

# Taxedol®

Docetaxel

Concentrated solution for IV Infusion

## Description

Docetaxel is an antineoplastic agent that acts by disrupting the microtubular network in cells that is essential for mitotic and interphase cellular functions. Docetaxel binds to free tubulin and promotes the assembly of tubulin into stable microtubules while simultaneously inhibiting their disassembly. This leads to the production of microtubule bundles without normal function and to the stabilization of microtubules, which results in the inhibition of mitosis in cells. Docetaxel's binding to microtubules does not alter the number of protofilaments in the bound microtubules, a feature which differs from most spindle poisons currently in clinical use.

## Indication and usage

Docetaxel Injection is a microtubule inhibitor indicated for:

- Breast Cancer (BC): Single agent for locally advanced or metastatic BC after chemotherapy failure; and with doxorubicin and cyclophosphamide as adjuvant treatment of operable node-positive BC.
- Non-Small Cell Lung Cancer (NSCLC): Single agent for locally advanced or metastatic NSCLC after platinum therapy failure; and with cisplatin for unresectable, locally advanced or metastatic untreated NSCLC.
- Hormone Refractory Prostate Cancer (HRPC): With prednisone in androgen independent (hormone refractory) metastatic prostate cancer.
- Gastric Adenocarcinoma (GC): With cisplatin and fluorouracil for untreated, advanced GC, including the gastroesophageal junction.
- Squamous Cell Carcinoma of the Head and Neck Cancer (SCCHN): With cisplatin and fluorouracil for induction treatment of locally advanced SCCHN.

## Dosage & Administration

Administer in a facility equipped to manage possible complications (e.g., anaphylaxis). Administer intravenously over 1 hour every 3 weeks. PVC equipment is not recommended.

- BC locally advanced or metastatic: 60 mg/m<sup>2</sup> to 100 mg/m<sup>2</sup> single agent.
- BC adjuvant: 75 mg/m<sup>2</sup> administered 1 hour after doxorubicin 50 mg/m<sup>2</sup> and cyclophosphamide 500 mg/m<sup>2</sup> every 3 weeks for 6 cycles
- NSCLC: chemotherapy-naive: 75 mg/m<sup>2</sup> followed by cisplatin 75 mg/m<sup>2</sup>.
- HRPC: 75 mg/m<sup>2</sup> with 5 mg prednisone twice a day continuously.
- GC: 75 mg/m<sup>2</sup> followed by cisplatin 75 mg/m<sup>2</sup> (both on day 1 only) followed by fluorouracil 750 mg/m<sup>2</sup> per day as a 24-hr intravenous infusion (days 1-5), starting at end of cisplatin infusion.
- SCCHN: 75 mg/m<sup>2</sup> followed by cisplatin 75 mg/m<sup>2</sup> intravenously (day 1), followed by fluorouracil 750 mg/m<sup>2</sup> per day as a 24-hr intravenous infusion (days 1-5), starting at end of cisplatin infusion; for 4 cycles.
- SCCHN: 75 mg/m<sup>2</sup> followed by cisplatin 100 mg/m<sup>2</sup> intravenously (day 1), followed by fluorouracil 1000 mg/m<sup>2</sup> per day as a 24-hr intravenous infusion (days 1-4); for 3 cycles.
- For all patients: Premedicate with oral corticosteroids. Adjust dose as needed.

## Preparation for Intravenous Infusion

Taxedol® Injection (20 mg/ml & 80mg/4ml) requires no prior dilution with a diluent and is ready to add to the infusion solution.

- Aseptically withdraw the required amount of Taxedol® Injection solution (20 mg docetaxel/ml) with a calibrated syringe and inject (as

a single injection) into a 250 ml infusion bag or bottle of either 0.9% Sodium Chloride solution or 5% Dextrose solution to produce a final concentration of 0.3 to 0.74 mg/ml. If a dose greater than 200 mg of Taxedol® Injection is required, use a larger volume of the infusion vehicle so that a concentration of 0.74 mg/ml Taxedol® Injection is not exceeded.

- Thoroughly mix the infusion bag or bottle manually by gentle inversion and rotation in a controlled manner and avoid foaming. Shaking or vigorous agitation should be avoided during preparation and transportation to the patient for administration.
- As with all parenteral products, Taxedol® Injection should be inspected visually for particulate matter or discoloration prior to administration whenever the solution and container permit. If the Taxedol® Injection vial or diluted solution is not clear or appears to have precipitation, these should be discarded. The Taxedol® Injection diluted solution for infusion should be administered intravenously as a 1-hour infusion under ambient room temperature below 30°C (86°F) and lighting.

## Precautions

- **Acute myeloid leukemia:** In patients who received docetaxel, doxorubicin and cyclophosphamide, monitor for delayed myelodysplasia or myeloid leukemia.
- **Cutaneous reactions:** Reactions including erythema of the extremities with edema followed by desquamation may occur. Severe skin toxicity may require dose adjustment.
- **Neurologic reactions:** Reactions including paresthesia, dysesthesia, and pain may occur. Severe neurosensory symptoms require dose adjustment or discontinuation if persistent.
- **Asthenia:** Severe asthenia may occur and may require treatment discontinuation.
- **Pregnancy:** Fetal harm can occur when administered to a pregnant woman. Women of childbearing potential should be advised not to become pregnant when receiving Docetaxel Injection.

## Contraindications

- Docetaxel Injection is contraindicated in patients who have a history of severe hypersensitivity reactions to docetaxel.
- Docetaxel Injection should not be used in patients with neutrophil counts of <1500 cell/mm<sup>3</sup>.

## Side Effects

**Common:** Infections, neutropenia, anemia, febrile neutropenia, hypersensitivity, thrombocytopenia, neuropathy, dysgeusia, dyspnea, constipation, anorexia, nail disorders, fluid retention, asthenia, pain, nausea, diarrhoea, vomiting, mucositis, alopecia, skin reactions, myalgia.

**Rare:** Pulmonary edema, hypertension, fatal anaphylaxis.

## Use in Specific Population

- Pregnancy Category 'D'. Docetaxel Injection can cause fetal harm when administered to a pregnant woman.
- Nursing Mothers, it is not known whether docetaxel is excreted in human milk.
- Hepatic Impairment Patients with combined abnormalities of transaminases and alkaline phosphatase should not be treated with Docetaxel Injection.
- Pediatric Use, The safety and effectiveness of docetaxel in paediatric patients have not been established.

## Drug Interaction

Docetaxel is a CYP3A4 substrate. In vitro studies have shown that

the metabolism of docetaxel may be modified by the concomitant administration of compounds that induce, inhibit, or are metabolized by cytochrome P450 3A4. In vivo studies showed that the exposure of docetaxel increased 2.2-fold when it was co-administered with ketoconazole, a potent inhibitor of CYP3A4.

## Overdose

There is no known antidote for Docetaxel Injection over dosage. In case of over dosage, the patient should be kept in a specialized unit where vital functions can be closely monitored.

## Pharmaceutical Precautions

Keep in a dry place and store below 30° C. Protect from light and keep out of the reach of children. Do not freeze. Use only freshly prepared solution.

## Commercial Pack

Taxedol® 80 mg/4 ml concentrated solution for IV infusion: Each box contains one vial. Each vial of 4 ml contains Docetaxel USP 80 mg. Taxedol® 20 mg/ml concentrated solution for IV infusion: Each box contains one vial. Each vial of 1 ml contains Docetaxel USP 20 mg.



Manufactured by

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