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Title

The prevalence of post-COVID conditions in United States primary care practices in the American Family Cohort PRIME Registry

Priority 1 (Research Category)

COVID-19

Presenters

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Abstract

Context: COVID-19 has been considered a condition leading to other post-COVID chronic conditions. These conditions have been frequently diagnosed in the primary care setting. There has been a paucity of studies leveraging large primary care registries to understand and examine the impact of COVID-19 and post-COVID chronic conditions. The American Family Cohort (AFC) serves as a registry for further examination of post-COVID chronic conditions.

Objective: We sought to quantify the burden of post-COVID conditions among adult patients diagnosed with COVID-19 (2020-2021) across the United States.

Study Design and Analysis: This was a retrospective cohort study, to compare post-COVID condition prevalence and cumulative morbidity between patients with and without COVID-19 from 2018-2021. After propensity-score matching, we compared prevalence of post-COVID conditions and cumulative morbidity comparing patients with COVID-19 to (1) historical (2018-2019) patient-controls with influenza-like illness (ILI) and (2) contemporaneous patient-controls (2020-2021) who were seen for a preventive wellness visit or annual physical exam in the primary care setting. An interrupted time series analysis was conducted to estimate trend in cumulative morbidity and incidence of post-COVID conditions.

Setting and population studied: The American Family Cohort, a national primary care registry, an outpatient clinical registry of primary care practices that include electronic health record data beginning January 1, 2017 to March 31, 2022 representing 52,889 patients diagnosed with COVID-19 and 235,953 ILI historical controls.

Intervention: Diagnosis of patients with COVID-19 or ILI in the primary care setting with International Classification of Diseases, 10th Revision (ICD-10) diagnosis code.

Outcome Measures: Incidence of post-COVID conditions after COVID-19 or ILI and overall cumulative morbidity following index infection.

Results: Patients with COVID-19 had greater prevalence of breathing difficulties (4.2% vs. 1.9%), Type 2 Diabetes (12.0% vs. 10.2%), fatigue (3.9% vs. 2.2%), and sleep disturbances (3.5% vs. 2.4%). There were no differences in post-index diagnosis monthly trend in cumulative morbidity between COVID-19 (trend: 0.026; 95% CI: 0.025, 0.027) and ILI controls (0.026, 95% CI: 0.023, 0.027).

Conclusion: Our findings demonstrate moderate burden of post-COVID conditions. Clinical registries offer an important monitoring function for epidemics and pandemics.