

Irinotecan

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Brand name: Camptosar®

IUPAC: 2-chloro-N-(2-chloroethyl)-N-methylethanamine

FDA approval: Yes

[Manufacturer Link](#)

Usage:

Irinotecan is used most commonly to treat metastatic colorectal cancer, other colorectal cancers and non-small/small lung cancers. Irinotecan 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:

Irinotecan is a semisynthetic alkaloid extract, which works as a topoisomerase inhibitor to cause breaks in DNA. When these breaks in DNA remain unrepaired, apoptosis occurs, as well as a halt of DNA synthesis.¹

The 3D image above is the molecular structure of Irinotecan.

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

Side effects:

Common side effects include diarrhea and abdominal cramps, abnormal body temperature, fever, body aches, nausea and vomiting, fatigue, hair loss. Diarrhea can become life threatening due to dehydration if prolonged. Patients should receive medication for diarrhea and fluids should be given to avoid dehydration. Irinotecan may also cause bone marrow suppression which results in a decrease in the number of infection-fighting cells. This could result in severe infection. Patients receiving irinotecan should not become pregnant as it can cause harm to the unborn child. ¹

- ¹Irinotecan.. Prescribing Information. Pharmacia & Upjohn Company. April, 2016. [http://labeling.pfizer.com/ShowLabeling.aspx?id=533]