

PRIOR AUTHORIZATION POLICY

POLICY: Hepatology – Bylvay Prior Authorization Policy

- Bylvay™ (odevixibat capsules and oral pellets – Albireo Pharma)

REVIEW DATE: 07/21/2021; selected revision 08/11/2021 and 12/15/2021

OVERVIEW

Bylvay, an ileal bile acid transporter (IBAT) inhibitor, is indicated for the treatment of pruritus in patients ≥ 3 months of age with **progressive familial intrahepatic cholestasis (PFIC)**.¹

Disease Overview

PFIC is a group of rare, autosomal recessive liver diseases defined by genetic mutations affecting bile acid transporters (e.g., mutation of the *ATP8B1* gene, *ABCB11* gene, *ABCB4* gene, *TJP2* gene, *NR1H4* gene, and *MYO5B* gene).²⁻⁴ Main clinical manifestations include cholestasis, pruritus, and jaundice. Progression of the disease can cause liver fibrosis, cirrhosis, or end-stage liver disease and leads to death at an early age in life (infancy to adolescence). Pruritus is a common symptom in patients with PFIC and the pathophysiology of pruritus in patients with PFIC is not completely understood.¹ Although the complete mechanism by which Bylvay improves pruritus in PFIC patients is unknown, it may involve inhibition of the IBAT, which results in decreased reuptake of bile salts, as observed by a decrease in serum bile acids. Cholestyramine, rifampicin, and ursodeoxycholic acid (ursodiol) have been used off-label for decades to alleviate symptoms related to PFIC.^{6,7} Rifampicin and ursodeoxycholic acid are recommended in clinical practice guidelines from the European Association for the Study of the Liver.⁸

Clinical Efficacy

The efficacy of Bylvay was evaluated in one 24-week, randomized, double-blind, placebo-controlled pivotal trial.^{1,5} The study was conducted in 62 pediatric patients (6 months to 17 years of age) with a clinical genetic confirmation of PFIC. Patients had to have an elevated serum bile acid concentration along with presence of significant pruritus at baseline. Patients treated with Bylvay demonstrated greater improvement in pruritus compared with placebo.

Safety

Bylvay was not evaluated in PFIC patients with cirrhosis.¹ Closely monitor for liver test abnormalities; permanently discontinue Bylvay if a patient progresses to portal hypertension or experiences a hepatic decompensation event (e.g., variceal hemorrhage, ascites, hepatic encephalopathy).

POLICY STATEMENT

Prior Authorization is recommended for prescription benefit coverage of Bylvay. All approvals are provided for the duration noted below. In cases where the approval is authorized in months, 1 month is equal to 30 days. Because of the specialized skills required for evaluation and diagnosis of patients treated with Bylvay as well as the monitoring required for adverse events and long-term efficacy, approval requires Bylvay to be prescribed by or in consultation with a physician who specializes in the condition being treated.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Bylvay is recommended in those who meet the following criteria:

FDA-Approved Indication

1. Progressive Familial Intrahepatic Cholestasis. Approve for the duration noted if the patient meets one of the following (A or B):

A) Initial Therapy. Approve for 6 months if the patient meets all of the following (i, ii, iii, iv, v, vi and vii):

- i.** Patient is ≥ 3 months of age; AND
- ii.** Patient has moderate-to-severe pruritus, according to prescriber; AND
- iii.** Diagnosis of progressive familial intrahepatic cholestasis was confirmed by genetic testing demonstrating a gene mutation affiliated with progressive familial intrahepatic cholestasis; AND

Note: Gene mutations affiliated with progressive familial intrahepatic cholestasis include the *ATP8B1* gene, *ABCB11* gene, *ABCB4* gene, *TJP2* gene, *NR1H4* gene, and *MYO5B* gene.

- iv.** Patient has a serum bile acid concentration above the upper limit of the normal reference range for the reporting laboratory; AND
- v.** Patient has tried at least two systemic medications for progressive familial intrahepatic cholestasis, unless contraindicated; AND

Note: Systemic medications for progressive familial intrahepatic cholestasis include cholestyramine, rifampicin, and ursodeoxycholic acid (ursodiol).

vi. Patient does not have any of the following (a, b, or c):

- a)** Cirrhosis; OR
- b)** Portal hypertension; OR
- c)** History of a hepatic decompensation event; AND

Note: Examples of a hepatic decompensation event include variceal hemorrhage, ascites, and hepatic encephalopathy.

vii. The medication is prescribed by or in consultation with a hepatologist, gastroenterologist, or a physician who specializes in progressive familial intrahepatic cholestasis.

B) Patient is Currently Receiving Bylvay. Approve for 1 year if the patient meets all of the following (i, ii, and iii):

i. Patient does not have any of the following (a, b, or c):

- a)** Cirrhosis; OR
- b)** Portal hypertension; OR
- c)** History of a hepatic decompensation event; AND

Note: Examples of a hepatic decompensation event include variceal hemorrhage, ascites, and hepatic encephalopathy.

ii. Patient had response to therapy, as determined by the prescriber; AND

Note: Examples of response to therapy include decrease in serum bile acids and decrease in pruritus.

iii. The medication is prescribed by or in consultation with a hepatologist, gastroenterologist, or a physician who specializes in progressive familial intrahepatic cholestasis.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Coverage of Bylvay is not recommended in the following situations:

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Bylvay™ capsules and oral pellets [prescribing information]. Boston, MA: Albireo Pharma; July 2021.
2. Davit-Spraul, A, Gonzales, E, Baussan, C, et al. Progressive familial intrahepatic cholestasis. *Orphanet J Rare Dis.* 2009;4:1.
3. Amirneni S, Haep N, Gad MA, et al. Molecular overview of progressive familial intrahepatic cholestasis. *World J Gastroenterol.* 2020 Dec 21;26(47):7470-7484.
4. Gunaydin M, Bozkurter Cil AT. Progressive familial intrahepatic cholestasis: diagnosis, management, and treatment. *Hepat Med.* 2018 Sep 10;10:95-104.
5. Albireo. A double-blind, randomized, placebo-controlled, phase 3 study to demonstrate efficacy and safety of A4250 in children with progressive familial intrahepatic cholestasis types 1 and 2. In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2021 July 21]. Available at: <https://clinicaltrials.gov/ct2/show/study/NCT03566238/>. Identifier: NCT03566238.
6. van der Woerd WL, Houwen RH, van de Graaf SF. Current and future therapies for inherited cholestatic liver diseases. *World J Gastroenterol.* 2017 Feb 7;23(5):763-775.
7. Gunaydin M, Bozkurter C. Progressive familial intrahepatic cholestasis: diagnosis, management, and treatment. *Hepat Med.* 2018 Sep 10;10:95-104.
8. European Association for the Study of the Liver. EASL Clinical Practice Guidelines: management of cholestatic liver diseases. *J Hepatol.* 2009 Aug;51(2):237-67

HISTORY

Type of Revision	Summary of Changes	Review Date
New Policy	--	07/21/2021
Selected Revision	Progressive Familial Intrahepatic Cholestasis: The requirement for progressive familial intrahepatic cholestasis to be type 1 or type 2 was omitted. Criteria requiring a genetic mutation affiliated with progressive familial intrahepatic cholestasis was added along with a Note including examples of gene mutations affiliated with progressive familial intrahepatic cholestasis. A requirement for a trial of one systemic medication for progressive familial intrahepatic cholestasis, unless contraindicated was added to criteria, along with a Note including examples for systemic medications.	08/11/2021
Selected Revision	Progressive Familial Intrahepatic Cholestasis: The requirement for a trial of one systemic medication for progressive familial intrahepatic cholestasis was changed to require two systemic medications.	12/15/2021