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Demographic, Clinical, and Medication Use Profiles of Patients Prescribed Resmetirom: A US Claims-Based Analysis

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RESONANCE
Real-World Evidence of Resmetirom Advancing Outcomes, Natural History, Assessment, and Clinical Effectiveness

1,592
Adults prescribed resmetirom met inclusion criteria in the analytic cohort

78.7%
Initiated therapy without a prior liver biopsy

100%
Underwent ≥1 non-invasive test (ultrasound 80.0%, VCTE 75.8%)

49.4%
Statin use; 40.2% GLP-1 receptor agonist use pre-index

1 INTRODUCTION

- Resmetirom received US FDA conditional approval in March 2024 as the first pharmacotherapy for metabolic dysfunction-associated steatohepatitis (MASH) with moderate-to-advanced fibrosis.
- Pivotal trials required biopsy-confirmed disease, whereas routine care increasingly relies on non-invasive tests (NITs) and clinical assessment.
- Real-world data describing patients prescribed resmetirom remain limited.

2 AIM

To describe baseline demographic, clinical, laboratory, non-invasive testing, and medication-use profiles of patients prescribed resmetirom, and to compare these characteristics between patients with (LB) and without (NLB) a prior liver biopsy.

3 METHODS

Design. US retrospective cohort study using the Carelon Research Healthcare Integrated Research Dataset (HIRD).
Population. Adults ≥18 years with ≥1 resmetirom pharmacy claim between 1 Apr 2024 and 31 Oct 2025 (index = first fill) and ≥1 year of continuous enrollment before index.
Measures. Baseline demographics, social drivers of health, comorbidities, laboratory values, NITs, medication use, and statin intensity assessed during the 1-year pre-index period.
Subgroups. Patients were compared by liver-biopsy history (LB vs NLB) within the 3 years before resmetirom initiation.
Analyses. Descriptive summaries overall and by biopsy history; subgroup comparisons were descriptive.

STUDY POPULATION

2,042 ≥1 resmetirom claim → **1,592** met inclusion criteria → **339 LB and 1,253 NLB** by 3-y biopsy history

Adults ≥18 y; index = first resmetirom fill (1 Apr 2024-31 Oct 2025); ≥1-y continuous pre-index enrollment.

4 RESULTS: PATIENT POPULATION

The 1,592 patients prescribed Rezdiffra were middle-aged (mean 55.4 years), predominantly female (54.5%), White non-Hispanic (77.0%), and commercially insured (80.4%), with a high comorbidity burden including MASH (62.4%), dyslipidemia (73.0%), hypertension (69.2%), and type 2 diabetes (50.1%).

Table 1. Demographic characteristics by biopsy history

Characteristic	Overall (N=1,592)	LB (n=339)	NLB (n=1,253)	P-Value
Age, y, mean (SD)	55.4 (11.6)	53.4 (11.8)	56.0 (11.5)	<0.001
Female, n (%)	868 (54.5)	198 (58.4)	670 (53.5)	0.119
Commercial plan, n (%)	1,280 (80.4)	290 (85.6)	990 (79.0)	0.009
Medicare Advantage, n (%)	312 (19.6)	49 (14.5)	263 (21.0)	0.009
Urban residence, n (%)	765 (48.1)	184 (54.3)	581 (46.4)	0.018
Bottom-quartile SES, n (%)	322 (20.2)	48 (14.2)	274 (21.9)	0.032

Table 2. Clinical characteristics and laboratory values by biopsy history

Characteristic	Overall (N=1,592)	LB (n=339)	NLB (n=1,253)	P-Value
MASH, n (%)	994 (62.4)	292 (86.1)	702 (56.0)	<0.001
Cirrhosis, n (%)	298 (18.7)	100 (29.5)	198 (15.8)	<0.001
Dyslipidemia, n (%)	1,162 (73.0)	221 (65.2)	941 (75.1)	<0.001
Hypertension, n (%)	1,102 (69.2)	209 (61.7)	893 (71.3)	<0.001
Type 2 diabetes, n (%)	798 (50.1)	161 (47.5)	637 (50.8)	0.302
QCI, mean (SD)	2.9 (1.4)	2.9 (1.4)	2.9 (1.5)	0.786
ALT, U/L, mean (SD)	51.1 (37.6); n=976	63.2 (52.8); n=198	48.1 (31.9); n=778	<0.001
AST, U/L, mean (SD)	41.2 (28.2); n=964	51.9 (41.0); n=197	38.4 (23.1); n=767	<0.001
Patients with Fibrosis-4 (FIB-4) score, n (%)	818 (51.4)	173 (51.0)	645 (51.5)	0.019
Mean (SD) FIB-4 score	1.5 (1.0)	1.6 (1.0)	1.4 (1.0)	

LB, liver biopsy; NLB, no liver biopsy; QCI, Quan-Charlson Comorbidity Index; SES, socioeconomic status. Laboratory values among patients with available data.

5 RESULTS: TESTING & TREATMENT

Figure 1. FIB-4 fibrosis-risk category by biopsy history (%)

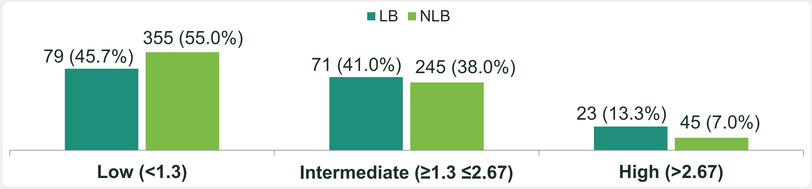


Figure 2. Non-invasive tests before resmetirom initiation (%)

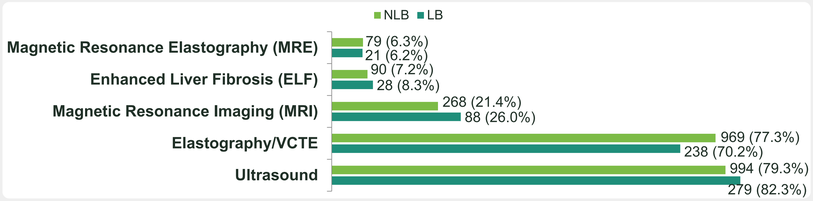
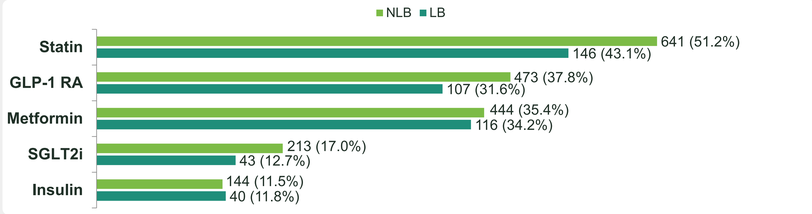


Figure 3. Baseline metabolic medication use (%)



Statin intensity: high 17.6%, moderate 29.6%, low 2.2%. Statin and GLP-1 RA use were lower in LB vs NLB patients.

6 CONCLUSIONS

- Most patients initiated resmetirom without a prior liver biopsy, though clinically meaningful differences in baseline characteristics were observed by biopsy status.
- Patients demonstrated a substantial cardiometabolic comorbidity burden and frequent use of multiple metabolic therapies, highlighting the complexity of real-world MASH management.

7 REFERENCES

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