

Background for Health Care Provider:

Felbamate is nearly completely absorbed from the small intestine and has 90% bioavailability in both tablet and suspension forms. Food does not interact with its absorption. However, for best therapeutic outcomes patients should take the medication consistently with food or on an empty stomach. Once in the serum, plasma protein binding for felbamate ranges from 25-35%. Since felbamate is not highly bound to plasma proteins, there are not clinically significant binding interactions with other drugs. Felbamate is metabolized hepatically by cytochrome P4503A4, cytochrome P4502E1, and glucuronic acid conjugation. Liver metabolism accounts for 30% of excretion, 20% of which is by 3A4 and 2E1 metabolism. Other excretory pathways include 25% by esterase metabolism. Therefore apparent clearance of felbamate can be affected by the co-administration of drugs that induce or inhibit any of the aforementioned pathways. Induction of any of the enzymes will lead to decreased plasma felbamate levels, whereas inhibition will lead to increased levels. Felbamate is cleared 45-55% in the urine unchanged. Felbamate can also induce and inhibit CYP450 enzymes. CYP3A4 is induced by felbamate decreasing blood levels for drugs metabolized by this pathway. On the other hand, felbamate inhibits CYP2C19 and β -oxidation, causing heightened levels of respective medications.

Effect of Other Drugs on Felbamate Levels:

Decrease Felbamate Drug Levels:

- Phenobarbital
- Phenytoin
- Carbamazepine

Increase Felbamate Drug Levels

- No clinically significant interactions known

Effect of Felbamate on Other Drugs' Levels:

Increase Other Drug Levels:

- Phenobarbital
- Phenytoin
- Valproic Acid
- Lamotrigine
- Oxcarbazepine

Decrease Other Drug Levels:

- Combined Oral Contraceptives

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