

Online Supplement

Outcomes of Patients with COPD Hospitalized for Coronavirus Disease 2019

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Table S1. Logical Observation Identifiers Names and Codes for positive COVID-19 laboratory test.

Codes	Logical Observation Identifiers Names
94306-8	SARS coronavirus 2 RNA panel, unspecified specimen
94307-6	SARS-CoV-2 N gene, unspecified specimen
94308-4	SARS-CoV-2 N gene, unspecified specimen
94309-2	SARS-CoV-2 RNA, unspecified specimen
94311-8	SARS-CoV-2 N gene, unspecified specimen
94312-6	SARS-CoV-2 N gene, unspecified specimen
94314-2	SARS-CoV-2 RdRp gene, unspecified specimen
94316-7	SARS-CoV-2 N gene, unspecified specimen
94500-6	SARS-CoV-2 RNA, respiratory specimen
94510-5	SARS-CoV-2 N gene, unspecified specimen
94511-3	SARS-CoV-2 ORF1ab region, unspecified specimen
94531-1	SARS coronavirus 2 RNA panel, respiratory specimen
94533-7	SARS-CoV-2 N gene, respiratory specimen
94534-5	SARS-CoV-2 RdRp gene, respiratory specimen
94558-4	SARS-CoV-2 Ag, respiratory specimen
94559-2	SARS-CoV-2 ORF1ab region, respiratory specimen
94565-9	SARS-CoV-2 RNA, nasopharyngeal specimen
94639-2	SARS-CoV-2 ORF1ab region, unspecified specimen
94640-0	SARS-CoV-2 S gene, respiratory specimen
94641-8	SARS-CoV-2 S gene, unspecified specimen
94642-6	SARS-CoV-2 S gene, respiratory specimen
94643-4	SARS-CoV-2 S gene, unspecified specimen
94644-2	SARS-CoV-2 ORF1ab region, respiratory specimen
94645-9	SARS-CoV-2 RdRp gene, unspecified specimen
94646-7	SARS-CoV-2 RdRp gene, respiratory specimen
94660-8	SARS-CoV-2 RNA, serum/plasma

94745-7	SARS-CoV-2 RNA, respiratory specimen
94746-5	SARS-CoV-2 RNA, unspecified specimen
94756-4	SARS-CoV-2 N gene, respiratory specimen
94757-2	SARS-CoV-2 N gene, respiratory specimen
94759-8	SARS-CoV-2 N overall result, nasopharyngeal specimen
94760-6	SARS-CoV-2 N gene result, nasopharyngeal specimen
94763-0	SARS-CoV-2, unspecified specimen
94764-8	SARS-CoV-2 whole genome
94766-3	SARS-CoV-2 N gene, serum or plasma
94767-1	SARS-CoV-2 S gene, serum or plasma
94819-0	SARS-CoV-2 N gene, unspecified specimen
94822-4	SARS-CoV-2 RNA, saliva
94845-5	SARS-CoV-2 RNA, saliva
95125-1	SARS-CoV-2 RNA, serum or plasma
95406-5	SARS-CoV-2 RNA, nose
95409-9	SARS-CoV-2 N gene, nose
95410-7	SARS-CoV-2 neutralizing antibody, serum
95411-5	SARS-CoV-2 neutralizing antibody, serum
95424-8	SARS-CoV-2 RNA, respiratory specimen
95425-5	SARS-CoV-2 N gene, saliva
95521-1	SARS-CoV-2 N gene, respiratory specimen
95522-9	SARS-CoV-2 N gene, respiratory specimen

Definition of abbreviations: COVID-19= Coronavirus Disease 2019; SARS-CoV-2= Severe Acute Respiratory Syndrome Coronavirus-2.

Table S2. ICD-10-CM codes for Chronic Obstructive Pulmonary Disease

ICD-10-CM Codes	Description
J41.8	Mixed simple and mucopurulent chronic bronchitis
J42	Unspecified chronic bronchitis
J43.0	Unilateral pulmonary emphysema [MacLeod's syndrome]
J43.1	Panlobular emphysema
J43.2	Centrilobular emphysema
J43.8	Other emphysema
J43.9	Emphysema, unspecified
J44.0	Chronic obstructive pulmonary disease with acute lower respiratory infection
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation
J44.9	Chronic obstructive pulmonary disease, unspecified

Definition of abbreviations: ICD-10-CM= International Classification of Diseases, tenth revision, clinical modification.

Table S3. Disposition of patients discharged alive with and without COPD^a who were hospitalized due to COVID-19^b between February 10, 2020, and November 10, 2020, in the United States.

Disposition	Patients with COPD ^a N (%) 4,091(100)	Patients without COPD ^a N (%) 24,405(100)
Home	2,231 (54.5)	16,699 (68.4)
Non-Home discharge	1,860(45.5)	7,706(31.6)
Skilled nursing facility	744 (18.2)	2,570 (10.5)
Hospice	188 (4.6)	617 (2.5)
Long-term care	102 (2.5)	324 (1.3)
Inpatient Rehabilitation	75 (1.8)	528 (2.1)
Another Hospital	97 (2.4)	574 (2.4)
Other disposition	145 (3.5)	495 (2.0)
Other facility	77 (1.9)	309 (1.3)
Unknown/others	432 (10.6)	2,289 (9.4)

^aPresence of COPD was defined as having at least 1 inpatient or 2 outpatient diagnoses in the 1 year before COVID-19 diagnosis (See Table S2 in the online data supplement).

^bCOVID-19 was identified by a positive laboratory test for SARS-CoV-2 or by ICD-10-CM diagnosis code U07.1.

Definition of abbreviations: SARS-CoV-2 = Severe Acute Respiratory Syndrome Coronavirus-2; COVID-19= Coronavirus Disease 2019; COPD= Chronic Obstructive Pulmonary Disease; ICS= Inhaled Corticosteroids; ICD-10-CM= International Classification of Diseases, tenth revision, clinical modification.

Figures

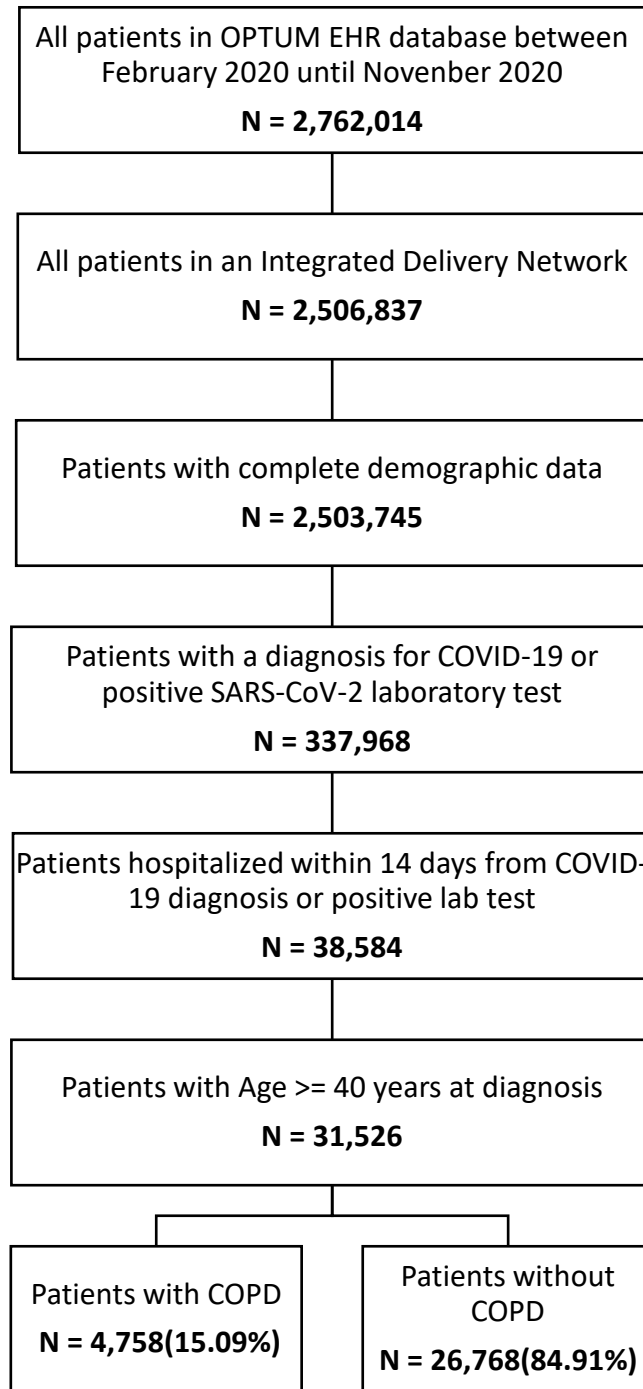


Figure S1. Flow diagram of our cohort selection process. Cohort included patients who were diagnosed with COVID-19 between February 10, 2020 and November 10, 2020 and were hospitalized within 14 days from COVID-19 diagnosis or positive SARS-CoV-2 laboratory test. Infection with COVID-19 was identified by a positive laboratory test or by the ICD-10-CM diagnosis code U07.1 (See Table S1 in the online data supplement). Patients were excluded if they were less than 40 years of age at time of diagnosis.

Definition of abbreviations: SARS-CoV-2 = Severe Acute Respiratory Syndrome Coronavirus-2; COVID-19= Coronavirus Disease 2019; EHR= Electronic Health Record; COPD= Chronic Obstructive Pulmonary Disease; ICD-10-CM= International Classification of Diseases, tenth revision, clinical modification.