CO155

Impact of Outpatient Rifaximin Access Interventions on 30-Day Readmission Rates in Patients with Hepatic Encephalopathy Initiated on Rifaximin in the Inpatient Setting

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BACKGROUND

- Chronic liver disease (CLD) and cirrhosis continue to be leading concerns with an incidence rate of 4.5 million adults and cause of 15.7 deaths per every 100,000.[1,2]
- Overt hepatic encephalopathy (OHE), a potential complication of CLD, has accounted for approximately 55,000 hospitalizations in cirrhosis patients annually.[3]
- Rifaximin, recommended in lactulose-refractory OHE, reduces ammonia output and has been linked to lower healthcare costs and fewer hospitalizations.[4,5]
- There is currently a lack of comprehensive literature evaluating the effectiveness of pharmacy services in improving access to rifaximin in this patient population.

OBJECTIVES

Identify the impact of outpatient clinical pharmacy (OCP)-driven access to rifaximin on 30-day readmission rates for HE patients initiated on the treatment during hospitalization.

INTERVENTIONS

OCP Rifaximin Discharge Prescription Authorization Process

Step 1: Alert
- List of patients receiving inpatient rifaximin generated
- Ambulatory hepatology pharmacy staff identifies patients without history of outpatient rifaximin

Step 2: Discharge Prescription
- Ambulatory hepatology pharmacy staff conducts benefit investigation
- Provider to electronically prescribe rifaximin order to dispensing pharmacy
- Assess need for prior authorization and/or copay assistance

Step 3: Patient Assistance Program
- Pharmacy or clinical care manager-RN coordinates patient and provider signatures for application
- Approval can occur within 24 hours or up to 1 week later

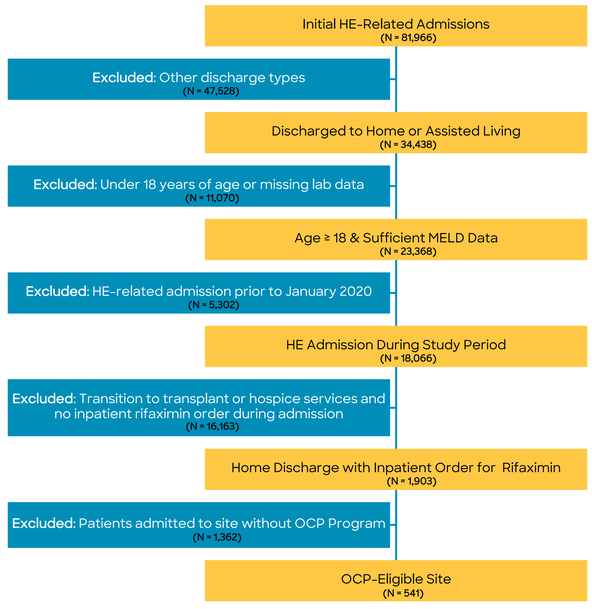
Intervention 1 (Pilot) vs. Intervention 2 (Pilot Update)
- Pilot Update: Expanded eligible population and centralized service processes within the pharmacy team

METHODS

Study Design: Retrospective cohort
Study Period: January 2020 – October 2024
Data Source: Electronic health record (EHR) data

*Index date is defined as the date of the first eligible encounter with IP rifaximin order

Patient Attrition Flow Chart:



Primary outcomes: Rate of 30-day readmissions

Secondary outcome: Compare slope and level trends in 30-day readmission rates after two distinct interventions

Statistical Analysis:

- Interrupted time series analysis to evaluate trends in 30-day readmissions after July 2021 and November 2023
- Descriptive statistics of the sample group

RESULTS

Figure 1. Monthly HE-Related Readmission Rate with Two Interventions

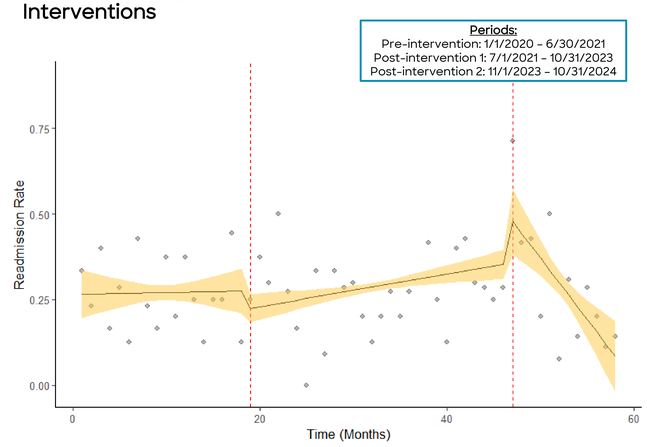


Table 1. Adjusted Segmented Regression Results

Effect	β Estimate	OR	95% CI	p-value
Level change (Intervention 1)	0.16	1.17	0.50–2.83	0.72
Slope change (Intervention 1)	0.03	1.03	0.96–1.11	0.39
Level change (Intervention 2)	0.81	2.25	0.77–6.61	0.14
Slope change (Intervention 2)	-0.19	0.82	0.71–0.95	<0.01

**Model adjusted for age, sex, race, ethnicity, Elixhauser score, and insurance type*

Table 2. Condensed Baseline Characteristics

Characteristic	Pre-Intervention 1	Post-Intervention 1	Post-Intervention 2
N (unique patients)	167	268	106
Age, mean (SD)	60.3 (10.3)	59.7 (12.2)	57.9 (12.0)
Male, n (%)	88 (52.7)	156 (58.2)	55 (51.9)
Non-Hispanic White, n (%)	109 (65.3)	159 (59.3)	74 (69.8)
Medicare/Medicaid, n (%)	83 (49.7)	132 (49.3)	39 (36.8)
Elixhauser, mean (SD)	24.8 (10.4)	26.0 (9.8)	25.4 (9.3)
Readmitted, n (%)	44 (26.3)	78 (29.1)	29 (27.4)

DISCUSSION

- The mean number of monthly eligible patients across the study period was 9.3 (SD 2.77)
- Of the 541 patients with HE admissions between January 2020 and October 2024, 151 had a readmission within 30 days (28%).
- The only statistically significant finding was observed after the second intervention which was associated with a durable 18% monthly decrease in the odds of readmission (OR = 0.82, 95% CI 0.71-0.95, p<0.01).

Limitations

- Potential for data misclassification
- Selection, observer, and information bias

These findings support the inclusion of pharmacy services in 'meds to bed' initiatives to reduce hepatic encephalopathy readmissions and improve care transitions for patients with CLD and cirrhosis.

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DISCLOSURES

The authors of this study have the following disclosures
Raquel Erb, Ann Kataria, Lyndsay Cole: Nothing to disclose
Tim Reynolds, Paul Godley: Paid consultant (Pfizer, Sanofi)

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