

## IMPACT OF TELEHEALTH ON MEDICATION ADHERENCE IN GASTROENTEROLOGY CHRONIC DISEASE MANAGEMENT

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**Background:** With the COVID-19 pandemic, the demand and availability of telehealth in outpatient care has increased. Although use of telehealth has been studied and validated for various medical specialties, relatively few studies have looked at its role in gastroenterology despite burden of chronic diseases such as inflammatory bowel disease (IBD).

**Aims:** To assess effectiveness of telehealth medicine in gastroenterology by comparing medication adherence rate for patients seen with telehealth and traditional in-person appointment for various GI conditions.

**Methods:** Retrospective chart analysis of patients seen in outpatient gastroenterology clinic was performed to identify patients who were given prescription to fill either through telehealth or in-person appointment. By using provincial pharmacy database, we determined the prescription fill rate.

**Results:** A total of 241 patients were identified who were provided prescriptions during visit with their gastroenterologists. 128 patients were seen through in-person visit during pre-pandemic period. 113 patients were seen through telehealth appointment during COVID pandemic.

The mean age of patients in telehealth cohort was 42 years (57% male). On average patients had 10 prior visits with their gastroenterologists before index appointment, used for adherence assessment. 92% of patients were seen in follow-up, while 8% were seen in initial consultation. The majority of the patients in the telehealth cohort had IBD (89%), while the remaining 11% had various diagnoses, including functional GI disorder, gastroesophageal reflux disease, viral hepatitis, or hepatobiliary disorders. Biologic therapy was the most commonly prescribed medication (66.4%). 45 patients were provided either new medication or dose change, and 68 patients had prescription refill to continue their current medications. It took a mean of 18 days (SD = 16.2) for patients to fill their prescriptions.

Prescription fill rate for patients seen through telehealth and in-person visit were 98.2% and 89.1% (P = 0.004) respectively. Patients seen through telehealth were 6.8

times more likely to fill their prescriptions compared to the in-person counterparts (OR 6.82, CI 1.51 – 30.68, P = 0.004). When we compared adherence rate while excluding biologic therapies, the prescription fill rate was 94.7% in telehealth group and 81.4% in in-person group (OR 4.11, CI 0.88 – 19.27, P = 0.056). Due to high level of adherence, statistical analysis comparing adherent and non-adherent groups was performed but yielded insignificant results.

**Conclusions:** Medication adherence rate for patients seen through telehealth was higher compared to patients seen through in-patient visit in this study. Telehealth is a viable alternative for outpatient care especially for patients with chronic GI conditions such as IBD.

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