

Onivyde

(irinotecan liposomal dispersion)



New Product
Slideshow

MPR

Introduction

- **Brand name:** Onivyde
- **Generic name:** Irinotecan
- **Pharmacological class:** Topoisomerase inhibitor
- **Strength and Formulation:** 43mg/10mL; liposomal dispersion for IV use
- **Manufacturer:** Merrimack
- **How supplied:** Single-dose vial—1
- **Legal Classification:** Rx

ONIVYDE



Indications

- In combination with fluorouracil and leucovorin, for treatment of metastatic adenocarcinoma of the pancreas after disease progression following gemcitabine-based therapy
- **Limitations of use:** as a single agent, not for the treatment of metastatic adenocarcinoma of the pancreas

Dosage & Administration

- Do not substitute for other irinotecan HCl-containing drugs
- Give by IV infusion over 90 minutes prior to fluorouracil and leucovorin
- 70mg/m² every 2 weeks
- **If homozygous UGT1A1*28 allele:**
initially 50mg/m²; may increase to 70mg/m² as tolerated in subsequent cycles

Dosage & Administration

- If serum bilirubin >ULN: no dose recommended
- Premedicate with corticosteroid and antiemetic 30 mins prior to infusion
- Dose modifications: see full labeling

Considerations for Special Populations

- **Pregnancy:** Can cause fetal harm
- **Nursing mothers:** Not recommended (during and for 1 month after final dose)
- **Pediatric:** Not established
- **Geriatric:** No overall differences in safety and efficacy

Warnings/Precautions

- **Severe and life-threatening** neutropenia, neutropenic sepsis, diarrhea can occur
- **Monitor CBCs** on Days 1 and 8 of every cycle and more frequently if indicated; withhold if ANC $<1500/\text{mm}^3$ or neutropenic fever occurs; reduce dose in subsequent cycles for Grade 3–4 neutropenia or neutropenic fever after recovery

Warnings/Precautions

- **Bowel obstruction:** do not administer
- **Withhold** for Grade 2–4 diarrhea; initiate loperamide if late onset or atropine IV/SC (unless contraindicated) if early onset; resume at reduced dose after recovery to Grade 1
- **Withhold** if new or progressive dyspnea, cough, and fever occurs, pending evaluation; discontinue if interstitial lung disease confirmed

Warnings/Precautions

- **Permanently discontinue** if severe hypersensitivity reaction occurs
- **Females** of reproductive potential should use effective contraception during therapy and for 1 month after final dose; **males** should use condoms during and for 4 months after final dose

Interactions

- **Avoid** concomitant strong CYP3A4 inducers (eg, rifampin, phenytoin, carbamazepine, rifabutin, rifapentine, phenobarbital, St. John's wort) if possible; substitute non-enzyme inducing therapies at least 2 weeks before initiating irinotecan

Interactions

- **Avoid** concomitant strong CYP3A4 (eg, clarithromycin, indinavir, itraconazole, lopinavir, nefazodone, nelfinavir, ritonavir, saquinavir, telaprevir, voriconazole) or UGT1A1 inhibitors (eg, atazanavir, gemfibrozil, indinavir) if possible; discontinue CYP3A inhibitors at least 1 week before initiating irinotecan

Adverse Reactions

- Diarrhea
- Fatigue/asthenia
- Vomiting
- Nausea
- Decreased appetite
- Stomatitis
- Pyrexia
- Neutropenic fever or sepsis
- Dehydration
- Septic shock
- Pneumonia
- Acute renal failure
- Thrombocytopenia

Mechanism of Action

- Onivyde is a topoisomerase inhibitor encapsulated in a lipid bilayer vesicle or liposome
- Irinotecan and its active metabolite bind reversibly to the topoisomerase 1-DNA complex and prevent re-ligation of the single-strand breaks, leading to exposure time-dependent double-strand DNA damage and cell death

Clinical Trials

- Onivyde was studied in a 3-arm, randomized, open-label trial in patients with metastatic pancreatic adenocarcinoma with documented disease progression after gemcitabine or gemcitabine-based therapy
- Patients were randomized to Onivyde plus 5-FU/ leucovorin (LV), Onivyde, or 5-FU/LV

Clinical Trials

- The major efficacy outcome was **overall survival (OS)**
- Other outcome measures included progression-free survival (PFS) and objective response rate (ORR)
- Tumor status was assessed at baseline and every 6 weeks thereafter
- **Study 1** showed a statistically significant improvement in overall survival for the Onivyde plus 5-FU/LV arm vs. the 5-FU/LV arm (6.1 vs. 4.2 months)

Clinical Trials

- Median PFS was also higher in the Onivyde plus 5-FU/LV arm vs. the 5-FU/LV arm (3.1 vs. 1.5 months)
- There was no improvement in OS for the Onivyde arm over the 5-FU/LV arm (HR 1.00; $P=0.97$)
- For more clinical trial data, see full labeling

New Product Monograph

- For more information view the complete product monograph available at:

<http://www.empr.com/onivyde/drugproduct/410/>