OXALIPLATIN

Indications/Uses

Listed in Dosage.

Dosage/Direction for Use

Adult : IV Adjuvant therapy in stage III colon cancer Combined w/ fluorouracil (FU)/folinic acid (FA): 85 mg/m2 every 2 wk, given over 2-6 hr for 12 cycles. Dose may be reduced to 75 mg/m2, according to tolerability. Metastatic colorectal cancer Combined w/ FU/FA: 85 mg/m2 every 2 wk, given over 2-6 hr for 12 cycles. Dose may be reduced to 65 mg/m2, according to tolerability.

Dosage Details

Intravenous

Metastatic colorectal cancer

Adult: Combination therapy w/ FU/FA: 85 mg/m2 every 2 wk, given via infusion over 2-6 hr for 12 cycles. Dose may be reduced to 65 mg/m2, according to tolerability.

Intravenous

Adjuvant therapy in stage III colon cancer

Adult: Combination therapy w/ fluorouracil (FU)/folinic acid (FA): 85 mg/m2 every 2 wk, given via infusion over 2-6 hr for 12 cycles. Dose may be reduced to 75 mg/m2, according to tolerability.

Renal Impairment

CrCl (mL/min)	Dosage Recommendation
<30	Contraindicated.

Reconstitution

Dilute the required dose w/ 250-500 mL of dextrose 5% in water, to provide a soln containing 0.2-0.7 mg/mL.

Incompatibility

Incompatible w/ Cl-containing solutions. Alkaline agents or soln (e.g. 5-FU, trometamol) negatively affect the stability. Needles and IV admin sets containing Al can cause degradation of platinum compd.

Contraindications

Hypersensitivity to oxaliplatin and other platinum agents. Myelosuppression, peripheral sensory neuropathy w/ functional impairment, congenital long QT prolongation. Severe renal impairment (CrCl <30 mL/min). Lactation. Concomitant use w/ live vaccines.

Special Precautions

Patient w/ history of or risk for QT prolongation, electrolyte disturbances. Pregnancy.

Adverse Reactions

Significant: QT prolongation, ventricular arrhythmias, hypersensitivity reactions (e.g. burning sensations, pruritus, erythema, rashes/urticaria, flushing, diaphoresis, diarrhoea, shortness of breath, chest pain, syncope, disorientation; rarely, bronchospasm, hypotension); hepatotoxicity (e.g. peliosis, nodular regenerative hyperplasia or sinusoidal alterations, perisinusoidal fibrosis, veno-occlusive lesions; rarely, hepatitis, hepatic failure, hepatic vascular disorder); peripheral sensory neuropathy; reversible posterior leukoencephalopathy syndrome; neurological toxicity (e.g. acute laryngopharyngeal dysaesthesia); pulmonary symptoms (e.g. non-productive cough, dyspnoea, crackles, radiological pulmonary infiltrates); extravasation; GI toxicity (e.g. nausea, vomiting, severe diarrhoea/emesis, ulcer); haematological toxicity (e.g. neutropenia, thrombocytopenia).

Nervous: Meningism, motor neuritis, depression, insomnia, fatigue, asthenia, rigors, dizziness, headache.

CV: DVT, haemorrhage, peripheral oedema, flushing, thromboembolism, HTN.

GI: Abdominal pain, constipation, anorexia, stomatitis, dyspepsia, flatulence, GERD, GI/rectal haemorrhage, dysgeusia, anorexia, mucositis, dysphagia.

Resp: Coughing, epistaxis, hiccups, pulmonary embolism, rhinitis, URTI.

Hepatic: Increased blood bilirubin, ALT/AST and alkaline phosphatase levels.

Genitourinary: Dysuria, abnormal micturition frequency, haematuria, increased creatinine.

Endocrine: Hyperglycaemia, wt gain/loss, increased blood lactate dehydrogenase.

Haematologic: Anaemia, leukopenia, lymphopenia.

Musculoskeletal: Arthralgia, back pain.

Ophthalmologic: Conjunctivitis, visual disturbance, abnormal lacrimation.

Dermatologic: Skin/nail disorder, alopecia, palmar-plantar erythrodysesthesia, exfoliation, hyperhidrosis.

Immunologic: Infection.

Others: Fever, hypocalcaemia, hypokalaemia, hypernatraemia, dehydration, inj site reactions (e.g. pain, redness, swelling and thrombosis).

Potentially Fatal: Anaphylaxis; bone marrow suppression (e.g. sepsis, neutropenic sepsis, septic shock); torsade de pointes; pulmonary fibrosis, interstitial lung disease; intestinal ischaemia, duodenal ulcer haemorrhage and perforation; haemolytic uraemic syndrome, disseminated intravascular coagulation; rhabdomyolysis.

Pregnancy Category (US FDA)

IV/Parenteral: D

Patient Counseling Information

This drug may cause dizziness, nausea, vomiting, vision abnormalities and other neurological symptoms that affect gait and balance, if affected, do not drive or operate machinery.

MonitoringParameters

Monitor CBC w/ differential, ALT/AST, bilirubin, creatinine, electrolyte, K, Mg levels. Monitor neurological status, QT interval, hypersensitivity, resp effects and toxicity.

Overdosage

Symptoms: Hypersensitivity reaction, myelosuppression, anaemia, neurotoxicity, grade 4 thrombocytopenia, sensory neuropathy (e.g. paraesthesia, dysaesthesia, laryngospasm and facial muscle spasms), GI disorders (e.g. nausea, vomiting, stomatitis, flatulence, enlarged abdomen, grade 4 intestinal obstruction), grade 4 dehydration, dyspnoea, wheezing, chest pain, resp failure, severe bradycardia. Management: Supportive treatment.

Drug Interactions

May enhance adverse effect of live vaccines.

Potentially Fatal: May diminish the therapeutic effect of vaccines. Increased risk of torsade de pointes w/ QT interval prolonging drugs.

Action

Description: Oxaliplatin is a platinum-containing antineoplastic drug which forms several transient reactive complexes including monoaquo and diaquo diaminocyclohexane platinum. These complexes covalently bind to DNA base sequences to form inter and intra-strand cross-links thereby inhibiting replication, transcription and cell division leading to cell death.

Pharmacokinetics:

Distribution: Volume of distribution: 440 L. Plasma protein binding: >90%, mainly to albumin and γ globulin.

Metabolism: Undergoes rapid and extensive nonenzymatic metabolism into inactive and active metabolites.

Excretion: Mainly via urine (approx 54%); faeces (approx 2%). Terminal elimination half-life: 391 hr.

Chemical Structure

Click on icon to see table/diagram/image

Storage

Store between 20-25°C. Do not freeze. Protect from light. Reconstituted soln: Store between 2-8°C for up to 24 hr.

This is a cytotoxic drug. Follow applicable procedures for receiving, handling, admin, and disposal. Any unused portions should be disposed of in accordance w/ local requirements.

MIMS Class

Cytotoxic Chemotherapy

ATC Classification

L01XA03 - oxaliplatin ; Belongs to the class of platinum-containing antineoplastic agents. Used in the treatment of cancer.