

29 - Indications

Indications

Bipolar disorder CHAPTER 2 Carbamazepine Mechanism of action¹ Carbamazepine blocks voltage-dependent sodium channels, thus inhibiting repetitive neuronal firing. It reduces glutamate release and decreases the turnover of dopamine and noradrenaline. While carbamazepine has a similar molecular structure to TCAs, it is radically different in respect to both therapeutic and adverse effects. Oxcarbazepine (a structural derivative of carbamazepine), as well as blocking voltage-dependent sodium channels, also increases potassium conductance and modulates high-voltage activated calcium channels. Eslicarbazepine is available in some countries. Like oxcarbazepine it acts as a pro-drug for licarbazepine, the likely active molecule of all three drugs. Formulations Carbamazepine is available as a liquid, chewable and immediate-release and controlled-release tablets. Non-modified release formulations generally have to be administered two to three times daily. The controlled-release preparation can be given once or twice daily, and the reduced fluctuation in serum levels usually leads to improved tolerability. This modified-release preparation has a lower bioavailability and an increase in dose of 10–15% may be required. Indications Carbamazepine is primarily used as an antiseizure medication. It is also used in the treatment of trigeminal neuralgia and, in the UK and elsewhere, is licensed for the treatment of bipolar illness in patients who do not respond to lithium. With respect to the treatment of mania, two placebo-controlled randomised studies have found the extended-release formulation of carbamazepine to be effective. In both studies, the response rate in the carbamazepine arm was twice that in the placebo arm.^{2,3} Carbamazepine was not particularly well tolerated – the incidence of dizziness, somnolence and nausea was high. Another study found carbamazepine alone to be as effective as carbamazepine plus olanzapine.⁴ Most formal guidelines do not recommend carbamazepine as a first-line treatment for mania.⁵ A Cochrane review concluded that there were insufficient trials of adequate methodological quality of oxcarbazepine in the acute treatment of bipolar disorder to inform its efficacy and acceptability.⁶ More recent reviews suggest oxcarbazepine has useful efficacy in mania.⁷ Two 2022 network meta-analyses^{8,9} confirmed the efficacy and relatively poor tolerability of carbamazepine. Open studies suggest that carbamazepine monotherapy has some efficacy in bipolar depression¹⁰ but evidence supporting other strategies is stronger (see section on treatment of bipolar depression later in this chapter). Carbamazepine may also be useful in unipolar depression either alone¹¹ or as an augmentation strategy.¹² Carbamazepine is generally considered to be less effective than lithium in the prophylaxis of bipolar illness.¹³ A 2009 meta-analysis failed to find a significant difference in efficacy between lithium and carbamazepine, but those who received carbamazepine were more likely to drop out of treatment because of adverse effects.¹⁴ Lithium is

Updated 2026-01-04 20:14:22 UTC by Omar Ayman