

Oxaliplatin

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Brand name: Eloxatin®

IUPAC: (1R,2R)-cyclohexane-1,2-diamine; oxalate; platinum(+2) cation

FDA approval: Yes

[Manufacturer Link](#)

Usage:

Oxaliplatin is primarily used in the treatment of metastatic or recurrent colorectal cancer, but is also used in the treatment of metastatic pancreatic cancer and metastatic gastric cancer. Oxaliplatin is administered as an intravenous infusion.¹

- ¹Chu, E., & DeVita, V. T. (2015). Physicians' cancer chemotherapy drug manual 2015. Burlington, MA: Jones & Bartlett Learning.

Mechanism:

Oxaliplatin (Eloxatin®) is an alkylating agent that prevents DNA replication and transcription by causing cross-links between DNA bases. Oxaliplatin works through either intrastrand or interstrand to produce these crosslinks, which in turn binds proteins to produce additional cytotoxic effects.¹

The diagram below shows the 3D molecular structure of Oxaliplatin.

- ¹Chu, E., & DeVita, V. T. (2015). Physicians' cancer chemotherapy drug manual 2015. Burlington, MA: Jones & Bartlett Learning.

Side effects:

Common side effects include neuropathy, tiredness, weakness, diarrhea, nausea and vomiting, abdominal pain, fever, loss of appetite, pain. Side effects may be different or more intense if taken with other drugs.¹

- ¹Chu, E., & DeVita, V. T. (2015). Physicians' cancer chemotherapy drug manual 2015. Burlington, MA: Jones & Bartlett Learning.

Contraindications:

Many patients do experience neuropathy which most commonly appears as spasms, tingling, or abnormal tongue sensations which may worsen in cold temperatures. The neuropathy may be either temporary or persist after treatment has been suspended. Oxaliplatin should not be taken by women who are pregnant and patients should not become pregnant while using this drug, as it may have harmful effects on the developing fetus. This drug may also have negative effects on fertility in the years following treatment. Low blood cell counts may result from oxaliplatin treatment which makes it necessary for blood tests to be done before each infusion. Also, patients should notify their doctors if any signs of infection appear, such as, fever, persistent diarrhea, or cough.¹

- ¹Eloxatin". Prescribing Information. Sanofi-synthelabo. October, 2015. [<http://www.eloxatin.com>]