Appendix 1: 4CE EHR data

This is a list of all types of observations (facts about patients) that can appear in 4CE data sets. (Note that 4CE data sets are COVID-19-related.)

More information can be found online at
https://github.com/covidclinical/PhaseX.2SqlDataExtraction

Diagnoses

Full ICD-9 or ICD-10 code

Procedures

Procedure Types
Arterial Catheter
Bronchoscopy
CPR
Chest CT
ECMO
Emergency General Surgery
Emergency OBGYN
Emergency Orthopedics
Emergency Vascular Surgery
Renal Replacement
Supplemental Oxygen Other
Supplemental Oxygen Severe

Table S1: Procedures that are defined by 4CE. Internally, these are built from a set of CPT codes in the raw EHR data.

Medications

4CE Code	Definition
ACEI	ACE inhibitors
ARB	Angiotensin II receptor blockers
COAGA and COAGB	Antithrombotic agents
COVIDVIRAL	COVID-related antivirals
DIURETIC	Diuretics
HCQ	Aminoquinolines
ILI	Interleukin inhibitor
INTERFERON	Interferon
SIANES	Anesthesia (indicating severe disease)
SICARDIAC	Cardiac-related (indicating severe disease)

Table S2: Medication categories defined by 4CE. Internally, these are built from a set of RxNorm codes in the raw EHR data.

Laboratory Tests

LOINC	Lab Category
1742-6	alanine aminotransferase (ALT)
1751-7	albumin
1920-8	aspartate aminotransferase (AST)
1975-2	total bilirubin
1988-5	C-reactive protein (CRP) (Normal Sensitivity)
2019-8	PaCO2
2160-0	creatinine
2276-4	Ferritin
2532-0	lactate dehydrogenase (LDH)
2703-7	PaO2
3255-7	Fibrinogen
33959-8	procalcitonin
34714-6	INR
48065-7	D-dimer (FEU)
48066-5	D-dimer (DDU)
49563-0	cardiac troponin (High Sensitivity)
5902-2	prothrombin time (PT)
6598-7	cardiac troponin (Normal Sensitivity)
6690-2	white blood cell count (Leukocytes)
731-0	lymphocyte count
751-8	neutrophil count
777-3	platelet count
2019-8 / 2703-7	Blood Gases
UMLS C1335447	COVID positive test
UMLS C1334932	COVID negative test

Table S3: Laboratory tests used by 4CE. Although most are assigned a LOINC code, the data might be mapped from multiple LOINC codes in the raw EHR data.