

## **Taxol (paclitaxel)**

Effective Date: 10/22/13

Date Developed: 09/3/13 by Albert Reeves MD

Last Approval Date: 1/26/16, 1/24/17, 1/23/18,  
1/22/19, 2/18/20, 2/2/21, 8/3/21, 2/1/22, 1/31/23,  
2/13/24, 2/18/25

Paclitaxel is a plant-derived mitotic-inhibiting antineoplastic agent used in cancer chemotherapy. Taxol can distort mitotic spindles, resulting in the breakage of chromosomes. Paclitaxel may also suppress cell proliferation and modulate immune response.

### **Pre-Authorization Criteria:**

**Breast cancer:** Adjuvant treatment of node-positive breast cancer (as sequential therapy following anthracycline-containing combination chemotherapy); treatment of metastatic breast cancer after failure of combination chemotherapy (for metastatic disease) or relapse within 6 months of adjuvant chemotherapy (prior therapy should have included an anthracycline unless contraindicated).

**Kaposi sarcoma, AIDS-related:** Second-line treatment of AIDS-related Kaposi sarcoma.

**Non-small cell lung cancer:** First-line treatment of non-small cell lung cancer (in combination with cisplatin) in patients who are not candidates for potentially curative surgery and/or radiation therapy.

**Ovarian cancer, advanced:** Subsequent therapy for treatment of advanced ovarian cancer; first-line therapy of ovarian cancer (in combination with cisplatin).

### **Off-Label:**

Anal cancer, advanced; Bladder cancer, advanced or metastatic; Cervical cancer, advanced; Endometrial cancer, advanced or recurrent; Esophageal cancer, metastatic or unresectable locally advanced; Esophageal/esophagogastric cancer, preoperative chemoradiation; Gastric cancer, metastatic or unresectable locally advanced; Gestational trophoblastic neoplasia, high-risk, refractory; Head and neck cancers, advanced; Melanoma, advanced or metastatic; Penile cancer, metastatic; Small cell lung cancer, relapsed/refractory; Soft tissue sarcoma, angiosarcoma, advanced or unresectable; Testicular germ cell tumors, relapsed/refractory; Thymoma/thymic carcinoma, advanced; Thyroid cancer, anaplastic;

Unknown primary adenocarcinoma

**Adult Dosing** (should be prescribed by an Oncologist):

**NOTE:** The manufacturers recommend premedication with dexamethasone (20 mg orally at 12 and 6 hours prior to paclitaxel [reduce dexamethasone dose to 10 mg orally with advanced HIV disease]), diphenhydramine (50 mg IV 30 to 60 minutes prior to paclitaxel), and cimetidine or famotidine (IV 30 to 60 minutes prior to paclitaxel).

**Ovarian carcinoma:**

I.V.: 135-175 mg/m<sup>2</sup> over 3 hours every 3  
weeks **or** 135 mg/m<sup>2</sup> over 24 hours every  
3 (in combination with cisplatin)

**Metastatic breast cancer:** I.V.: 175-250 mg/m<sup>2</sup> over 3 hours every 3 weeks

**Breast cancer, adjuvant treatment: IV:** 175 mg/m<sup>2</sup> over 3 hours every 3 weeks for 4 cycles (administer sequentially following an anthracycline-containing regimen).

**Non-small cell lung carcinoma:** I.V.: 135 mg/m<sup>2</sup> over 24 hours every 3 weeks (in combination with cisplatin)

**AIDS-related Kaposi's sarcoma:** I.V.: 135 mg/m<sup>2</sup> over 3 hours every 3 weeks  
**or** 100 mg/m<sup>2</sup> over 3 hours every 2 weeks

**ADVERSE REACTIONS:** edema, alopecia, nausea and vomiting, diarrhea, stomatitis, bone marrow suppression, peripheral neuropathy

**ALERT- US Boxed Warning:**

Paclitaxel should be administered under the supervision of a health care provider experienced in the use of cancer chemotherapeutic agents. Anaphylaxis and severe hypersensitivity reactions have occurred in 2% to 4% of patients. Should not be given to patients with solid tumors who have baseline neutrophil counts of less than 1,500 cells/mm<sup>3</sup> or to patients with AIDS-related Kaposi sarcoma if the baseline neutrophil count is less than 1,000 cells/mm<sup>3</sup>.

**DRUG INTERACTIONS:** There are several potential drug interactions (e.g. other antineoplastic agents, clozapine, CYP2C8 AND CYP3A4 effects, numerous herbs, etc). Refer to product information for complete listing.

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**Revision History:**

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1/24/17	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
1/23/18	No	Catherine Sanders, MD; Robert Sterling, MD	Annual review
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2/13/24	No	Howard Taekman, MD; Robert Sterling, MD	Annual review
2/18/25	Yes	Howard Taekman, MD; Robert Sterling, MD	Modified preauthorization criteria and dosing section. Added Off Label and Adverse reaction information. Reference updated