NIRMATRELVIR-RITONAVIR UPTAKE AMONG ADULTS WITH COVID-19, DECEMBER 2021-OCTOBER 2022

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Yanhan Shen[1,2], McKaylee M Robertson[1,2], Sarah G. Kulkarni[1], Laura Puzniak[4], Joann Zamparo[4], Kristen E. Allen[4], Saba A Qasmieh[1,2], Christian Grov[1,3], Avantika Srivastava[1,2], Rebecca Zimba[1,2], John M McLaughlin[4], Denis Nash[1,2], the CHASING COVID Cohort Study Team[1]

1. Institute for Implementation Science in Population Health (ISPH), City University of New York (CUNY); New York, NY, USA
2. Department of Epidemiology and Biostatistics, Graduate School of Public Health and Health Policy, City University of New York (CUNY); New York, NY, USA
3. Department of Community Health and Social Sciences, Graduate School of Public Health and Health Policy, City University of New York (CUNY); New York City, New York USA
4. Pfizer, Inc., New York, NY, USA

BACKGROUND

- COVID-19 vaccine booster uptake remains low and preventable COVID-19 deaths continue to occur, making access to oral antivirals for those most at risk of severe COVID-19 outcomes essential.
- Nirmatrelvir-ritonavir (NMV/r) is an oral antiviral drug authorized by the FDA under emergency use authorization for mild-to-moderate COVID-19 in adult and children (age ≥12 years and weighing ≥40 kg) who are at high risk for progression to severe disease, including hospitalization and/or death.
- We describe the uptake of NMV/r among highly vaccinated adults enrolled into a U.S. national prospective cohort who were infected with SARS-CoV-2 between December 2021 and October 2022.

METHODS

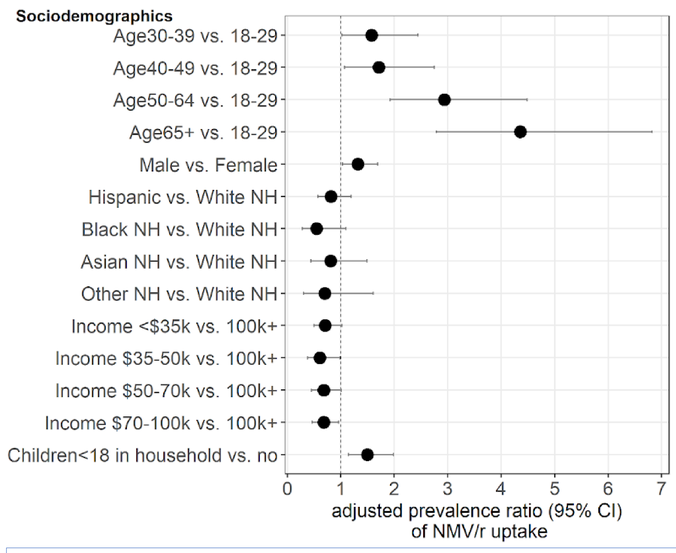
- We estimated age and gender adjusted prevalence ratios of oral NMV/r uptake by sociodemographics, clinical characteristics, and NMV/r eligibility (based on age, underlying medical conditions, body mass index, physical inactivity, pregnancy, or smoking status recommendations), among participants in a large U.S. national prospective cohort who self-reported SARS-CoV-2 infection between December 2021 and October 2022.
- Among participants who reported NMV/r uptake, we also described the proportion who reported (1) taking NMV/r as directed and (2) NMV/r was helpful for reducing COVID-19 symptoms.

RESULTS

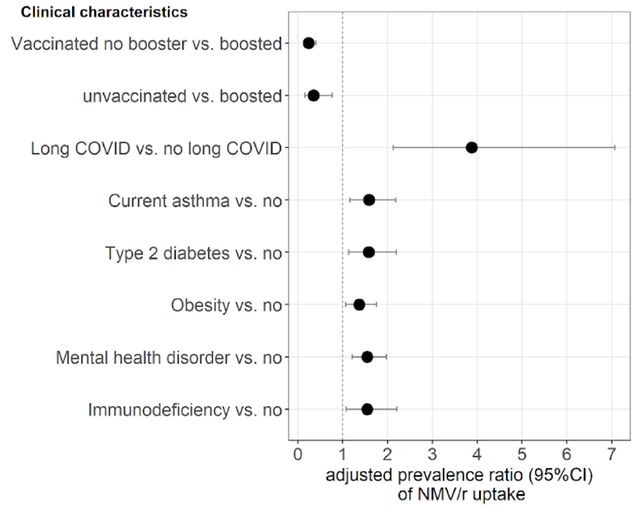
- Among 1,594 participants with a SARS-CoV-2 infection, **85% (N = 1,356) were eligible for NMV/r prescription and 93% (N=1,482) received at least one dose of COVID-19 vaccine.**

NMV/r uptake was low (15.4% [95%CI:13.5–17.3]) among 1,594 individuals who were eligible for prescription.

Uptake of NMV/r increased over time coinciding with national efforts to increase awareness and access.



- NMV/r uptake increased from **2.2% (95%CI:1.0–3.4)** between December 2021 and March 2022 to **16.5% (95% CI:13.0 – 20.0)** between April 2022 and July 2022 and **28.6% (95%CI:24.4–32.8)** between August 2022 and October 2022.
- Participants ≥65 reported the highest uptake of NMV/r **(30.2% [95%CI:22.2–38.2]),** compared to participants 18-29, 30-39, 40-49, 50-64 years old.
- Participants with type 2 diabetes had greater uptake **(28.8% [95%CI:20.4–37.3])**, compared to those without it (**12.4% [95%CI:4.8-20.0]**).



- Among a subset of 278 participants who had a prior SARS-CoV-2 infection, those who had a history of long COVID reported greater uptake **(22.0% [95%CI:13.9–30.1])** for a subsequent SARS-CoV-2 infection than those without a history of long COVID **(7.9% [95%CI:3.9–11.8])**.
- Among 216 participants who were prescribed NMV/r, **89% (95%CI:85-93) took NMV/r as prescribed and 63% (95%CI:57–70) stated NMV/r was helpful for reducing COVID-19 symptoms.**

CONCLUSIONS

- Most individuals who were eligible for NMV/r did not receive it.
- Lower NMV/r uptake among racial/ethnic minorities and individuals with lower household income suggests a need to improve awareness and address barriers to uptake in these populations.
- Limitations: the sample size was small which reduced the precision of estimates of uptake stratified by subgroups; information on perceived helpfulness of NMV/r was missing for 35 (16% of 216) users.

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Contact: Jenny.Shen@sph.cuny.edu