
POSTER ABSTRACT**An Integrated Virtual Pharmacy Service Targeting Equitable and Safe Medication Access during an Acute COVID-19 Pandemic Response**23rd International Conference on Integrated Care, Antwerp, Flanders, 22-24 May 2023Tsoleen Ayanian¹, Stephanie W. Ong, Melissa Chang, Tori Edgar, Christopher Chan¹: University Health Network North York, Ontario, Canada

Background: Paxlovid (nirmatrelvir/ritonavir) is a novel oral anti-viral therapy for COVID-19 infection. Although Paxlovid is an efficacious ambulatory treatment, its prescribing and use required safety processes and assurance to avoid drug-drug interactions and a narrow therapeutic treatment window. Eligible patients for Paxlovid therapy tended to have multiple comorbidities and medications. Equally important, marginalized populations were impacted by COVID-19 disproportionately, putting them at increased risk for adverse drug events. The UHN Connected Care team built on a pre-existing integrated COVID-19 clinic model to target equitable and safe medication access for Paxlovid. The COVID-19 clinic virtual pharmacy expansion followed a co-design with essential care providers, patients, primary care, and pharmacists. The integrated virtual pharmacy pathway aimed to prescribe, dispense and follow up on needed Paxlovid treatment using a streamlined referral form, tiered medication review, and standardized follow-up plan.

Objective: Herein, we report on the feasibility and impact of using an integrated care model for virtual pharmacy services to respond to acute pandemic needs for COVID-19 treatment.

Methods: UHN Connected Care COVID-19 clinic (Toronto, Canada) is comprised of interdisciplinary (physicians, nurse practitioners, pharmacists) virtual care services targeting patients with acute COVID-19 infections eligible for Paxlovid treatment. We conducted a retrospective review of Paxlovid-referred prescriptions to analyze the types of referrals and outcomes to assess the feasibility and effectiveness of this model. Specifically, medication safety-related outcomes included the number, type, and severity of drug-drug interactions. In addition, feasibility was measured in access to treatment (time to treatment and number of patient interventions applied).

Results: Between February 1 to June 30, 2022, prescriptions for Paxlovid to the COVID care clinic were analyzed. A total of 211 Paxlovid prescriptions were referred with an average treatment time of 24 hours from receipt of the referral, meeting the needed therapeutic window of 5 days from symptom onset. Patients were referred from complex specialty clinics (oncology, multi-organ transplant), primary care, and long-term care homes. On average, patients were 64 years old, had 2 to 3 pre-existing comorbidities (diabetes, cancer, transplant, kidney, and cardiac disease), and had 7 to 8 prescription medications per day. A total of 148 drug-drug interactions were identified from the referred prescriptions. 89% of the drug-drug interactions identified were classified as “moderate to severe”, where the potential for long-term adverse events, hospitalization or emergency room visits would have transpired if an appropriate therapeutic intervention was not

applied. The UHN Connected Care team's interventions included: temporarily holding chronic medications, changing treatment doses, counseling patients to manage side effects, and recommending safer therapeutic alternatives.

Conclusion: In summary, using an integrated care model targeting medication safety and equitable access is effective and addresses acute pandemic response needs. This collaborative model was feasible for providing timely access to COVID-19 treatment while maintaining high-quality and safe care.