

Background for Health Care Provider:

Oxcarbazepine is completely absorbed when administered orally. Fatty foods mildly increasing absorption protein binding in serum is not clinically significant. Oxcarbazepine is almost entirely converted by reductases to an active metabolite upon oral administration known as the mono-hydroxylate derivative which is largely responsible for the pharmacologic effects of the drug. Though the drug is an analog of carbamazepine, it is not appreciably metabolized by the CYP450 enzyme system, and is therefore less likely to encounter interacting drugs via this route. Oxcarbazepine is also a weaker, though modest, inducer of CYP3A4 than is carbamazepine which may or may not be significant at low to moderate doses, but may be more problematic at higher doses. Auto-induction of oxcarbazepine also is not of significant concern. Approximately 6% of a given dose is recovered unchanged in the urine.

Effect of Other Drugs on Oxcarbazepine Serum Levels:**Decrease Oxcarbazepine Serum Levels**

- Carbamazepine
- Felbamate
- Phenobarbital
- Phenytoin

Increase Oxcarbazepine Serum Levels

- No known clinically significant interactions

Effect of Oxcarbazepine on Other Drugs' Serum Levels:**Increase Other Serum Drug Levels**

- Phenobarbital
- Phenytoin

Decrease Other Serum Drug Levels

- Carbamazepine
- Felodipine
- Lamotrigine
- Oral Contraceptives

Ryan F. Miller
Doctor of Pharmacy Candidate 2007
University of Wisconsin School of Pharmacy