blue coral

Annotated CRF Forms

Form Listing:

Inclusion

Baseline

- Survey
- Demographics
- Symptoms
- Comorbidities
- Home Meds
- Initial VS (Vital Signs)
- Initial Labs
- Initial support tx (treatment)
- Initial drug tx (treatment)

Daily assessment

Sample Collection

Summative Data

- Outcomes
- Treatments
- Diagnostics
- Complications
- Meds

Color Key

- Variables highlighted in yellow have been deidentified
- Variables highlighted in red are from the RED CORAL study and not included in the BLUE CORAL dataset. The REDCap dataset for both RED and BLUE studies was created as one large dataset with skip logic to enable the corresponding study questions.

Inclusion

PETAL ID:

id_redcap

_____

PETAL site   studysite_petal

Study site (PETAL definition)	○ ALIGNE - Baystate Medical Center [A01]
	○ ALIGNE - Brigham and Women's Hospital [A03]
	○ ALIGNE - MaineHealth [A04]
	○ ALIGNE - University of Florida Health [A06]
	○ Boston - Beth Israel Medical Center [B01]
	○ Boston - Massachusetts General Hospital [B02]
	○ Boston - University of Mississippi Medical Center [B04]
	○ California - UCSF San Francisco [C01]
	○ California - UCSF Fresno [C02]
	○ California - UC Davis [C03]
	○ California - Stanford University Hospital [C04]
	○ California - UCLA Ronald Reagan [C05]
	○ California - U Texas Health Science Center [C06]
	○ Colorado - University of Colorado Hospital [D01]
	○ Colorado - Denver Health Medical Center [D04]
	○ Colorado - St. Joseph Hospital (National Jewish) [D06]
	○ Michigan - University of Michigan Medical Center [M01]
	○ Michigan - Henry Ford Medical Center [M02]
	○ Michigan - Sinai-Grace Hospital [M04]
	○ Michigan - Detroit Receiving Hospital [M05]
	○ Michigan - Harper University Hospital [M06]
	○ Montefiore-Sinai - Montefiore Moses [N01]
	○ Montefiore-Sinai - Mt. Sinai Hospital [N02]
	○ Montefiore-Sinai - Montefiore Weiler [N03]
	○ Montefiore-Sinai - University of Arizona [N05]
	○ Ohio - Cleveland Clinic Foundation [H01]
	○ Ohio - University of Cincinnati Medical Center [H03]
	○ Pacific NW - Harborview Medical Center [W01]
	○ Pacific NW - University of Washington Medical Center [W02]
	○ Pacific NW - Swedish Hospital First Hill [W03]
	○ Pacific NW - Oregon Health and Science University OHSU [W05]
	○ Pacific NW - Cedars-Sinai Medical Center [W07]
	○ Pittsburgh - UPMC Presbyterian [P01]
	○ Pittsburgh - UPMC East [P01 satellite]
	○ Pittsburgh - UPMC St. Margaret's [P01 satellite]
	○ Pittsburgh - UPMC McKeesport [P01 satellite]
	○ Pittsburgh - UPMC Passavant [P01 satellite]
	○ Pittsburgh - UPMC Mercy [P02]
	○ Pittsburgh - UPMC Shadyside [P03]
	○ Pittsburgh - Penn State [P04]
	○ Pittsburgh - UPMC Magee [P05]
	○ Southeast - Wake Forest Baptist Health [S01]
	○ Southeast - University Virginia Medical Center [S04]
	○ Southeast - VCU Medical Center [S05]
	○ Southeast - University of Kentucky [S06]
	○ Southeast - Medical University of South Carolina [S07]
	○ Utah - Intermountain Medical Center [U01]
	○ Utah - LDS Hospital [U02]
	○ Utah - McKay-Dee Hospital [U03]
	○ Utah - University of Utah Health Sciences Center [U05]
	○ Utah - Utah Valley Regional Medical Center [U04]
	○ Vanderbilt - Vanderbilt University Medical Center [V01]
	○ Vanderbilt - University Medical Center (LSU) [V02]
	○ Vanderbilt - Duke University Medical Center [V04]
	○ Clinical Coordinating Center [CCC]

Reason for BLUE CORAL data entry

Purpose of data entry	◯ Evaluate RED CORAL candidate ◯ Enter subject consented and enrolled for BLUE CORAL ◯ Enter subject who met BLUE CORAL inclusion criteria but who was not ultimately consented and/or enrolled for BLUE CORAL ◯ No

Eligibility: COVID-19 testing

SARS-CoV-2 PCR or antigen test done	◯ Yes ◯ No cx_covid_yn
Total known number of SARS-CoV-2 PCR or antigen tests completed	cx_covid_test_count _____ (Include all known COVID-19 tests performed prior to hospital presentation through hospital discharge.)
Any positive SARS-CoV-2 PCR or antigen test?	◯ Yes cx_covid_pos_ever_yn ◯ No (Select "No" for tests with result of "indeterminate.)
Specimen collection date/time for first positive SARS-CoV-2 PCR or antigen test	cx_covid_pos_first_dt _____ (Unknown date/time: Enter '01/01/1900 00:00'Known date but unknown time: Enter time as '00:00'")
Was the patient's positive SARS-CoV-2 PCR or antigen test also their first ever PCR or antigen test?	◯ Yes cx_covid1_pos_yn ◯ No
Was the patient's first positive COVID-19 PCR or antigen test also the test that qualified them for BLUE CORAL?	◯ Yes cx_covid_pos_qual_yn ◯ No (BLUE CORAL requires a positive SARS-CoV-2 test within 14 days of hospital arrival)
Results of subject's first ever SARS-CoV-2 PCR or antigen test	◯ Positive cx_covid1_result ◯ Negative ◯ Indeterminate
Specimen collection date/time for first ever SARS-CoV-2 PCR or antigen test	cx_covid1_spec_dt _____ (Unknown date/time: Enter '01/01/1900 00:00'Known date but unknown time: Enter time as '00:00'")
Specimen collection date/time for the positive COVID-19 PCR or antigen test that qualified patient for BLUE CORAL (i.e. occurred within 14 days of study hospital admission)	cx_covid_pos_qual_dt _____ (If >1 positive COVID-19 test within the 14-day eligibility window, enter the date/time of the positive test that occurred earliest/first within that window.Unknown date/time: Enter '01/01/1900 00:00'Known date but unknown time: Enter time as '00:00'")

Eligibility: COVID-associated hospitalization

Was COVID-19 associated with an admission to a study hospital?	◯ Yes admit_yn ◯ No (Answer "Yes" if patient had a COVID-19 PCR testWithin 14 days preceding arrival to study hospital ORDuring hospital admission within 14 days after hospital arrival)
Did COVID-19 contribute to need for hospital admission?	◯ Yes ◯ No (Answer "Yes" if COVID-19 symptoms (e.g. fever, shortness of breath), disease (e.g. pneumonia), or complications at least in part attributed to COVID-19 (e.g. hypoxemia, ARDS, encephalitis, renal failure) contributed to need for admission to hospital as documented by treating clinicians.)
Reason for admission if other than COVID-19 symptoms, disease, or associated complications	_____

Admission hospital	admit_site	
		◯ ALIGNE - Baystate Medical Center [A01]
		◯ ALIGNE - Brigham and Women's Hospital [A03]
		◯ ALIGNE - MaineHealth [A04]
		◯ ALIGNE - University of Florida Health [A06]
		◯ Boston - Beth Israel Medical Center [B01]
		◯ Boston - Massachusetts General Hospital [B02]
		◯ Boston - University of Mississippi Medical Center [B04]
		◯ California - UCSF San Francisco [C01]
		◯ California - UCSF Fresno [C02]
		◯ California - UC Davis [C03]
		◯ California - Stanford University Hospital [C04]
		◯ California - UCLA Ronald Reagan [C05]
		◯ California - U Texas Health Science Center [C06]
		◯ Colorado - University of Colorado Hospital [D01]
		◯ Colorado - Denver Health Medical Center [D04]
		◯ Colorado - St. Joseph Hospital (National Jewish) [D06]
		◯ Michigan - University of Michigan Medical Center [M01]
		◯ Michigan - Henry Ford Medical Center [M02]
		◯ Michigan - Sinai-Grace Hospital [M04]
		◯ Michigan - Detroit Receiving Hospital [M05]
		◯ Michigan - Harper University Hospital [M06]
		◯ Montefiore-Sinai - Montefiore Moses [N01]
		◯ Montefiore-Sinai - Mt. Sinai Hospital [N02]
		◯ Montefiore-Sinai - Montefiore Weiler [N03]
		◯ Montefiore-Sinai - University of Arizona [N05]
		◯ Ohio - Cleveland Clinic Foundation [H01]
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		◯ Utah - Utah Valley Regional Medical Center [U04]
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		◯ Vanderbilt - Duke University Medical Center [V04]
		◯ Clinical Coordinating Center [CCC]

REDCap

Date/time of first admission to study hospital	admit_admit_dt
	(If hospital admision time unavailable, enter time as '00:00')

Did this admission occur via the study hospital's ED?	○ Yes admit_ed_yn ○ No

Study hospital ED arrival date/time for ED visit leading to first hospital admission	admit_ed_arrival_dt
	(Use first available study ED triage/arrival time. If unavailable, enter '00:00' for time.)

STOP
Recorded ED arrival date/time is later than hospital admission date/time. Please review and correct.

Eligibility: COVID-19 symptoms and complicationsWhen evaluating symptom/history based elements:If history was able to be obtained and symptom noted, choose "Yes"If history was able to be obtained and symptom is either denied or was not specifically noted, choose "No"If clinicians were unable to obtain any history about patient, choose "unknown"

History of self reported feverishness or measured fever of ≥38˚C (≥100.4˚F)	○ Yes ○ No elig_fever ○ Unknown

Cough	○ Yes ○ No elig_cough ○ Unknown

Dyspnea (shortness of breath) OR tachypnea*	○ Yes ○ No elig_dyspnea ○ Unknown (Tachypnea defined as:Age < 1 year: ≥50 breaths per minuteAge 1-4 years: ≥40 breaths per minuteAge 5-12 years: ≥20 breaths per minuteAge ≥13 years: ≥20 breaths per minute)

Clinical suspicion of acute respiratory infection (ARI) despite not meeting criteria above (e.g. hypoxemia, diagnosis of pneumonia, bilateral pulmonary opacities)	○ Yes elig_ari ○ No (Answer "YES" if documented diagnosis of respiratory infection OR treatment specificallyfor a pneumonia OR new hypoxemia OR bilateral opacities on chest imaging.)

Eligibility: Exclusion criteria

Known to be a prisoner or otherwise in legal custody at time of admission to the hospital	○ Yes elig_prisoner ○ No (Review ED note and hospital admission note (HPI, social history))

Previous admission for COVID-19	○ Yes ○ No

Prior enrollment in BLUE CORAL	○ Yes ○ No elig_prior_enroll_blue

Was patient admitted to ICU during hospitalization?	○ Yes ○ No (Answer "No" if patient's highest level of care was an "intermediate care" or "step down" unit)	
Age ≤17 years	○ Yes ○ No	elig_age
At the time of BLUE CORAL enrollment evaluation, patient has comfort care orders in place or patient is not expected to survive for 24 hours	○ Yes ○ No (Comfort care includes patients who are on hospice, "comfort-focused care," "comfort measures, or have "comfort measures only" code status.Review admission and hospital progress note for days #1-2.)	elig_cmo
At the time of BLUE CORAL enrollment evaluation, patient has more than 72 hours of continuous hospitalization	○ Yes ○ No	elig_los

Study enrollment

STOP
Please complete all inclusion/exclusion questions

CORAL enrollment

CORAL enrollment

NOT eligible for CORALCORAL eligibility requires (1) a positive COVID-19 PCR test result and (2) an associated hospital admission and (3) clinical signs/symptoms of COVID-19 disease in patients who are not prisoners.

Eligible for RED CORAL with *DETAILED* data colelctionRED CORAL eligibility requires (1) a positive COVID-19 PCR test result and (2) an associated hospital admission and (3) clinical signs/symptoms of COVID-19 disease in patients who are not prisoners.

Detailed RED CORAL data collection eligibility additionally requires patient is admitted to ICU at some point during their hospitalization and that COVID-19 disease contributed to need for hospital admission.

Eligible for RED CORAL but *NOT* detailed data collectionRED CORAL eligibility requires (1) a positive COVID-19 PCR test result and (2) an associated hospital admission and (3) clinical signs/symptoms of COVID-19 disease in patients who are not prisoners.

Detailed RED CORAL data collection eligibility additionally requires patient is admitted to ICU at some point during their hospitalization and that COVID-19 disease contributed to need for hospital admission.

Eligible for BLUE CORALBLUE CORAL eligibility requires (1) a positive COVID-19 PCR test result and (2) an associated hospital admission and (3) clinical signs/symptoms of COVID-19 disease in patients who are not prisoners.

BLUE CORAL eligibility additionally requires that (1) patient has not been continuously hospitalized for >72 hours; and (2) patient is not CMO or expected to die within 24 hours of enrollment.

Enrolled in BLUE CORAL?	○ Yes ○ No	enroll_coral

STOP
Reason for data entry: Subject
consented and enrolled for BLUE CORAL

This reason for data entry is not consistent
with a "NO" answer to BLUE CORAL enrollment.

eligibility and/or enrollment status.

REDCap

STOP
Reason for data entry: Subject who met
 BLUE CORAL inclusion criteria but who was not ultimately
consented and/or enrolled for BLUE CORAL

This reason for data entry is not consistent
 with a "YES" answer to BLUE CORAL enrollment.

Please reconfirm eligibility and/or enrollment status.

STOP
Data entered above suggests patient
is NOT eligible for CORAL.

Please reconfirm eligibility and/or enrollment status.

Enrolled in RED CORAL detailed data collection?	○ Yes
	○ No
	(Detailed data collection for eligible
	retrospective (RED CORAL) patients)

STOP
Data entered above suggests patient
is NOT eligible for RED CORAL detailed data collection.
Detailed data collection for this patient is optional. As needed, please reconfirm eligibility and/or enrollment status.

CORAL enrollment date	enroll_coral_date
	_____
	(Enter the date a study ID is assigned)

PETAL subject ID	id_petal
	_____
	(If patient also enrolled in a PETAL Network
	interventional trial (e.g. CLOVERS), PETAL ID
	should be the same for both studies. However, PETAL
	patient ID is not the same as other study's
	randomization ID code.)

BLUE CORAL study ID	id_coral
	_____
	(BLUE CORAL study ID is the ID obtained from the RS
	system)

Reason(s) eligible patient was not enrolled in BLUE CORAL	☐ Patient decline
	☐ Surrogate/LAR decline
NOTE: All patients in datasets were enrolled in BLUE CORAL so this question is not applicable.	☐ Physician decline
	☐ Patient enrolled in another study and unable to co-enroll
	☐ Research staff unavailable
	☐ Patient confused/unable to consent
	☐ Surrougate/LAR not available for consent
	☐ Out of enrollment window
	☐ Translator/short-form consent not available for native language
	☐ Other
	(Choose all options that apply)

| Specify "other" reason(s) eligible patient was not enrolled in BLUE CORAL | _____ |

REDCap

Did BLUE CORAL subject provide consent and enroll for biospecimen collection? enroll_blue_spec	○ Yes ○ No	NOTE: All specimen consent questions are part of specimen dataset.
Was consent obtained for use of biospecimens for future research in COVID-19?	○ Yes ○ No	enroll_blue_spec_futcov
Was consent obtained for use of biospecimens for future research in other conditions?	○ Yes ○ No	enroll_blue_spec_futoth
Was consent obtained for the collection of blood samples for future genetic research in COVID-19?	○ Yes ○ No	enroll_blue_dna_sevill
Was consent obtained for the collection of blood samples for future genetic research for other medical conditions?	○ Yes ○ No	enroll_blue_dna_othill
Reason(s) patient not enrolled in biospecimen collection enroll_blue_spec_rsn	☐ Study hospital is not participating in biospecimen collection ☐ Patient decline ☐ Surrogate/LAR decline ☐ Physician decline ☐ Patient enrolled in another study and unable to co-enroll ☐ Research staff unavailable ☐ Other	

For initial vital signs, labs, meds, and interventions, 24-hour window begins with study hospital ED arrival: [admit_ed_arrival_dt]

For daily data entry, study day #1 is the calendar day patient arrived to the study hospital ED, beginning at [admit_ed_arrival_dt] and
ending at 11:59 PM the same day

For initial vital signs, labs, meds, and interventions, 24-hour window begins with study hospital admission: [admit_admit_dt]

For daily data entry, study day #1 is the calendar day patient was admitted to the study hospital, beginning at [admit_admit_dt] and
ending at 11:59 PM the same day

ISARIC enrollment

ISARIC enrollment

Eligible for ISARIC : ISARIC requires a hospital admission associated with COVID-19 plus a compatible clinical syndrome.COVID-associated hospital admit: [admit_yn]Fever: [elig_fever]Cough: [elig_fever]Dyspnea/tachypnea:[elig_dyspnea]Clinical suspicion of ARI: [elig_ari]

NOT eligible for ISARIC: ISARIC requires a hospital admission associated with COVID-19 plus a compatible clinical syndrome.COVID-associated hospital admit: [admit_yn]Fever: [elig_fever]Cough: [elig_fever]Dyspnea/tachypnea:[elig_dyspnea]Clinical suspicion of ARI: [elig_ari]

Enrolled in ISARIC?

_____

REDCap

ISARIC enrollment date
_____
(Enter the date a study ID is assigned)
ISARIC study ID
_____

REDCap

Baseline Survey

id_redcap

Recent living status

Patient location prior to current hospitalization:

rls_loc

○ Home independently
○ Home with help
○ Home with professional help
○ Intermediate care or rehab facility (e.g. goal is to get patient better)
○ Nursing facility (e.g. goal is to meet patient's ongoing needs)
○ Acute care hospital
○ Homeless or living in a temporary shelter
○ Adult Family Home or other non-medical institutional setting
○ Other

Please specify:

rls_locspec

_____

Recent hospitalization

How many days was the patient in the hospital in the month before the current hospitalization?

rh_num

_____

How many times was the patient admitted to a hospital in the past year?

function_prioradmit_count

_____

Did the patient visit an emergency room or emergency department in the past year?

○ Yes   function_edadmit
○ No
○ Unknown

Household financial strain

This information should be collected from the patient, surrogate, or other family member.

At the end of each month over the past past 3 months, did you or your household mostly end up with more than enough money left over, some money left over, just enough to make ends meet, or not enough to make ends meet?

○ More than enough money left over   hfs_leftover
○ Some money left over
○ Just enough to make ends meet
○ Not enough to make ends meet
○ No answer

REDCap

In the last 6 months, have you used up all or most of your savings?

○ Yes   hfs_savings
○ No
○ No answer

In the last 6 months, were you unable to pay for necessities like food, heat, or housing?

○ Yes   hfs_unabletopay
○ No
○ No answer

In the last 6 months, were you contacted by a collection agency?

○ Yes   hfs_collection
○ No
○ No answer

In the last 6 months, did you declare bankruptcy?

○ Yes   hfs_bankrupt
○ No
○ No answer

In the last 6 months, did you skip or delay getting medical care you thought you needed because of the cost?

○ Yes   hfs_care
○ No
○ No answer

In the last 6 months, did you take less medication than was prescribed to you because of the cost?

○ Yes   hfs_meds
○ No
○ No answer

For your household in 2019, was your household income:

○ Less than $15,000
○ $15,000-$30,000   hfs_income
○ $30,001-$60,000
○ More than $60,000
○ No answer

Occupation and industry

This information should be collected from the patient, surrogate, or other family member.

What is your occupation or your main job now?

     oi_job
_____

What kind of business or industry is that in?

     oi_industry
_____

How many years of education do you have?

○ Less than or equal to 12   oi_education
○ More than 12
○ No answer

Household size

This information should be collected from the patient, surrogate, or other family member.

If subject's living location prior to hospitalization was homeless or living in a facility, enter -99 below.

How many people were living or staying in your house, apartment, or mobile home just before you were admitted to the hospital?

_____nh_count_____

(Please count everyone living and sleeping in your home most of the time, including young children, roommates, and friends and family members who are living with you, even temporarily.)

EQ-5D-5L

This information should be collected from the patient, surrogate, or other family member.

Mobility:

○ I have no problems walking   eq_mob
○ I have slight problems walking
○ I have moderate problems walking
○ I have severe problems walking
○ I am unable to walk
○ No answer

Self care:

○ I have no problems washing or dressing myself   eq_selfcare
○ I have slight problems washing or dressing myself
○ I have moderate problems washing or dressing myself
○ I have severe problems washing or dressing myself
○ I am unable to wash or dress myself
○ No answer

Usual activities:

○ I have no problems doing my usual activites   eq_act
○ I have slight problems doing my usual activites
○ I have moderate problems doing my usual activites
○ I have severe problems doing my usual activities
○ I am unable to do my usual activities
○ No answer

Pain / discomfort:

eq_pain

○ I have no pain or discomfort
○ I have slight pain or discomfort
○ I have moderate pain or discomfort
○ I have severe pain or discomfort
○ I have extreme pain or discomfort
○ No answer

Anxiety / depression:

eq_anx

○ I am not anxious or depressed
○ I am slightly anxious or depressed
○ I am moderately anxious or depressed
○ I am severely anxious or depressed
○ I am extremely anxious or depressed
○ No answer

ADLs and IADLs

Was ADL/IADL survey administered to the patient or surrogate?

○ Yes   adl_yn
○ No

If survey was not administered, is there evidence in the medical record that patient was completely dependent on help for ADLs/IADLs at baseline?

○ Yes   adl_emr
○ No

"Because of a health or memory problem did you/the patient have any difficulty with":

(Please encourage patients to say "yes" or "no" to the best of their ability. Do not offer the other response categories - only check them if the patient or their surrogate cannot say "yes" or "no" to the question)

Dressing, including putting on shoes and socks?

○ Yes   pfunc_dressing
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Walking across a room?

○ Yes   pfunc_walking
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Bathing or showering?

○ Yes
○ No   pfunc_bathing
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Eating, such as cutting up their food?

○ Yes   pfunc_eating
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Getting in or out of bed?

○ Yes   pfunc_bed
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Using the toilet, including getting up and down?

○ Yes
○ No   pfunc_toilet
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Using a map to figure out how to get around in a strange place?

○ Yes
○ No   pfunc_map
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Preparing a hot meal?

○ Yes
○ No   pfunc_cooking
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

Shopping for groceries?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_shopping

Making phone calls?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_telephoning

Taking medications?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_medicating

Managing their money such as paying their bills and keeping track of expenses?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_money

Stooping, kneeling, or crouching?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_stooping

Lifting or carrying weights over 10 pounds, like a heavy bag of groceries?

○ Yes
○ No
○ Don't do
○ Can't do
○ Don't know
○ Refused to answer

pfunc_lifting

AD8

Was the patient consented by a surrogate or LAR?

○ Yes   ad8_surrogate
○ No

Was the AD8 survey administered to the surrogate or LAR?

○ Yes   ad8_yn
○ No

May only be answered by LAR or other family member, NOT patient self-report.

"Yes, a change" indicates that there has been a change in the last several years caused by cognitive (thinking and memory problems.

Problems with judgment (e.g., problems making decisions, bad financial decisions, problems with thinking)

○ Yes, a change
○ No, no change   pfunc_ad8judge
○ Don't know

Less interest in hobbies/activities

○ Yes, a change
○ No, no change   pfunc_ad8hobbies
○ Don't know

Repeats the same things over and over (questions, stories, or statements)

○ Yes, a change   pfunc_ad8repeat
○ No, no change
○ Don't know

Trouble learning how to use a tool, appliance, or gadget (e.g., VCR, computer, microwave, remote control)

○ Yes, a change   pfunc_ad8learning
○ No, no change
○ Don't know

Forgets correct month or year

○ Yes, a change   pfunc_ad8date
○ No, no change
○ Don't know

Trouble handling complicated financial affairs (e.g., balancing checkbook, income taxes, paying bills)

○ Yes, a change
○ No, no change   pfunc_ad8finance
○ Don't know

Trouble remembering appointments

○ Yes, a change
○ No, no change   pfunc_d8appointment
○ Don't know

Daily problems with thinking and/or memory

◯ Yes, a change   pfunc_ad8memory
◯ No, no change
◯ Don't know

Functional status

Coordinators should ask the patient or family member to quantify their frailty on the following scale. They can suggest possible values based on what has already been collected and the CFS paragraph descriptions.

Frailty scale   function_frailty   ◯ Very fit
                                                                      ◯ Well
                                                                      ◯ Managing well
                                                                      ◯ Vulnerable
                                                                      ◯ Mildly frail
                                                                      ◯ Moderately frail
                                                                      ◯ Severely frail
                                                                      ◯ Very severely frail
                                                                      ◯ Terminally ill
                                                                      (Category descriptions:Very fit: Robust, active, energetic, motivated; exercises regularly; they are the fittest for their ageWell: No active disease symptoms; active or exercises occasionallyManaging well: Medical problems are well controlled; not active beyond routine walkingVulnerable: Slowed down; not dependent on others; symptoms limit activitiesMildlyfFrail: Evident slowing, higher order IADL dependency, impaired shopping or walking outside and houseworkModerately frail: Needs help with all outside activities, has trouble with stairs, may need help with bathing and dressingSeverely frail: Completely dependent for personal care, not at high risk of dying within 6 monthsVery severely frail: Completely dependent, approaching end of life, typically would not recover from minor illnessTerminally ill: Approaching end of life)

Baseline-Demographics

PETAL ID: [id_petal]
First hospital admit: [admit_admit_dt]   id_redcap
ED arrival associated with admit: [admit_ed_arrival_dt]

STOPComplete "Inclusion" study form before proceding with data abstraction.

Patient demographics

Sex   ○ Male   sex
                                                 ○ Female
                                                 (Enter sex at birth)

Date of birth   dob
                                                 _____

Race   ○ American Indian/Alaska Native   race
                                                 ○ Asian
                                                 ○ Black/African American
                                                 ○ Native Hawaiian/Pacific Islander
                                                 ○ White
                                                 ○ Multiple
                                                 ○ Other/declined
                                                 ○ Unknown/unavailable

Hispanic ethnicity   ○ Hispanic or Latino   ethnicity
                                                 ○ Not Hispanic or Latino
                                                 ○ Unknown

Pregnant (Y/N)   ○ Yes   pregnant
                                                 ○ No

Gestational age   pregnant_weeks
                                                 _____
                                                 (Enter "-99" if unknown or not available")

SARS-CoV-2 vaccine

Is patient known to have received ≥1 doses of any   ○ Yes   vaccine_yn
SARS-CoV-2 vaccine prior to study hospital admission? ○ No
                                                 (Obtain information from admission notes (hospital,
                                                 ICU) and discharge summary. In the absence of
                                                 documentation that patient received a vaccine,
                                                 enter "No.")

REDCap

Exposures/risk factors

Is patient a healthcare worker?

- ○ Yes   exposure_hcw
- ○ No

(Choose "Yes" if patient works in any capacity in a healthcare situation.)

Is patient a medical laboratory worker?

_____

Cigarette or tobacco smoking

- ○ Current   smoking
- ○ Former
- ○ Never
- ○ Unknown

(Former smoker/vaper defined as having quit ≥4 weeks prior to presentation.)

Vaping

- ○ Current   vaping
- ○ Former
- ○ Never
- ○ Unknown

(Former smoker/vaper defined as having quit ≥4 weeks prior to presentation.)

Admission information

Hospital admission type

- ○ Medical   admit_admit_type
- ○ Surgical (scheduled/elective)
- ○ Surgical (unscheduled/emergent)
- ○ Trauma
- ○ Other

Any indication in admission documentation of external triage limitations on access to intensive care?

- ○ Yes   admit_admit_resourcelimit
- ○ No
- ○ Unknown

Patient transferred from another facility?

- ○ No   admit_transfer_yn
- ○ Yes, transfer from ED
- ○ Yes, transfer from inpatient unit

Reason for transfer   admit_transfer_why

- ☐ Regionalized COVID-19 care
- ☐ Capacity issues at other hospital
- ☐ Need for higher level of care
- ☐ Other/unknown

Date first arrived at sending/referring facility

admit_transfer_admitdt

_____

REDCap

Advanced care planning

Advanced directives or POLST in place before hospital admission?	◯ Yes ◯ No ◯ Unknown
	goals_advancedirect
Patient limitations on life-sustaining therapy on admission	◯ None goals_limit ◯ DNR ◯ DNR/DNI ◯ Other ◯ Unknown (Definitions:DNR: "Do not resuscitate," no CPRDNI: "Do not intubate")
Is patient able to make medical decisions on admission? goals_self	◯ Yes ◯ No ◯ Unknown
Does patient have surrogate decision makers/next of kin? goals_surrogate	◯ Yes ◯ No ◯ Unknown

Baseline-Symptoms

PETAL ID: [id_petal]
First hospital admit: [admit_admit_dt]   id_redcap
ED arrival associated with admit: [admit_ed_arrival_dt]

STOPComplete "Inclusion" study form before proceding with data abstraction.

Symptoms

Is the symptom onset date known?	○ Yes symptom_onset_known
	○ No

Onset date of first/earliest symptom

symptom_onset_date
_____
(Obtain from ED note and admission H&P)

Source(s) of information

Was patient able to provide symptom history for clinical documentation?	○ Complete symptom_source_pt
	○ Partial
	○ No
	○ Unknown

Other sources of symptom history used for clinical documentation symptom_source_other	☐ Surrogate (caregiver, family, etc)
	☐ Vital signs or physical exam documentation
	☐ Other
	☐ None

Admission signs and symptomsObtain from ED note and admission H&P symptoms that are new or changed from baseline during this episode of illness.

When evaluating symptom/history based elements:If history was able to be obtained and symptom noted, choose "Yes"If history was able to be obtained and symptom is either denied or was not specifically noted, choose "No"If clinicians were unable to obtain any history about patient, choose "unknown"

	Yes	No	Unknown
Fever symptom_fever	○	○	○
Chills/rigors/shivering symptom_chills	○	○	○
Cough (any) symptom_cough	○	○	○
Cough with sputum production symtom_cough_prod	○	○	○
Sore throat symptom_sorethroat	○	○	○
Runny nose (rhinorrhoea) symptom_rhinorrhoea	○	○	○
Wheezing symptom_wheeze	○	○	○
Chest pain symptom_chestpain	○	○	○

REDCap

Muscle aches (myalgia) symptom_myalgia	○	○	○
Joint pain (arthralgia) symptom_arthralgia	○	○	○
Fatigue/malaise symptom_fatigue	○	○	○
Shortness of breath (dyspnea) at rest, with exertion or lying flat (orthopnea) symptom_dyspnea	○	○	○
Swelling (edema) symptom_edema	○	○	○
Unable to walk symptom_nonamb	○	○	○
Headache symptom_headache	○	○	○
Altered consciousness or confusion symptom_confusion	○	○	○
Seizures symptom_seizure	○	○	○
Fainting (syncope) symptom_syncope	○	○	○
Loss or impairment of sense of smell (anosmia) symptom_anosmia	○	○	○
Loss or impairment of sense of taste (ageusia) symptom_ageusia	○	○	○
Abdominal pain symptom_abdpain	○	○	○
Nausea/vomiting symptom_nausea	○	○	○
Diarrhea symptom_diarrhea	○	○	○
Conjunctivitis symptom_conjunctivitis	○	○	○
Bleeding/hemorrhage	○	○	○
Bleeding site		_____	

Variables auto-calculated or defaulted for ISARIC mapping

Other sign or symptom

_____

Cough with hemoptysis (coughing up blood)

_____

Lower chest wall indrawing/retractions

_____

Rash

_____

Skin ulcers

_____

Lymphadenopathy (swollen glands/lymph nodes)

_____

REDCap

Baseline-Comorbidities

PETAL ID: [id_petal]
First hospital admit: [admit_admit_dt]
ED arrival associated with admit: [admit_ed_arrival_dt]   id_redcap

STOPComplete "Inclusion" study form before proceding with data abstraction.

Comorbidities
Obtain data from review of ED note/admission H&P if not available from automated query

Charlson--Myocardial infarction comorb_charlson_mi	○ Yes ○ No (History of diagnosed or symptomatic MI, not ECG changes only)
Charlson--Congestive heart failure comorb_charlson_chf	○ Yes ○ No (History of symptomatic heart failure)
Atrial arrhythmia comorb_arrhth_atrial	○ Yes ○ No (Atrial fibrillation, atrial flutter, sick sinus syndrome)
Other (non-atrial) arrhythmia comorb_arrhth_other	○ Yes ○ No (Ventricular tachycardia, ventricular fibrillation, long QT syndrome, supraventricular tachycardia (SVT))
Hypertension comorb_htn	○ Yes ○ No
Charlson--Peripheral vascular disease comorb_charlson_pvd	○ Yes ○ No (Includes claudication, arterial insufficiency, history of peripheral revascularization, aortic aneurysm ≥6 cm)
Charlson--Cerebrovascular disease (with mild or no residual or TIA) comorb_charlson_cva_mild	○ Yes ○ No (TIA or CVA/stroke with mild or no residual symptoms)
Charlson--Hemiplegia comorb_charlson_hemiplegia	○ Yes ○ No (Paraplegia or hemiplegia)
Charlson--Dementia comorb_charlson_dementia	○ Yes ○ No (Chronic cognitive deficit)
Charlson--Chronic pulmonary disease comorb_charlson_pulm	○ Yes ○ No (Dyspnea at rest or with mild exertion, chronic O2 use, chronic hypercapnia)
COPD/emphysema/chronic bronchitis comorb_copd	○ Yes ○ No
Interstitial lung disease comorb_ild	○ Yes ○ No (Documentation of interstitial lung disease, pulmonary fibrosis, interstitial pneumonitis, cryptogenic or other non-infectious organizing pneumonia, asbestosis, pulmonary sarcoidosis)

REDCap

Asthma	comorb_asthma	◯ Yes ◯ No (Previously diagnosed by a physician)

Home respiratory support comorb_homeo2	◯ None ◯ Nasal cannula/trach collar ◯ CPAP (with supplemental oxygen) ◯ NIPPV/BiPAP ◯ Home ventilator (Modes of support arranged in order from lowest to highest intensity. If patient uses >1 type, select the highest intensity item.If patient uses CPAP or BiPAP only for sleep apnea and patient does not use any supplemental oxygen with the CPAP/BiPAP, choose "None.")

Highest amount of oxygen used at baseline base

comorb_homeo2_amount	_____ (Enter "0.21" if room air.If oxygen reported in L/min, calculate FiO2 as 0.21+0.03 x (liter/min flow)---Example: 3L NC oxygen = 0.21+0.09 = 0.30If unknown, enter "-99")

Charlson--Peptic ulcer disease comorb_charlson_pud	◯ Yes ◯ No (History of treatment for ulcer disease)

Charlson--Mild liver disease comorb_charlson_liver_mild	◯ Yes ◯ No (Without portal hypertension, includes chronic hepatitis)

Charlson--Moderate or severe liver disease comorb_charlson_liver_sev	◯ Yes ◯ No (Cirrhosis with portal hypertension)

Charlson--Diabetes without end-organ damage comorb_charlson_dm_mild	◯ Yes ◯ No (Excludes diet-controlled diabetes)

Charlson--Diabetes with end-organ damage comorb_charlson_dm_severe	◯ Yes ◯ No (Complicated by retinuopathy, neuropathy, nephropathy)

Charlson--Connective tissue disease comorb_charlson_ctd	◯ Yes ◯ No (Lupus, polymyositis, MCTD, PMR, mod/severe RA, or other significant autoimmune disease)

Charlson--Moderate or severe renal disease comorb_charlson_renal_sev	◯ Yes ◯ No (Baseline Cr >3, dialysis, or kidney transplant)

Chronic dialysis comorb_dialysis	◯ Yes ◯ No (Severe CKD per Charlson criteria: [comorb_charlson_renal_sev])

Charlson--Tumor without metastases comorb_charlson_tumor_no	◯ Yes ◯ No (Answer "No" if >5 years since diagnosis)

Charlson--Metastatic solid tumor comorb_charlson_tumor_mets	◯ Yes ◯ No

Charlson--Leukemia comorb_charlson_leukemia	◯ Yes ◯ No (AML, ALL, CLL, CML, and polycythemia vera)

| Charlson--Lymphoma | comorb_charlson_lymphoma | ◯ Yes   ◯ No |

| Charlson--AIDS | comorb_charlson_aids | ◯ Yes   ◯ No |

| HIV | comorb_hiv | ◯ Yes   ◯ No
(Answer "Yes" if HIV or AIDS) |

| Immunocompromised | comorb_immunocomp | ◯ Yes   ◯ No
(HIV/AIDS, current chemotherapy, current leukemia, current lymphoma, bone marrow transplant, solid organ transplant, chronic oral steroid ≥20 mg/day, other immunosuppression for auto-immune disease) |

| Tuberculosis | comorb_tb | ◯ Yes   ◯ No
(Active pulmonary or extra-pulmonary tuberculosis. Answer "No" if latent TB only.) |

| Alcohol abuse | comorb_elix_etoh | ◯ Yes   ◯ No
(Documentation of alcohol use disorder, alcohol withdrawal, or alcohol abuse that is current or in remission ≤1 year) |

| Drug abuse | comorb_elix_drugs | ◯ Yes   ◯ No
(Use of ilicit drugs (do not include marijuana), or prescription medications (e.g. opiates) without prescription that is current or in remission ≤1 year) |

| Psychosis | comorb_elix_psychosis | ◯ Yes   ◯ No
(Includes schizophrenia or other psychosis) |

| Depression | comorb_elix_depression | ◯ Yes   ◯ No
(Diagnosis of depression or on an antidepressant includingSSRI: citalopram (Celexa), escitalopram (Lexapro), fluoxetine (Prozac), fluvoxamine (Luvox), paroxetine (Paxil), sertraline (Zoloft)SNRI: desvenlafaxine (Pristiq), duloxetine (Cymbalta), venlafaxine (Effexor)Tricyclic antidepressant: amitriptyline (Elavil], desipramine (Norpramin), doxepine (Sinequan), Imipramine (Tofranil), nortriptyline (Pamelor)) |

| PTSD | comorb_ptsd | ◯ Yes   ◯ No |

| Anxiety | comorb_anxiety | ◯ Yes   ◯ No
(Diagnosis of anxiety disorder or chronically prescribed benzodiazepine (lorazepam [Ativan], clonazepam [Xanax], diazepam [Valium]) |

Automatically-calculated data for other comorbidities and ISARIC data mapping

Chronic cardiac disease (ISARIC summary comorbidity)

_____

Chronic pulmonary disease (ISARIC summary comorbidity)

_____

Chronic neurologic disorder (ISARIC summary comorbidity)

_____

Chronic liver disease (ISARIC summary comorbidity)

_____

Diabetes (ISARIC summary comorbidity)

_____

Chronic kidney disease (ISARIC summary comorbidity)

_____

Malignant neoplasm (ISARIC summary comorbidity)

_____

Malnutrition (BMI < 18.5)

_____

Obesity (BMI ≥30)

_____

Morbid/class III obesity (BMI ≥40)

_____

Variables auto-calculated or defaulted for ISARIC mapping

Asplenia (functional or surgical lack of spleen)

_____

Other relevant risk factor/comorbidity

_____

Baseline-Home meds

STOPComplete "Inclusion" study form before proceding with data abstraction.

Pre-admission drug research trial participation

Is patient known to have received medication(s) as part of a COVID-19 research trial prior to study hospital arrival? meds_home_exp	◯ Yes ◯ No (Answer "Yes" if patient participated in a COVID-19 drug treatment trial: As an outpatientAt another hospital prior to transfer to the study hospital.Answer "No" if patient: Was in an "open label" trial but was assigned to usual care only (no study drug)Never received a dose of study medication.)
Was patient's treatment assignment blinded? meds_home_exp_blind	◯ Unblinded/open label ◯ Blinded ◯ Both (only possible if patient was in >1 study) ◯ Unknown (Unblinded/open label trial: A trial (may or may not be randomized) in which patient and their medical team knew which drug the patient received. Examples include trials that:Give all patients a single active drug.Compare active drug to "usual care."Give all patients the same active drug but compare different durations or doses.Compare ≥2 different active drugs with known assignment.Blinded trial: A trial in which patient and their medical team did not know which drug the patient received or if they received an active study drug at all. Examples include trials that:Compare one or more drugs to a placebo (e.g. ORCHID)Compare ≥2 different active drugs with unknown assignment.)
For blinded studies, list the treatment assignment possibilities/options.	meds_home_exp_specb _____ (Separate treatment arms for the study with a forward slash.List all possible assignments (ex. "azithromycin/hydroxychlorquine")List placebo as a possible assignment if applicable (ex. "hydroxychloroquine/placebo" for ORCHID)Enter "Unknown" if one or more possible assignments is unknown (ex. "Aspirin/Unknown"))
For unblinded/open-label studies, list the treatment assignment patient received.	meds_home_exp_specu _____ (Enter drug patient is known to have received (ex. "Hydroxychloroquine"). Enter "Unknown" if study drug not known.Note: If study drug was hydroxychloroquine, chloroquine, or azithromycin, respond "Yes" to appropriate question below.)

Chronic home medications

ACE inhibitors meds_home_acei	◯ Yes ◯ No (List of ACE inhibitors:Benazapril (Lotensin)Captopril (Captoten)Enalopril (Vasotec)Fosinopril (Monopril)Lisinopril (Prinivil, Zestril)Moexipril (Univasc)Perindopril (Aceon)Quinapril (Accupril)Ramipril (Altace)Trandolapril (Mavik))
Angiotensin receptor blockers (ARBs) meds_home_arbs	◯ Yes ◯ No (List of angiotensin receptor blockers (ARBs):Azilsartan (Edarbi)Candesartan (Atacand)Eprosartan (Teveten)Irbesartan (Avapro)Telmisartan (Micardis)Valsartan (Diovan)Losartan (Cozaar)Olmesartan (Benicar))
Other anti-hypertensive meds_home_htn_other	◯ Yes ◯ No (Other anti-hypertensives include:Beta blockers: metoprolol (Lopressor/Toprol), carvedilol (Coreg), labetalol, atenolol, propranolol, nadololCalcium channel blockers: amlodipine (Norvasc), nicardipine, diltiazem, verapamil, nifedipine, felodipineHydralazineIsosorbide dinatrate (Imdur) or mononitrate (Diuretics: hydrochlorothiazideClonidine)
NSAIDs (non-steroidal anti-inflammatory drugs) meds_home_nsaids	◯ Yes ◯ No (Chronic daily or near-daily use only.List of NSAIDs:Ibuprofen (Advil, Motrin)Naproxen (Aleve, Naprosyn)Diclofenac (Voltaren)Indomethacin (Indocin)Ketorolac (Toradol)Piroxican (Feldene)Celecoxib (Celebrex)KetoprofenOxaprozinNabumetoneSulindacMeloxicam)
Aspirin meds_home_asa	◯ Yes ◯ No (Daily use only.Answer "YES" if patient takes Aggrenox (combined aspirin/dipyridimole))
Other anti-platelet agent mds_home_antiplt	◯ Yes ◯ No (List of anti-platelet drugs:Clopidogrel (Plavix)Ticagrelor (Brilinta)Prasugrel (Effient)Aspirin/dipyridamole (Aggrenox)** For Aggrenox (aspirin/dipyridamole combo), also check "YES" for aspirin.)
Chronic anticoagulation meds_home_anticoag	◯ Yes ◯ No (List of chronic anticoagulants:Enoxaparin (Lovenox)Warfarin (Coumadin, Jantoven)Rivaroxaban (Xarelto)Apixaban (Eliquis)Edoxaban (Sayasa)Dabigatran (Pradaxa)Betrixaban (Bevyxxa)Fondaparinux (Arixtra))

Statin meds_home_statin	◯ Yes ◯ No (List of statins:Atorvastatin (Lipitor)Fluvastatin (Lescol)Lovastatin (Mevacor, Altoprev)Pravastatin (Pravachol)Rosuvastatin (Crestor)Simvastatin (Zocor)Pitavastatin (Livalo))
Chronic systemic/oral steroids meds_home_steroidpo	◯ Yes ◯ No (Chronic use of oral, IV, or IM prednisone, dexamethasone (Decadron), methylprednisone (Solumedrol, Medrol), hydrocortisone, or prednisolone)
Chronic inhaled steroids meds_home_steroidinh	◯ Yes ◯ No (List of inhaled steroids:Fluticasone (Flovent, Arnuity)Budesonide (Pulmincort)Mometasone (Asmanex)Beclomethasone (QVAR)Flunisolide (QVAR)Ciclesonide (Aerobid)Triamcinolone (Azmacort)Includes only steroids inhaled into lungs, notnasal steroids inhalers/sprays)
Immunosuppressive medication meds_home_immsupp	◯ Yes ◯ No (Includes chemotherapy, immunosuppression for auto-immune disease, and immunosuppression after bone marrow or solid organ transplant.)
Antiretroviral therapy (ART/HAART) for HIV/AIDS meds_home_haart	◯ Yes ◯ No (See list of FDA-approved ART medications .)
Chloroquine	◯ Yes ◯ No (Includes prophylaxis or COVID-19 treatment course begun prior to ED arrival/admission)
Hydroxychloroquine (plaquenil) meds_home_hcq	◯ Yes ◯ No (Includes prophylaxis or COVID-19 treatment course begun prior to ED arrival/admission)
Reason for hydroxychloroquine or chloroquine? meds_home_hcq_chronic	◯ Chronic medication ◯ COVID-19 prophyalxis ◯ COVID-19 treatment ◯ Other/unknown
Azithromycin meds_home_azithro	◯ Yes ◯ No (Includes prophylaxis or COVID-19 treatment course begun prior to ED arrival/admission)

REDCap

Reason for azithromycin?

meds_home_azithro_chronic

◯ Chronic medication
◯ COVID-19 prophyalxis
◯ COVID-19 treatment
◯ Other/unknown
(Answer "COVID-19 treatment" if patient was given treatment for "pneumonia" where symptoms might simply have been due to COVID-19 (i.e. viral pneumonia). Conversely, answer "other" if patient had a confirmed (culture-positive or molecular est positive) for a bacterial pneumonia.)

REDCap

Baseline-Initial VS

STOPComplete "Inclusion" study form before proceding with data abstraction.

Vital signs within 24 hours of hospital arrival

Enter '-99' if data is missing or unavailableFirst vitals: Use first-available values after hospital arrival. Data do not all need to be entered at the same time.Highest/lowest vitals: Use values within 24 hours of hospital arrival.

Temperature (enter either Celsius orFahrenheit. Values will be converted to Celsius.

First temperature (˚C or ˚F)

vs_hosp_first_temp_c
_____
(Enter data to 1 decimal place ('37.0' not '37'))

First temperature (˚C [calculated])

_____

Lowest temperature (˚C or ˚F)

vs_hosp24_temp_low_c
_____
(Enter data to 1 decimal place ('37.0' not '37'))

Lowest temperature (˚C [calculated])

_____

Highest temperature (˚C or ˚F)

vs_hosp24_temp_high_c
_____
(Enter data to 1 decimal place ('37.0' not '37'))

Highest temperature (˚C [calculated])

_____

Heart rate

First heart rate

vs_hosp_first_hr
_____
(Beats per minute)

Lowest HR

vs_hosp24_hr_low
_____
(Beats per minute)

Highest HR

vs_hosp24_hr_high
_____
(Beats per minute)

REDCap

Respiratory rate

First respiratory rate

vs_hosp_first_rr

(Breaths per minute)

Lowest RR

vs_hosp24_rr_low

(Breaths per minute)

Highest RR

vs_hosp24_rr_high

(Breaths per minute)

Systolic blood pressure

First systolic blood pressure

vs_hosp_first_sbp

(mmHg)

Lowest SBP

vs_hosp24_sbp_low

(mmHg)

Highest SBP

vs_hosp24_sbp_high

(mmHg)

Diastolic blood pressure

First diastolic blood pressure

vs_hosp_first_dbp

(mmHg)

Mean arterial preesure

First mean arterial pressure

vs_hosp_first_map

(mmHgIf MAP is documented at any point during the first 24 hour baseline period, use thhe first-available value. If it is not documented at any point during the first 24 hours, calculate it from the first SBP/DBP that were recorded at the same time.)

Lowest MAP

vs_hosp24_map_low

(mmHgIf MAP not explicitly documented in first 24 hours, use same value as recorded for first MAP.)

Highest MAP

vs_hosp24_map_high

(mmHgIf MAP not explicitly documented in first 24 hours, use same value as recorded for first MAP.)

REDCap

Oxygenation

First oxygen saturation (%)

vs_hosp_first_o2sat

_____

FiO2 at time of first oxygen sat

vs_hosp_first_fio2

_____
(Enter "0.21" if breathing room air.If oxygen
reported in L/min, enter FiO2 after calculating
based on formula: 0.21+0.03 x (liter/min
flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter
"-99" if missing")

Oxygen support at time of first O2 sat

vs_hosp_first_o2supp

_____

Lowest O2 sat (%)

vs_hosp24_o2sat_low

_____

FiO2 at time of lowest O2 sat

vs_hosp24_fio2_high

_____
(Enter "0.21" if breathing room air.If oxygen
reported in L/min, enter FiO2 after calculating
based on formula: 0.21+0.03 x (liter/min
flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter
"-99" if missing")

Height/weight

First weight (kg) during hospitalization

vs_hosp_first_weight

_____
(kgEnter first weight documented at any point
during hospital admission)

First height (cm) during hospitalization

vs_hosp_first_height

_____
(cmEnter first height documented at any point
during hospital admission)

First BMI (auto-calculated)

vs_hosp_first_bmi

_____

Neuro

Was GCS explicitly documented?

○ Yes
○ No   vs_hosp_first_gcs_avail

If GCS is not explicitly recorded in structured documentation or as part of physical exam documented by physician,
assign GCS according to the following estimates based on description from HPI and physical exam documented in ED
note or admission H&P:GCS 15 = Normal mental status, A&O x3GCS 14 = Confused, altered mental statusGCS 13 =
Somnolent, opens eyes to voiceGCS 10 = Obtunded, grimaces to painGCS 3 = Unresponsive, comatoseIf still unable
to determine, enter "-99"

First GCS

vs_hosp_first_gcs

_____

Lowest GCS

_vs_hosp24_gcs_low_

(Use documented values. If none available, use prior estimation of initial GCS. No need to attempt to estimate GCS otherwise.)

First RASS

_____

First CAM

○ Positive
○ Negative
○ Not done/not available

Variables auto-calculated or defaulted for ISARIC mapping

Sternal capillary refill time >2 seconds

_____

Dehydrated

_____

AVPU available

_____

Mid-upper arm circumference (cm)

_____

Temperate on admission available?

_____

Heart rate on admission available?

_____

Respiratory rate on admission available?

_____

Systolic blood pressure on admission available?

_____

Diastolic blood pressure on admission available?

_____

Oxygen saturation on admission available?

_____

Glasgow Coma Score on admission available?

_____

Height on admission available?

_____

Weight on admission available?

_____

Baseline-Initial labs

STOPComplete "Inclusion" study form before proceding with data abstraction.

Initial lab results within 24 hours of hospital arrival
Use first-available laboratory data after hospital arrival. Data do not all need to be entered at the same time.337:337

First white blood count

labs_hosp_first_wbc
_____
(1000s/microliter)

Lowest WBC

labs_hosp_24h_wbc_low
_____
(1000s/microliter)

Highest WBC

labs_hosp_24h_wbc_high
_____
(1000s/microliter)

First lymphocyte count

labs_hosp_first_lymph
_____
(1000s/microliterEnter absolute lymphocyte count, not % lymphcyotes)

First neutrophil count (ANC)

labs_hosp_first_pmn
_____
(1000s/microliter)

First hematocrit

labs_hosp_first_hct
_____
(%)

Lowest hematocrit

labs_hosp_24h_hct_low
_____
(%)

Highest hematocrit

labs_hosp_24h_hct_high
_____
(%)

First hemoglobin

labs_hosp_first_hgb
_____
(g/dL)

First platelets

labs_hosp_first_platelet
_____
(1000s/microliter)

First PTT	labs_hosp_first_ptt
	(seconds)
First PT	
	(seconds)
First INR	labs_hosp_first_inr
First fibrinogen	labs_hosp_first_fib
	(mg/dL)
First sodium	labs_hosp_first_na
	(mEq/L)
Lowest sodium	labs_hosp_24h_na_low
	(mEq/L)
Highest sodium	labs_hosp_24h_na_high
	(mEq/L)
First potassium	labs_hosp_first_k
	(mEq/L)
Lowest potassium	labs_hosp_24h_k_low
	(mEq/L)
Highest potassium	labs_hosp_24h_k_high
	(mEq/L)
First serum bicarbonate (HCO3, "total CO2", or "CO2" from serum chemistry panel)	labs_hosp_first_hco3
	(mEq/L)
First BUN	labs_hosp_first_bun
	(mg/dL)
First creatinine	labs_hosp_first_cr
	(mg/dL)
First glucose	labs_hosp_first_gluc
	(mg/dL)

First AST

labs_hosp_first_ast

(Units/L)

First ALT

labs_hosp_first_alt

(Units/L)

First total bilirubin

labs_hosp_first_bili

(mg/dL)

First albumin

labs_hosp_first_alb

(g/dL)

First lactate

labs_hosp_first_lactate

(mmol/LEither whole blood (arterial blood gas or venous blood gas) lactate or plasma lactate is acceptable.)

First procalcitonin

labs_hosp_first_pct

(ng/mL)

First CRP

labs_hosp_first_crp

(mg/L)

First LDH

labs_hosp_first_ldh

(Units/L)

First CK

labs_hosp_first_ck

(Units/L)

First troponin I

labs_hosp_first_trop

(ng/mL)

First BNP

labs_hosp_first_bnp

(pg/mL)

First ESR

(mm/hr)

First D-dimer

labs_hosp_first_ddimer

(mg/L)

First ferritin

labs_hosp_first_ferritin

(ng/mL)

REDCap

First triglycerides

labs_hosp_first_tri

(mg/dL)

First IL-6

labs_hosp_first_il6

(pg/mL)

First ABG after hospital arrival

Enter -99 if no ABG available within 24 hours of hospital arrival

First PaO2

labs_hosp_first_pao2

FiO2 at time of first PaO2

labs_hosp_first_fio2

(Enter "0.21" if breathing room air.If oxygen reported in L/min, enter FiO2 after calculating based on formula: 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter "-99" if missing"Enter "-99" if missing)

---

pH at time of first PaO2

labs_hosp_first_ph

(Enter two decimal places (e.g. '7.30'))

PaCO2 at time of first PaO2

labs_hosp_first_paco2

Worst PaO2 and associated ABG within 24 hours of hospital arrival

Enter -99 if not available within 24 hours of hospital arrival

Lowest PaO2 within 24h of hospital arrival

labs_hosp_24h_pao2_lowest

(Enter data for lowest PaO2 regardless of any O2 support/type of support)

FiO2 at time of lowest PaO2.

labs_hosp_24h_fio2_low

(Enter "0.21" if breathing room air.If oxygen reported in L/min, enter FiO2 after calculating based on formula: 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter "-99" if missing")

---

pH from ABG with lowest PaO2

labs_hosp_24h_ph_low

(Enter two decimal places (e.g. '7.30'))

On ventilator at time of lowest PaO2?

◯ Yes
◯ No

labs_hosp_24h_vent_low

Variables auto-calculated or defaulted for ISARIC mapping

Haemoglobin on admission available?

_____

Haemoglobin Unit

_____

Haemoglobin Unit - Specify Other

_____

WBC count on admission available?

_____

WBC count Unit

_____

Haematocrit on admission available?

_____

Platelets on admission available?

_____

Platelets Unit

_____

APTT/APTR on admission available?

_____

PT on admission available?

_____

INR on admission available?

_____

ALT/SGPT on admission available?

_____

ALT/SGPT Unit

_____

Total Bilirubin on admission available?

_____

Total Bilirubin Unit

_____

Total Bilirubin Unit - Specify other

_____

AST/SGOT on admission available?

_____

AST/SGOT Unit

_____

AST/SGOT Unit - Specify Other

_____

Urea (BUN) on admission available?

_____

Urea (BUN) Unit

_____

Urea (BUN) Unit - Specify Other

_____

Lactate on admission available?

_____

Lactate Unit

_____

Creatinine on admission available?

_____

Creatinine Unit

_____

Creatinine Unit - Specify Other

_____

Sodium on admission available?

_____

Sodium Unit

_____

Potassium on admission available?

_____

Potassium Unit

_____

Procalcitonin on admission available?

_____

Procalcitonin Unit

_____

CRP on admission available?

_____

CRP Unit

_____

LDH on admission available?

_____

LDH Unit

_____

Creatine kinase on admission available?

_____

Creatine kinase Unit

_____

Troponin on admission available?

_____

Troponin Unit

_____

ESR on admission available?

_____

ESR Unit

_____

D-dimer on admission available?

_____

D-dimer Unit

_____

Ferritin on admission available?

_____

Ferritin Unit

_____

IL-6 on admission available?

_____

IL-6 Unit

_____

Baseline-Initial support tx

STOPComplete "Inclusion" study form before proceding with data abstraction.

Supportive care treatments within 24 hours of hospital arrival

ICU or ICU step-down/intermediate care unit admission tx_hosp_24h_icu	◯ ICU ◯ IMCU/step-down ◯ No (If admitted to both IMCU and ICU (e.g. transferred from IMCU to ICU within 24 hours), select ICU. "ICU" can include surge, ad hoc, and temporary ICUs.)
Invasive ventilation tx_hosp_24h_vent	◯ Yes ◯ No
Non-invasive ventilation (e.g. BiPAP, CPAP) tx_hosp_24h_nippv	◯ Yes ◯ No (Answer "No" if on home settings, at night only or if used only for sleep apnea.)
Nasal cannula, face mask, or HFNC oxygen therapy	◯ Yes ◯ No tx_hosp_24h_o2therapy
Maximum O2 flow via NC, face mask, or HFNC tx_hosp_24h_o2flow	◯ 1-5L ◯ 6-10L ◯ 11-15L ◯ >15L ◯ Unknown (Enter maximum O2 flow via NC, face mask, or HFNC during first 24 hours after hospital arrival)
Most intense method used to give support tx_hosp_24h_o2mode	◯ Nasal cannula ◯ Simple mask ◯ Mask with reservoir/NRB ◯ HFNC (Modes of support arranged in order from lowest to highest intensity. Choose only one. If patient treated with >1 type of support, select the highest intensity item.)
Maximum O2 flow within 24 hours of hospital arrival	tx_hosp_24h_max_o2flow _____ (Enter maximum O2 flow in liters. Enter "-99" if missing.)
Maximum FiO2 within 24 hours of hospital arrival	tx_hosp_24h_max_fio2 _____ (Enter highest recorded FiO2 (range 0.21 to 1.0). Ignore any O2 recorded as liters/min unless no FiO2 is recorded or highest FiO2 is 0.21 (room air). In this case, calculate max FiO2 using the highest-recorded O2 L/min flow using the formula: 0.21+0.03 x (max liter/min flow).Enter "-99" if missing.)

REDCap

Calculated maximum FiO2 within 24h of hospital arrival	tx_hosp_24h_max_fio2_calc _____ (Automatically calculated)

Vasopressors/inotropes

tx_hosp_24h_pressor

◯ Yes ◯ No
(Includes norepinephrine (Levophed), epinephrine, vasopressin, phenylephrine (Neosynephrine), angiotensin-II (Giapreza), dopamine, dobutamine, milrinone)

Dose of vasopressors/inotropes

tx_hosp_24h_pressor_dose

◯ Dobutamine (any dose) or dopamine ≤5 μg/kg/min
◯ Dopamine 5.1-15, epinephrine ≤0.1 , norepinephrine ≤0.1, phenylephrine ≤2.2, or vasopressin ≤0.4 units/min
◯ Dopamine >15, norepinephrine >0.1, phenylephrine >2.2, or epinephrine >0.1 or 2+ vasopressors at lower doses
(-Doses in mcg/kg/min unless otherwise specified-Use highest dose reached during 24 hours)

ECMO   tx_hosp_24h_ecmo

◯ Yes ◯ No

Prone positioning   tx_hosp_24h_prone

◯ Yes ◯ No

Treated with inhaled pulmonary vasodilators (nitric oxide [iNO] or epoprostenol [Flolan])

◯ Yes ◯ No   tx_hosp_24h_ino

Therapeutic neuromuscular blockade / therapeutic paralysis   tx_hosp_24h_nmb

◯ Yes ◯ No
(Do not include paralytic given for intubation)

Renal replacement therapy / dialysis

tx_hosp_24h_rrt

◯ No
◯ Intermittent dialysis
◯ Continuous renal replacement therapy or slow low-efficiency dialysis
(Includes intermittent and continuous hemodialysis, hemofiltration, or ultrafiltration as well as peritoneal dialysis.If patient received both intermittent HD and continuous, select continuous)

Variables auto-calculated or defaulted for ISARIC mapping

Source of oxygen

_____

Baseline-Initial drug tx

STOPComplete "Inclusion" study form before proceding with data abstraction.

Participation in drug research trial during first 24 hours after hospital arrival

Was a medication given as part of a research trial?	◯ Yes ◯ No meds_hosp_24h_exp

Was patient's treatment assignment blinded?

meds_hosp_24h_exp_blind

◯ Unblinded/open label
◯ Blinded
◯ Both (only possible if patient was in >1 study)
◯ Unknown
(Unblinded/open label trial: A trial (may or may not be randomized) in which patient and their medical team knew which drug the patient received. Examples include trials that:Give all patients a single active drug.Compare active drug to "usual care."Give all patients the same active drug but compare different durations or doses.Compare ≥2 different active drugs with known assignment.Blinded trial: A trial in which patient and their medical team did not know which drug the patient received or if they received an active study drug at all. Examples include trials that:Compare one or more drugs to a placebo (e.g. ORCHID)Compare ≥2 different active drugs with unknown assignment.)

For blinded studies, list the treatment assignment possibilities/options.

meds_hosp_24h_exp_specb

(Separate treatment arms for the study with a forward slash.List all possible assignments (ex. "azithromycin/hydroxychlorquine")List placebo as a possible assignment if applicable (ex. "hydroxychloroquine/placebo" for ORCHID)Enter "Unknown" if one or more possible assignments is unknown (ex. "Aspirin/Unknown"))

For unblinded/open-label studies, list the treatment assignment patient received.

meds_hosp_24h_exp_specu

(Enter drug patient is known to have received (ex. "Hydroxychloroquine"). Enter "Unknown" if study drug not known.Note: If drug was hydroxychloroquine, chloroquine, or azithromycin, respond "Yes" to appropriate question below.)

Medications administered within 24 hours of hospital arrival

Report below medications given within 24 hours of hospital arrival.

Do NOT include medications that were given as part of a
blinded clinical trial (i.e. it is unknown if patient received active drug or placebo).

Report below medications given within 24 hours of hospital arrival.

Include medications given as part of an unblinded trial in documentation.

Report below medications given within 24 hours of hospital arrival.

Hydroxychloroquine (plaquenil)	○ Yes ○ No	meds_hosp_24h_hcq
Remdesivir	○ Yes ○ No	meds_hosp_24h_remdesivir
Tocilizumab (Actemra)	○ Yes ○ No	meds_hosp_24h_toci

Other medication(s) relevant for targeted COVID-19 treatment

    meds_hosp_24h_other

☐ None
☐ Chloroquine
☐ Lopinavir/ritonavir (Kaletra)
☐ Other HIV protease inhibitor
☐ Interferon alpha
☐ Interferon beta
☐ Ribavirin
☐ Oseltamivir (Tamiflu)
☐ Baloxavir
☐ Sarulimab (Kevzara)
☐ Anakinra (Kinaret)
☐ Baricitinib (Olumiant)
☐ IV vitamin C
☐ Transfusion of convalescent plasma
☐ Ivermectin
☐ Other
(Indicate all medications from pre-specified list given, even if used as a chronic medication. Pre-listed medication does not need given specifically to treat COVID-19.For the "Other" checkbox, however, do not include medications unless given specifically to treat COVID-19 (e.g. antiviral effect, anti-inflammatory effect). Exclude medications given for complications of acute illness (e.g. amiodarone for arrhythmia) and hospital supportive care (e.g. nebulizers, sedatives).)

List other medication(s) given to treat acute illness

    meds_hosp_24h_other_oth
_____
(Separate multiple medications with commas. Do not include medications for chronic illnesses, complications of acute illness (e.g. amiodarone for arrhythmia, heparin for cardiac ischemia or DVT), and hospital supportive care (e.g. nebulizers, sedatives, DVT prophylaxis))

Antiviral (excluding meds given as part of placebo-controlled RCT)

_____
(Includes [hydroxy]chloroquine, interferon, protease inhibitors, and neuraminidase inhibitors)

Steroids

Any steroids (oral, IV, or inhaled)	○ Yes ○ No meds_hosp_24h_cs_yn

IV steroids

meds_hosp_24h_cs_iv

○ Yes
○ No
(IV methylprednisolone, IV dexamethaosone, IV hydrocortisone)

Oral/enteric steroids

meds_hosp_24h_cs_po

○ Yes
○ No
(Prednisone, PO dexamethasone, PO methylprednisolone, PO prednisolone, PO hydrocortisone)

Inhaled steroids

meds_hosp_24h_cs_inh

○ Yes
○ No
(List of inhaled steroids:Fluticasone (Flovent, Arnuity)Budesonide (Pulmincort)Mometasone (Asmanex)Beclomethasone (QVAR)Flunisolide (QVAR)Ciclesonide (Aerobid)Triamcinolone (Azmacort)Includes only steroids inhaled into lungs, notnasal steroids inhalers/sprays)

Specific systemic steroids administered

meds_hosp_24h_cs_type

☐ Dexamethasone (Decadron)
☐ Methylprednisolone (Solumedrol, Medrol)
☐ Hydrocortisone
☐ Predisone
☐ Prednisolone
☐ Other

Total prednisone administered (in mg) during 24h period

_____
(Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.)

Total methylprednisolone (Solumedrol, Medrol) administered (in mg) during 24h period

_____
(Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.)

Total hydrocortisone administered (in mg) during 24h period

_____
(Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.)

Total dexamethasone (Decadron) administered (in mg) during 24h period

_____
(Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.)

Total prednisolone administered (in mg) during 24h period

_____
(Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.)

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Antibiotics

Azithromycin	◯ Yes ◯ No	meds_hosp_24h_azithro
Antibiotics other than azithromycin	◯ Yes ◯ No	meds_hosp_24h_otherabc

Sedatives for intubated patients

Sedatives used for patient while on ventilator

meds_hosp_24h_sedatives

☐ None
☐ Propofol
☐ Dexmedetomidine (Precedex)
☐ Benzodiazepine (continuous infusion)
☐ Benzodiazepine (intermittent bolus)
☐ Ketamine
☐ Other
(Do not include medications given only for initial intubation.Eligible benzodiazepine medications: midazolam (Versed), lorazepam (Ativan), diazepam (Valium))

Anticoagulants

Prophylactic anticoagulation

meds_hosp_24h_vteppx

◯ Yes   ◯ No
(Prophylactic anticoagulants:Subcutaneous heparin Enoxaparin (Lovenox) < 1 mg/kg twice daily (usually 30 mg twice daily) or any once daily dosing (usually 40 mg daily)< 1 mg/kgDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg dailyUsed to reduce the risk of DVT and PE. May be referred to as "DVT prophylaxis" or "DVT chemophylaxis.")

Therapeutic anticoagulation

meds_hosp_24h_anticoag

◯ Yes   ◯ No
(Therapeutic anticoagulants:IV heparin (continuous infusion)Low molecular weight heparin (LMWH):Enoxaparin (Lovenox) ≥1 mg/kg twice daily; Dalteparin (Fragmin) >5000 units total per dayFondaparinux (Arixtra) ≥5 mg/dayWarfarin (Coumadin)Direct oral anticoagulants:Rivaroxaban (Xarelto)Dabigatran (Pradaxa)Apixaban (Eliquis)Edoxaban (Savaysa)BivalrudinArgatrobanDoes not include low-dose, prophylactic treatment with:Subcutaneous heparin Enoxaparin (Lovenox) ≤40 mg daily or ≤30 mg twice dailyDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg daily)

Fibrinolytic ("lytic") therapy

meds_hosp_24h_lytic

◯ Yes   ◯ No
(Includes:Alteplase (AKA "tPA" or "tissue plasminogen activator")StreptokinaseUrokinaseExclude doses used just for management of clotted catheters (e.g. ≤8 mg of tPA))

Other medications administered within 24 hours of hospital arrival

NSAIDs (non-steroidal anti-inflammatory drugs) meds_hosp_24h_nsaid	◯ Yes ◯ No (List of NSAIDs:Ibuprofen (Advil, Motrin)Naproxen (Aleve, Naprosyn)Diclofenac (Voltaren)Indomethacin (Indocin)Ketorolac (Toradol)Piroxican (Feldene)Celecoxib (Celebrex)KetoprofenOxaprozinNabumetoneSulindacMeloxicam)
ACE inhibitors meds_hosp_24h_acei	◯ Yes ◯ No (List of ACE inhibitors:Benazapril (Lotensin)Captopril (Captoten)Enalopril (Vasotec)Fosinopril (Monopril)Lisinopril (Prinivil, Zestril)Moexipril (Univasc)Perindopril (Aceon)Quinapril (Accupril)Ramipril (Altace)Trandolapril (Mavik))
Angiotensin receptor blockers (ARBs) meds_hosp_24h_arb	◯ Yes ◯ No (List of angiotensin receptor blockers (ARBs):Azilsartan (Edarbi)Candesartan (Atacand)Eprosartan (Teveten)Irbesartan (Avapro)Telmisartan (Micardis)Valsartan (Diovan)Losartan (Cozaar)Olmesartan (Benicar))

IV fluids

Received >2L IV fluids within first 24 hours of hospital arrival? meds_hosp_24h_fluids_iv	◯ Yes ◯ No (Includes crystalloids fluids (NS, LR, Plasmalyte), albumin, hetastarchDoes notinclude hypotonic fluids (e.g. D5W, 1/2 NS), blood products, medications)

Variables auto-calculated or defaulted for ISARIC mapping

Anti-fungal	_____
Anti-malarial	_____
Oral/orogastric fluids	_____

Daily assessment

PETAL ID: [id_petal]
First hospital admit: [admit_admit_dt]   id_redcap
ED arrival associated with admit: [admit_ed_arrival_dt]

Patient enrolled in BLUE CORALComplete this form on hospital days #1-15
plus day #21 and day #28
plus ICU days #1-15 if these ICU days do not overlap with other listed days.

Calendar day defining Day 1 begins with ED arrival
[admit_ed_arrival_dt] and ends at 11:59 PM the same day

Calendar day defining Day 1 begins with hospital admission
[admit_admit_dt] and ends at 11:59 PM the same day

Patient enrolled in RED CORAL with detailed data collectionComplete this form on hospital days #1-15
plus day #21 and day #28
plus ICU days #1-14 if these ICU days do not overlap with other listed days.

Patient enrolled in RED CORAL with only focused data collectionComplete this form on hospital days #1, #4, #8,
#15, #21, and #28
plus ICU day #1 if ICU day #1 is not already a listed assessment day.

Daily assessment for calendar day

Date of assessment	
	date_dly

Was patient in the hospital at any point on this study day?	◯ Yes ◯ No tx_hosp_inpt_dly
Is patient known to have died on or before this date?	◯ Yes ◯ No tx_hosp_death_dly
Did patient spend any time in an ICU or ICU step-down/intermediate care unit during this calendar day?	◯ ICU dx_hosp_icu_dly ◯ IMCU/step-down ◯ No (If admitted to both IMCU and ICU, select ICU. "ICU" can include surge, ad hoc, and temporary ICUs.)

Enter vital signs closest to 8 am on calendar day unless specified.
Enter '-99' if data unavailable

Temperature (˚C or ˚F)	
	_____ (Enter data to 1 decimal place ('37.0' not '37'))
Temperature (˚C [calculated])	vs_hosp_temp_dly_c
Heart rate	vs_hosp_hr_dly (Beats/minute)

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Respiratory rate	vs_hosp_rr_dly
	(Breaths/minute)

Systolic blood pressure	vs_hosp_sbp_dly
	(mmHg)

Diastolic blood pressure	vs_hosp_dbp_dly
	(mmHg)

Mean arterial pressure	vs_hosp_map_dly
	(mmHgIf MAP is documented at any point during the calendar day, use value closest to 8 am. If it is not documented at any point during the calendar day, calculate it from the first SBP/DBP that were recorded at the same time closest to 8 am.)

Lowest MAP on calendar day	vs_hosp_map_l_dly
	(mmHgIf MAP is not explicitly documented at any point during the calendar day, use same value calculated as the closest to 8 am value.)

Oxygen saturation	vs_hosp_o2sat_dly

FiO2 at time of oxygen sat.	vs_hosp_fio2_dly
	(Enter "0.21" if breathing room air.If oxygen reported in L/min, calculate FiO2 as 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30)

Lowest O2 sat (%)	lab_hosp_sao2_l_dly

FiO2 accompanying lowest O2 sat	lab_hosp_sf_l_dly
	(Enter "0.21" if breathing room air.If oxygen reported in L/min, calculate FiO2 as 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30)

Was GCS explicitly documented?	◯ Yes ◯ No vs_hosp_gcs_avail_dly

If GCS is not explicitly recorded in structured documentation or as part of physical exam documented by physician, assign GCS according to the following estimates based on description from HPI and physical exam documented in ED note or admission H&P:GCS 15 = Normal mental status, A&O x3GCS 14 = Confused, altered mental statusGCS 13 = Somnolent, opens eyes to voiceGCS 10 = Obtunded, grimaces to painGCS 3 = Unresponsive, comatoseIf still unable to determine, enter "-99"

GCS	vs_hosp_gcs_dly

REDCap

Lowest GCS on calendar day	vs_hosp_gcs_l_dly

RASS	vs_hosp_rass_dly

CAM status	◯ Positive
vs_hosp_cam_dly	◯ Negative
	◯ Not done/not available

Intake/output

Enter "-99" if data is missing or unavailable.

Urine output (mL)	vs_hosp_uop_dly
	(If substantially easier for data collection, OK to use the value beginning at 6 am on calendar report and ending at 6 am on the next calendar day. Must be consistent for all days and all I/O data collection)

24-hour total output (mL)	vs_hosp_netoutput_dly
	(If substantially easier for data collection, OK to use the value beginning at 6 am on calendar report and ending at 6 am on the next calendar day. Must be consistent for all days and all I/O data collection)

24-hour total intake (mL)	vs_hosp_netintake_dly
	(If substantially easier for data collection, OK to use the value beginning at 6 am on calendar report and ending at 6 am on the next calendar day. Must be consistent for all days and all I/O data collection)

Enter labs closest to 8 am on calendar day unless specified.

Enter '-99' if data is missing or unavailable.

For intermittent assessments, may enter any available data up until the last prior assessment.Example #1: Patient was admitted (day = 1), underwent day #1 assessment, and you are now performing day #4 assessment. If no data is available for a laboratory item on day #4, enter latest-available data from day #2 or #3.Example #2: Patient was admitted (day = 1), underwent day #1 assessment, had assessment data entered on day #2 because they were admitted to ICU that day, and you are now performing day #4 assessment. If no data is available for a laboratory item on day #4, enter latest-available data from day #3.

Labs labeled in BLACK or RED: Record according to the same schedule for rest of this form (on hospital days #1-15, plus day #21 and day #28, plus ICU days #1-14 if these ICU days do not overlap with other listed days).

Labs labeled in GREEN (protocol-required clinical labs): Required once on or within the 72-hours preceding (A) enrollment day; (B) enrollment day+4 (will fall during hospital days 5-7); and (C) ventilator day 7.If these labs are missing at the required intervals, enter -99 at least once for each timepoint (i.e. -99 does not need to be entered each day for hospital days 5-7).Labs in green are optional at any other time, and fields may be left blank. This will not create a query.

WBC	lab_hosp_wbc_dly
	(1000s/microliter)
Lymphocyte count	lab_hosp_lymph_dly
	(1000s/microliterEnter absolute lymphocyte count, not % lymphcyotes)
Hematocrit	lab_hosp_hct_dly
	(%)
Hemoglobin	lb_hosp_hgb_dly
	(g/dL)
Platelets	lab_hosp_platelet_dly
	(1000s/microliter)
Lowest platelets on calendar day	lab_hosp_platelet_l_dly
	(1000s/microliter)
PTT	lab_hosp_ptt_dly
	(seconds)
PT	lab_hosp_pt_dly
	(seconds)
INR	lab_hosp_inr_dly
Fibrinogen	lab_hosp_fib_dly
	(mg/dL)
Sodium	lab_hosp_na_dly
	(mEq/L)
Potassium	lab_hosp_k_dly
	(mEq/L)
Chloride	lab_hosp_cl_dly
	(mEq/L)
Serum bicarbonate (HCO3, "total CO2", or "CO2" from serum chemistry panel)	lab_hosp_hco3_dly
	(mEq/L)

BUN

lb_hosp_bun_dly

(mg/dL)

Creatinine

lab_hosp_cr_dly

(mg/dL)

Highest creatinine on calendar day

lab_hosp_cr_h_dly

(mg/dL)

Glucose

lab_hosp_gluc_dly

(mg/dL)

Total calcium (not ionized)

lab_hosp_ca_dly

(mg/dL)

AST

lab_hosp_ast_dly

(Units/L)

ALT

lab_hosp_alt_dly

(Units/L)

Total bilirubin

lab_hosp_bili_dly

(mg/dL)

Highest total bilirubin on calendar day

lab_hosp_bili_h_dly

(md/dL)

Alkaline phosphatase

lab_hosp_ap_dly

(Units/L)

Total protein

lab_hosp_tprot_dly

(g/dL)

Albumin

lab_hosp_alb_dly

(g/dL)

Lactate

lab_hosp_lactate_dly

(mmol/LEither whole blood (arterial blood gas or
venous blood gas) lactate or plasma lactate is
acceptable.)

Procalcitonin

lab_hosp_pct_dly

(ng/mL)

CRP	lab_hosp_crp_dly
	(mg/L)

LDH	lab_hosp_ldh_dly
	(Units/L)

CK	lab_hosp_ck_dly
	(Units/L)

Troponin I	lab_hosp_trop_dly
	(ng/mL)

BNP	lab_hosp_bnp_dly
	(pg/mL)

D-dimer	lab_hosp_ddimer_dly
	(mg/L)

Ferritin	lab_hosp_ferritin_dly
	(ng/mL)

Triglycerides	lab_hosp_trig_dly
	(mg/dL)

IL-6	lab_hosp_il6_dly
	(pg/mL)

ABG closest to 8 am
Enter "-99" if ABG unavailable

PaO2	lab_hosp_pao2_dly

FiO2 at time of PaO2	lab_hosp_fio2_dly
	(Enter "0.21" if breathing room air.If oxygen reported in L/min, enter FiO2 after calculating based on formula: 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter "-99" if missing")

pH at time of PaO2	lab_hosp_ph_dly
	(Enter two decimal places (e.g. '7.30'))

PaCO2 at time of PaO2	lab_hosp_paco2_dly

Worst PaO2 data
Enter "-99" if ABG unavailable

Lowest PaO2 on calendar day

lab_hosp_pao2_l_dly
_____

FiO2 accompanying lowest PaO2 on calendar day

lab_hosp_pf_l_dly
_____
(Enter "0.21" if breathing room air.If oxygen reported in L/min, enter FiO2 after calculating based on formula: 0.21+0.03 x (liter/min flow)Example: 3L NC oxygen = 0.21+0.09 = 0.30Enter "-99" if missing")

EKG data

Did patient have an electrocardiogram (ECG) during the calendar day?

◯ Yes
◯ No

QTc duration (ms)

_____
(If >1 ECG, use ECG closest to 8 am. Record QTc-F over QTc-B if both reported.)

Organ support at any point during calendar day

Non-invasive ventilation (e.g. BiPAP, CPAP)

tx_hosp_nippv_dly

◯ Yes   ◯ No
(Answer "No" if on home settings, at night only or if used only for sleep apnea.)

Invasive ventilation   tx_hosp_vent_dly

◯ Yes   ◯ No

Nasal cannula, face mask, or HFNC oxygen therapy
tx_hosp_o2therapy_dly

◯ Yes
◯ No

Maximum O2 flow via NC, face mask, or HFNC

tx_hosp_o2flow_dly

◯ 1-5L
◯ 6-10L
◯ 11-15L
◯ >15L
◯ Unknown
(Enter maximum O2 flow via NC, face mask, or HFNC during the calendar day)

Most intense method used to give support

tx_hosp_o2mode_dly

◯ Nasal cannula
◯ Simple mask
◯ Mask with reservoir/NRB
◯ HFNC
(Modes of support arranged in order from lowest to highest intensity. If patient uses >1 type, select the highest intensity item.)

Maximum O2 flow on calendar day

tx_hosp_max_o2flow_dly
_____
(Enter maximum O2 flow in liters. Enter "-99" if missing.)

Maximum FiO2 on calendar day	tx_hosp_max_fio2_dly
	(Enter highest recorded FiO2 (range 0.21 to 1.0). Ignore any O2 recorded as liters/min unless no FiO2 is recorded or highest FiO2 is 0.21 (room air). In this case, calculate max FiO2 using the highest-recorded O2 L/min flow using the formula: 0.21+0.03 x (max liter/min flow).Enter "-99" if missing.)

Calculated maximum FiO2 within 24h of hospital arrival	tx_hosp_max_fio2_calc_dly
	(Automatically calculated)

Vasopressors/inotropes	◯ Yes ◯ No
tx_hosp_pressor_dly	(Includes norepinephrine (Levophed), epinephrine, vasopressin, phenylephrine (Neosynephrine), angiotensin-II (Giapreza), dopamine, dobutamine, milrinone)

Dose of vasopressors/inotropes	◯ Dobutamine (any dose) or dopamine ≤5 µg/kg/min
	◯ Dopamine 5.1-15, epinephrine ≤0.1 , norepinephrine ≤0.1, phenylephrine ≤2.2, or vasopressin ≤0.4 units/min
tx_hosp_pressor_dose_dly	◯ Dopamine >15, norepinephrine >0.1, phenylephrine >2.2, or epinephrine >0.1 or 2+ vasopressors at lower doses
	(-Doses in mcg/kg/min unless otherwise specified-Use highest dose reached during 24 hours)

ECMO tx_hosp_ecmo_dly	◯ Yes ◯ No

Treated with inhaled pulmonary vasodilators (nitric oxide [iNO] or epoprostenol [Flolan]) tx_hosp_ino_dly	◯ Yes ◯ No

Therapeutic neuromuscular blockade / therapeutic paralysis tx_hosp_nmb_dly	◯ Yes ◯ No
	(Do not include paralytic given for intubation)

Prone positioning	◯ Yes
	◯ No
tx_hosp_prone_dly	◯ Unknown

First time turned prone-->supine for day	
	(Enter "1/1/1900 00:00" if patient was never tunred from prone to supine on this calendar day)

First time turned supine-->prone for day	
	(Enter "1/1/1900 00:00" if patient was never tunred from supine to prone on this calendar day)

Renal replacement therapy / dialysis	○ No
	○ Intermittent dialysis
tx_hosp_rrt_dlt	○ Continuous renal replacement therapy or slow low-efficiency dialysis
	(Includes intermittent and continuous hemodialysis, hemofiltration, or ultrafiltration as well as peritoneal dialysis.If patient received both intermittent HD and continuous, select continuous)

Ventilator check data on calendar day closest to 8 am

Ventilator mode	○ Not receiving invasive mechanical ventilation
	○ Volume control
	○ PRVC/VC+
tx_hosp_vent_dly_mode	○ Pressure control
	○ Pressure support
	○ CPAP
	○ APRV
	○ Other

Set tidal volume (mL)

tx_hosp_vent_dly_vtset

Set inspiratory pressure (cmH2O)

tx_hosp_vent_dly_pcset

Pressure support set (cmH2O)

tx_hosp_vent_dly_psset

Actual tidal volume (mL)

tx_hosp_vent_dly_vtact

Peak pressure (cmH2O)

tx_hosp_vent_dly_peak

(cmH20)

Plateau pressure (cmH2O)

tx_hosp_vent_dly_platea

(cmH20)

Set respiratory rate (RR)

tx_hosp_vent_dly_rrset

Actual/total respiratory rate (RR)

tx_hosp_vent_dly_rractual

Total minute ventilation

tx_hosp_vent_dly_ve

Positive end-expiratory pressure (PEEP, cmH20)

tx_hosp_vent_dly_peep

(cmH20)

FiO2

tx_hosp_vent_dly_fio2

O2 sat (%)	tx_hosp_vent_dly_o2sat

Set I:E ratio	tx_hosp_vent_dly_ieset

(If value recorded as a ratio (e.g. "1:3.2"), convert value to a decimal (e.g. 1 divided by 3.2 equals 0.3125) and enter to the decimal value.)

Actual I:E ratio	tx_hosp_vent_dly_ieact

(If value recorded as a ratio (e.g. "1:3.2"), convert value to a decimal (e.g. 1 divided by 3.2 equals 0.3125) and enter to the decimal value.)

Medications given on calendar day

For intermittent assessments, may enter any available information dating back to the last prior assessment.Example #1: Patient underwent day #1 assessment, and you are now performing day #4 assessment. If patient did not receive a medication on day #4, still enter "YES" if med on day #2 or #3.Example #2: Patient underwent day #1 assessment, had assessment data entered on day #2 because they were admitted to ICU that day, and you are now performing day #4 assessment. If medication not given on day #4, check to see if med given on day #3 before answering "No."

Do NOT include medications that were given as part of a
blinded clinical trial (i.e. it is unknown if patient received active drug or placebo).

COVID-19 therapeutics

Hydroxychloroquine (plaquenil) meds_hosp_hcq_dly	◯ Yes ◯ No

Remdesivir meds_hosp_remdesivir_dly	◯ Yes ◯ No

Tocilizumab (Actemra) meds_hosp_toci_dly	◯ Yes ◯ No

Other medication(s) relevant for targeted COVID-19 treatment meds_hosp_other_dly	☐ None ☐ Chloroquine ☐ Lopinavir/ritonavir (Kaletra) ☐ Other HIV protease inhibitor ☐ Interferon alpha ☐ Interferon beta ☐ Ribavirin ☐ Oseltamivir (Tamiflu) ☐ Baloxavir ☐ Sarulimab (Kevzara) ☐ Anakinra (Kinaret) ☐ Baricitinib (Olumiant) ☐ IV vitamin C ☐ Transfusion of convalescent plasma ☐ Ivermectin ☐ Other (Indicate all medications from pre-specified list given, even if used as a chronic medication. Pre-listed medication does not need given specifically to treat COVID-19.For the "Other" checkbox, however, do not include medications unless given specifically to treat COVID-19 (e.g. antiviral effect, anti-inflammatory effect). Exclude medications given for complications of acute illness (e.g. amiodarone for arrhythmia) and hospital supportive care (e.g. nebulizers, sedatives).)
List other medication(s) given to treat acute illness	meds_hosp_other_oth_dly _____ (Separate multiple medications with commas. Do not include medications for chronic illnesses, complications of acute illness (e.g. amiodarone for arrhythmia, heparin for cardiac ischemia or DVT), and hospital supportive care (e.g. nebulizers, sedatives, DVT prophylaxis))
Antiviral (excluding meds given as part of placebo-controlled RCT)	meds_hosp_antiviral_yn_dly (Includes [hydroxy]chloroquine, interferon, protease inhibitors, and neuraminidase inhibitors)

Steroids

Any steroids (oral, IV, or inhaled) meds_hosp_cs_yn_dly	◯ Yes ◯ No
IV steroids meds_hosp_cs_iv_dly	◯ Yes ◯ No (IV methylprednisolone, IV dexamethasone, IV hydrocortisone)
Oral/enteric steroids meds_hosp_cs_po_dly	◯ Yes ◯ No (Prednisone, PO dexamethasone, PO solumedrol, PO prednisolone, PO hydrocortisone)

Inhaled steroids	◯ Yes
	◯ No
meds_hosp_cs_inh_dly	(List of inhaled steroids:Fluticasone (Flovent, Arnuity)Budesonide (Pulmincort)Mometasone (Asmanex)Beclomethasone (QVAR)Flunisolide (QVAR)Ciclesonide (Aerobid)Triamcinolone (Azmacort)Includes only steroids inhaled into lungs, notnasal steroids inhalers/sprays)

Specific systemic steroids administered	☐ Dexamethasone (Decadron)
	☐ Methylprednisolone (Solumedrol, Medrol)
meds_hosp_cs_type_dly	☐ Hydrocortisone
	☐ Predisone
	☐ Prednisolone
	☐ Other

| Total prednisone administered (in mg) during 24h period | _____ |
| | (Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.) |

| Total methylprednisolone (Solumedrol, Medrol) administered (in mg) during 24h period | _____ |
| | (Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.) |

| Total hydrocortisone administered (in mg) during 24h period | _____ |
| | (Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.) |

| Total dexamethasone (Decadron) administered (in mg) during 24h period | _____ |
| | (Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.) |

| Total prednisolone administered (in mg) during 24h period | _____ |
| | (Enter dose in mg. Combine IV and PO doses. Enter 0 if this medication not given.) |

Antibiotics

| Azithromycin meds_hosp_azithro_dly | ◯ Yes ◯ No |

| Antibiotics other than azithromycin meds_hosp_abx_dly | ◯ Yes ◯ No |

Sedatives for intubated patients

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Sedatives used for patient while on ventilator meds_hosp_sedatives_dly	☐ None ☐ Propofol ☐ Dexmedetomidine (Precedex) ☐ Benzodiazepine (continuous infusion) ☐ Benzodiazepine (intermittent bolus) ☐ Ketamine ☐ Other (Do not include medications given only for initial intubation.Eligible benzodiazepine medications: midazolam (Versed), lorazepam (Ativan), diazepam (Valium))

Anticoagulants

Prophylactic anticoagulation meds_hosp_vteppx_dly	◯ Yes ◯ No (Prophylactic anticoagulants:Subcutaneous heparin Enoxaparin (Lovenox) < 1 mg/kg twice daily (usually 30 mg twice daily) or any once daily dosing (usually 40 mg daily)< 1 mg/kgDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg dailyUsed to reduce the risk of DVT and PE. May be referred to as "DVT prophylaxis" or "DVT chemophylaxis.")
Therapeutic anticoagulation meds_hosp_anticoag_dly	◯ Yes ◯ No (Therapeutic anticoagulants:IV heparin (continuous infusion)Low molecular weight heparin (LMWH):Enoxaparin (Lovenox) ≥1 mg/kg twice daily; Dalteparin (Fragmin) >5000 units total per dayFondaparinux (Arixtra) ≥5 mg/dayWarfarin (Coumadin)Direct oral anticoagulants:Rivaroxaban (Xarelto)Dabigatran (Pradaxa)Apixaban (Eliquis)Edoxaban (Savaysa)BivalrudinArgatrobanDoes not include low-dose, prophylactic treatment with:Subcutaneous heparin Enoxaparin (Lovenox) ≤40 mg daily or ≤30 mg twice dailyDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg daily)
Fibrinolytic ("lytic") therapy meds_hosp_lytic_dly	◯ Yes ◯ No (Includes:Alteplase (AKA "tPA" or "tissue plasminogen activator")StreptokinaseUrokinaseExclude doses used just for management of clotted catheters (e.g. ≤8 mg of tPA))

Other medications

NSAIDs (non-steroidal anti-inflammatory drugs) meds_hosp_nsaid_dly	◯ Yes ◯ No (List of NSAIDs:Ibuprofen (Advil, Motrin)Naproxen (Aleve, Naprosyn)Diclofenac (Voltaren)Indomethacin (Indocin)Ketorolac (Toradol)Piroxican (Feldene)Celecoxib (Celebrex)KetoprofenOxaprozinNabumetoneSulindacMeloxicam)
ACE inhibitors meds_hosp_acei_dly	◯ Yes ◯ No (List of ACE inhibitors:Benazapril (Lotensin)Captopril (Captoten)Enalopril (Vasotec)Fosinopril (Monopril)Lisinopril (Prinivil, Zestril)Moexipril (Univasc)Perindopril (Aceon)Quinapril (Accupril)Ramipril (Altace)Trandolapril (Mavik))

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Angiotensin receptor blockers (ARBs)	◯ Yes ◯ No
meds_hosp_arb_dly	(List of angiotensin receptor blockers (ARBs):Azilsartan (Edarbi)Candesartan (Atacand)Eprosartan (Teveten)Irbesartan (Avapro)Telmisartan (Micardis)Valsartan (Diovan)Losartan (Cozaar)Olmesartan (Benicar))

Diuretics	◯ Yes ◯ No
meds_hosp_diuretic_dly	(List of diuretics:Furosemide (Lasix)Torsemide (Demadex)MetolazoneChlorothiazide (Diuril)Bumetanide (Bumex)Ethacrynic acid)

Outcome scale

WHO ordinal outcome scale (8-point version)

_____

Variables auto-calculated or defaulted for ISARIC mapping

Temperate available?

_____
(1, Not hospitalized, without limitation in activity (no symptoms)|2, Not hospitalized, with limitation in activity (continued symptoms)|3, Hospitalized, not on supplemental oxygen|4, Hospitalized, on supplemental oxygen|5, Hospitalized, on non-invasive ventilation or high flow nasal cannula|6, Hospitalized, on invasive mechanical ventilation|7, Hospitalized, on invasive mechanical ventilation and additional organ support (ECMO, dialysis/RRT, vasopressors)|8, Dead)

Heart rate available?

_____

Respiratory rate available?

_____

Systolic blood pressure available?

_____

Diastolic blood pressure available?

_____

Severe dehydration?

_____

Sternal capillary refill time >2 seconds?

_____

Glasgow Coma Score available?

_____

Oxygen saturation available?

_____

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AVPU available?

_____

Cough

_____

Cough: with sputum production

_____

Sore throat

_____

Chest pain

_____

Shortness of breath

_____

Confusion

_____

Seizures

_____

Vomiting / Nausea

_____

Diarrhoea

_____

Conjunctivitis

_____

Myalgia

_____

Other sign or symptom

_____

Haemoglobin available?

_____

Haemoglobin Unit

_____

Haemoglobin Unit - Specify Other

_____

WBC count available?

_____

WBC count Unit

_____

Haematocrit available?

_____

Platelets available?

_____

Platelets Unit

_____

APTT/APTR available?

_____

PT available?

_____

INR available?

_____

ALT/SGPT available?

_____

ALT/SGPT Unit

_____

Total Bilirubin available?

_____

Total Bilirubin Unit

_____

Total Bilirubin Unit - Specify other

_____

AST/SGOT available?

_____

AST/SGOT Unit

_____

AST/SGOT Unit - Specify Other

_____

Urea (BUN) available?

_____

Urea (BUN) Unit

_____

Urea (BUN) Unit - Specify Other

_____

Lactate available?

_____

Lactate Unit

_____

Creatinine available?

_____

Creatinine Unit

_____

Creatinine Unit - Specify Other

_____

Sodium available?

_____

Potassium available?

_____

Potassium Unit

_____

Procalcitonin on available?

_____

Procalcitonin Unit

_____

CRP available?

_____

CRP Unit

_____

LDH available?

_____

LDH Unit

_____

Creatine kinase available?

_____

Creatine kinase Unit

_____

Troponin available?

_____

Troponin Unit

_____

ESR available?

_____

D-dimer available?

_____

D-dimer Unit

_____

Ferritin available?

_____

Ferritin Unit

_____

IL-6 available?

_____

IL-6 Unit

_____

Oral/orogastric fluids?

_____

Intravenous fluids?

_____

Antifungal agent?

_____

Antimalarial agent?

_____

Oxygen therapy - if Yes, Source of oxygen

_____

Sample Collection

id_redcap

No specimen collection
According to the inclusion form, this patient is not enrolled for specimen collection.

Select the sample collection day:

○ Floor
○ ICU draw A   samp_day
○ ICU draw B
○ ICU draw C
○ ICU draw D
○ ICU draw E

Was a sample collected on this day?

○ Yes   samp_yn
○ No

Date and time of sample collection:

samp_dttm

_____

Accession number:

samp_accno

_____

Indicate the reason why the sample wasn't collected:

○ Patient no longer in ICU
○ Site hospital does not allow blood collection on COVID patients   samp_noreas
○ Difficult stick, unable to collect blood
○ Patient unavailable (in OR or CT)
○ Patient or family refused
○ Other

Please specify:

_____   samp_noreasspec

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Summative-Outcomes

PETAL ID: [id_petal]
First hospital admit: [admit_admit_dt]
ED arrival associated with admit: [admit_ed_arrival_dt]

id_redcap

STOPComplete "Inclusion" study form before proceding with data abstraction.

Follow-up duration

Date of last data update:
Update weekly after enrollment.
           Internal bookkeeping field not in dataset

_____

Hospital outcomes

Obtain data from review of discharge summary. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Hospital disposition at discharge dispo	○ Died
	○ Palliative discharge/hospice (any destination)
	○ Discharge to home
	○ Discharge to home with home services
	○ Discharge to nursing home
	○ Discharge to LTACH
	○ Discharge to rehab
	○ Transfer to another acute care facility
	○ Transfer to inpatient psychiatric facility
	○ Other
	○ Still in hospital

(Aside from death, palliative discharge trumps other disposition statuses. For instance, a patient discharged on home hospice should be recorded as "palliative discharge" rather the "discharge home with services" If patient is transferred within your hospital system, enter the discharge disposition from the final hospital)

"Other" hospital discharge

dispo_other
_____

(Aside from death, palliative discharge trumps other disposition statuses. For instance, a patient discharged on home hospice should be recorded as "palliative discharge" rather the "discharge home with services")

Hospital discharge/death date/time

admit_dc_dt
_____

(If patient is transferred within your hospital system, enter the discharge date/time from the final hospital)

Is patient known to have died after hospital discharge?

○ Yes
○ No   dispo_late_death_yn

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Death date	dispo_death_date
	_____
	(Enter "1/1/1900" if unknown)

Cause of death	○ Primary respiratory failure
	○ Cardiogenic shock
dispo_death_cause	○ Septic shock
	○ Arrhythmia
	○ Multiorgan failure
	○ Other
	○ Unknown

Conditions present at time of death	☐ Primary respiratory failure
	☐ Cardiogenic shock
	☐ Septic shock
dispo_death_cause2	☐ Arrhythmia
	☐ Multiorgan failure
	☐ Other
	☐ Unknown
	(Check all boxes that apply)

Other cause of death	dispo_death_cause_other
	_____

Was an autopsy performed?	○ Yes
	○ No
dispo_death_autopsy	○ Unknown

Care limitations

Obtain data from review of discharge, interim, and transfer summaries.

Were there any limitations of life-sustaining therapy or care intensity prior to death or discharge?	○ Yes
	○ No dispo_txlimit_yn
	○ Unknown

Limitation on ICU transfer? Reason(s)?	☐ No limitations
	☐ Limitation due to patient goals/preferences, with or without documented goals of care discussions or presence of advance care planning
dispo_txlimit_icu	☐ Limitation due to hospital policy
	☐ Limitation for other reason
	☐ Limitation, reason unknown
	(Select either "none" or all reaons that apply. Answer "none" if patient was in the ICU at the time of death or discharge.)

Was patient placed on "comfort-focused care" or made "comfort measures only" prior to death?	○ Yes dispo_txlimit_cmo_yn
	○ No

Date patient was placed on "comfort-focused care" or made "comfort measures only"	dispo_txlimit_cmo_date
	_____
	(Enter "1/1/1900" if unknown)

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Limitation on CPR (e.g. DNR)? Reason(s)? dispo_txlimit_cpr	☐ No limitations ☐ Limitation due to patient goals/preferences, with or without documented goals of care discussions or presence of advance care planning ☐ Limitation due to hospital policy ☐ Limitation for other reason ☐ Limitation, reason unknown (Select either "none" or all reaons that apply)
Limitation on intubation (e.g. DNI)? Reason(s)? dispo_txlimit_vent	☐ No limitations ☐ Limitation due to patient goals/preferences, with or without documented goals of care discussions or presence of advance care planning ☐ Limitation due to hospital policy ☐ Limitation for other reason ☐ Limitation, reason unknown (Select either "none" or all reaons that apply)
Limitation on vasopressors? Reason(s)? dispo_txlimit_pressors	☐ No limitations ☐ Limitation due to patient goals/preferences, with or without documented goals of care discussions or presence of advance care planning ☐ Limitation due to hospital policy ☐ Limitation for other reason ☐ Limitation, reason unknown (Select either "none" or all reaons that apply)
Limitation on dialysis? Reason(s)? dispo_txlimit_rrt	☐ No limitations ☐ Limitation due to patient goals/preferences, with or without documented goals of care discussions or presence of advance care planning ☐ Limitation due to hospital policy ☐ Limitation for other reason ☐ Limitation, reason unknown (Select either "none" or all reaons that apply)

Functional status on discharge

Obtain from review of discharge summary

How does ability to self-care at discharge compare versus before illness? dispo_function	◯ Same as before illness ◯ Worse than before illness ◯ Better than before illness ◯ Unknown
At discharge, patient able to walk independently (>50', use of gait aid permitted)?	◯ Yes dispo_function_walk ◯ No ◯ Unknown
At discharge, patient able to perform ADLs independently? dispo_function_adls	◯ Yes ◯ No ◯ Unknown (ADLs include bathing, dressing, transferring, using the toilet, and eating)

Infection status during hospitalization

Obtain data from review of discharge, interim, and transfer summaries.

Did patient have a pulmonary infection?

infect_pulm

- ○ None
- ○ COVID-19 pneumonia or pneumonitis only
- ○ Other viral pneumonia(s) only
- ○ Bacterial pneumonia(s) only
- ○ COVID-19 + bacterial pneumonia(s)
- ○ COVID-19 + other viral pneumonia(s)
- ○ Other viral pneumonia(s) + bacterial pneumonia(s)

Did patient have a non-pulmonary infection?

infect_nonpulm_yn

- ☐ None
- ☐ Urinary tract
- ☐ Intraabdominal, gastrointestinal, biliary
- ☐ CNS/meningitis
- ☐ Skin and soft tissue
- ☐ Primary bloodstream/endocarditis
- ☐ Osteoarticular (bones & joints, discitis)
- ☐ Other specific non-pulmonary source
- ☐ Multiple non-pulmonary sources
- ☐ Non-pulmonary infection, source unclear

Organ support at discharge

Obtain from review of discharge summary

Discharged on new or increased nasal cannula, face mask, or high-flow oxygen therapy?

○ Yes   ○ No   dispo_oxygen

Level of new oxygen support

dispo_oxygen_level

- ○ Nasal cannula
- ○ Simple mask
- ○ Mask with reservoir/NRB
- ○ HFNC

Discharged on new or increased non-invasive positive pressure ventilation (NIPPV/BiPAP/CPAP) for ongoing respiratory support?   dispo_nippv

○ Yes   ○ No
(Answer "No" if NIPPV or CPAP only used to treat sleep apnea and not ongoing respiratory failure.)

Discharged on new mechanical ventilation?

dispo_vent

○ Yes   ○ No
(If a patient is chronically ventilator-dependent and is charged on their home support or if patient has a trach but is on arround-the-clock trach collar, answer "NO")

Discharged with a new tracheotomy?

○ Yes   ○ No   dispo_trach

Level of support via tracheostomy

dispo_trach_level

- ○ Ventilator (includes nocturnal-only ventilator)
- ○ Trach collar with FiO2 >0.4
- ○ Trach colar with FiO2 ≤0.4
- ○ Capped

(If level of support varying during the day, choose highest level of support on discharge day)

Discharged on new dialysis?

○ Yes   ○ No   dispo_dialysis

REDCap

Summative-Treatments

STOPComplete "Inclusion" study form before proceding with data abstraction.

STOPSubject's last recorded status was either "still hospitalized" or their
hospital disposition and/or hospital departure (or death) date/time have
not yet been recorded on the "Summative-Outcomes" form. Unless patient has been hospitalized >60 days,
wait to enter data on this form
until patient's hospitalization has ended.

Summary of ICU care during hospitalization. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Did patient spend any time in an ICU or ICU step-down/intermediate care unit during this admission?

tx_hosp_tot_icu

○ ICU
○ IMCU/step-down
○ No
(If admitted to both IMCU and ICU, select ICU. "ICU" can include surge, ad hoc, and temporary ICUs.)

Number of times patient admitted to ICU during encounter

tx_hosp_tot_icu_cnt
_____

Was patient in ICU at time of hospital death or discharge?

○ Yes
○ No   tx_hosp_tot_icu_end

Date of first ICU admission

icu_date_admit1
_____

Date of first ICU discharge

icu_date_dc1
_____
(Enter hospital discharge date if patient discharged or died in ICU)

Date of second ICU admission

icu_date_admit2
_____

Date of second discharge

icu_date_dc2
_____
(Enter hospital discharge date if patient discharged or died in ICU)

Date of third ICU admission

icu_date_admit3
_____

Date of third ICU discharge

icu_date_dc3
_____
(Enter hospital discharge date if patient discharged or died in ICU)

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Date of fourth ICU admission	icu_date_admit4

Date of FINAL ICU discharge	icu_date_dc4
	(* If ≥4 ICU admissions, enter the date of the FINAL ICU discharge. * Enter hospital discharge date if patient discharged or died in ICU.)

Respiratory treatment summary for entire hospitalization

Obtain data from review of discharge, interim, and transfer summaries as well as review of respiratory charting and medication administration. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Invasive ventilation	○ Yes ○ No	tx_hosp_tot_vent

Number of episodes of mechanical ventilation during encounter	tx_hosp_tot_vent_cnt

Was patient on invasive mechanical ventilation at time of hospital death or discharge?	○ Yes ○ No	tx_hosp_tot_vent_end

Date of first intubation	tx_hosp_intub1_date
	(Enter date/time of first arrival to a hospital if (1) patient intubated before arrival and (2) actual intubation time not known)

Date of first extubation	tx_hosp_extub1_date
	(Enter hospital discharge/death date if patient discharged or died while intubated.)

Date of second intubation	tx_hosp_intub2_date

Date of second extubation	tx_hosp_extub2_date
	(Enter hospital discharge/death date if patient discharged or died while intubated.)

Date of third intubation	tx_hosp_intub3_date

Date of third extubation	tx_hosp_extub3_date
	(Enter hospital discharge/death date if patient discharged or died while intubated.)

Date of fourth intubation	

NOTE: No patients had more than 3 ventilation episodes; dropped item

Date of FINAL extubation	NOTE: No patients had more than 3 ventilation episodes; dropped item
	_____
	(* Enter hospital discharge/death date if patient discharged or died while intubated.* If ≥4 intubations admissions, enter the date of the FINAL extubation or, if intubated at discharge, the date of hospital discharge.)

Non-invasive ventilation (e.g. BiPAP, CPAP) tx_hosp_tot_nippv	○ Yes ○ No (Answer "No" if on home settings, at night only or if used only for sleep apnea.)

Total days of inpatient NIPPV therapy up to and including day 28	_____ (Count calendar days where patient got any NIPPV)

Nasal cannula, face mask, or HFNC oxygen therapy	○ Yes tx_hosp_tot_o2therapy ○ No

Maximum O2 flow via NC, face mask, or HFNC	○ 1-5L ○ 6-10L tx_hosp_tot_o2flow ○ 11-15L ○ >15L ○ Unknown (Enter maximum O2 flow via NC, face mask, or HFNC during the admission)

Methods used to provide oxygen support tx_hosp_tot_o2mode	☐ Nasal cannula ☐ Simple mask ☐ Mask with reservoir/NRB ☐ HFNC (Check all boxes that apply)

Total days of inpatient oxygen therapy up to and including day 28	_____ (Count calendar days where patient got any oxygen)

Maximum O2 flow during hospitalization	tx_hosp_tot_max_o2flow
	_____ (Enter maximum O2 flow in liters. Enter "-99" if missing.)

Maximum FiO2 during hospitalization	tx_hosp_tot_max_fio2
	_____ (Enter highest recorded FiO2 (range 0.21 to 1.0). Ignore any O2 recorded as liters/min unless no FiO2 is recorded or highest FiO2 is 0.21 (room air). In this case, calculate max FiO2 using the highest-recorded O2 L/min flow using the formula: 0.21+0.03 x (max liter/min flow).Enter "-99" if missing.)

Calculated maximum FiO2 during hospitalization	tx_hosp_tot_max_fio2_calc
	_____ (Automatically calculated)

Other organ support treatment summary for entire hospitalization.

Obtain data from review of discharge, interim, and transfer summaries as well as review of respiratory charting and medication administration. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Vasopressors/inotropes tx_hosp_tot_pressor	◯ Yes ◯ No (Includes norepinephrine (Levophed), epinephrine, vasopressin, phenylephrine (Neosynephrine), angiotensin-II (Giapreza), dopamine, dobutamine, milrinone)
Total days of inpatient vasopressor therapy up to and including day 28	_____ (Count calendar days where patient received vasopressors and/or inotropes)
First date patient ever received continuous vasopressor or inotrope infusion at study hospital	tx_hosp_tot_pres_on_date _____ (Enter date patient first started on continuous vasopressor or inotrope infusion at study hospital. If patient already receiving vasopressors at arrival to study hospital, enter hospital arrival date.)
Latest date patient ever received continuous vasopressor or inotrope infusion at study hospital	tx_hosp_tot_pres_off_date _____ (If patient was started and stopped on continuous infusion vasopressors/inotropes >1 time during hospitalization, enter the final/latest date that vasopressors/inotropes were stopped. If patient remained on vasopressors/inotropes at time of death or hospital discharge, enter hospital discharge/death date.)
ECMO	◯ Yes tx_hosp_tot_ecmo ◯ No
Total days on ECMO therapy up to and including day 28	_____ (Count calendar days where patient received any ECMO)
First date patient ever received ECMO at study hospital	tx_hosp_tot_ecmo_on_date _____ (Enter date patient first started on ECMO at study hospital. If patient already receiving ECMO at arrival to study hospital, enter hospital arrival date.)

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Latest date patient ever received ECMO at study hospital	tx_hosp_tot_ecmo_off_date
	_____ (If patient was started and stopped on ECMO >1 time during hospitalization, enter the final/latest date that ECMO was stopped. If patient remained on ECMO at time of death or hospital discharge, enter hospital discharge/death date.)

Prone positioning	◯ Yes ◯ No tx_hosp_tot_prone

Total days of proning therapy up to and including day 28	_____ (Count calendar days where patient underwent any proning)

Treated with inhaled pulmonary vasodilators (nitric oxide [iNO] or epoprostenol [Flolan])	◯ Yes tx_hosp_tot_ino ◯ No

Total days received inhaled pulmonary vasodilators up to and including day 28	_____ (Count calendar days where patient received any inhaled pulmonary vasodilators)

Therapeutic neuromuscular blockade / therapeutic paralysis	◯ Yes tx_hosp_tot_nmb ◯ No (Do not include paralytic given for intubation)

Total days received therapeutic neuromuscular blockade up to and including day 28	_____ (Do not include paralytic given for intubation)

Renal replacement therapy / dialysis	◯ Yes tx_hosp_tot_dialysis ◯ No (Includes intermittent and continuous hemodialysis, hemofiltration, or ultrafiltration as well as peritoneal dialysis.)

Received continuous renal replacement therapy at any point during this admission	◯ Yes ◯ No tx_hosp_tot_crrt

Total days of inpatient dialysis/renal replacement therapy therapy up to and including day 28	_____ (Count calendar days where patient got any dialysis)

Date of first renal replacement therapy initiation at study hospital	tx_hosp_tot_rrt_on_date
	_____ (Enter date patient first received renal replacement therapy at study hospital. Includes intermittent and continuous hemodialysis, hemofiltration, or ultrafiltration as well as peritoneal dialysis.)

Date of last renal replacement therapy at study hospital	tx_hosp_tot_rrt_off_date
	(If patient continued on dialysis (i.e. no intentional cessation) up to death or hospital discharge, enter hospital discharge/death date. Otherwise, enter latest date patient received renal replacement therapy at study hospital.Includes intermittent and continuous hemodialysis, hemofiltration, or ultrafiltration as well as peritoneal dialysis.)

Variables auto-calculated or defaulted for ISARIC mapping

Source of oxygen

_____

Summative-Diagnostics

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Imaging

If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Did patient have chest X-ray or chest CT during the admission? dx_hosp_image_chest	◯ No ◯ Chest X-ray only ◯ Chest CT only ◯ Chest X-ray and chest CT
Total number of chest X-rays	dx_hosp_image_cxr_cnt _____
Airspace opacities on chest X-ray dx_hosp_image_cxr_res	◯ No infiltrates ◯ Unilateral infiltrates, ◯ Bilateral infiltrates (If >1 chest X-ray, use image closest to hospital arrivalAnswer based on the impression from the radiologist report, no need for anyone to review image.)
Pleural effusion on chest X-ray dx_hosp_image_cxr_eff	◯ Yes ◯ No (If >1 chest X-ray, use image closest to hospital arrivalAnswer based on the impression from the radiologist report, no need for anyone to review image.)
Total number of chest CTs	xc_hosp_image_ct_cnt _____ (Include CT chest (any type/protocol), CT chest/abdomen and CT chest/abdomen/pelvis)
Airspace opacities on chest CT dx_hosp_image_ct_res	◯ No infiltrates ◯ Unilateral infiltrates, ◯ Bilateral infiltrates (If >1 chest CT, use image closest to hospital arrivalAnswer based on the impression from the radiologist report, no need for anyone to review image.)

Total number of abdominal or abdominal/pelvis CTs	_____

Total number of formal echocardiagrams (TEE or TTE) available for upload	dx_hosp_image_tte_cnt _____ (Do not include point-of-care (informal) echocardiograms)
Total number of informal/point-of-care ultrasounds with stored images available (includes echocardiagrams, lung ultrasound, and other informal point-of-care ultrasound)	dx_hosp_image_pocus_cnt _____ (Do not include formal ultrasonography, only informal, point-of-care, or "clinician performed" imaging)
Total number of electrocardiograms (ECGs) available for upload	___dx_hosp_image_ecg_cng_____

Total number of telemetry files for upload	_____

Microbiology testing

Obtain data from review of discharge, interim, and transfer summaries and microbiology and laboratory results. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

COVID-19 repeat testing

Did patient have any repeat SARS-CoV-2 PCR tests after their first positive test and prior to hospital discharge? dx_micro_covid_rpt	◯ Yes ◯ No (Enter "Yes" if ≥1 test meets all three criteria:Occurred after their first positive SARS-CoV-2 test Occurred after study hospital arrivalOccurred before study hospital discharge)
What was the result of the final/last repeat SARS-CoV-2 PCR before hospital discharge? dx_micro_covid_rpt_res	◯ Positive ◯ Negative ◯ Indeterminate

Other respiratory pathogens

Influenza dx_micro_influenza	◯ Detected ◯ Not detected ◯ Not done
Influenza type dx_micro_influenza_type	◯ H1N1 (2009) ◯ H1N1 (seasonal) ◯ H3 ◯ A (untypable) ◯ A (not subtyped) ◯ B ◯ Other
Non-COVID coronavirus dx_micro_othercorona	◯ Detected ◯ Not detected ◯ Not done

Other respiratory pathogens detected via molecular testing? dx_micro_otherresp	◯ Yes ◯ No

What respiratory pathogens were detected? dx_micro_resp_other	☐ True-positive bacterial pulmonary culture ☐ True-positive fungal pulmonary culture ☐ Strep urine antigen ☐ Legionella urine antigen ☐ RSV ☐ Metapneumovirus ☐ Parainfluenza ☐ Adenovirus ☐ Rhinovirus ☐ Mycoplasma ☐ Chlamydia pneumoniae ☐ Other (Check all boxes that apply)

True positive bacterial pulmonary culture? dx_micro_resp_cx_back	◯ Yes ◯ No

True positive fungal pulmonary culture? dx_micro_resp_cx_fungal	◯ Yes ◯ No

Specify culture(s) or other result _____ dx_micro_resp_spec _____	

Other microbiology testing

HIV test during admission dx_micro_hiv	◯ Detected ◯ Not detected ◯ Not done

True positive urine culture? dx_micro_urine	◯ Yes ◯ No

True positive blood culture? dx_micro_blood	◯ Yes ◯ No

Other true-positive culture? dx_micro_other	◯ Yes ◯ No

C difficile assay positive dx_micro_cdiff	◯ Yes ◯ No

Variables auto-calculated or defaulted for ISARIC mapping

Viral hemorrhagic fever

_____

Other pathogen of public interest detected

_____

Falciparum malaria

_____

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Non-falciparum malaria

_____

Summative-Complications

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Complications observed at any time during hospitalization

Obtain data from review of discharge, interim, and transfer summaries. If patient is transferred between hospitals within your hospital system, review data from all available hospitalizations to answer summative questions.

Seizures	comp_seizure	◯ Yes ◯ No
Meningitis/encephalitis	comp_meningitis	◯ Yes ◯ No
Stroke/cerebrovascular accident (CVA)	comp_stroke	◯ Yes ◯ No (Includes both ischemic and hemorrhagic strokes)
Ischemic/embolic stroke	comp_stroke_ischemic	◯ Yes ◯ No
Hemorrhagic stroke	comp_stroke_hemorrhagic	◯ Yes ◯ No
Atrial fibrillation	comp_arrhyth_afib	◯ Yes ◯ No
Ventricular arrhythmia	comp_arrhyth_ventric	◯ Yes ◯ No (Includes ventricular fibrillation (VF), ventricular tachycardia (VT), torsades de pointes. Does not include NSVT or PVCs.)
Endocarditis	comp_endocarditis	◯ Yes ◯ No
Myocarditis/pericarditis	comp_carditis	◯ Yes ◯ No
Cardiac arrest	comp_arrest	◯ Yes ◯ No
ST-elevation MI (STEMI)	comp_stemi	◯ Yes ◯ No
Non-ST elevation MI (NSTEMI) or other cardiac ischemia	comp_nstemi	◯ Yes ◯ No (Includes "AMI", "acute MI" not specified as an ST-elevation MI)
Congestive heart failure (CHF) / cardiomyopathy	comp_chf	◯ Yes ◯ No

Pneumonia	comp_pna	◯ Yes ◯ No

Bronchiolitis	◯ Yes ◯ No

ARDS comp_ards		◯ Yes ◯ No (Includes "acute lung injury", "acute hypoxemic respiratory failure", or "acute hypoxic respiratory failure")

Pneumothorax comp_ptx		◯ Yes ◯ No (Includes "collapsed lung." If patient diagnosed with "barotrauma," review notes to determine whether this was pneumothorax, pneumomediastinum, or both.)

Pneumomediastinum comp_pneumomed		◯ Yes ◯ No (Includes "air in medistinum." If patient diagnosed with "barotrauma," review notes to determine whether this was pneumothorax, pneumomediastinum, or both.)

Acute arterial thromboembolism excluding stroke/CVA or myocardial infarction comp_artischemia		◯ Yes ◯ No (Examples include acute mesenteric arterial embolism, left ventricular or left atrial thrombus, renal infarct, splenic infarct, ischemic limb or ischemic digits.Exclude events specifically noted to result only from chronic vascular disease.)

Acute venous thromboembolism comp_vte		◯ Yes ◯ No (Include acute deep vein thrombosis (DVT), pulmonary embolism (PE), mesenteric venous thrombosis, renal vein thrombosis, splenic vein thrombosis, portal venous thrombosis, Budd-Chiari syndrome (hepatic vein thrombosis), cerebral (venous) sinus thrombosis, and cavernous sinus thrombosis.Do not include clots of superficial veins (superficial thrombophlebitis), including the saphenous, cephalic, basilic, median cubital, and external jugular veins.)

Pulmonary embolism (PE) comp_pe		◯ Yes ◯ No

What was the most definitive method used to diagnose the pulmonary embolism (PE)? comp_pe_dx	◯ Pulmonary angiography ◯ CT pulmonary angiogram/PE-protocol chest CT ◯ Ventilation perfusion scan (V/Q scan) ◯ Perfusion-only scan (Q scan) ◯ Echocardiogram with direct clot visualization (includes bedside/point-of-care) ◯ Other ◯ No definitive imaging confirmation, clinical diagnosis only (Diagnosis methods are listed in order from most definitive to least definitive. If patient had PE confirmed by multiple methods, select the applicable option that is listed first. For instance, if patient's PE was seen by both CT pulmonary angiogram and by echocardiogram, chhoose "CT pulmonary angiogram."Choose "No definitive imaging confirmation" if diagnosis was:Based only on clinical assessment or "Presumptive" based on clinical evidence or"Presumptive" based on diagnosis of DVT orBased on abnormal echocardiogram but clot was not explicitly documented on the echocardiogram)
Deep vein thrombosis (DVT) of proximal or central vein comp_dvt	◯ Yes ◯ No (Includes clots involving the femoral, iliac, popliteal, axillary, brachial, and jugular veins or the superior or inferior vena cava.)
What was the most definitive method used to diagnose the deep vein thrombosis (DVT)? comp_dvt_dx	◯ Venogram (either catheter- or CT-based) ◯ Formal doppler ultrasound ◯ Point-of-care/bedside ultrasound ◯ Other ◯ No definitive imaging confirmation, clinical diagnosis only (Diagnostic methods are listed in order from most definitive to least definitive. If patient had DVT confirmed by multiple methods, select the applicable option that is listed first. Choose "No definitive imaging confirmation" if diagnosis was not based on a positive venogram or ultrasound but was:Based only on clinical assessment or exam or"Presumptive" based on diagnosis of PE)
Shock (use of vasopressors) comp_shock	◯ Yes ◯ No (Includes "hypotension", use of vasopressors)
Bacteremia comp_bacteremia	◯ Yes ◯ No (Includes "septicemia", true-positive blood cultures)
Coagulation disorder / disseminated intravascular coagulation comp_coagulopathy	◯ Yes ◯ No (Includes "DIC")
Symptomatic hypoglycemia	◯ Yes ◯ No
Bleeding comp_bleeding	◯ Yes ◯ No (Includes "hemorrhage")
Anemia comp_anemia	◯ Yes ◯ No

Pancreatitis	comp_panc	◯ Yes ◯ No
Acute renal injury/failure	comp_aki	◯ Yes ◯ No (Includes "acute kidney injury" (AKI) or "acute kidney failure")
Liver dysfunction/failure	comp_ali	◯ Yes ◯ No (Includes "hepatitis", "transaminitits", "hepatopathy", or "shock liver")
Other complication		_____

Summative-Meds

STOPComplete "Inclusion" study form before proceding with data abstraction.

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hospital disposition and/or hospital departure (or death) date/time have
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wait to enter data on this form
until patient's hospitalization has ended.

Research participation

Was patient known to be enrolled in another research study besides BLUE CORAL? research_participation	☐ No ☐ Observational study, no biospecimens ☐ Observational study, including biospecimens ☐ Interventional clinical trial (Check all answers that apply. Answer "No" if no known participation"Interventional clinical trial" includes trials involving administration of a drug (regardless of whether study involved blinding, placebo, or a control group) as well astrials of non-pharmacologic therapies (e.g. proning))
Was a medication given as part of a research trial? meds_hosp_tot_exp	◯ Yes ◯ No
Was patient's treatment assignment blinded? meds_hosp_tot_exp_blind	◯ Unblinded/open label ◯ Blinded ◯ Both (only possible if patient was in >1 study) ◯ Unknown (Unblinded/open label trial: A trial (may or may not be randomized) in which patient and their medical team knew which drug the patient received. Examples include trials that:Give all patients a single active drug.Compare active drug to "usual care."Give all patients the same active drug but compare different durations or doses.Compare ≥2 different active drugs with known assignment.Blinded trial: A trial in which patient and their medical team did not know which drug the patient received or if they received an active study drug at all. Examples include trials that:Compare one or more drugs to a placebo (e.g. ORCHID)Compare ≥2 different active drugs with unknown assignment.)

REDCap

For blinded studies, list the treatment assignment
possibilities/options.

__meds_hosp_tot_exp_specb__

(Separate treatment arms for the study with a
forward slash.List all possible assignments (ex.
"azithromycin/hydroxychlorquine")List placebo as a
possible assignment if applicable (ex.
"hydroxychloroquine/placebo" for ORCHID)Enter
"Unknown" if one or more possible assignments is
unknown (ex. "Aspirin/Unknown"))

For unblinded/open-label studies, list the treatment
assignment patient received.

__meds_hosp_tot_exp_specu__

(Enter drug patient is known to have received (ex.
"Hydroxychloroquine"). Enter "Unknown" if study
drug not known.)

Medications given at any point during admission

Obtain data from review of discharge, interim, and transfer summaries and medication administration record.

Answer "Yes" if medication given at any time between hospital admission and discharge/final assessment.

Do NOT include medications that were given as part of a
blinded clinical trial (i.e. it is unknown if patient received active drug or placebo).

Answer "Yes" if medication given at any time between hospital admission and discharge/final assessment.

Include medications given as part of an unblinded trial in documentation.

Answer "Yes" if medication given at any time between hospital admission and discharge/final assessment.

Hydroxychloroquine (plaquenil)	meds_hosp_tot_hcq	◯ Yes ◯ No
Remdesivir	meds_hosp_tot_remdesivir	◯ Yes ◯ No
Tocilizumab (Actemra)	meds_hosp_tot_toci	◯ Yes ◯ No

Other medication(s) relevant for targeted COVID-19 treatment meds_hosp_tot_other	☐ None ☐ Chloroquine ☐ Lopinavir/ritonavir (Kaletra) ☐ Other HIV protease inhibitor ☐ Interferon alpha ☐ Interferon beta ☐ Ribavirin ☐ Oseltamivir (Tamiflu) ☐ Baloxavir ☐ Sarulimab (Kevzara) ☐ Anakinra (Kinaret) ☐ Baricitinib (Olumiant) ☐ IV vitamin C ☐ Transfusion of convalescent plasma ☐ Ivermectin ☐ Other (Indicate all medications from pre-specified list given, even if used as a chronic medication. Pre-listed medication does not need given specifically to treat COVID-19.For the "Other" checkbox, however, do not include medications unless given specifically to treat COVID-19 (e.g. antiviral effect, anti-inflammatory effect). Exclude medications given for complications of acute illness (e.g. amiodarone for arrhythmia) and hospital supportive care (e.g. nebulizers, sedatives).)
List other medication(s) given to treat acute illness	__meds_hosp_tot_other_oth__ (Separate multiple medications with commas. Do not include medications for chronic illnesses, complications of acute illness (e.g. amiodarone for arrhythmia, heparin for cardiac ischemia or DVT), and hospital supportive care (e.g. nebulizers, sedatives, DVT prophylaxis))
Antiviral (excluding meds given as part of placebo-controlled RCT)	_____ (Includes [hydroxy]chloroquine, interferon, protease inhibitors, and neuraminidase inhibitors)

Steroids

Any steroids (oral, IV, or inhaled) meds_hosp_tot_cs_yn	◯ Yes ◯ No
IV steroids meds_hosp_tot_cs_iv	◯ Yes ◯ No (IV methylprednisolone, IV dexamethaosone, IV hydrocortisone)
Oral/enteric steroids meds_hosp_tot_cs_po	◯ Yes ◯ No (Prednisone, PO dexamethasone, PO solumedrol, PO prednisolone, PO hydrocortisone)
Inhaled steroids meds_hosp_tot_cs_inh	◯ Yes ◯ No (List of inhaled steroids:Fluticasone (Flovent, Arnuity)Budesonide (Pulmincort)Mometasone (Asmanex)Beclomethasone (QVAR)Flunisolide (QVAR)Ciclesonide (Aerobid)Triamcinolone (Azmacort)Includes only steroids inhaled into lungs, notnasal steroids inhalers/sprays)

Specific systemic steroids administered	☐ Dexamethasone (Decadron)
	☐ Methylprednisolone (Solumedrol, Medrol)
	☐ Hydrocortisone
meds_hosp_tot_cs_type	☐ Predisone
	☐ Prednisolone
	☐ Other

Antibiotics

| Azithromycin | meds_hosp_tot_azithro | ◯ Yes ◯ No |

| Antibiotics other than azithromycin | ◯ Yes ◯ No |
| meds_hosp_tot_otherabx | |

Anticoagulants

Prophylactic anticoagulation	◯ Yes ◯ No
	(Prophylactic anticoagulants:Subcutaneous heparin Enoxaparin (Lovenox) < 1 mg/kg twice daily (usually 30 mg twice daily) or any once daily dosing (usually 40 mg daily)< 1 mg/kgDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg dailyUsed to reduce the risk of DVT and PE. May be referred to as "DVT prophylaxis" or "DVT chemophylaxis.")
meds_hosp_tot_vteppx	

Therapeutic anticoagulation	◯ Yes ◯ No
	(Therapeutic anticoagulants:IV heparin (continuous infusion)Low molecular weight heparin (LMWH):Enoxaparin (Lovenox) ≥1 mg/kg twice daily; Dalteparin (Fragmin) >5000 units total per dayFondaparinux (Arixtra) ≥5 mg/dayWarfarin (Coumadin)Direct oral anticoagulants:Rivaroxaban (Xarelto)Dabigatran (Pradaxa)Apixaban (Eliquis)Edoxaban (Savaysa)BivalrudinArgatrobanDoes not include low-dose, prophylactic treatment with:Subcutaneous heparin Enoxaparin (Lovenox) ≤40 mg daily or ≤30 mg twice dailyDalteparin (Fragmin) ≤5000 units dailyFondaparinux (Arixtra) ≤2.5 mg daily)
meds_hosp_tot_anticoag	

Fibrinolytic ("lytic") therapy	◯ Yes ◯ No
	(Includes:Alteplase (AKA "tPA" or "tissue plasminogen activator")StreptokinaseUrokinaseExclude doses used just for management of clotted catheters (e.g. ≤8 mg of tPA))
meds_hosp_tot_lytic	

Other medications administered at any point during admission

NSAIDs (non-steroidal anti-inflammatory drugs)	◯ Yes ◯ No
	(List of NSAIDs:Ibuprofen (Advil, Motrin)Naproxen (Aleve, Naprosyn)Diclofenac (Voltaren)Indomethacin (Indocin)Ketorolac (Toradol)Piroxican (Feldene)Celecoxib (Celebrex)KetoprofenOxaprozinNabumetoneSulindacMeloxicam)
meds_hosp_tot_nsaid	

ACE inhibitors	◯ Yes ◯ No
	(List of ACE inhibitors:Benazapril (Lotensin)Captopril (Captoten)Enalopril (Vasotec)Fosinopril (Monopril)Lisinopril (Prinivil, Zestril)Moexipril (Univasc)Perindopril (Aceon)Quinapril (Accupril)Ramipril (Altace)Trandolapril (Mavik))
meds_hosp_tot_acei	

Angiotensin receptor blockers (ARBs) meds_hosp_tot_arb	◯ Yes ◯ No (List of angiotensin receptor blockers (ARBs):Azilsartan (Edarbi)Candesartan (Atacand)Eprosartan (Teveten)Irbesartan (Avapro)Telmisartan (Micardis)Valsartan (Diovan)Losartan (Cozaar)Olmesartan (Benicar))

Variables auto-calculated or defaulted for ISARIC mapping

IV fluids	_____ (Includes crystalloids fluids (NS, LR, Plasmalyte), albumin, hetastarchDoes notinclude hypotonic fluids (e.g. D5W, 1/2 NS), blood products, medications)
Oral/orogastric fluids	_____
Anti-fungal	_____
Anti-malarial	_____

Calculation pending

STOPAuto-calculated variablesThis instrument exists to hold variables that are either auto-calcualted or set to default values for mapping to the ISARIC registry. Variables are hidden from view and should not be manipulated.

In other words: Move on, there's nothing to do here.

Data elements to be calculated using data collected elsewhere

Age on hospital admit (years, age ≥1 year)

_____
(Will be calculated from other collected data)

Age on hospital admit (months, age < 1y)

_____
(Will be calculated from other collected data)

Charlson score

_____
(Will be calculated from other collected data)

Total hospital length of stay (from hospital admit)

_____
(Will be calculated from other collected data)

Total ICU length of stay (from hospital admit)

_____
(Will be calculated from other collected data)

VFD from admission to hospital discharge or day 28

_____
(Will be calculated from other collected data)

Hospital-free days from hospital admit

_____
(Will be calculated from other collected data)

Optional

Optional data

STOPData fields in this instrument are expected mainly for use by sites that wish to electronically capture additional data (e.g. Elixhauser comorbidities, discharge billing codes).

Do NOT enter data manually unless
explicitly instructed by your site's investigator.

STOPComplete "Inclusion" study form before proceding with data abstraction.

Additional detail for first COVID-19 PCR test

COVID-19 molecular specimen #1 type (e.g. nasopharyngeal swab)

- ◯ Nasopharyngeal swab
- ◯ Oropharyngeal swab
- ◯ Sputum
- ◯ BAL
- ◯ Tracheal Aspirate
- ◯ Other

Setting in which patient had first COVID-19 PCR testing

- ◯ ED
- ◯ Urgent care
- ◯ Inpatient
- ◯ Outpatient lab
- ◯ Drive-through clinic

COVID-19 molecular test #1 order date/time

_____

COVID-19 molecular test #1 result date/time

_____

Additional detail for first positive COVID-19 PCR test

COVID-19 specimen type for first positive molecular test

- ◯ Nasopharyngeal swab
- ◯ Oropharyngeal swab
- ◯ Sputum
- ◯ BAL
- ◯ Tracheal Aspirate
- ◯ Other

Setting in which patient had their first positive COVID molecular test

- ◯ ED
- ◯ Urgent care
- ◯ Inpatient
- ◯ Outpatient lab
- ◯ Drive-through clinic

Order date/time for first positive COVID-19 molecular test

_____

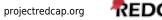Result date/time for first positive COVID-19 molecular test

_____

Worst labs between hospital arrival and discharge
Enter '-99' if data is missing or unavailable.

Lowest WBC after hospital arrival

_____
(1000s/microliter)

Lowest lymphocyte count after hospital arrival

_____
(1000s/microliter)

Highest neutrophil count after hospital arrival

_____
(1000s/microliter)

Lowest hematocrit after hospital arrival

_____
(%)

Lowest hemoglobin after hospital arrival

_____
(g/dL)

Lowest platelet after hospital arrival

_____
(1000s/microliter)

Highest lactate after hospital arrival

_____
(mmol/LEither whole blood (arterial blood gas or venous blood gas) lactate or plasma lactate is acceptable.)

Highest aPTT after hospital arrival

_____
(sec)

Highest INR after hospital arrival

_____

Lowest fibrinogen after hospital arrival

_____
(mg/dL)

Highest potassium after hospital arrival

_____
(mEq/L)

Lowest serum bicarbonate (HCO3, "total CO2", or "CO2" from serum chemistry panel)

_____
(mEq/L)

Highest BUN after hospital arrival

_____
(mg/dL)

Highest creatinine after hospital arrival

_____
(mg/dL)

Highest AST after hospital arrival

_____
(units/L)

Highest ALT after hospital arrival

_____
(units/L)

Highest total bilirubin after hospital arrival

_____
(mg/dL)

Lowest albumin

_____
(g/dL)

Highest procalcitonin after hospital arrival

_____
(ng/mL)

Highest LDH after hospital arrival

_____
(units/L)

Highest CRP after hospital arrival

_____
(mg/L)

Highest ferritin after hospital arrival

_____
(ng/mL)

Highest troponin after hospital arrival

_____
(ng/mL)

Highest BNP after hospital arrival

_____
(ng/mL)

Highest D-dimer after hospital arrival

_____
(ng/mL)

Highest CK after hospital arrival

_____
(units/L)

Highest triglycerides after hospital arrival

_____
(mg/dL)

Highest Il-6 after hospital arrival	
	_____ (pg/mL)

Elixhauser comorbidities
Obtain data from review of admission H&P if not available from automated query

Elixhauser-Cardiac arrhythmias	◯ Yes ◯ No
Elixhauser-Valvular disease	◯ Yes ◯ No
Elixhauser-Congestive heart failure	◯ Yes ◯ No
Elixhauser-Pulmonary circulation disorder	◯ Yes ◯ No
Elixhauser-Peripheral vascular disease	◯ Yes ◯ No
Elixhauser-Hypertension, uncomplicated	◯ Yes ◯ No
Elixhauser-Hypertension, complicated	◯ Yes ◯ No
Elixhauser-Other neurologic disorders	◯ Yes ◯ No
Elixhauser-Chronic pulmonary disease	◯ Yes ◯ No
Elixhauser-Connective tissue disease	◯ Yes ◯ No
Elixhauser-Peptic ulcer disease without bleeding	◯ Yes ◯ No
Elixhauser-AIDS	◯ Yes ◯ No
Elixhauser-Liver disease	◯ Yes ◯ No
Elixhauser-Diabetes without end-organ damage	◯ Yes ◯ No
Elixhauser-Paralysis	◯ Yes ◯ No
Elixhauser-Renal failure	◯ Yes ◯ No
Elixhauser-Diabetes with end-organ damage (retinopathy, neuropathy, nephropathy)	◯ Yes ◯ No
Elixhauser-Hypothyroidism	◯ Yes ◯ No
Elixhauser-Solid tumor with metastasis	◯ Yes ◯ No
Elixhauser-Lymphoma	◯ Yes ◯ No
Elixhauser-Metastatic solid tumor	◯ Yes ◯ No
Elixhauser-Coagulopathy	◯ Yes ◯ No

Elixhauser-Obesity	◯ Yes ◯ No
Elixhauser-Weight loss	◯ Yes ◯ No
Elixhauser-Fluid and electrolyte disorders	◯ Yes ◯ No
Elixhauser-Blood loss anemia	◯ Yes ◯ No
Elixhauser-Deficiency anemias	◯ Yes ◯ No

Discharge diagnosis ICD-10 codes (electronic query only)

ICD-10 code #1

_____

ICD-10 code #2

_____

ICD-10 code #3

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ICD-10 code #4

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ICD-10 code #5

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ICD-10 code #6

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ICD-10 code #7

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ICD-10 code #8

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ICD-10 code #9

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ICD-10 code #10

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ICD-10 code #11

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ICD-10 code #12

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ICD-10 code #13

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ICD-10 code #14

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ICD-10 code #15

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ICD-10 code #16

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ICD-10 code #17

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ICD-10 code #18

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ICD-10 code #27

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ICD-10 code #28

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ICD-10 code #29

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ICD-10 code #30

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ICD-10 code #31

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ICD-10 code #32

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REDCap

ICD-10 code #33

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ICD-10 code #34

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ICD-10 code #35

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ICD-10 code #36

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ICD-10 code #37

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ICD-10 code #38

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ICD-10 code #39

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ICD-10 code #40

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