Few Adult COVID-19 Patients Continue to Seek Medical Care One Year After Their Initial Diagnosis

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Key Findings:

- COVID-related health care utilization drops significantly more than 30 days after initial diagnosis and continues to decline as patients approach one-year post-initial infection across all age groups.
- COVID-19 patients aged 65 and older are 25 times more likely to seek medical care in the first 30 days after initial diagnosis than 301-360 days after their diagnosis.

We previously reported that COVID-19 related health care utilization persists in a subset of insured adult patients for 180 days after their initial diagnosis.[1] Specifically, depending on age group, 19-26% of 264,849 patients first diagnosed with COVID-19 from March 1 through July 31, 2020, had at least one COVID-19 related health care claim within 30 days, and these percentages dropped to 4-10% for the subsequent 31-90 days and to 3-6% by days 91-180.[1]

To better understand utilization patterns further out from initial diagnosis, we analyzed claims data of a large national insurer covering over 21 million adult, commercial (18 to <65 years) and Medicare Advantage (≥65 years) members with at least one day of enrollment from March 1 through August 31, 2020. We first identified a patient's initial health care claim coded with a confirmed or probable COVID-19 diagnosis and further categorized patients by age group and coverage category (i.e., commercial or Medicare Advantage).[2] We identified 331,137 individuals with a confirmed or probable COVID-19 diagnosis from March 1, 2020, through August 31, 2020, after excluding patients with reinfections (N=6,851) to focus on patients with only one COVID diagnosis documented.[3-9]

Depending on age group, with utilization related to age as expected, claims for care are highest within the 30 days after an initial diagnosis (approximately 16-26% of patients) and continue to decline over the subsequent follow-up periods with approximately 1% of patients seeking care related to their initial COVID-19 diagnosis 301-360 days post diagnosis.

Percentage of Patients with One or More COVID-19 Related Claims through 360 Days

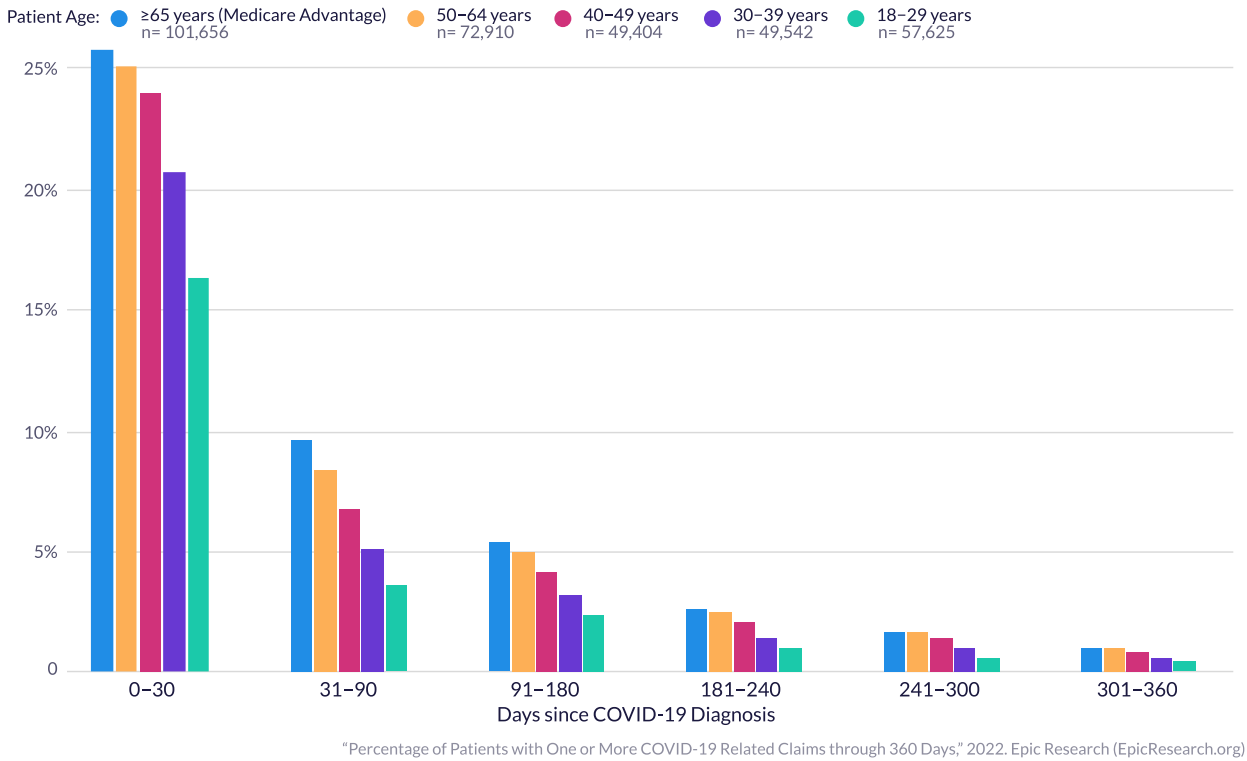

Figure 1. Percentage of patients that had at least one COVID-19 related claim after their initial COVID-19 diagnosis (persons with reinfections excluded) by age group and time period between initial diagnosis and follow-up encounter.

We conducted two sensitivity tests: 1) limiting the sample to only patients with continuous enrollment over the 360 period and 2) expanding the sample to include patients with reinfections. The findings with respect to utilization over time are robust and are insensitive to these changes in sample definition.

The finding that the percentage of COVID-19 related health care claims continued to decline over the 181-360 days after initial diagnosis is consistent with emerging evidence. [2] New patterns may become apparent as data become available on patients who received COVID-19 vaccines or were infected with other variants or both. Linking utilization measures to additional data such as comorbidities, specific symptoms (e.g., altered taste, cognitive difficulty, breathlessness) and disease severity can add to a greater understanding of PASC and the types of care patients receive. Continued monitoring of COVID-19 patients' health care utilization over time can inform frameworks guiding resource allocation and population health management programs.

References

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Data Definitions

Term	Definition
Confirmed COVID-19 Diagnosis	An ICD-10 diagnosis code U07.1 in any position on the claim.
Probable COVID-19 Diagnosis	An ICD-10 diagnosis code B97.29 or J12.82 in any position on the claim.
Initial COVID-19 Diagnosis Date	The discharge date of the initial visit/stay with a COVID-19 diagnosis.
COVID-19 Diagnosis Related Health Care Utilization	An ICD-10 diagnosis code U07.1, B97.29, J12.82, B94.8, M35.89, M35.8, or M35.81 in any position on the claim. For codes M35.8 and M35.81, B94.8 needs to be on the same claim line to be considered COVID-19 related. Each follow-up time period does not include the initial visit/stay with a COVID-19 diagnosis. Patients can have a health care claim in each of the follow-up time periods. Utilization that crosses time periods will only be counted in one time period (based on the start date of the visit/stay). The initial visit/stay is assigned hierarchical in the following order: inpatient stay, ER visit (if occurred prior to or on day 1 of SNF/other facility visit), other facility visit, then physician visit. Utilization definitions based on claims: 1. If an ER visit occurs during an other facility visit, then both an ER and other facility visit are counted. ER visits are not counted if they occur during an inpatient stay. 2. Physical therapy and rehabilitation visits are counted a maximum of 1 per 30-day period. 3. Chiropractor visits are not counted towards a medical visit. 4. Any visits that were solely for the purpose of COVID-19 testing (to ensure patient no longer has COVID-19), are not counted towards a medical visit. 5. Home enteral nutrition therapy is not counted towards a medical visit.
COVID-19 reinfection	A COVID-19 test or exposure 91-360 days post initial COVID-19 diagnosis (ICD-10 diagnosis codes: Z11.52, Z11.59, Z03.818, Z20.828, or Z20.822 in the primary position on the claim) followed by a COVID-19 diagnosis (ICD-10 diagnosis codes: U07.1, B97.29, or J12.82 in the primary position on the claim) within 7 days.