

Effectiveness of Cenobamate on seizures in focal epilepsy: a single center real-world observation

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Purpose

Cenobamate (CNB) is an anti-seizure medication indicated for drug-resistant focal epilepsy. This study aims to evaluate CNB effectiveness on the number and type of focal seizures in people with epilepsy (PwE) treated for 12 months.

Method

Twenty patients with focal drug-resistant epilepsy starting CNB and reaching a first-step daily dose of 200 mg, down- or up-titrated according to PwE's needs and tolerability during the follow-up, were observed. PwE were evaluated at baseline (T0) and after six (T1) and twelve months of treatment (T2). The type of seizures was classified using ILAE 2025 Classification¹.

	PwE (mean ± SD)
Age (years)	57.2 ± 11.53
Sex (M, male; F, female)	8 M, 12 F
Disease Duration (years)	29.19 ± 20.74
N° of previous ASMs treatment	3.15 ± 3.10
Concomitant ASMs	2.4 ± 1.058

Results

At T0:

- 4 PwE presented focal preserved consciousness seizures (FPC),
- 12 PwE presented focal impaired consciousness seizures (FIC),
- 4 PwE presented focal to bilateral tonic-clonic seizures (FBTC).

At T1:

- 6 PwE were seizure free (1 FPC, 4 FIC, 1 FBTC),
- 7 PwE had less seizures (1 FPC, 5 FIC, 1 FBTC),
- 2 PwE had a different type of seizure (from FBTC to FPC and FIC),
- 3 PwE (1 FPC, 2 FIC) had the same number of episodes,
- 2 PwE (1 FPC, 1 FIC) had more seizures of the same type.

At T2:

- 16 PwE were seizure free (4 FPC, 9 FIC, 3 FBTC),
- 1 PwE had less episodes (1 FIC),
- 2 PwE had more episodes (1 FIC – *prolonged concomitant infectious event*; 1 FPC – *brain tumour*),
- 1 PwE (FIC) had the same number of episodes.

Type of seizures	T0	T1	T2
FPC	4	4	0
FIC	11	9	3
FBTC	4	1	1
No seizures	0	6	16

Event	T0	T1	T2
More seizures	/	2	2
Less seizures	/	7	1
Seizure freedom	/	6	16
No difference	/	3	1
Different type of seizure	/	2	/

Dose	T0	T1	T2
100	/	1	1
150	/	4	4
200		20	14
250	/	1	4

Conclusion

This real-world study showed the **effectiveness** of CNB in treating focal onset drug-resistant seizures at the dose range between 100 to 250 mg/day. The main effect was observed at the 12-month follow-up visit.

All types of focal seizures responded to CNB treatment and in a few cases it was observed a change in the type of seizures (above all from FBTC to FPC or FIC).

References

1) Beniczky S, Trinka E, Wirrell E, Abdulla F, Al Baradie R, Alonso Vanegas M, et al. Epilepsia. First published: 23 April 2025. DOI: 10.1111/epi.18338



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