Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

As emergency providers, we must understand which equations are being used to calculate eGFR in our EDs and encourage widespread adoption of eGFR equations that omit race to ensure that we are providing high-quality, equitable care to ED patients of all racial and ethnic backgrounds.

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Experience Using Paxlovid for Patients With Coronavirus Disease 2019 in a Resource-Limited Emergency Department

To the Editor:

The coronavirus disease 2019 (COVID-19) pandemic significantly strained the US health care system and has been especially challenging for resource-limited hospitals. In addition to vaccination, the promise of therapeutics for nonhospitalized patients to decrease disease burden has been especially appealing. One such therapeutic is nirmatrelvir-ritonavir, distributed under the trade name Paxlovid (Pfizer).[1] Nirmatrelvir is a viral protease inhibitor, whereas ritonavir is a cytochrome P450 3A4 (CYP3A4) inhibitor that enhances the pharmacokinetics of nirmatrelvir.[2] Unfortunately, there has been a dearth of data on the use and effectiveness of this medication. Our facility, El Centro Regional Medical Center, is a rural hospital on the southern Californian border that has been significantly affected by the COVID-19 pandemic.[3] To reduce the burden on the local health system, the government supplied our emergency department (ED) with the drug to dispense directly to patients.

In January and February 2022, 34 ED patients received outpatient COVID-19 treatment with nirmatrelvir (Table). Matching the region's demographics, the majority of the patients were Hispanic (31/34, 91.2%). Approximately half of the patients were unvaccinated against COVID-19. A single patient had an ED revisit within 7 days; no patients required admission for disease progression.

To our knowledge, the only published data on nirmatrelvir comes from the industry-sponsored phase 2-3 clinical trial that which showed an 89% reduction in COVID-19–related hospitalization and death.[2] Although our data are not large enough to comment on the effectiveness or side effects of nirmatrelvir, we did want to highlight a few points about our experience with prescribing the medication:

- Stocking the medication in our ED pharmacy helped ensure that patients who were prescribed the medication could receive it. However, anecdotally, a significant issue with using the medication has been the severely limited supply; hence, patients who received a written prescription were often left scrambling to figure out which pharmacy still had the medication available.

Table. Demographics of patients receiving Paxlovid.

Characteristic	Total (n = 34)
Age	
Average Age, y	37.3
Age (IQR)	(25,46)
Sex, n (%)	
Male	13 (38.2)
Female	21 (61.8)
Ethnicity, n (%)	
Hispanic	31 (91.2)
Other	3 (8.8)
Comorbidities, n (%)	
Diabetes	3 (8.8)
CAD/hypertension	6 (17.6)
Obesity (BMI > 30)	22 (64.7)
Vaccination status, n (%)	
Vaccinated	19 (55.9)
Unvaccinated	15 (44.1)
Return to ED in 7 d, n (%)	
Yes	1 (2.9)
No	33 (97.1)

BMI, Body mass index; *CAD,* coronary artery disease; *ED,* emergency department; *IQR,* interquartile range; *n,* number.

- The physicians prescribing the medication need to be especially careful about drug-drug interactions. The combination medication contains ritonavir, a CYP3A4 inhibitor, which alters the metabolism of numerous commonly prescribed drugs. In retrospect, we found that 2 of the 34 patients were inappropriately prescribed nirmatrelvir-ritonavir on the basis of their medication list. It is strongly suggested that physicians consult a pharmacist before prescribing this medication; however, this can be challenging in resource-limited settings.
- Many of our emergency physicians were hesitant to prescribe the medication given the limited available data. During the study period, many physicians shared the concern that even though the US Food and Drug Administration had provided emergency use authorization for Paxlovid, the only available data on its efficacy and side effects were from a press release.[4]

The outpatient management of COVID-19 has presented a significant challenge for emergency physicians trying to keep up with the latest literature and treatment guidelines. The deluge of newly available therapeutics and the emergence of new variants makes this ever more challenging.[5] More data on frontline experiences using these medications are necessary as we continue to fight this pandemic.

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