

Prior Authorization DRUG Guidelines

Docetaxel (Docefrez™; Taxotere®)

Effective Date: 1/31/12

Date Developed: 12/20/11 by Albert Reeves MD

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(Archived 1/22/19)

Docetaxel is an Antineoplastic Agent, Antimicrotubular; Antineoplastic Agent, Natural Source (Plant) Derivative; Antineoplastic Agent, Taxane Derivative

Pre-Authorization Criteria: treatment of breast cancer (locally advanced/metastatic) after prior chemotherapy failure; treatment of locally advanced or metastatic non–small cell lung cancer (NSCLC); treatment of hormone-refractory metastatic prostate cancer; advanced gastric adenocarcinoma; locally advanced squamous cell head and neck cancer

Off-Label: bladder cancer, metastatic (single-agent); esophageal cancer, locally-advanced or metastatic disease; Ewing sarcoma, osteosarcoma (recurrent or progressive); ovarian cancer; small cell lung cancer, relapsed; soft tissue sarcoma; unknown-primary, adenocarcinoma; cervical cancer (recurrent)

Note: VCHCP requires that Docetaxel be prescribed by an Oncologist.

Dosing: Adult

Note: Premedicate with corticosteroids, beginning the day before docetaxel administration, (administer corticosteroids for 3 days) to reduce the severity of hypersensitivity reactions and fluid retention. Details concerning dosing in combination regimens should also be consulted.

Breast cancer: I.V.:

Locally-advanced or metastatic: 60-100 mg/m² every 3 weeks (as a single agent)

Operable, node-positive (adjuvant treatment): 75 mg/m² every 3 weeks for 6 courses (in combination with doxorubicin and cyclophosphamide)

Weekly administration (unlabeled dosing): 40 mg/m²/dose once a week (as a single agent) for 6 weeks followed by a 2-week rest, repeat until disease progression or unacceptable toxicity (Burstein, 2000) **or** 35 mg/m²/dose once a week (in combination with trastuzumab) for 3 weeks followed by a 1-week rest; repeat until disease progression or unacceptable toxicity (Esteva, 2002)

Nonsmall cell lung cancer: I.V.: 75 mg/m² every 3 weeks (as monotherapy or in combination with cisplatin)

Prostate cancer: I.V.: 75 mg/m² every 3 weeks (in combination with prednisone)

Gastric adenocarcinoma: I.V.: 75 mg/m² every 3 weeks (in combination with cisplatin and fluorouracil)

Head and neck cancer: I.V.: 75 mg/m² every 3 weeks (in combination with cisplatin and fluorouracil) for 3 or 4 cycles, followed by radiation therapy

Bladder cancer, metastatic (unlabeled use): I.V.: 100 mg/m² every 3 weeks (as a single agent) (McCaffrey, 1997)

Esophageal cancer (unlabeled use): I.V.: 75 mg/m² every 3 weeks (in combination with cisplatin and fluorouracil) (Ajani, 2007; Van Cutsem, 2006)

Ovarian cancer (unlabeled use): I.V.: 60 mg/m² every 3 weeks (in combination with carboplatin) (Markman, 2001) **or** 75 mg/m² every 3 weeks (in combination with carboplatin) (Vasey, 2004) **or** 35 mg/m² (maximum dose: 70 mg) weekly for

3 weeks followed by a 1-week rest (in combination with carboplatin) (Kushner, 2007)

Soft tissue sarcoma (unlabeled use): I.V.: 100 mg/m² on day 8 of a 3-week treatment cycle (in combination with gemcitabine and filgrastim or pegfilgrastim) (Leu, 2004; Maki, 2007)

Unknown-primary, adenocarcinoma (unlabeled use): I.V.: 65 mg/m² every 3 weeks (in combination with carboplatin) (Greco, 2000) **or** 75 mg/m² on day 8 of a 3-week treatment cycle (in combination with gemcitabine) (Pouessel, 2004)

Dosing adjustment for concomitant CYP3A4 inhibitors: Avoid the concomitant use of strong CYP3A4 inhibitors with docetaxel. If concomitant use of a strong CYP3A4 inhibitor cannot be avoided, consider reducing the docetaxel dose by 50% (based on limited pharmacokinetic data).

Dosing: Geriatric

Refer to adult dosing.

Dosage Forms: U.S.

Excipient information presented when available (limited, particularly for generics); consult specific product labeling.

Injection, powder for reconstitution:

Docefrez™: 20 mg, 80 mg [contains ethanol (in diluent), polysorbate 80 (in diluent); supplied with diluent]

Injection, solution: 10 mg/mL (2 mL, 8 mL, 16 mL)

Injection, solution [concentrate]:

Taxotere®: 20 mg/mL (1 mL, 4 mL) [contains dehydrated ethanol 0.395 g/mL, polysorbate 80]

Taxotere®: 20 mg/0.5 mL (0.5 mL [DSC], 2 mL [DSC]) [contains ethanol (in diluent), polysorbate 80]

Administration

Administer I.V. infusion over 1-hour through nonsorbing polyethylene lined (non-DEHP) tubing; in-line filter is not necessary (the use of a filter during administration is not recommended by the manufacturer). Infusion should be completed within 4 hours of final preparation. **Note:** Premedication with corticosteroids for 3 days, beginning the day before docetaxel administration, is recommended to prevent hypersensitivity reactions and fluid retention (see Additional Information or Pharmacotherapy Pearls).

WARNINGS / PRECAUTIONS

Concerns related to adverse effects:

Bone marrow suppression: **[U.S. Boxed Warning]: Patients with an absolute neutrophil count $<1500/\text{mm}^3$ should not receive docetaxel.** Platelets should recover to $>100,000/\text{mm}^3$ prior to treatment. The dose-limiting toxicity is neutropenia. Patients with increased liver function tests experienced more episodes of neutropenia with a greater number of severe infections. When administered as sequential infusions, taxane derivatives (docetaxel, paclitaxel) should be administered before platinum derivatives (carboplatin, cisplatin) to limit myelosuppression and to enhance efficacy.

Cutaneous reactions: Cutaneous reactions, including erythema (with edema) and desquamation, have been reported; may require dose reduction.

Fluid retention: **[U.S. Boxed Warning]: Severe fluid retention, characterized by pleural effusion (requiring immediate drainage), ascites, peripheral edema (poorly tolerated), dyspnea at rest, cardiac tamponade, and weight**

gain (2-15 kg) has been reported. The incidence and severity of fluid retention increases sharply at cumulative doses ≥ 400 mg/m². Patients should be premedicated with a corticosteroid (starting 1 day prior to administration) to prevent or reduce the severity of fluid retention. Closely monitor patients with existing effusions.

Hypersensitivity reactions: **[U.S. Boxed Warning]: Severe hypersensitivity reactions, characterized by generalized rash/erythema, hypotension, bronchospasms, or anaphylaxis may occur; do not administer to patients with a history of severe hypersensitivity to docetaxel or polysorbate 80.** Minor reactions including flushing or localized skin reactions may also occur. Observe for hypersensitivity, especially with the first 2 infusions. Discontinue for severe reactions; do not rechallenge if severe. Patients should be premedicated with a corticosteroid (starting 1 day prior to administration) to prevent or reduce the severity of hypersensitivity reactions.

Neurosensory symptoms: Dosage adjustment is recommended with severe neurosensory symptoms (paresthesia, dysesthesia, pain); persistent symptoms may require discontinuation. Reversal of symptoms may be delayed after discontinuation.

Secondary malignancies: Treatment-related acute myeloid leukemia or myelodysplasia occurred in patients receiving docetaxel in combination with anthracyclines and/or cyclophosphamide.

Treatment-related mortality: **[U.S. Boxed Warning]: Patients with abnormal liver function, those receiving higher doses, and patients with nonsmall cell lung cancer and a history of prior treatment with platinum derivatives who receive single-agent docetaxel at a dose of 100 mg/m² are at higher risk for treatment-related mortality.**

Weakness: Fatigue and weakness (may be severe) have been reported; symptoms may last a few days up to several weeks. In patients with progressive disease, weakness may be associated with a decrease in performance status.

Disease-related concerns:

Hepatic impairment: **[U.S. Boxed Warning]: Avoid use in patients with bilirubin exceeding upper limit of normal (ULN) or AST and/or ALT >1.5 times ULN in conjunction with alkaline phosphatase >2.5 times ULN.** Patients with abnormal liver function are at increased risk of treatment-related adverse events, including grade 4 neutropenia, neutropenic fever, infections, and severe thrombocytopenia, stomatitis, skin toxicity or toxic death. Obtain liver function tests prior to each treatment cycle.

DRUG Interactions

Antifungal Agents (Azole Derivatives, Systemic): May decrease the metabolism of DOCEtaxel. *Risk D: Consider therapy modification*

Antineoplastic Agents (Anthracycline): Taxane Derivatives may enhance the adverse/toxic effect of Antineoplastic Agents (Anthracycline). Taxane Derivatives may increase the serum concentration of Antineoplastic Agents (Anthracycline). Taxane Derivatives may also increase the formation of toxic anthracycline metabolites in heart tissue. *Risk D: Consider therapy modification*

BCG: Immunosuppressants may diminish the therapeutic effect of BCG. *Risk X: Avoid combination*

Coccidioidin Skin Test: Immunosuppressants may diminish the diagnostic effect of Coccidioidin Skin Test. *Risk C: Monitor therapy*

Conivaptan: May increase the serum concentration of CYP3A4 Substrates. *Risk X: Avoid combination*

CYP3A4 Inducers (Strong): May increase the metabolism of CYP3A4 Substrates.
Risk C: Monitor therapy

CYP3A4 Inhibitors (Moderate): May decrease the metabolism of CYP3A4 Substrates. *Risk C: Monitor therapy*

CYP3A4 Inhibitors (Strong): May decrease the metabolism of CYP3A4 Substrates. *Risk D: Consider therapy modification*

Dasatinib: May increase the serum concentration of CYP3A4 Substrates. *Risk C: Monitor therapy*

Deferasirox: May decrease the serum concentration of CYP3A4 Substrates. *Risk C: Monitor therapy*

Denosumab: May enhance the adverse/toxic effect of Immunosuppressants. Specifically, the risk for serious infections may be increased. *Risk C: Monitor therapy*

Dronedarone: May increase the serum concentration of DOCEtaxel.
Management: Avoid this combination whenever possible. If this combination must be used, consider using a reduced docetaxel dose, and/or increase monitoring for evidence of serious docetaxel toxicity (e.g., neutropenia, mucositis, etc.). *Risk D: Consider therapy modification*

Echinacea: May diminish the therapeutic effect of Immunosuppressants. *Risk D: Consider therapy modification*

Leflunomide: Immunosuppressants may enhance the adverse/toxic effect of Leflunomide. Specifically, the risk for hematologic toxicity such as pancytopenia, agranulocytosis, and/or thrombocytopenia may be increased. Management: Consider not using a leflunomide loading dose in patients receiving other immunosuppressants. Patients receiving both leflunomide and another

immunosuppressant should be monitored for bone marrow suppression at least monthly. *Risk D: Consider therapy modification*

Natalizumab: Immunosuppressants may enhance the adverse/toxic effect of Natalizumab. Specifically, the risk of concurrent infection may be increased. *Risk X: Avoid combination*

P-glycoprotein/ABCB1 Inducers: May decrease the serum concentration of P-glycoprotein/ABCB1 Substrates. P-glycoprotein inducers may also further limit the distribution of p-glycoprotein substrates to specific cells/tissues/organs where p-glycoprotein is present in large amounts (e.g., brain, T-lymphocytes, testes, etc.). *Risk C: Monitor therapy*

P-glycoprotein/ABCB1 Inhibitors: P-glycoprotein/ABCB1 Substrates may increase the serum concentration of P-glycoprotein/ABCB1 Inhibitors. P-glycoprotein inhibitors may also enhance the distribution of p-glycoprotein substrates to specific cells/tissues/organs where p-glycoprotein is present in large amounts (e.g., brain, T-lymphocytes, testes, etc.). *Risk C: Monitor therapy*

Pimecrolimus: May enhance the adverse/toxic effect of Immunosuppressants. *Risk X: Avoid combination*

Platinum Derivatives: May enhance the myelosuppressive effect of Taxane Derivatives. Administer Taxane derivative before Platinum derivative when given as sequential infusions to limit toxicity. *Risk D: Consider therapy modification*

Roflumilast: May enhance the immunosuppressive effect of Immunosuppressants. *Risk D: Consider therapy modification*

Sipuleucel-T: Immunosuppressants may diminish the therapeutic effect of Sipuleucel-T. *Risk C: Monitor therapy*

SORafenib: May increase the serum concentration of DOCEtaxel. *Risk C: Monitor therapy*

Tacrolimus (Topical): May enhance the adverse/toxic effect of Immunosuppressants. *Risk X: Avoid combination*

Tocilizumab: May decrease the serum concentration of CYP3A4 Substrates. *Risk C: Monitor therapy*

Trastuzumab: May enhance the neutropenic effect of Immunosuppressants. *Risk C: Monitor therapy*

Vaccines (Inactivated): Immunosuppressants may diminish the therapeutic effect of Vaccines (Inactivated). *Risk C: Monitor therapy*

Vaccines (Live): Immunosuppressants may enhance the adverse/toxic effect of Vaccines (Live). Vaccinial infections may develop. Immunosuppressants may diminish the therapeutic effect of Vaccines (Live). Management: Avoid use of live organism vaccines with immunosuppressants; live-attenuated vaccines should not be given for at least 3 months after immunosuppressants. *Risk X: Avoid combination*

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