Package leaflet: Information for the user
Carboplatin 10mg/ml Concentrate for Solution for Infusion
Carboplatin

Read all of this leaflet carefully before you start using this medicine because it contains important information for you.
- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- If you get any side effects, talk to your doctor or nurse. This includes any possible side effect not listed in this leaflet. See section 4.

What is in this leaflet

1. What Carboplatin Infusion is and what it is used for

Carboplatin Infusion is an anti-cancer medicine. Treatment with an anti-cancer medicine is sometimes called cancer chemotherapy.

Carboplatin Infusion is used in adults for the treatment of some types of lung cancer and ovarian cancer.

2. What you need to know before you use Carboplatin Infusion

Do not use Carboplatin Infusion
- if you are allergic to Carboplatin or to any of the other ingredients of this medicine (listed in section 6)
- if you have had hypersensitivity to similar platinum containing medicines in the past
- if you have severe kidney disease
- if you have fewer blood cells than normal (your doctor will check this with a blood test)
- if you have tumour that bleeds
- if you plan to receive a yellow fever vaccination or have just received one

Tell your doctor if any of the above applies to you before this medicine is used.

Warnings and precautions
Talk to your doctor, pharmacist or nurse before using Carboplatin Infusion

- if you are pregnant or if there is a chance you may be pregnant
- if you are breast-feeding
- if you have mild renal disease. Your doctor will want to monitor you more regularly
- if you are elderly (over 65 years old)
- if you experience any hearing problems
- if you have been treated with cisplatin or similar anti-cancer medicines in the past, carboplatin may cause abnormalities in your nervous system, such as pins and needles or hearing and vision problems. Your doctor may regularly assess you.

- if you have headache, altered mental functioning, seizures and abnormal vision (from blurriness to vision loss).
- if you develop extreme tiredness and shortness of breath with decreased number of red blood cells (haemolytic anaemia), alone or combined with low platelet count, abnormal bruising (thrombocytopenia) and kidney disease where you pass little or no urine (symptoms of Haemolytic-uraemic syndrome).
- if you have fever (temperature greater than or equal to 38°C), or chills, which could be signs of infection. You may be at risk of getting an infection of the blood.
  During treatment with carboplatin you will be given medicines which help reduce a potentially life-threatening complication known as tumour lysis syndrome, which is caused by chemical disturbances in the blood due to the breakdown of dying cancer cells that release their content to the bloodstream.

Children and adolescents
The safety and effectiveness of carboplatin treatment in children and adolescents has not been proven.

Other medicines and Carboplatin Infusion
Tell your doctor, pharmacist or nurse if you are taking, have recently taken or might take any other medicines, for example:

- medicines which can reduce the number of cells in your blood, at the same time as carboplatin, may require changes to the dosage and frequency of your carboplatin treatment
- some antibiotics called aminoglycosides, vancomycin or capreomycin, at the same time as carboplatin, may increase the risk of kidney or hearing problems
- some water tablets (diuretics), at the same time as carboplatin, may increase the risk of kidney or hearing problems
- live or live-attenuated vaccines (for yellow fever vaccine see section 2, **Do not use Carboplatin Infusion)**
- blood thinning medicines e.g. warfarin, at the same time as carboplatin, may require an increase in frequency of blood coagulation monitoring
- phenytoin and fosphenytoin (used to treat various types of convulsions and seizures), at the same time as carboplatin, may increase the risk of a seizure
- other medicines which decrease the activity of the immune system (e.g. ciclosporin, tacrolimus, sirolimus)

Tell your doctor if you are taking, have recently taken or might take any other medicines, including medicines obtained without a prescription.

Carboplatin Infusion with alcohol
There is no known interaction between Carboplatin and alcohol. However you should check with your doctor as Carboplatin may affect the liver's ability to cope with alcohol.

Pregnancy, breast-feeding and fertility
If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before taking this medicine.

Contraception in men and women
Women of childbearing potential should avoid becoming pregnant and use effective contraception during treatment and for at least 6 months after the last dose. Tell your doctor immediately if you become pregnant during this period.

Men should use effective contraception and not father a child during treatment and up to 3 months after the last dose.

Pregnancy

This medicine should not be used during pregnancy unless considered necessary by your doctor. The medicine may cause serious birth defects.

Breast – feeding
You should not breast-feed during treatment and for at least one month after the last dose.

Fertility in men and women
Treatment with this medicine may temporarily or permanently reduce fertility in men and women. Talk to your doctor about fertility preservation before starting treatment.

Driving and using machines
Do not drive or use machines if you experience any side effect which may lessen your ability to do so such as nausea, vomiting, worsening of eyesight, or changes to your vision and hearing.

3. How to use Carboplatin Infusion

This medicine will be given by infusion (drip) into a vein over 15-60 minutes.

Dose
Your doctor will work out the correct dose of carboplatin for you and how often it must be given.

The dose will depend on your medical condition, your size and how well your kidneys are working. Your doctor will tell how well your kidneys are working using blood or urine samples. You will have regular blood tests after your dose of carboplatin. You may also have checks for nerve damage and hearing loss.
There is likely to be about 4 weeks between each dose of carboplatin.

If you receive more Carboplatin Infusion than you should
This medicine will be given to you in a hospital, under the supervision of a doctor. It is unlikely that you will be given too much or too little, however, tell your doctor or nurse if you have any concerns.

If you stop using Carboplatin Infusion
If you have any further question on the use of this product ask your doctor, pharmacist or nurse.

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

Tell your doctor straight away if you notice any of the following symptoms:

- abnormal bruising, bleeding, or signs of infection such as a sore throat and high temperature (very common, may affect more than 1 in 10 people).
- severe allergic reaction (anaphylaxis/anaphylactic reactions) - you may experience a sudden itchy rash (hives), swelling of the hands, feet, ankles, face, lips, mouth or throat (which may cause difficulty in swallowing or breathing), and you may feel you are going to faint (common, may affect up to 1 in 10 people).
- haemolytic-uraemic syndrome (a disease characterised by acute kidney failure), decreased urination or blood in the urine (not known, frequency cannot be estimated from the available data).
- muscle cramping, muscle weakness, confusion, visual loss or disturbances, irregular heartbeat, kidney failure or abnormal blood test results (symptoms of tumor lysis syndrome which can be caused by the rapid breakdown of tumour cells) (see section 2) (not known, frequency cannot be estimated from the available data).
- stroke (sudden numbness or weakness in the face, arm, or leg, especially on one side of the body) (not known, frequency cannot be estimated from the available data).

- obstruction in blood vessel (embolism and veno-occlusive disease), swelling or tenderness of leg/arm (not known, frequency cannot be estimated from the available data).
- chest pain which can be a sign of a potentially serious allergic reaction called Kounis syndrome (not known, frequency cannot be estimated from the available data).
- swelling of the skin, often of the face and lips (angioedema) (rare, may affect up to 1 in 1,000 people).

These are serious side effects. You may need urgent medical attention.

Other side effects that may occur:

Very common (may affect more than 1 in 10 people)
- tiredness, shortness of breath and paleness caused by anaemia (a condition in which there is a decreased number of red blood cells)
- feeling sick (nausea) or being sick (vomiting)
- stomach pain and cramp

Tests may also show:
- changes in your red and white blood cells and platelets (myelosuppresion)
- increase in the level of urea in your blood
- decrease in the level of sodium, potassium, calcium and magnesium in your blood.
- decrease in renal creatinine clearance
- abnormal liver enzyme levels

Common (may affect up to 1 in 10 people)
- diarrhoea or constipation
- rash and/or itchy skin
- ringing in the ears or changes in your hearing
- hair loss
- flu-like symptoms
- infections
- tingling or numbness in your hands, feet, arms or legs
- burning or prickling sensation
- decreased tendon reflex
- taste disturbance or loss of taste
- temporary worsening of eyesight or changes to your vision
- heart disorders
- tightness of the chest or wheezing
- interstitial lung disease (a group of lung disorders in which the deep lung tissues become inflamed)
- sore lips or mouth ulcers (mucous membrane disorders)
- pain or discomfort in your bones, joints, muscles, or surrounding structures (musculoskeletal disorder)
- problems with your kidneys or urine
- extreme tiredness/weakness (asthenia)

Tests may also show:
- increased level of bilirubin and creatinine in your blood
- increased level of uric acid in your blood which may lead to gout

Rare (may affect up to 1 in 1,000 people)
- temporary sight loss
- peeling of skin (exfoliative dermatitis)

Very rare (may affect up to 1 in 10,000 people)
- scarring of the lungs which causes shortness of breath and/or cough (pulmonary fibrosis)

Not known (frequency cannot be estimated from the available data)
- cancers caused by treatment with carboplatin (secondary malignancies)
- feeling unwell with high temperature due to low levels of white blood cells (febrile neutropenia)
- bone marrow failure (the bone marrow doesn't make enough blood cells)
- dry mouth, tiredness, and headache due to excessive loss of body water (dehydration)
- loss of appetite, anorexia
- severely impaired liver function, damage or death of liver cells
- heart failure
- changes in blood pressure (hypertension or hypotension)
- skin disorders such as hives, rash, skin redness (erythema), and itching
- swelling or soreness where the injection was given
- a group of symptoms such as headache, altered mental functioning, seizures and abnormal vision (from blurriness to vision loss). These are symptoms of reversible posterior leukoencephalopathy syndrome, a rare neurological disorder
- pancreatitis
- sore or inflammation inside of the mouth (stomatitis)
- lung infection
- brain disorder (encephalopathy)
- anaemia due to abnormal breakdown of red blood cells (haemolytic anaemia)

Carboplatin may lead to problems with your blood, liver and kidneys. Your doctor will take blood samples to check for these problems.

Reporting of side effects
If you get any side effects, talk to your doctor or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via HPRA Pharmacovigilance, Website: www.hpra.ie
By reporting side effects you can help provide more information on the safety of this medicine.

5: How to store Carboplatin Infusion

Keep this medicine out of the sight and reach of children.
Do not use this medicine after expiry date, which is stated on the box and label after EXP.
The expiry date refers to the last day of that month.

Store below 25°C. Do not refrigerate or freeze. Keep vial in the outer carton in order to protect from light.

In use: Chemical and physical in-use stability has been demonstrated for 24 hours at room temperature and 30 hours at 2-8°C.

From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2-8°C, unless dilution has taken place in controlled and validated aseptic condition

Do not throw any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Carboplatin Infusion contains

The active substance is carboplatin.
Each 1 ml of concentrate for solution for infusion contain 10mg of carboplatin.

Each 5 ml vial contains 50 mg of carboplatin.
Each 15 ml vial contains 150 mg of carboplatin.
Each 45 ml vial contains 450 mg of carboplatin.
Each 60 ml vial contains 600 mg of carboplatin.

The other ingredient is water for injections

What Carboplatin Infusion looks like and content of the pack

Concentrate for Solution for Infusion
Carboplatin infusion is a clear, colourless to slightly pale yellow solution free from particles.

5 ml, 15 ml or 45 ml or 60 ml concentrate for solution supplied in 5ml/15ml/50ml/100 ml type I. amber glass vial.Vials are closed with grey chlorobutyl or siliconised rubber stopper with an aluminium flip off seal.

Not all pack size may be marketed.

Marketing Authorization Holder
Accord Healthcare Ireland Limited
Euro House
Euro Business Park
Little Island
Cork T45 K857
Ireland

Manufacturer

Accord Healthcare Polska Sp.z o.o.,
ul. Lutomierska 50,95-200 Pabianice, Poland

This leaflet was last revised in June 2024

This medicine is authorised in the Member States of the European Economic Area and in the United Kingdom (Northern Ireland) under the following names:

Name of the Member State	Name of the medicine
Sweden	Carboplatin Accord 10 mg/ml koncentrat till infusionsvätska, lösning
Austria	Carboplatin Accord 10 mg/ml Infusionslösungskonzentrat
Belgium	Carboplatin Accord Healthcare 10 mg/ml, solution à diluer pour de perfusion
Czechia	Carboplatin Accord 10 mg/ml koncentrát pro přípravu infuzního roztoku
Germany	Carboplatin 10 mg/ml Konzentrat zur Herstellung einer Infusionslösung
Denmark	Carboplatin Accord 10mg/ml koncentrat til infusionsvæske, opløsning
Estonia	Carboplatin Accord 10 mg/ml infusioonilahuse kontsentraat
Spain	Carboplatin Accord 10 mg/ml Concentrado para solución para perfusión
Finland	Carboplatin Accord 10 mg/ml infuusiokonsentraatti, liuosta varten/ koncentrat till infusionsvätska, lösning
Hungary	Carboplatin Accord 10 mg/ml koncentrátum oldatos infúzióhoz
Ireland	Carboplatin 10 mg/ml Concentrate for Solution for Infusion
Italy	Carboplatino AHCL 10 mg/ml Concentrato per soluzione per infusione
Lithuania	Carboplatin Accord 10mg/ml koncentratas infuziniam tirpalui
Latvia	Carboplatin Accord 10 mg/ml koncentrāts infūziju šķīduma pagatavošanai
Netherlands	Carboplatin Accord 10 mg/ml concentraat voor oplossing voor infusie
Norway	Carboplatin Accord 10 mg/ml konsentrat til infusjonsvæske
Poland	Carboplatin Accord
Portugal	Carboplatina Accord 10 mg/ml concentrado para solução para perfusão
Slovakia	Carboplatin Accord 10 mg/ml infúzny koncentrá
United Kingdom (NI)	Carboplatin 10 mg/ml concentrate for solution for infusion
Cyprus	Carboplatin Accord 10 mg / ml concentrate for solution for infusion
Croatia	Karboplatin Accord 10 mg / ml koncentrat za otopinu za infuziju
Romania	Carboplatină Accord 10 mg / ml concentrat pentru soluție perfuzabilă
Slovenia	Karboplatin Accord 10 mg/ml koncentrat za raztopino za infundiranje

The following information is intended for medical or healthcare professional only:

Instructions for use – Cytotoxic

The recommended dosage of Carboplatin in previously untreated adult patients with normal kidney function, i.e. creatinine clearance > 60 ml/min is 400 mg/m² as a single short term IV dose administered by a 15 to 60 minutes infusion. Alternatively, the Calvert formula shown below may be used to determine dosage:
Dose (mg) = target AUC (mg/ml x min) x [GFR ml/min + 25]

Dose (mg) = target AUC (mg/ml x min) x [GFR ml/min + 25]		
Target AUC	**Planned chemotherapy**	**Patient treatment status**

5-7 mg/ml .min	single agent Carboplatin	Previously untreated
4-6 mg/ml .min	single agent Carboplatin	Previously treated
4-6 mg/ml .min	Carboplatin plus cyclophosphamide	Previously untreated

Note: With the Calvert formula, the total dose of Carboplatin is calculated in mg, not mg/m².

Therapy should not be repeated until four weeks after the previous Carboplatin course and/or until the neutrophil count is at least 2,000 cells/mm³ and the platelet count is at least 100,000 cells/mm³.

Reduction of the initial dosage by 20-25% is recommended for those patients who present with risk factors such as prior myelosuppressive treatment and low performance status (ECOG-Zubrod 2-4 or Karnofsky below 80).
Determination of the haematological nadir by weekly blood counts during the initial courses of treatment with Carboplatin Infusion is recommended for future dosage adjustment.

Impaired renal function:
In patients with impaired renal function, dosage of carboplatin should be reduced (refer to Calvert formula) and haematological nadirs and renal function monitored.
Patients with creatinine clearance values of less than 60 ml/min are at greater risk to develop myelosuppression. The frequency of severe leukopenia, neutropenia, or thrombocytopenia has been maintained at about 25% with the following dosage recommendations:

Combination Therapy:
The optimal use of Carboplatin Infusion in combination with other myelosuppressive agents requires dosage adjustments according to the regimen and schedule to be adopted.

Paediatric populations:
The safety and efficacy of carboplatin in children and adolescents has not yet been established. No data are available. As no sufficient experience of carboplatin use in children and adolescents is available; no specific dosage recommendations can be given.

Elderly patients:
In the case of patients aged over 65, the carboplatin dosage needs to be adjusted to their general state of health during the first and subsequent courses of treatment.

Dilution and Reconstitution:
The product must be diluted prior to infusion, with 5% (50mg/ml) dextrose solution or 0.9% (9mg/ml) sodium chloride solution, to concentrates as low as 0.5 mg/ml.

Method of administration:
Carboplatin Infusion should be used by the intravenous route only.

Incompatibilities
Carboplatin may interact with aluminium to form a black precipitate. Needles, syringes, catheters or intravenous sets containing aluminium parts that may come into contact with carboplatin should not be used for preparation or administration of drug. Precipitation can lead to a reduction of the antineoplastic activity.

Shelf life and storage
Carboplatin Infusion is intended for single use only.

Before opening
Store below 25°C. Do not refrigerate or freeze. Keep vial in the outer carton in order to protect from light.

After dilution
In use: Chemical and physical in-use stability has been demonstrated for 24 hours at room temperature and 30 hours at 2-8°C.

From a microbiological point of view, the product should be used immediately. If not used immediately, in-use storage times and conditions prior to use are the responsibility of the user and would normally not be longer than 24 hours at 2-8°C, unless dilution has taken place in controlled and validated aseptic conditions.

INSTRUCTIONS FOR USE/HANDLING, PREPARATION AND DISPOSAL GUIDE FOR USE WITH CARBOPLATIN

Handling of Carboplatin

As with other antineoplastic agents, Carboplatin must be prepared and handled with caution.
The following protective measures should be taken when handling Carboplatin
Personnel should be trained in appropriate techniques for reconstitution and handling

1. Carboplatin should be prepared for administration only by professionals who have been trained in the safe use of chemotherapeutic agents. Personnel handling Carboplatin Infusion should wear protective clothing: goggles, gowns and disposable gloves and masks.
2. A designated area should be defined for syringe preparation (preferably under a laminar flow system), with the work surface protected by disposable, plastic-backed, absorbent paper
3. All items used for reconstitution, administration or cleaning (including gloves) should be placed in high-risk, waste-disposal bags for high temperature incineration.
4. Spillage or leakage should be treated with dilute sodium hypochlorite (1% available chlorine) solution, preferably by soaking, and then water. All contaminated and cleaning materials should be placed in high-risk, waste- disposal bags for incineration. Accidental contact with the skin or eyes should be treated immediately by copious lavage with water, or soap and water, or sodium bicarbonate solution. However, do not abrade the skin by using a scrub brush. Medical attention should be sought. Always wash hands after removing gloves.

Preparation of infusion solution
The product must be diluted before use. It may be diluted with dextrose or Sodium Chloride, to concentrations as low as 0.5 mg/ml (500 micrograms/ml).

Disposal
Medicines should not be disposed of via wastewater or household waste. All material used for preparation, administration or otherwise coming into contact with carboplatin should undergo disposal according to local guidelines for the handling of cytotoxic compounds.