

# Use of oral Nirmatrelvir and Ritonavir in non-hospitalised patients with COVID-19 during the era of Omicron variants: A cross-sectional study at a primary health clinic in Malaysia

**Tai Chia Woon, Juma'at Juwita Asikhin, Mukunan Anu Priya, Baskaran Nithya Devi, Augustine Amburose Sharon, Lim Shu Min, Lim Chin Wen, Idris Norain, Johari Farah Nabihah, Ithnin Nur Afiqah, Mohd Asri Nur Syafiqah, Khairul Hisham Siti Aishah, Zahid Muhammad Danial, Chong Hui Jing, Zarwi Muhammad Asyraff**

Pharmacy Department, Mahmoodiah Health Clinic, Johor Bahru (KPLJB)

## ABSTRACT

**Introduction:** Nirmatrelvir-ritonavir is an oral antiviral developed to treat people with mild-to-moderate coronavirus 2019 (COVID-19) to avoid their progression to severe COVID-19 and to reduce hospitalisations. Studies also found nirmatrelvir-ritonavir treatment linked to reduced risk of long COVID regardless of vaccination status. **Methods:** This is a cross-sectional study that involved all COVID-19 patients who were treated with nirmatrelvir-ritonavir from May to December 2022 at KPLJB. All eligible patients were contacted by phone in March 2023 to interview on their medication adherence, side effects (SEs) and experience of any long COVID symptoms after completing the treatment. **Results:** A total of 415 patients were prescribed nirmatrelvir-ritonavir during the study period. Around two-thirds of the patients (63.4%) have one or more comorbidities, while 82% of the patients had their COVID-19 vaccine booster dose. Among all the 223 patients who were contactable by phone, 16 patients (7.2%) were not compliant with nirmatrelvir-ritonavir mainly due to SEs, 159 patients (71.3%) experienced at least one SE, with the 3 most common SEs being dysgeusia (68.6%), muscle pain (15.2%) and nausea-vomiting (15.2%). After completing the 5-day nirmatrelvir-ritonavir treatment for more than 3 months, one-fifth (21.5%) of them still experienced chronic fatigue, a persistent cough (17.9%) and insomnia (9.4%). Neither of these contactable patients progressed to severe COVID-19 nor was hospitalised. **Conclusion:** The use of nirmatrelvir-ritonavir in non-hospitalised vaccinated patients with COVID-19 was safe and associated with a reduced likelihood of hospitalisation.