

# Comparison of Pharmacist versus Other Health Care Providers' Nirmatrelvir/Ritonavir Prescribing Habits in a Rural Health Care System

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## BACKGROUND

- Between January 2020 and October 2022, there were approximately 97,000,000 reported cases of the severe acute respiratory syndrome coronavirus 2 infection (SARS-CoV-2) resulting in the respiratory illness referred to as COVID-19 and approximately 1,060,000 deaths.<sup>1</sup>
- In December of 2021, the United States Food and Drug Administration (FDA) authorized an Emergency Use Authorization (EUA) for the investigational oral drug nirmatrelvir/ritonavir.<sup>2</sup>
- In July of 2022, the EUA was revised by the FDA to allow pharmacists to prescribe the drug independent of a physician, advanced practice nurse or physician assistant.<sup>2</sup>
- Nirmatrelvir is an oral protease inhibitor that is packaged with ritonavir, a strong cytochrome (CYP) P450 3A4 inhibitor which boosts nirmatrelvir's activity.<sup>2</sup>
- Due to ritonavir being a strong CYP 3A4 inhibitor, there are a significant amount of drug interactions.<sup>2</sup>
- Providers in the St. Claire HealthCare health system began prescribing nirmatrelvir/ritonavir in April of 2022. Clinical pharmacists began reviewing online outpatient COVID-19 treatment request forms and prescribing under the supervision of providers as appropriate in June of 2022.

## OBJECTIVES

### Purpose

- To review the prescribing habits of nirmatrelvir/ritonavir in a small rural health care system.

### Primary Objective:

- To evaluate if patients were appropriately prescribed nirmatrelvir/ritonavir.

### Secondary Objective:

- To assess the number of potential office visits saved by pharmacist prescribed nirmatrelvir/ritonavir prescriptions.

## METHODS

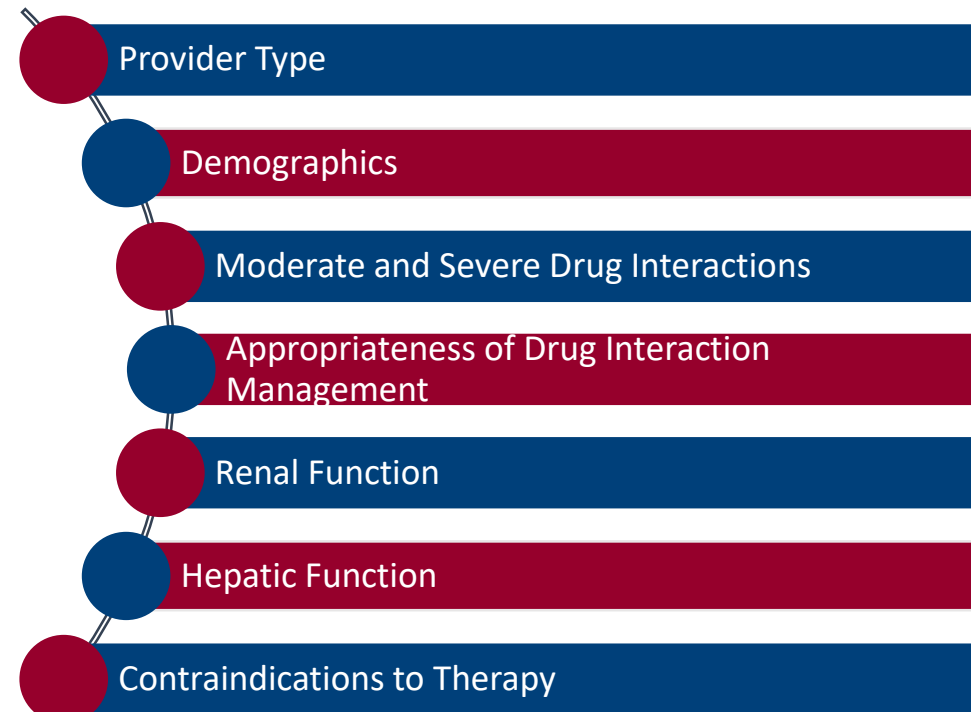
**Design:** Single center, retrospective chart review, comparing the appropriateness of nirmatrelvir/ritonavir prescriptions written by pharmacists versus other health care providers in a rural health care system

**Performance Site:** St. Claire HealthCare; Morehead, KY

**Inclusion Criteria:** All adult patients that received a nirmatrelvir/ritonavir prescription from the St. Claire HealthCare health system between June 13, 2022 and September 11, 2022

**Exclusion Criteria:** Patients under 18 years old

## Data Collection Points



## CLINICAL IMPLICATIONS

Due to the number of drug interactions associated with nirmatrelvir/ritonavir there is the potential for inappropriate use and patient harm.

This study has the potential to illustrate the value of pharmacist-driven treatment protocols and the saving of resources in a strained healthcare system.

## FUTURE DIRECTIONS

- Based on the number of hours saved by potential prevented office visits, additional pharmacist full-time equivalent units could be provided to pharmacy services for other pharmacist-driven protocols.
- Potential future projects include pharmacist-driven treatment protocols for acute influenza infection antiviral therapy and chemoprophylaxis, acute group A streptococcal pharyngitis infection treatment, and acute uncomplicated urinary tract infection treatment.

## DISCLOSURES & ACKNOWLEDGEMENTS

The authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have direct or indirect interest in the subject matter of this presentation.

Katherine Watson, PharmD: Nothing to disclose  
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## REFERENCES

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