

## CARBOPLATIN

10 mg/mL Solution for Intravenous Infusion



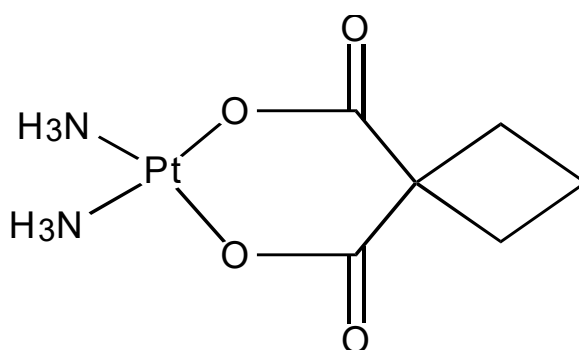
### 1.0 PHARMACOLOGIC CATEGORY

Antineoplastic agent

### 2.0 DESCRIPTION

Carboplatin is a sterile solution of carboplatin in Water for Injections. It is a clear, colorless or slightly yellow solution free from particulates and is presented in vial 45 mL of 10 milligrams/mL carboplatin. The solution does not contain any preservatives. The pH of the injection ranges between 4.0 to 7.0.

The chemical structure of Carboplatin is shown below:



The CAS registry number of Carboplatin is 41575-94-4.

### 3.0 FORMULATION/COMPOSITION

Each vial contains a sterile solution of 10 mg of Carboplatin in Water for Injections to make 45 mL Solution. The product does not contain preservatives.

### 4.0 CLINICAL PARTICULARS

#### 4.1 Therapeutic Indications

Carboplatin is indicated in the treatment of:

- advanced stage ovarian cancer of epithelial origin
- small cell lung carcinoma
- carcinoma of the head and neck
- carcinoma of the testis
- pediatric cerebral tumors
- soft tissue sarcoma
- neuroblastoma.

#### 4.2 Dosage and Method of Administration

## Dosage

**Adult:** The recommended dose of carboplatin in previously untreated adults with normal renal function is 400 milligrams/m<sup>2</sup> given as a single intravenous infusion over 15 to 60 minutes. Therapy should not be repeated until four weeks after the previous carboplatin course.

It is recommended that according to clinical circumstances the initial dosage may require reduction by 20 to 25% in patients with risk factors such as increasing age, previous myelosuppressive therapy and poor performance status.

Dosage modification may be required when carboplatin is used in combination with other myelosuppressive drugs or radiation therapy, to minimize additive myelosuppressive effects.

Determination of hematologic nadir by weekly blood counts during initial courses is recommended for future dosage adjustment and scheduling of carboplatin.

## Dosage adjustment

### *Renal impairment*

In patients with initial impaired renal function reduction of dosage of carboplatin may be required. Hematological nadirs and renal function should be monitored in these circumstances.

A suggested dosage schedule in patients with impaired renal function based on creatinine clearance is as follows:

<b>Creatinine Clearance</b>	<b>Dose of Carboplatin</b>
> 40 mL/min	400 milligrams/m <sup>2</sup>
20 – 39 mL/min	250 milligrams/m <sup>2</sup>
0 - 19 mL/min	150 milligrams/m <sup>2</sup>

### *Children*

Sufficient usage of carboplatin in pediatrics has not occurred to allow specific dosage recommendations to be made. Physicians are advised to refer to recently published literature for information on the current dosing regimens for particular tumors.

## Method of Administration

### *Preparation of Carboplatin solution*

Equipment containing aluminum components should be avoided (see Section 4.4 **Special Warnings and Precautions for Use**).

Carboplatin Injection is a ready to use solution containing 10 milligrams/mL carboplatin in Water for Injections.

The injections may be further diluted in 5% glucose intravenous infusion. To reduce microbiological hazard, use as soon as practicable after preparation. If storage is necessary, hold at 2-8°C for not more than 24 hours.

**Contains no antimicrobial agent. Product is for single use in one patient only. Discard any residue.**

These products contain no antimicrobial agent. However, in order to reduce microbiological contamination hazard, infusion should be commenced as soon as practicable after preparation. Infusion should be completed within 24 hours of preparation and any residue discarded.

### **Compatibilities**

Carboplatin has been found to be stable for 24 hours when admixed with 5% glucose in water.

### **4.3 Contraindications**

Carboplatin is contraindicated in patients with the following conditions:

- Severe myelosuppression.
- Pre-existing severe renal impairment; dose adjustment may allow use in the presence of mild renal impairment (see Section **4.2 Dosage and Method of Administration**).
- History of severe allergic reactions to carboplatin, other platinum-containing compounds (e.g., cisplatin) or mannitol.
- Severe bleeding.
- Pregnancy or lactation.

### **4.4 Special Warnings and Precautions for Use**

Carboplatin should only be administered to patients under the supervision of a qualified physician who is experienced in the use of chemotherapeutic agents. Diagnostic and treatment facilities should be readily available for appropriate management of therapy and possible complications, particularly in the case of administration of high drug dosages.

Carboplatin is a highly toxic drug with a narrow therapeutic index and a therapeutic effect is unlikely to occur without some evidence of toxicity.

### **Bone Marrow Function**

Carboplatin should be administered with caution to patients with significant bleeding or with bone marrow depression.

Bone marrow suppression (leucopenia, neutropenia and thrombocytopenia) is dose dependent and is the dose-limiting toxicity of carboplatin. Although at the recommended drug doses, the hematologic toxicity of carboplatin is usually moderate and reversible, severe myelosuppression (especially thrombocytopenia) may occur in patients with renal impairment and in patients who are concurrently receiving (or have received) other myelosuppressive drugs or radiation therapy.

Peripheral blood counts and renal function should be monitored closely. Blood counts should be performed prior to commencement of carboplatin therapy and weekly thereafter. Aside from monitoring toxicity, this practice will help determine the nadir and recovery of the hematological parameters and assist in subsequent dose adjustments. Lowest levels in white cells and platelets are generally seen between days 14 and 28, and days 14 and 21 respectively

after initial therapy. A greater reduction in platelets is seen in patients who previously received extensive myelosuppressive chemotherapy than non-treated patients. White blood cell counts less than  $2 \times 10^9$  cells/L (2,000 cells/mm<sup>3</sup>) or platelets less than  $50 \times 10^9$  cells/L (50,000 cells/mm<sup>3</sup>) should cause consideration of postponement of carboplatin therapy until bone marrow recovery is evident, which is usually 5 to 6 weeks. Transfusions may be required.

The occurrence, severity and protraction of toxicity are likely to be greater in patients who have received extensive prior treatment for their disease, have poor performance status and who are more advanced in age. Dosage reduction may be necessary in cases of severe toxicity. Treatment of severe hematologic toxicity may consist of supportive care, anti-infective agents for complicating infections, transfusions of blood products, autologous bone marrow rescue, peripheral stem cell transplantation and hematopoietic agents (colony-stimulating factors).

Carboplatin courses should not, in general, be repeated more frequently than every four weeks in order to ensure that the nadir in blood counts has occurred and that there has been recovery to a satisfactory level.

### **Hypersensitivity Reactions**

Hypersensitivity and anaphylactic reactions to carboplatin have been reported. These allergic reactions have been similar in nature and severity to those reported with other platinum containing compounds. Symptoms include rash, urticaria, erythema, pruritus, bronchospasm and hypotension. Patients should be monitored for possible anaphylactoid reactions and appropriate equipment and medication should be readily available to treat such reactions (e.g., antihistamines, corticosteroids, adrenaline (epinephrine), oxygen) whenever carboplatin is administered.

### **Central Nervous System (CNS)/Hearing Functions**

Neurotoxicity, such as paresthesias and decreased deep tendon reflexes, and ototoxicity are more likely to be seen in patients who have received cisplatin previously. Routine neurologic examination is advisable during carboplatin therapy, particularly in patients previously treated with cisplatin and in patients over 65 years of age. Ototoxicity is cumulative. The frequency and severity of hearing disorder increases with high dose regimens and repeated doses, or prior treatment with cisplatin (as cisplatin is also ototoxic). Assessment of hearing should be performed prior to initiating therapy and regularly during treatment or when auditory symptoms occur. Clinically important deterioration of auditive function may require dosage modifications or discontinuation of therapy. The risk of ototoxicity may be increased by concomitant administration of other ototoxic drugs (e.g., aminoglycosides) (see Section **4.5 Interaction with Other Medicinal Products and Other Forms of Interaction**).

Delayed onset hearing loss has been reported in pediatric patients. Long-term audiometric follow-up in this population is recommended.

### **Reversible Posterior Leukoencephalopathy Syndrome (RPLS)**

Cases of RPLS have been reported in patients receiving carboplatin in combination chemotherapy. RPLS is a rare, reversible after treatment discontinuation, rapidly evolving neurological condition, which can include seizure, hypertension, headache, confusion, blindness, and other visual and neurological disturbances. Diagnosis of RPLS is based upon confirmation by brain imaging, preferably MRI.

## **Blood and Lymphatic System Disorders**

Hemolytic anemia with the presence of serologic drug-induced antibodies has been reported in patients treated with carboplatin. This event can be fatal.

Hemolytic-uremic syndrome (HUS) is a potentially life-threatening side effect. Carboplatin should be discontinued at the first sign of any evidence of microangiopathic hemolytic anemia, such as rapidly falling hemoglobin with concomitant thrombocytopenia, elevation of serum bilirubin, serum creatinine, blood urea nitrogen, or lactate dehydrogenase (LDH). Renal failure may not be reversible with discontinuation of therapy and dialysis may be required.

## **Secondary Leukemia**

Acute promyelocytic leukemia (APL) and myelodysplastic syndrome (MDS)/acute myeloid leukemia (AML) have been reported years after therapy with carboplatin and other antineoplastic treatments.

## **Hepatobiliary Disease**

Cases of hepatic veno-occlusive disease (sinusoidal obstructive syndrome) have been reported. Some of them were fatal.

## **Gastrointestinal Effects**

Carboplatin can induce emesis. The incidence and severity of emesis may be reduced by pretreatment with antiemetics or by carboplatin administration as a continuous IV infusion over 24 hours, or as IV administration of divided doses over 5 consecutive days rather than a single infusion. Selective inhibitors of type 3 (5HT-3), serotonergic receptors (e.g., ondansetron) or substituted benzamides (e.g., metoclopramide) may be particularly effective antiemetics and combination therapy may be considered for patients experiencing severe or refractory emetogenic effects.

## **Tumor Lysis Syndrome (TLS)**

Patients at high risk of TLS such as patients with high proliferative rate, high tumor burden and high sensitivity to cytotoxic agents should be monitored closely and appropriate precaution taken.

## **Immunosuppressant Effects/Increased Susceptibility to Infections**

Administration of live or live attenuated vaccines in patients immunocompromised by chemotherapeutic agents, including carboplatin, may result in serious or fatal infections. Vaccination with a live vaccine should be avoided in patients receiving carboplatin. Killed or inactivated vaccines may be administered; however, the response to such vaccines may be diminished.

Carboplatin should be administered with caution to patients with herpes zoster, existing or recent chicken pox, or recent exposure to chicken pox, due to the risk of severe generalized disease. It should also be administered with caution to patients with other infections.

The myelosuppressive effects of carboplatin may adversely affect dental procedures, resulting in an increased incidence of microbial infection, delayed healing and gingival bleeding. Where possible, dental work should be completed prior to initiation of carboplatin therapy or deferred until blood counts have returned to normal. Patients should be instructed on proper oral hygiene during treatment, including caution in the use of toothbrushes, dental floss and toothpicks.

### **Aluminum**

Aluminum-containing equipment should not be used (see Section **4.5 Interaction with Other Medicinal Products and Other Forms of Interaction** and Section **6.4 Incompatibilities**).

### **Use in renal impairment**

Carboplatin is excreted primarily in the urine and renal function should be assessed prior to and during therapy. Creatinine clearance appears to be the most sensitive measure of kidney function in patients receiving carboplatin. Dose adjustment criteria for patients with impaired renal function are provided in Section **4.2 Dosage and Method of Administration**.

Myelosuppression as a result of carboplatin treatment is closely related to the renal clearance of the drug. Therefore in patients who have abnormal renal function or who are receiving concomitant therapy with nephrotoxic drugs, myelosuppression, especially thrombocytopenia, may be more severe and prolonged.

Renal toxicity is not usually dose-limiting. Unlike cisplatin therapy, pre-treatment and post-treatment hydration is not necessary as the drug has a relatively low nephrotoxic potential. However, about 25% of patients show decreases in creatinine clearance and, less frequently, rises in serum creatinine and blood urea nitrogen may be seen. Impairment of renal function is more likely to be seen in patients who have previously experienced nephrotoxicity as a result of cisplatin therapy. Concomitant administration of other nephrotoxic drugs (e.g., aminoglycoside antibiotics) may increase the risk of nephrotoxicity (see Section **4.5 Interaction with Other Medicinal Products and Other Forms of Interaction**).

### **Use in the elderly**

Carboplatin-induced peripheral neuropathy appears to be more common in those over 65 years of age than in younger patients. Elderly patients may have decreased renal and hematopoietic function, and may be more susceptible to other effects of the drug (see Section **4.8 Undesirable Effects**).

### **Pediatric use**

Safety and efficacy in children have not been established.

### **Effects on laboratory tests**

No data available.

## **4.5 Interaction with Other Medicinal Products and Other Forms of Interaction**

Carboplatin may interact with aluminum to form a black precipitate. Needles, syringes, catheters or IV administration sets that contain aluminum parts which may come in contact

with carboplatin should not be used for preparation or administration of the drug (see Section **6.4 Incompatibilities**).

Concomitant administration of carboplatin and aminoglycosides results in an increased risk of nephrotoxicity and/or ototoxicity, and the drugs should be used concurrently with caution. The use of other nephrotoxic drugs results in a potentiation of renal effects by carboplatin.

Carboplatin is mostly used in combination with antineoplastic drugs having similar cytotoxic effects. In these circumstances additive toxicity is likely to occur. Combination therapy with other myelosuppressive medicines may require modification of the dose or timing of carboplatin therapy to minimize additive myelosuppressive effects. Dosage reduction is recommended if carboplatin is administered concurrently with radiation therapy.

In patients who have previously received cisplatin, neurotoxicity such as paresthesias, decreased deep tendon reflexes, and ototoxicity are more likely to be seen. The frequency and severity of hearing disorder increases with prior treatment with cisplatin (as cisplatin is also ototoxic). Paresthesias present prior to treatment, especially if caused by cisplatin, may persist or worsen during carboplatin therapy.

In patients receiving carboplatin concomitantly with paclitaxel, myalgias and arthralgias commonly occur. Fatigue has also been reported in patients receiving this combination.

Pain, most likely related to tumor size, and asthenia occur frequently in patients receiving carboplatin in conjunction with cyclophosphamide. Visual disturbances have been reported in patients receiving usual dosages of carboplatin in conjunction with cyclophosphamide.

Concomitant administration of carboplatin with other emetogenic drugs, or administration to patients who have previously received emetogenic drugs, has increased the incidence of nausea and vomiting.

Vaccination with a live vaccine should be avoided in patients receiving carboplatin (see Section **4.4 Special Warnings and Precautions for Use**).

A decrease in phenytoin serum levels has been observed with concurrent administration of carboplatin and phenytoin/fosphenytoin. This may lead to exacerbation of seizures.

## **4.6 Fertility, Pregnancy and Lactation**

### **Effects on fertility**

Both men and women receiving carboplatin should be informed of the potential risk of adverse effects on reproduction. Women of childbearing potential should be advised to avoid becoming pregnant by using effective contraception during treatment and up to 6 months after therapy. For women who are pregnant or become pregnant during therapy, genetic counseling should be provided.

Carboplatin is genotoxic. Men being treated with carboplatin are advised not to father a child during and up to three months after treatment.

Male and female fertility may be impacted by treatment with carboplatin. Most forms of chemotherapy have been associated with reduction of oogenesis and spermatogenesis and

patients receiving carboplatin should be warned of this potential. Although not reported with carboplatin, this has been reported with other platinum agents. Recovery of fertility after exposure can occur but is not guaranteed. Both men and women should seek advice for fertility preservation before treatment with carboplatin.

### **Use in pregnancy (Category D)**

This category specifies medicines which have caused or may be expected to cause an increased incidence of human fetal malformations or irreversible damage. These medicines may also have adverse pharmacological effects.

Carboplatin has been shown to be embryotoxic and mutagenic. Use in pregnancy is not recommended. Women of child-bearing potential should use adequate contraception and carboplatin should only be used in women of child-bearing potential if the expected benefits outweigh the risks of such therapy.

If the patient becomes pregnant while being treated with carboplatin, she should be advised of the potential hazard to the fetus.

### **Use in lactation**

It is not known whether carboplatin is excreted in breast milk. To avoid possible harmful effects in the infant, breast-feeding should be discontinued during carboplatin therapy.

## **4.7 Effects on Ability to Drive and Use Machines**

The effects of this medicine on a person's ability to drive and use machines were not assessed as part of its registration.

## **4.8 Undesirable Effects**

Myelosuppression is the dose-limiting toxicity of carboplatin. It is generally reversible and is not cumulative when carboplatin is used as single agent and at the recommended frequencies of administration.

Adverse effects which have been observed in studies to date can be grouped under the following organ systems:

**Blood and lymphatic system disorders:** Leucopenia (55%), thrombocytopenia (32%), anemia (59%). Myelosuppression is dose-related, and appears to be most common and more severe in patients who have received prior antineoplastic therapy (especially cisplatin), those who have received or who are currently receiving other myelosuppressive drugs or radiation therapy, and those with renal impairment. Transfusional support has been required in about one-fifth of patients.

Platelet and leukocyte/granulocyte nadirs usually occur two to three weeks from drug administration. Recovery is generally adequate to allow the administration of the subsequent carboplatin dose four weeks after a previous administration. Anemia (hemoglobin less than 11 g/dL), which may be symptomatic, occurs in a substantial proportion of patients. This effect may be cumulative and transfusions may be needed particularly in patients receiving prolonged therapy (e.g., more than 6 cycles).



Hemolytic anemia (sometimes fatal) has also been reported.

Clinical sequelae of bone marrow/hematologic toxicity such as fever, infections, sepsis/septic shock and hemorrhage may be expected.

Hemolytic uremic syndrome has been reported.

**Gastrointestinal disorders:** Nausea and vomiting (53%), nausea only (25%), diarrhea (6%), constipation (3%). Nausea and vomiting generally are delayed 6 to 12 hours after administration of carboplatin and disappear within 24 hours, but may persist for up to 3 days in some patients. Vomiting may be delayed for 24 hours or longer after treatment in some patients. Nausea and vomiting are readily controlled (or may be prevented) with antiemetic medication. Gastrointestinal pain, diarrhea, constipation, mucositis and stomatitis have also been reported.

**Renal and urinary disorders:** Decrease in creatinine clearance (25%); increases in uric acid (25%), blood urea nitrogen (16%) and serum creatinine (7%). Acute renal failure has been reported rarely. Risk of carboplatin-induced nephrotoxicity (e.g., impaired creatinine clearance) becomes more prominent at relatively high dosages or in patients previously treated with cisplatin.

**Investigations:** Decreases in serum magnesium (37%), potassium (16%) and, rarely, calcium (5%). Carboplatin may also cause decreases in serum sodium levels. These changes have not been severe enough to cause clinical symptoms.

**Nervous system disorders:** Peripheral neuropathy (6%) which was mild, and dysgeusia (<1%). In the majority of patients, neurotoxicity manifests mainly as paresthesias and decreased deep tendon reflexes. The effect, more common in patients over 65 years of age, appears to be cumulative, occurring mainly in patients receiving prolonged therapy and/or in those who have received prior cisplatin therapy. Central neurotoxicity has also been reported, although this may be related to concomitant antiemetic therapy. Fatigue has been reported in patients receiving carboplatin concomitantly with paclitaxel. Dysgeusia has been reported in patients taking carboplatin.

**Ear and labyrinth disorders:** Subclinical decrease in hearing acuity as determined by audiogram, in the high frequency (4,000 to 8,000 Hz) range (15%); clinical ototoxicity, usually manifested as tinnitus (1%). Pre-existing hearing impairment may persist or worsen with carboplatin therapy. In patients who developed hearing loss as a result of cisplatin therapy, the impairment may persist or worsen.

**Hepatobiliary disorders:** Increases in liver enzymes have been transient in the majority of cases. Alkaline phosphatase (ALP) (30%), aspartate aminotransferase (AST) (15%), bilirubin (4%). Substantial abnormalities in liver function test have been reported in patients treated with carboplatin at high doses and autologous bone marrow transplantation.

**Immune system disorders:** In less than 2% of patients, reactions similar to those seen after cisplatin have been observed. Erythematous rash, fever, perioral tingling, urticaria, pruritus, bronchospasm, hypotension, hypoxia and pyrexia have been observed. Anaphylaxis and anaphylactoid reactions have also occurred, while exfoliative dermatitis has been reported rarely. In a few cases, no cross-reactivity was present. The frequency of allergic reactions is

higher in patients who receive carboplatin in conjunction with other antineoplastic agents. Hypersensitivity reactions may occur within a few minutes after IV administration of carboplatin.

**Eye disorders:** Visual abnormalities, such as transient sight loss (which can be complete for light and colors) or other disturbances may occur in patients treated with carboplatin. Improvement and/or total recovery of vision usually occurs within weeks after the drug is discontinued. Cortical blindness has been reported in patients with impaired renal function receiving high-dose carboplatin.

**Neoplasms – benign, malignant and unspecified:** There have been rare reports of acute myelogenous leukemias and myelodysplastic syndromes arising in patients who have been treated with carboplatin, mostly when given in combination with other potentially leukemogenic agents.

**Cardiac disorders:** Cardiac failure, ischemic coronary artery disorders (e.g., myocardial infarction, cardiac arrest, angina, myocardial ischemia), Kounis syndrome (vasospastic allergic angina).

**Vascular disorders:** Cerebrovascular events.

**Skin and subcutaneous tissue disorders:** Exfoliative dermatitis may rarely occur. Erythematous rash, pruritus, urticaria and alopecia have also been reported in association with carboplatin.

**Musculoskeletal and connective tissue disorders:** Myalgia/arthralgia. This can commonly occur in patients receiving carboplatin together with paclitaxel (see Section **4.5 Interaction with Other Medicinal Products and Other Forms of Interaction**).

**Metabolism and nutrition disorders:** Electrolyte abnormalities (hypokalemia, hypocalcemia, hyponatremia and/or hypomagnesemia).

**General disorders and administration site conditions:** Alopecia (2%), flu-like syndrome (1%), reaction at injection site (<1%). Taste abnormalities, and adverse respiratory and genitourinary effects have also been reported. Pain, most likely related to tumor size, and asthenia occur frequently in patients receiving carboplatin in conjunction with cyclophosphamide.

## **4.9 Overdose and Treatment**

No overdosage occurred during clinical trials. Should it occur, the patient may need to be sustained through complications relating to myelosuppression, renal impairment and hepatic impairment. From reports in which doses up to 1600 milligrams/m<sup>2</sup> were used, patients were said to feel extremely unwell and developed diarrhea and alopecia.

## **5.0 PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic Properties**

#### **Mechanism of action**

Carboplatin, an analogue of cisplatin, is an antineoplastic agent which interferes with DNA intrastrand and interstrand crosslinks in cells exposed to the drug. DNA reactivity has been correlated with cytotoxicity.

### **Clinical trials**

No data available.

## **5.2 Pharmacokinetic Properties**

### **Distribution**

Initially protein binding is low. During the first 4 hours after administration 0 to 29% of carboplatin is protein bound. By 24 hours, 85 to 89% is protein bound.

### **Elimination**

After a one-hour infusion of the drug (dose range 20 to 520 milligrams/m<sup>2</sup>) plasma levels of total platinum and ultrafilterable (free) platinum decay biphasically following first order kinetics. For ultrafilterable platinum reported values for the initial phase of the half-life ( $t_{\alpha 1/2}$ ) are about 90 minutes and in the later phase the half-life ( $t_{\beta 1/2}$ ) is about 6 hours. Total platinum elimination has a similar initial half-life while in the later phase the half-life of total platinum may be greater than 24 hours. Carboplatin is a stable molecule. All free platinum is in the form of carboplatin in the first 4 hours.

65% of the carboplatin dose is eliminated in the urine within 24 hours of administration with 32% of the dose being excreted as unchanged drug. Most of the drug is excreted in the first 6 hours.

### **Excretion**

Excretion of carboplatin is by glomerular filtration. Patients with poor renal function have a higher Area Under Curve for total platinum and a reduction in dosage is recommended.

## **5.3 Preclinical Safety Data**

### **Genotoxicity**

Carboplatin has been shown to be mutagenic in mammalian cells. Patients should be advised of its mutagenic potential and should use effective contraception for an adequate duration of time after ceasing therapy.

### **Carcinogenicity**

No data available.

## **6.0 PHARMACEUTICAL PARTICULARS**

### **6.1 Shelf-Life**

Please refer to outer package for the expiry date of the product.

## **6.2 Storage Conditions**

Store at temperatures not exceeding 25°C.

## **6.3 Availability**

45 mL in Clear Type I Glass Vial closed with rubber closures and aluminum seals with blue plastic flip-off's (Box of 1's).

## **6.4 Incompatibilities**

Carboplatin may interact with aluminum to form a black precipitate. Needles, syringes, catheters or intravenous administration sets that contain aluminum parts which may come in contact with carboplatin should not be used for preparation or administration of the drug.

Parenteral drugs should be inspected visually for particulate matter and discoloration, prior administration, whenever solution and container permit. If particulate matter observed, shake and re-inspect. Vials with visible particulate matter should not be used.

## **6.5 Special Precautions for Disposal and Other Handling**

### **Handling Guidelines**

1. Carboplatin should be prepared for administration only by professionals who have been trained in the safe use of the preparation.
2. Operations such as transfer to syringes should be carried out only in the designated area.
3. The personnel carrying out these procedures should be adequately protected with clothing, gloves and eye shield.
4. Pregnant personnel are advised not to handle chemotherapeutic agents.

### **Contamination**

- (a) In the event of contact with the skin or eyes, the affected area should be washed with copious amounts of water or normal saline. A bland cream may be used to treat transient stinging of the skin. Medical advice should be sought if the eyes are affected.
- (b) In the event of spillage, operators should put on gloves and mop up the spilled material with a sponge kept in the area for that purpose. Rinse the area twice with water. Put all solutions and sponges into a plastic bag and then seal it. The bag should be prominently labelled with the words "Cytotoxic Waste" or similar.

## ***Disposal***

Syringes, containers, absorbent materials, solution and any other material which has come into contact with carboplatin should be placed in a thick plastic bag or other impervious container and incinerated at 1000°C or more.

## **7.0 FDA REGISTRATION NUMBER**

Carboplatin 10 mg/mL Solution for Intravenous Infusion: DR-XY15995

## **8.0 DATE OF FIRST AUTHORIZATION/RENEWAL OF THE AUTHORIZATION**

Carboplatin 10 mg/mL Solution for Intravenous Infusion: 06 Feb 2006

Keep out of reach of children.

**For suspected adverse drug reaction, report to the FDA: [www.fda.gov.ph](http://www.fda.gov.ph)**

**Seek medical attention immediately at the first sign of any adverse drug reaction.**

**CAUTION:** Foods, Drugs, Devices and Cosmetics Act prohibits dispensing without prescription.

### **Manufactured by:**

Hospira Australia Pty. Ltd.  
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### **Marketing Authorization Holder:**

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Revision No.: 2.1 Revision Date: 26 September 2023 Reference: AUSPI version pfpcarpi10822/BoH comments Reference Date: 29 August 2022
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