Specify antibody testing performed	_____
Test Date	_____
Sample type	◯ Serum ◯ CSF
Result	◯ No autoantibody detected ◯ Autoantibodies detected (Specify below)
List antibodies detected:	_____
Add antibody test	◯ Yes
Specify antibody test performed	_____
Test Date	_____
Sample type	◯ Serum ◯ CSF
Result	◯ No autoantibody detected ◯ Autoantibodies detected (Specify below)
List antibodies detected:	_____

E. Brain MRI

Brain MRI performed?	◯ Yes ◯ No ◯ Unknown
Date of Study	_____
Was Gadolinium (contrast) agent used?	◯ Yes ◯ No ◯ Unknown
Any Supratentorial lesion?	◯ Lobe ◯ Cortical ◯ Subcortical ◯ Basal ganglia ◯ Thalamic ◯ None
Any gadolinium (contrast) enhancing supratentorial lesion?	◯ Yes ◯ No ◯ Unknown
Any Brainstem lesions?	☐ Midbrain ☐ Pons ☐ Medulla ☐ Cerebellar ☐ None
Any gadolinium (contrast) enhancing brainstem lesion?	◯ Yes ◯ No ◯ Unknown
Any Cranial Nerve lesions?	◯ Yes ◯ No ◯ Unknown
Any gadolinium (contrast) enhancing cranial nerve lesions?	◯ Yes ◯ No ◯ Unknown ◯ Not applicable
Specific which cranial nerves (CN) are affected?	_____
Was there cerebral atrophy?	◯ Yes ◯ No ◯ Unknown
Was there cerebellar atrophy?	◯ Yes ◯ No ◯ Unknown
Other significant findings & comments	_____

F. Spine MRI

Spine MRI performed?	◯ Yes ◯ No ◯ Unknown
Date of study	_____
Was Gadolinium (contrast) agent used?	◯ Yes ◯ No ◯ Unknown
Specify location of spinal cord lesions:	☐ Cervical cord ☐ Thoracic cord ☐ Conus ☐ Cauda equina ☐ Unknown ☐ No spinal cord lesion documented
Levels of cord affected	☐ C1 ☐ C2 ☐ C3 ☐ C4 ☐ C5 ☐ C6 ☐ C7 ☐ C8 ☐ T1 ☐ T2 ☐ T3 ☐ T4 ☐ T5 ☐ T6 ☐ T7 ☐ T8 ☐ T9 ☐ T10 ☐ T11 ☐ T12 ☐ L1 ☐ L2 ☐ Not documented/Unknown
What areas of cord were affected	☐ Predominantly grey matter ☐ Predominantly white matter ☐ Both equally affected ☐ Unknown ☐ None
Was there cord swelling?	◯ Yes ◯ No ◯ Unknown
Any gadolinium (contrast) enhancing cord lesions?	☐ No enhancing lesion ☐ Lesion ☐ Nerve roots ☐ Cauda equina ☐ Unknown

Other significant findings & comments

_____

G. Repeat Brain MRI (done < 30 days of admission)

Was a repeat brain MRI performed?
- ◯ Yes
- ◯ No
- ◯ Unknown

Date of Study

_____

Was Gadolinium (contrast) agent used?
- ◯ Yes
- ◯ No
- ◯ Unknown

Any supratentorial lesion?
- ◯ Lobe
- ◯ Cortical
- ◯ Subcortical
- ◯ Basal ganglia
- ◯ Thalamic
- ◯ None

Any Gadolinium (contrast) enhancing supratentorial lesions?
- ◯ Yes
- ◯ No
- ◯ Unknown

Any brainstem lesions?
- ☐ Midbrain
- ☐ Pons
- ☐ Medulla
- ☐ Cerebellar
- ☐ None

Any gadolinium (contrast) enhancing brainstem lesions?
- ◯ Yes
- ◯ No
- ◯ Unknown

Any Cranial Nerve lesions?
- ◯ Yes
- ◯ No
- ◯ Unknown

Any Gadolinium (contrast) enhancing Cranial Nerve lesions?
- ◯ Yes
- ◯ No
- ◯ Unknown

Specify which cranial nerves are affected

_____

Cerebral atrophy
- ◯ Yes
- ◯ No
- ◯ Unknown

Cerebellar atrophy
- ◯ Yes
- ◯ No
- ◯ Unknown

Other significant findings & comments

_____

H. Repeat Spine MRI (done < 30 days of admission)

Repeat Spine MRI performed?

◯ Yes
◯ No
◯ Unknown

Date of study

_____

Was Gadolinium (contrast) agent used?

◯ Yes
◯ No
◯ Unknown

Indication location of lesions

☐ Cervical cord
☐ Thoracic cord
☐ Conus
☐ Cauda equina
☐ Unknown
☐ None

Levels of cord affected

☐ C1
☐ C2
☐ C3
☐ C4
☐ C5
☐ C6
☐ C7
☐ C8
☐ T1
☐ T2
☐ T3
☐ T4
☐ T5
☐ T6
☐ T7
☐ T8
☐ T9
☐ T10
☐ T11
☐ T12
☐ L1
☐ L2
☐ Not documented/Unknown

What areas of cord were affected

☐ Predominantly grey matter
☐ Predominantly white matter
☐ Both equally affected
☐ Unknown
☐ None

Was there cord swelling?

◯ Yes
◯ No
◯ Unknown

Any enhancing cord lesions?

- ☐ No enhancing lesion
- ☐ Lesion
- ☐ Nerve roots
- ☐ Cauda equina
- ☐ Unknown

Other significant findings & comments

_____

J. EEG

EEG done?

- ☐ Yes
- ☐ No
- ☐ Unknown

Date of EEG 1

_____

EEG findings scan 1

- ◯ Slowing-generalized
- ◯ Slowing-focal
- ◯ Focal epileptiform activity
- ◯ Delta brush
- ◯ Generalized epileptiform
- ◯ Other

Significant EEG findings

Add another EEG

- ☐ Yes

Date of EEG 2

_____

EEG findings scan 2

- ◯ Slowing-generalized
- ◯ Slowing-focal
- ◯ Focal epileptiform activity
- ◯ Delta brush
- ◯ Generalized epileptiform
- ◯ Other

Significant EEG findings

Add another EEG

☐ Yes

Date of EEG 3

_____

EEG findings scan 3

◯ Slowing-generalized
◯ Slowing-focal
◯ Focal epileptiform activity
◯ Delta brush
◯ Generalized epileptiform
◯ Other

Significant EEG findings

Add another EEG

☐ Yes

Date of EEG 4

_____

EEG findings scan 4

◯ Slowing-generalized
◯ Slowing-focal
◯ Focal epileptiform activity
◯ Delta brush
◯ Generalized epileptiform
◯ Other

Significant EEG findings

K. Seizures

New seizure onset

☐ Yes

Seizure presentation date

_____

Seizure frequency at presentation

_____

Status epilepticus at presentation

◯ Yes
◯ No
◯ Unknown

Received anticonvulsant treatment?

☐ Yes

Anticonvulsant treatment 1

_____

Dose - anticonvulsant treatment 1

_____

Start date - anticonvulsant treatment 1

_____

End date - anticonvulsant treatment 1

_____

Seizure frequency after anticonvulsant treatment 1

_____

Add anticonvulsant treatment 2

☐ Yes

Specify anticonvulsant treatment 2

_____

Dose - anticonvulsant treatment 2

_____

Start date - anticonvulsant treatment 2

_____

End date - anticonvulsant treatment 2

_____

Seizure frequency after anticonvulsant treatment 2

_____

Add anticonvulsant treatment 3

☐ Yes

Specify anticonvulsant treatment 3

_____

Dose - anticonvulsant treatment 3

_____

Start date - anticonvulsant treatment 3

_____

End date - anticonvulsant treatment 3

_____

Seizure frequency after anticonvulsant treatment 3

_____

Add anticonvulsant treatment 4

☐ Yes

Specify anticonvulsant treatment 4

_____

Dose - anticonvulsant treatment 4

_____

Start date - anticonvulsant treatment 4

_____

End date - anticonvulsant treatment 4

_____

Seizure frequency after anticonvulsant treatment 4

_____

L. Evaluation at Hospital Discharge

Has patient returned to baseline at discharge?

- ◯ Yes
- ◯ No
- ◯ Not applicable (patient has not been discharged)
- ◯ Unknown

Please describe any residual symptoms at hospital discharge

_____

Modified Rankin Scale (at discharge)

- ◯ 0-No symptoms at all
- ◯ 1-No significant disability despite symptoms
- ◯ 2-Slight disability; unable to carry out all previous activities
- ◯ 3-Moderate disability requiring some help
- ◯ 4-Moderate severe disability; unable to walk without assistance
- ◯ 5-Severe Disability; bedridden and requiring constant care and attention
- ◯ Unknown

Signing Qualified Investigator

Qualified Investigator Name

_____

Date of Signature

_____