



# CIGNA HEALTHCARE COVERAGE POSITION

**Subject Paclitaxel Protein-Bound Particles  
(Abraxane®)**

**Effective Date ..... 2/15/2006**  
**Coverage Position Number ..... 6101**

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## Related Coverage Positions

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### INSTRUCTIONS FOR USE

Coverage Positions are intended to supplement certain standard CIGNA HealthCare benefit plans. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Positions are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Position. In the event of a conflict, a participant's benefit plan document always supercedes the information in the Coverage Positions. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Positions and; 4) the specific facts of the particular situation. Coverage Positions relate exclusively to the administration of health benefit plans. Coverage Positions are not recommendations for treatment and should never be used as treatment guidelines. ©2006 CIGNA Health Corporation

## Coverage Position

**CIGNA HealthCare covers paclitaxel protein-bound particles (Abraxane®) as medically necessary when BOTH of the following indications are met:**

- Treatment is for breast cancer after failure of combination chemotherapy for metastatic disease or relapse within six months of adjuvant chemotherapy.
- Prior therapy should have included an anthracycline (like doxorubicin or epirubicin) unless clinically contraindicated.

## General Background

Abraxane is an albumin-bound nanoparticle formulation of paclitaxel (Taxol) which is currently used for the treatment of metastatic breast cancer. Abraxane is the first approval for the group of drugs called protein-bound particle drugs. These drugs are free of toxic solvents which may cause problems with the administration of chemotherapy drugs.

Abraxane promotes the assembly of microtubules from tubulin dimers and stabilizes microtubules by preventing depolymerization. This stability results in the inhibition of the normal dynamic reorganization of the microtubule network that is essential for vital interphase and mitotic cellular functions. Paclitaxel, the active ingredient in Abraxane, induces abnormal arrays or "bundles" of microtubules throughout the cell cycle and multiple asters of microtubules during mitosis.

The pharmacokinetic data of 260 mg/m<sup>2</sup> Abraxane administered over 30 minutes was compared to the pharmacokinetics of a 175 mg/m<sup>2</sup> paclitaxel injection over three hours. The clearance (43%) and the

volume of distribution (53%) of Abraxane were greater than for the clearance and volume of distribution of paclitaxel injection. There were no differences in terminal half-lives.

The U.S. Food and Drug Administration (FDA) approval for Abraxane was based on a randomized, multicenter phase III trial evaluating abraxane versus standard paclitaxel among 460 patients with metastatic breast cancer. This study directly compared the efficacy of abraxane 260 mg/m<sup>2</sup> versus paclitaxel 175 mg/m<sup>2</sup>. Both agents were administered every three weeks. Abraxane was administered as a 30-minute infusion without steroid pretreatment. Paclitaxel-treated patients received steroid pretreatment and the drug was administered over three hours, which is the standard dose regimen for paclitaxel. Patients treated with Abraxane had a statistically significantly higher reconciled target lesion response rate (the trial primary endpoint) of 21.5%, compared to 11.1% for patients treated with paclitaxel injection (p=0.003).

Abraxane is also being evaluated for the treatment of non-small cell lung cancer, ovarian cancer, melanoma and cervical cancers. Various other phase I/II trials have also been conducted in other solid tumours, including squamous cell cancer of the head and neck, and pelvis. Phase I trials have also been conducted in patients with solid tumors to evaluate the administration of Araxane on a weekly schedule. In addition to the standard infusion formulation of Abraxane, oral and pulmonary delivery formulations are also being investigated and explored.

Abraxane should not be administered to patients with baseline neutrophil counts of < 1,500 cells/mm<sup>3</sup>. Therefore, patients' blood counts must be frequently monitored during Abraxane treatment. Patients should not be retreated with subsequent cycles of Abraxane until neutrophils recover to a level > 1,500 cells/mm<sup>3</sup> and platelets recover to a level > 100,000 cells/mm<sup>3</sup>.

The most common adverse events reported include neutropenia, anemia, infections, peripheral neuropathy, nausea, vomiting, diarrhea, myalgias, arthralgias and mucositis. Other adverse reactions included asthenia, ocular/visual disturbances, fluid retention, alopecia and renal dysfunction.

The recommended dose for Abraxane is 260 mg/m<sup>2</sup> administered intravenously over 30 minutes every three weeks. The appropriate dose of Abraxane for patients with bilirubin greater than 1.5 mg/dL is not known. Dose reduction is recommended for the following conditions:

- Patients who experience severe neutropenia (neutrophil <500 cells/mm<sup>3</sup> for a week or longer) or severe sensory neuropathy during Abraxane therapy should have dosage reduced to 220 mg/m<sup>2</sup> for subsequent courses of Abraxane.
- With recurrence of severe neutropenia or severe sensory neuropathy, an additional dose reduction should be made to 180 mg/m<sup>2</sup>.
- For grade 3 sensory neuropathy, hold treatment until resolution to grade 1 or 2, followed by a dose reduction for all subsequent courses of Abraxane.

Abraxane is a step forward in the treatment of breast cancer. Abraxane, consisting only of albumin-bound paclitaxel nanoparticles, is free of toxic solvents and demonstrated a superior response rate with an almost doubling of the reconciled target lesion response rate when compared with the solvent-based Taxol. Because it contains no toxic solvents, this next-generation product enables the administration of 50% more chemotherapy with a well-tolerated safety profile, requires no pre-medication to prevent hypersensitivity reactions, and can be given over 30 minutes using standard intravenous (IV) tubing.

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## Coding/Billing Information

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**Note:** This list of codes may not be all-inclusive.

**Covered when medically necessary:**

CPT®* Codes	Description

HCPCS Codes	Description

ICD-9-CM Diagnosis Codes	Description

**Experimental/Investigational/Unproven/Not Covered:**

CPT* Codes	Description

HCPCS Codes	Description

ICD-9-CM Diagnosis Codes	Description

\*Current Procedural Terminology (CPT®) © 2005 American Medical Association: Chicago, IL.

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## References

1. Abraxis Oncology: Division of American Pharmaceutical Partners, Inc. Abraxane for injectable suspension (paclitaxel protein-bound particles for injectable suspension) package insert. Schaumburg, IL: Abraxis Oncology: Division of American Pharmaceutical Partners, Inc.; 2005.
2. McEvoy, GK, ed. AHFS Drug Information (2005). Bethesda, MD: American Society of Health System Pharmacists, Inc; 2005.
3. USPDI, Drug Information for the Health Care Professional. 25<sup>th</sup> ed. Greenwood Village, CO: Micromedex Thomson Healthcare; 2005.