# Real-World Experience of Seladelpar Among Patients With Primary Biliary Cholangitis Including Patients Who Switched From Obeticholic Acid

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## Conclusions

- Here, we describe data from 130 patients with primary biliary cholangitis (PBC) who switched from obeticholic acid (OCA) to seladelpar (OCA-switch) and 266 patients who received seladelpar as second-line (2L) therapy in addition to ursodeoxycholic acid or as monotherapy (2L-seladelpar) in a real-world setting
- Most patients in the OCA-switch group started seladelpar with no gap between OCA and seladelpar prescriptions
- Biochemical improvements were seen with seladelpar initiation among both the OCA-switch and 2L-seladelpar groups
- There were no safety concerns apparent based on liver enzymes, renal function, or creatine kinase levels after seladelpar initiation in either group
- Given the relatively short seladelpar observation period, further evaluation with extended follow-up time is warranted
- These data suggest seladelpar may be an effective and safe alternative for patients with PBC switching from OCA or initiating seladelpar as 2L therapy in the real-world setting

## Plain Language Summary

- Primary biliary cholangitis (PBC) is a progressive autoimmune liver disease that is often first treated with ursodeoxycholic acid (UDCA)
- Obeticholic acid (OCA) is a treatment used as a second course of action to treat PBC and it was recently withdrawn from the US market, creating a need for patients to switch to other PBC treatments
- Our study used real-world healthcare data to measure what happened when people with PBC switched from taking OCA to seladelpar, started seladelpar on its own, or started taking seladelpar while also taking UDCA
- Our study found that lab results improved after seladelpar treatment, suggesting that seladelpar use may be an effective and safe alternative for patients switching from OCA or taking seladelpar alone or with UDCA

**References:** **1.** Hirschfield GM, et al. *N Engl J Med*. 2024;390(9):783-94. **2.** Gulamhusein A, et al. *J Hepatol*. 2025;82:S230-1.

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**Disclosures:** Conflict of interest disclosures may be viewed using the QR code at the top right.

## Introduction

- Primary biliary cholangitis (PBC) is a progressive autoimmune liver disease
- Obeticholic acid (OCA) is a second-line (2L) PBC therapy that was recently withdrawn from the US, creating a need for alternative therapy options
- Seladelpar, approved in the US in 2024 for patients with PBC and an inadequate response or intolerance to ursodeoxycholic acid (UDCA), offers a new treatment option
- In the pivotal study for seladelpar, RESPONSE (NCT04620733), there was a washout period of at least 6 weeks in patients with prior OCA or fibrate use; among patients with prior use, efficacy and safety were similar as for patients without prior use[1,2]

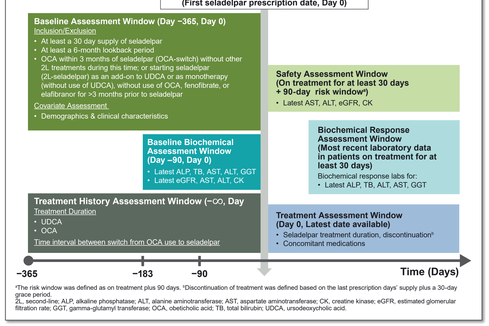
## Objective

- This study aims to characterize the real-world experiences of patients switching from OCA to seladelpar and patients initiating seladelpar as 2L therapy on a UDCA background or as monotherapy

## Methods

- **Study design (Figure 1):** Longitudinal observational cohort study
- **Study population:** Patients with PBC and at least 30 days of seladelpar treatment during the study period
  - OCA-switch group: Patients who switched from OCA within 3 months of starting seladelpar without use of other 2L treatments (eg, fenofibrate or elafibranor) during this time; last OCA use was defined as last prescription refill days' supply
  - 2L-seladelpar group: Patients starting seladelpar as an add-on to UDCA or as monotherapy (without use of UDCA), without use of OCA, fenofibrate, or elafibranor for >3 months prior to seladelpar initiation
- **Study period:** August 2023 to June 2025, including 12 months prior to the index date (first seladelpar prescription date)
- **Data source:** HealthVerity claims linked to electronic medical records and lab data from LabCorp and Quest
- **Measures of interest:**
  - At baseline (up to 12 months prior to seladelpar initiation):
    - Demographic and latest clinical characteristics
  - During the seladelpar treatment period:
    - Seladelpar treatment duration and discontinuation (defined based on the last prescription days' supply plus a 30-day grace period), concomitant medications
    - Biochemical response based on clinical laboratory findings (alkaline phosphatase [ALP], total bilirubin, alanine aminotransferase [ALT], aspartate aminotransferase [AST], gamma-glutamyl transferase), and safety labs (ALT, AST, estimated glomerular filtration rate, creatine kinase)
- **Analytical approach:** Descriptive statistics based on mean (standard deviation [SD]), median (interquartile range [IQR]), and proportion

### Figure 1. Inclusion/Exclusion Criteria for Switch Analysis and Assessment Windows Relative to Study Entry Date




[a]The risk window was defined as on treatment plus 90 days. [b]Discontinuation of treatment was defined based on the last prescription days' supply plus a 30-day grace period.
2L, second-line; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; CK, creatine kinase; eGFR, estimated glomerular filtration rate; GGT, gamma-glutamyl transferase; OCA, obeticholic acid; TB, total bilirubin; UDCA, ursodeoxycholic acid.

## Results

### Table 1. Baseline Patient Demographics

| | OCA-Switch (n = 130) | 2L-Seladelpar (n = 266)[a] |
|---|---|---|
| **Age, years** | | |
| Mean (SD) | 58.8 (11.91) | 58.3 (10.81) |
| Median (range) | 59 (31.0, 98.0) | 58 (28.0, 98.0) |
| **Sex (female), n (%)** | 114 (87.7) | 241 (90.6) |
| **Race, n (%)** | | |
| White | 38 (29.2) | 63 (23.7) |
| Black | 1 (0.8) | 9 (3.4) |
| Asian | 3 (2.3) | 3 (1.1) |
| Other | 3 (2.3) | 9 (3.4) |
| Hispanic | 11 (8.5) | 33 (12.4) |
| Missing | 74 (56.9) | 149 (56.0) |
| **Prescriber type[b], n (%)** | | |
| Hepatologist | 39 (30.0) | 82 (30.8) |
| Gastroenterologist | 39 (30.0) | 75 (28.2) |

[a]UDCA users initiating 2L treatment with seladelpar or seladelpar monotherapy use (patients on UDCA or no other treatment for >3 months prior to seladelpar initiation). [b]Provider is the prescriber of seladelpar. A provider may have >1 specialty counted, and other specialties/missing data are not shown.
2L, second-line; OCA, obeticholic acid; SD, standard deviation; UDCA, ursodeoxycholic acid.

- A total of 396 patients with PBC switched from OCA to seladelpar (OCA-switch [n = 130]) or initiated seladelpar as an add-on to UDCA or as monotherapy (2L-seladelpar [n = 266]; **Table 1**)

### Table 2. Baseline Patient Clinical Characteristics

| | OCA-Switch (n = 130) | 2L-Seladelpar (n = 266)[a] |
|---|---|---|
| **Medical conditions/comorbidities** | | |
| Duration of PBC, years, mean (SD) | 5.6 (2.9) | 3.3 (2.9) |
| Cirrhosis, n (%) | 15 (11.5) | 49 (18.4) |
| Autoimmune hepatitis, n (%) | 10 (7.7) | 24 (9.0) |
| MASH, n (%) | 6 (4.6) | 19 (7.1) |
| MASLD, n (%) | 33 (25.4) | 85 (32.0) |
| Diagnosed hyperlipidemia, n (%) | 39 (30.0) | 79 (29.7) |
| Type 2 diabetes, n (%) | 11 (8.5) | 45 (16.9) |
| Sleep disorder, n (%) | 18 (13.8) | 39 (14.7) |
| Obesity, n (%) | 10 (7.7) | 40 (15.0) |
| **Medication use** | | |
| UDCA use, n (%) | 112 (86.2) | 221 (83.1) |
| Any pruritus medication within prior 12 months[b], n (%) | 32 (24.6) | 64 (24.1) |
| Bile sequestrants (cholestyramine, colesevelam), n (%) | 8 (6.2) | 21 (7.9) |
| **Treatment duration** | | |
| Duration of UDCA use prior to seladelpar, days, median (IQR) | 628 (211, 1216) | 588 (229, 1226) |
| Duration of OCA use, days, median (IQR) | 420 (240, 1138) | N/A |
| **Interval between last OCA treatment and seladelpar initiation, days[c]** | | |
| Mean (SD) | 8 (18) | N/A |
| Median (IQR) | 0 (0, 0) | N/A |

[a]UDCA users initiating 2L treatment with seladelpar or seladelpar monotherapy use (patients on UDCA or no other treatment for >3 months prior to seladelpar initiation). [b]Pruritus medications included bile sequestrants (cholestyramine, colesevelam), rifampin, oral opiate antagonists (naltrexone, nalmefene), SSRIs (sertraline), gabapentin, antihistamines, and fibrates. [c]98 (75%) patients had no gap between last OCA treatment and seladelpar initiation.
2L, second-line; IQR, interquartile range; MASH, metabolic dysfunction–associated steatohepatitis; MASLD, metabolic dysfunction–associated steatotic liver disease; N/A, not applicable; OCA, obeticholic acid; PBC, primary biliary cholangitis; SD, standard deviation; SSRI, selective serotonin reuptake inhibitor; UDCA, ursodeoxycholic acid.

- Cirrhosis was observed in 11.5% of patients in the OCA-switch group and 18.4% of patients in the 2L-seladelpar group (**Table 2**)
- Metabolic comorbidities and metabolic dysfunction–associated steatotic liver disease were common in both groups, with greater prevalence in the 2L-seladelpar group
- In the OCA-switch group, the mean (SD) interval between OCA and seladelpar was 8 (18) days; however, most patients switched from OCA to seladelpar without a gap based on a median interval of 0 (IQR; 0, 0) days

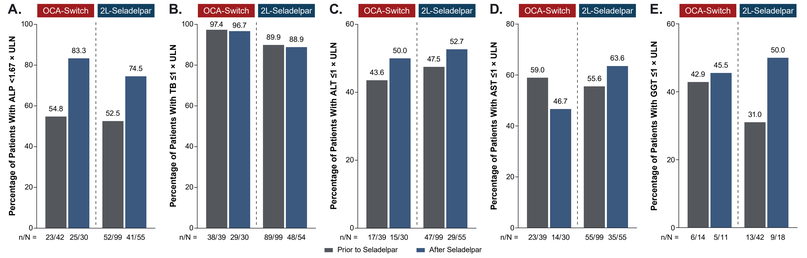
### Table 3. Seladelpar Treatment Duration and Discontinuation and Concomitant Medications

| | OCA-Switch (n = 130) | 2L-Seladelpar (n = 266)[a] |
|---|---|---|
| **Duration of seladelpar treatment[b,c]** | | |
| Duration of seladelpar treatment, days, median (IQR) | 109 (60, 158) | 90 (44, 137) |
| Duration of seladelpar treatment, days, mean (SD) | 119 (68) | 98 (64) |
| **Seladelpar treatment discontinuation[d], n (%)** | 6 (4.6) | 22 (8.3) |
| **Concomitant medication use** | | |
| Concomitant UDCA (any use of UDCA during seladelpar treatment), n (%) | 113 (86.9) | 220 (82.7) |
| Concomitant statins (any use of statins during seladelpar treatment), n (%) | 42 (32.3) | 89 (33.5) |

[a]UDCA users initiating 2L treatment with seladelpar or seladelpar monotherapy use (patients on UDCA or no other treatment for >3 months prior to seladelpar initiation). [b]Seladelpar initiation is first seladelpar prescription claim with days' supply ≥30 days. [c]Duration of seladelpar treatment is defined as time on seladelpar after index date between August 2023 and June 2025. [d]Discontinuation of treatment was defined based on the last prescription days' supply plus a 30-day grace period. If there was no supply in the 30 days after, the patient was considered to have discontinued treatment.
2L, second-line; IQR, interquartile range; OCA, obeticholic acid; SD, standard deviation; UDCA, ursodeoxycholic acid.

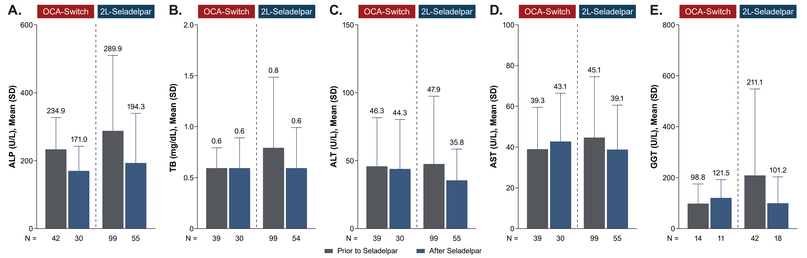
- In the OCA-switch group, the median duration of prior OCA treatment was 420 days
- 93% of patients maintained continuous seladelpar treatment from initiation until the end of the observation period (**Table 3**)

### Figure 2. Biochemical Results Before and After Seladelpar Initiation[a]




[a]Percentage of patients is calculated out of patients who had baseline lab results available.
2L, second-line; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase; OCA, obeticholic acid; TB, total bilirubin; ULN, upper limit of normal.

### Figure 3. Biochemical Lab Values Before and After Seladelpar Initiation




2L, second-line; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; GGT, gamma-glutamyl transferase; OCA, obeticholic acid; SD, standard deviation; TB, total bilirubin.

- Within the study period (August 2023 to June 2025), the mean (SD) duration of seladelpar treatment was 119 (68) days for patients in the OCA-switch group and 98 (64) days for patients in the 2L-seladelpar group
- Before initiating seladelpar, the proportion of patients in the OCA-switch and 2L-seladelpar groups that had ALP ≤1 × the upper limit of normal (ULN) was 10%
  - After seladelpar initiation, the proportion of patients achieving ALP normalization (ALP ≤1 × ULN) increased in both the OCA-switch (30%) and 2L-seladelpar (31%) groups
- ALP <1.67 × ULN was observed in 55% of patients in the OCA-switch group at baseline and in 83% of patients after they switched to seladelpar (**Figure 2**)
  - In the 2L-seladelpar group, ALP <1.67 × ULN was observed in 53% of patients at baseline and in 75% after seladelpar initiation
- In patients switching from OCA to seladelpar, mean ALP decreased from 235 U/L at baseline to 171 U/L after switching (**Figure 3A**)
  - In the 2L-seladelpar group, ALP decreased from 290 U/L at baseline to 194 U/L after seladelpar initiation

### Table 4. Safety Labs

| | OCA-Switch (n = 130) | | 2L-Seladelpar (n = 266)[b] | |
|---|---|---|---|---|
| **Safety Labs (where available[a])** | **Prior to Seladelpar** | **After Seladelpar** | **Prior to Seladelpar** | **After Seladelpar** |
| **ALT or AST >3 × ULN, n (%)** | 2 (1.5) | 2 (1.5) | 7 (2.6) | 2 (0.8) |
| **eGFR (mL/min/1.73 m²), mean (SD)** | 90.6 (18.6) | 89.0 (20.2) | 91.4 (17.4) | 91.7 (17.7) |
| **CK >1 × ULN, n (%)** | 1 (0.8) | 0 (0.0) | 4 (1.5) | 4 (1.5) |

[a]Not all patients had labs available; percentages are presented as the percentage based on number of total patients with available biochemical results. [b]UDCA users initiating 2L treatment with seladelpar or seladelpar monotherapy use (patients on UDCA or no other treatment for >3 months prior to seladelpar initiation).
2L, second-line; ALT, alanine aminotransferase; AST, aspartate aminotransferase; CK, creatine kinase; eGFR, estimated glomerular filtration rate; OCA, obeticholic acid; SD, standard deviation; UDCA, ursodeoxycholic acid; ULN, upper limit of normal.

- Safety labs within 90 days prior to seladelpar initiation vs after were generally similar before and after seladelpar initiation in both groups (**Table 4**)

## Limitations

- Given that seladelpar treatment received accelerated approval in 2024, the follow-up time is limited
- Incomplete or missing claims and lab values may result in misclassification or underestimation of outcomes