

Rezdiffra (resmetirom)

Disclaimer

Clinical guidelines are developed and adopted to establish evidence-based clinical criteria for utilization management decisions. Clinical guidelines are applicable according to policy and plan type. The Plan may delegate utilization management decisions of certain services to third parties who may develop and adopt their own clinical criteria.

Coverage of services is subject to the terms, conditions, and limitations of a member's policy, as well as applicable state and federal law. Clinical guidelines are also subject to in-force criteria such as the Centers for Medicare & Medicaid Services (CMS) national coverage determination (NCD) or local coverage determination (LCD) for Medicare Advantage plans. Please refer to the member's policy documents (e.g., Certificate/Evidence of Coverage, Schedule of Benefits, Plan Formulary) or contact the Plan to confirm coverage.

Summary

Metabolic dysfunction-associated steatotic liver disease (MASLD), formerly known as nonalcoholic fatty liver disease (NAFLD), is a condition characterized by the presence of hepatic steatosis in conjunction with at least one cardiometabolic risk factor, such as obesity, type 2 diabetes, dyslipidemia, or hypertension. The presence of inflammation and hepatocellular injury, with or without fibrosis, defines the progressive form known as metabolic dysfunction-associated steatohepatitis (MASH), previously called nonalcoholic steatohepatitis (NASH). Untreated MASH can lead to complications like cirrhosis, liver failure, and hepatocellular carcinoma.

The first-line treatment for MASLD and MASH is lifestyle modification through a hypocaloric diet, weight loss, and regular exercise. Medications may be considered for MASH, particularly in those with advanced fibrosis. Rezdiffra (resmetirom) is a thyroid hormone receptor-beta agonist indicated for the treatment of adults with non-cirrhotic MASH (formerly known as nonalcoholic steatohepatitis [NASH]) with moderate to advanced liver fibrosis (consistent with stages F2 to F3 fibrosis) in conjunction with diet and exercise.

- Limitation of Use: Avoid use of Rezdiffra in those with decompensated cirrhosis.

Definitions

"Body Mass Index (BMI)" is a value that is calculated based on an individual's weight and height and helps determine whether a person is underweight (BMI <18.5), overweight (BMI 25.0-29.9), obese (BMI ≥30.0) or normal weight (BMI 18.5-24.9) as defined by the World Health Organization.

"Fibrosis stage" refers to the degree of fibrosis present in the liver, graded on a 5-point scale from F0 (no fibrosis) to F4 (cirrhosis). Stages F2-F3 represent significant fibrosis.

"MASH resolution" is defined as the absence of hepatocellular ballooning, minimal lobular inflammation (grade 0-1), and a decrease in NAFLD activity score (NAS) by at least 2 points.

"Metabolic dysfunction-associated steatotic liver disease (MASH)" refers to a progressive form of nonalcoholic fatty liver disease characterized by hepatic steatosis (≥5% of hepatocytes), inflammation, and hepatocellular injury, with or without fibrosis, that was formerly termed nonalcoholic steatohepatitis (NASH).

"Model for End-stage Liver Disease (MELD)" is a numerical rating system used to assess the severity of liver disease. It is often used to help determine priority of patients on a liver transplant waiting list. Higher scores indicate more severe illness.

"MRI-PDFF" is magnetic resonance imaging–proton density fat fraction, an imaging-based quantitative biomarker of liver fat content used to diagnose and monitor hepatic steatosis.

"Noninvasive tests (NITs)" refer to blood- or imaging-based tests used to diagnose and monitor MASH and fibrosis as an alternative to liver biopsy. Examples include the FIB-4 index, Enhanced Liver Fibrosis (ELF) test, vibration-controlled transient elastography (VCTE), and magnetic resonance elastography (MRE).

Medical Necessity Criteria for Initial Authorization

The Plan considers Rezdiffra (resmetirom) medically necessary when recent (within the last 6-12 months) clinical chart documentation provided indicates ALL of the following criteria are met:

1. The medication is prescribed by or in consultation with a gastroenterologist, endocrinologist, or hepatologist; *AND*
2. The member is 18 years of age or older; *AND*
3. The member has a diagnosis of noncirrhotic metabolic dysfunction-associated steatotic liver disease (MASH)^a with moderate to advanced liver fibrosis (consistent with stages F2 to F3 fibrosis), confirmed by ONE or more of the following:
 - a. Liver biopsy showing MASH and significant fibrosis (F2 or F3) without cirrhosis; *and/or*

- b. Transient elastography (e.g. FibroScan) with liver stiffness ≥ 8.0 kPa (F2) but < 20 kPa (cirrhosis) or as interpreted by healthcare provider findings consistent with intermediate or high risk (i.e., F2 or F3); *and/or*
 - c. Magnetic resonance elastography (MRE) with liver stiffness ≥ 3.1 kPa or as interpreted by a healthcare provider findings consistent with intermediate or high risk (i.e., F2 or F3); *and/or*
 - d. Enhanced Liver Fibrosis (ELF) test ≥ 7.7 or as interpreted by healthcare provider or laboratory findings consistent with intermediate or high risk (i.e., F2 or F3); *and/or*
 - e. Fibrosis-4 (FIB-4) index ≥ 1.3 PLUS one additional noninvasive test (transient elastography, MRE, or ELF) showing at least stage 2 fibrosis; *AND*
**formerly known as nonalcoholic fatty liver disease (NAFLD) or nonalcoholic steatohepatitis (NASH), consistent with language used in the manufacturer's package insert.*
4. The member has attempted at least 6 months of intensive lifestyle intervention with diet and exercise aimed at weight loss of at least 5-10% (may not be applicable for those with a normal body mass index [BMI], or where a provider may consider it not medically appropriate), without sufficient improvement in MASH or fibrosis; *AND*
 5. Rezdiffra (resmetirom) will be used in conjunction with diet and exercise aimed at weight loss; *AND*
 6. The member does NOT have cirrhosis or decompensated liver disease, as evidenced by any of the following:
 - a. Liver biopsy showing cirrhosis; *and/or*
 - b. Cirrhosis of the liver with portal hypertension; *and/or*
 - c. History of liver decompensation event (e.g., ascites, variceal bleeding, hepatic encephalopathy); *and/or*
 - d. Model for End-Stage Liver Disease (MELD) score > 15 ; *and/or*
 - e. Transient elastography (e.g. FibroScan) with liver stiffness measurement ≥ 20 kPa; *and/or*
 - f. MRE with liver stiffness measurement ≥ 5.0 kPa; *and/or*
 - g. ELF test > 11.3 ; *AND*
 7. Rezdiffra (resmetirom) will NOT be used concurrently with other therapies indicated for NASH/MASH; *AND*
 8. The requested dose does not exceed 100 mg per day.

If the above prior authorization criteria are met, the requested product will be authorized for up to 12-months.

Medical Necessity Criteria for Reauthorization

Reauthorization for up to 12-months will be granted if the member has recent (within the last 6 months) clinical chart documentation demonstrating ALL of the following criteria:

1. The member is currently receiving the medication through the Plan's benefit or has previously met applicable [Initial Authorization](#) criteria; *AND*
2. The member is responding positively to therapy as evidenced by ONE or more of the following:
 - a. Improvement in steatosis, inflammation, or fibrosis based on imaging (liver ultrasound or MRI) or non-invasive tests/scores, if available; *and/or*
 - b. Improvement in fibrosis stage based on available methods such as transient elastography, MRE, ELF, or clinical prediction scores (FIB-4, NAFLD fibrosis score); *and/or*
 - c. Lack of disease progression or stable disease state; *and/or*
 - d. Reduction in liver fat content on MRI-PDFF, if available; *AND*
3. The member has demonstrated ongoing engagement and efforts toward weight management through adherence to the recommended diet and exercise regimen; *AND*
4. The member has not developed cirrhosis or decompensated liver disease while on Rezdiffra (resmetirom), as evidenced by the absence of clinical signs or symptoms of decompensation (e.g., ascites, variceal bleeding, hepatic encephalopathy); *AND*
5. Rezdiffra (resmetirom) is NOT being used concurrently with other therapies indicated for NASH/MASH; *AND* The requested dose does not exceed 100 mg per day.

[Experimental or Investigational / Not Medically Necessary](#)

Rezdiffra (resmetirom) for any other indication or use is considered not medically necessary by the Plan, as it is deemed to be experimental, investigational, or unproven. Non-covered indications include, but are not limited to, the following:

- Treatment of NAFLD/MASH without significant fibrosis (stage F2-F3).
- Treatment of NASH/MASH in individuals with:
 - No fibrosis (stage F0) or mild fibrosis (stage F1).
 - Cirrhosis (stage F4) or decompensated liver disease.
 - Other chronic liver diseases (e.g., hepatitis B, hepatitis C, autoimmune hepatitis, alcoholic liver disease, hemochromatosis, Wilson's disease).
- Treatment of pediatric NAFLD/MASH (age < 18 years).
- Prevention of NAFLD/MASH in individuals with fatty liver or metabolic risk factors.
- Use in combination with other off-label or investigational NASH/MASH therapies (e.g., vitamin E, pioglitazone, some GLP-1 RAs, FXR agonists, ASK-1 inhibitors, caspase inhibitors, etc.), outside of the context of a clinical trial.
- Use in individuals who have not first attempted at least 6 months of intensive lifestyle modification focusing on weight loss of $\geq 5\text{-}10\%$ through diet and exercise.
- Use in pre-transplant or post-transplant settings for the treatment or prevention of recurrent or de novo NASH/MASH in liver transplant recipients.

Applicable Billing Codes

ICD-10 codes considered medically necessary if criteria are met:	
<i>Code</i>	<i>Description</i>
K75.81	Nonalcoholic Steatohepatitis (Nash)

References

1. Chalasani N et al. The diagnosis and management of nonalcoholic fatty liver disease: Practice guidance from the American Association for the Study of Liver Diseases. *Hepatology* 2018; 67:328–357.
2. Chen VL, Morgan TR, Rotman Y, et al,. Resmetirom therapy for metabolic dysfunction-associated steatotic liver disease: October 2024 updates to AASLD Practice Guidance. *Hepatology*. 2025 Jan 1;81(1):312-320. doi: 10.1097/HEP.0000000000001112. Epub 2024 Oct 18.
3. Cusi K, Isaacs S, Barb D, Basu R, Caprio S, Garvey WT, Kashyap S, Mechanick JL, Mouzaki M, Nadolsky K, Rinella ME, Vos MB, Younossi Z. American Association of Clinical Endocrinology Clinical Practice Guideline for the Diagnosis and Management of Nonalcoholic Fatty Liver Disease in Primary Care and Endocrinology Clinical Settings: Co-Sponsored by the American Association for the Study of Liver Diseases (AASLD). *Endocr Pract*. 2022 May;28(5):528-562. doi: 10.1016/j.eprac.2022.03.010. PMID: 35569886.
4. Duell PB et al: Nonalcoholic fatty liver disease and cardiovascular risk: a scientific statement from the American Heart Association. *Arterioscler Thromb Vasc Biol*. 42(6):e168-85, 2022
5. European Association for the Study of the Liver (EASL) et al: EASL-EASD-EASO clinical practice guidelines for the management of non-alcoholic fatty liver disease. *J Hepatol*. 64(6):1388-402, 2016
6. European Association for the Study of the Liver et al: EASL clinical practice guidelines on non-invasive tests for evaluation of liver disease severity and prognosis- 2021 update. *J Hepatol*. ePub, 2021
7. European Association for the Study of the Liver (EASL); European Association for the Study of Diabetes (EASD); European Association for the Study of Obesity (EASO). EASL-EASD-EASO Clinical Practice Guidelines on the Management of Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD). *Obes Facts*. 2024;17(4):374-444. doi: 10.1159/000539371. Epub 2024 Jun 7. Erratum in: *Obes Facts*. 2024;17(6):658. doi: 10.1159/000541386.
8. Harrison SA et al. A Phase 3, Randomized, Controlled Trial of Resmetirom in NASH with Liver Fibrosis. *New Engl J Med* 2024; 390:497-509.
9. Harrison SA, Bashir MR, Guy CD, et al,. Resmetirom (MGL-3196) for the treatment of non-alcoholic steatohepatitis: a multicentre, randomised, double-blind, placebo-controlled, phase 2 trial. *Lancet*. 2019 Nov 30;394(10213):2012-2024. doi: 10.1016/S0140-6736(19)32517-6. Epub 2019 Nov 11.
10. Harrison SA, Taub R, Neff GW, Lucas KJ, Labriola D, Moussa SE, Alkhouri N, Bashir MR. Resmetirom for nonalcoholic fatty liver disease: a randomized, double-blind, placebo-controlled phase 3 trial. *Nat Med*. 2023 Nov;29(11):2919-2928. doi: 10.1038/s41591-023-02603-1. Epub 2023 Oct 16.
11. Kanwal F, Shubrook JH, Adams LA, et al,. Clinical Care Pathway for the Risk Stratification and Management of Patients With Nonalcoholic Fatty Liver Disease. *Gastroenterology*. 2021 Nov;161(5):1657-1669. doi: 10.1053/j.gastro.2021.07.049. Epub 2021 Sep 20.
12. Karjoo S, Auriemma A, Fraker T, Bays HE. Nonalcoholic fatty liver disease and obesity: An Obesity Medicine Association (OMA) Clinical Practice Statement (CPS) 2022. *Obes Pillars*. 2022 Jul 8;3:100027. doi: 10.1016/j.obpill.2022.100027. PMID: 37990727; PMCID: PMC10661876.

13. Long MT, Noureddin M, Lim JK. AGA Clinical Practice Update: Diagnosis and Management of Nonalcoholic Fatty Liver Disease in Lean Individuals: Expert Review. *Gastroenterology*. 2022 Sep;163(3):764-774.e1. doi: 10.1053/j.gastro.2022.06.023. Epub 2022 Jul 14.
14. Rezdiffra (resmetirom) [prescribing information]. West Conshohocken, PA: Madrigal Pharmaceuticals Inc; March 2024.
15. Rinella ME et al. AASLD Practice Guidance on the clinical assessment and management of nonalcoholic fatty liver disease. *Hepatology* 2023 In Press.
16. Rinella ME, Lazarus JV, Ratziu V, et al,. A multisociety Delphi consensus statement on new fatty liver disease nomenclature. *Hepatology*. 2023 Dec 1;78(6):1966-1986. doi: 10.1097/HEP.0000000000000520. Epub 2023 Jun 24.
17. Sterling RK, Duarte-Rojo A, Patel K, et al,. AASLD Practice Guideline on imaging-based noninvasive liver disease assessment of hepatic fibrosis and steatosis. *Hepatology*. 2025 Feb 1;81(2):672-724. doi: 10.1097/HEP.0000000000000843. Epub 2024 Mar 15.
18. Sterling RK, Patel K, Duarte-Rojo A, et al,. AASLD Practice Guideline on blood-based noninvasive liver disease assessment of hepatic fibrosis and steatosis. *Hepatology*. 2025 Jan 1;81(1):321-357. doi: 10.1097/HEP.0000000000000845. Epub 2024 Mar 15.
19. Vos, Miriam B.; Abrams, Stephanie H.; Barlow, Sarah E.; Caprio, Sonia; Daniels, Stephen R.; Kohli, Rohit; Mouzaki, Marialena; Sathya, Pushpa; Schwimmer, Jeffrey B.; Sundaram, Shikha S.; Xanthakos, Stavra A.. NASPGHAN Clinical Practice Guideline for the Diagnosis and Treatment of Nonalcoholic Fatty Liver Disease in Children: Recommendations from the Expert Committee on NAFLD (ECON) and the North American Society of Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN). *Journal of Pediatric Gastroenterology and Nutrition* 64(2):p 319-334, February 2017. | DOI: 10.1097/MPG.0000000000001482
20. Younossi ZM et al: AGA clinical practice update on lifestyle modification using diet and exercise to achieve weight loss in the management of nonalcoholic fatty liver disease: expert review. *Gastroenterology*. 160(3):912-8, 2021
21. Younossi ZM, Stepanova M, Taub RA, Barbone JM, Harrison SA. Hepatic Fat Reduction Due to Resmetirom in Patients With Nonalcoholic Steatohepatitis Is Associated With Improvement of Quality of Life. *Clin Gastroenterol Hepatol*. 2022 Jun;20(6):1354-1361.e7. doi: 10.1016/j.cgh.2021.07.039. Epub 2021 Jul 27.

Clinical Guideline Revision / History Information

Original Date: 5/29/2024

Reviewed/Revised: 10/01/2025, 01/01/2026