

Update date: February 1, 2024

## Group No. 16: Oncology

**ABEMACICLIB**

Clue	Description	Indications	Route of administration and dosage
010.000.6282.00	TABLET Each tablet contains Abemaciclib 150 mg Container with 56 tablets	As initial treatment, in combination with an aromatase inhibitor as background endocrine therapy, for the initial treatment of menopausal women with hormone	Oral Adults: 150 mg 2 times a day This regimen is repeated until progression or treatment failure.
010.000.6283.00	Each tablet contains Abemaciclib 100mg Container with 56 tablets	receptor-positive (HR+) and human epidermal growth factor receptor 2- negative (HER2-) advanced or metastatic breast cancer. .	Doses can be decreased to 100 mg or 50 mg based on individual safety and tolerability.
010.000.6284.00	Each tablet contains Abemaciclib 50 mg Container with 56 tablets		When Abemaciclib is administered in combination with non- steroidal aromatase inhibitors, the recommended dose of Letrozole is 2.5 mg daily or Anastrozole 1 mg daily.

## Generalities

Abemaciclib is an inhibitor of cyclin-dependent kinases 4 and 6 (CDK4 and CDK6). These kinases are activated by binding to cyclins D. In estrogen receptor-positive (ER+) breast cancer cell lines, cyclin D1 and CDK4/6 promote phosphorylation of the retinoblastoma protein (Rb), cycle progression cell and cell proliferation. In vitro, continuous exposure to abemaciclib inhibited phosphorylation of the retinoblastoma protein (Rb), and blocked progression from G1 to the S phase of the cell cycle, causing senescence and apoptosis.

## Risk in Pregnancy

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## Adverse effects

The following most common adverse events with the use of Abemaciclib are: diarrhea, neutropenia, nausea and fatigue, hepatotoxicity, and venous thromboembolism.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug or to the components of the formula, pregnancy and lactation.  
Precautions:

Diarrhea: Patients should be instructed that at the first sign of loose stools they should initiate antidiarrheal therapy, such as loperamide, increase oral fluids, and notify their healthcare provider in order to receive additional instructions and appropriate follow-up.

For grade 3 or 4 diarrhea, or diarrhea requiring hospitalization, abemaciclib should be withheld until toxicity resolves to grade 1, and then resume abemaciclib at the next lower dose.

Hepatotoxicity: Monitor liver function tests (LFTs) prior to initiation of abemaciclib therapy given two weeks for the first two months, monthly for the next two months, and when clinically indicated. It is recommended to interrupt administration, reduce the dose, suspend administration or delay the start of therapeutic cycles in patients who develop persistent or recurrent elevation of hepatic transaminases grade 2, or grades 3 or 4.

Venous thromboembolism: Monitor patients for signs and symptoms of venous thrombosis and pulmonary embolism and treat as medically appropriate.

## Interactions

Concomitant use of other strong CYP3A inhibitors (Itraconazole, Diltiazem, Verapamil, Rifampicin) requires reduction of the recommended doses. Coadministration of abemaciclib with rifampin, a potent CYP3A inducer, reduced plasma concentrations of abemaciclib plus its active metabolites and could result in reduced activity.

Avoid concomitant use of oral ketoconazole. Avoid grapefruit products

**ABIRATERONE**

Clue	Description	Indications	Route of administration and dosage
010.000.5657.00	TABLET Each tablet contains: Abiraterone acetate 250 mg Package with 120 tablets.	Advanced or metastatic prostate cancer.	Oral. Adults. 1000 mg per day. It should be administered in combination with prednisone (5mg orally, twice a day).
	TABLET Each tablet contains: Abiraterone acetate 500 mg.		It should not be consumed with food. It should be taken at least one hour before or two hours after food.

010.000.6211.00	Container with 60 tablets.
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#### Generalities

Abiraterone acetate is converted *in vivo* to abiraterone, an inhibitor of androgen biosynthesis. Specifically, abiraterone selectively inhibits the enzyme 17 $\alpha$ -hydroxylase/C17,20-lyase (CYP17). This enzyme is expressed and is necessary for the biosynthesis of androgens in testicular, adrenal, and prostate tumor tissues.

#### Risk in Pregnancy

x

#### Adverse effects

Peripheral edema, hypokalemia, hypertension and urinary tract infection, heart or adrenal failure, hepatotoxicity.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, as well as to corticosteroids.

Precautions: Hypertension, hypokalemia and fluid retention. It should be used with caution in patients with a previous history of cardiovascular disease.

#### Interactions

Caution is recommended when administered with medications activated or metabolized by CYP2D6, particularly with medications that have a narrow therapeutic index, metabolized by CYP2D6, should be considered. Strong CYP3A4 inhibitors and inducers should be avoided or used with caution during treatment.

## FOLINIC ACID

Clue	Description	Indications	Route of administration and dosage
010.000.1707.00	<p>INJECTABLE SOLUTION</p> <p>Each vial or vial contains:</p> <p>Calcium folinate equivalent to 3 mg of folic acid.</p> <p>Container with 6 ampoules or vials with one mL.</p>	Rescue treatment in patients receiving methotrexate.	<p>Oral, intramuscular or intravenous infusion.</p> <p>Adults and children:</p> <p>10 to 15 mg/m<sup>2</sup> body surface area each 6 hours, in a total of 7 doses. Start administration 24 hours after receiving methotrexate. When high doses of methotrexate are used, up to 100 mg/ m<sup>2</sup> of body surface area can be administered .</p>
010.000.2152.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains:</p> <p>Calcium folinate equivalent to 15 mg of folic acid.</p> <p>Container with 5 vials with 5 mL.</p>		The dose and route of administration of folic acid depends on the dose of methotrexate and the patient's clinical conditions.
010.000.2192.00	<p>INJECTABLE SOLUTION</p> <p>Each vial or vial contains:</p> <p>Calcium folinate equivalent to 50 mg of folic acid.</p> <p>Container with a vial or vial with 4 mL.</p>		
010.000.5233.00	<p>TABLET</p> <p>Each tablet contains:</p> <p>Calcium folinate equivalent to 15 mg of folic acid.</p> <p>Package with 12 tablets.</p>		

#### Generalities

It is a reduced form of folic acid that avoids the action of dihydrofolate reductase inhibitors, in order to "rescue" normal cells and avoid toxicity.

#### Risk in Pregnancy C

#### Adverse effects

Hypersensitivity reactions.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, undiagnosed anemia.

Precautions: Pernicious anemia.

#### Interactions

Antagonizes the anticonvulsant effects of phenobarbital, phenytoin and imientodone.

## ZOLEDRONIC ACID

Clue	Description	Indications	Route of administration and dosage
010.000.5468.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with 5 mL contains: Zoledronic acid monohydrate equivalent to 4.0 mg of zoledronic acid.</p> <p>Container with a vial.</p>	<p>Bone metabolism regulator.</p> <p>Bone resorption inhibitor.</p> <p>Treatment of hypercalcemia associated with neoplastic processes.</p>	<p>Intravenous infusion.</p> <p>Adults: 4 mg over 15 minutes, every 3 or 4 weeks.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>

#### Generalities

It is a bisphosphonate, it inhibits bone resorption mediated by osteoclasts in neoplasias and Multiple Myeloma.

#### Risk in Pregnancy C

#### Adverse effects

Fever, nausea, vomiting, swelling at the infusion site, rash, pruritus, chest pain.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, pregnancy, lactation, kidney or liver failure.

#### Interactions

None of clinical importance.

## AFATINIB

Clue	Description	Indications	Route of administration and dosage
010.000.6149.00	<p>TABLET</p> <p>Each tablet contains: Afatinib dimaleate equivalent to 40.0 mg afatinib</p> <p>Package with 30 tablets.</p>	<p>Treatment of patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) presence of Epidermal Growth Receptor (EGFR) gene mutations in the subgroup of patients with deletion 19.</p>	<p>Oral.</p> <p>Adults: 40 mg once a day.</p> <p>The dose may be decreased to 30 mg once daily based on individual tolerability.</p>

#### Generalities

Afatinib is a potent and selective irreversible blocker of the ErbB family. Afatinib binds covalently and irreversibly blocks the signaling of all homo- and heterodimers formed by the following members of the ErbB family: EGFR (ErbB1), HER 2 (ErbB2), ErbB3 and ErbB4.

#### Risk in Pregnancy

#### Adverse effects

Diarrhea, skin rash.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, children, adolescents and severe liver impairment.

#### Interactions

The results of a drug interaction study demonstrated that Afatinib, since it is not metabolized by the liver (CYP450), can be safely combined with P-gp (P-glycoprotein) inhibitors as long as they are administered simultaneously with Afatinib or after this. Afatinib should be administered without food, with no food consumed for at least 3 hours before and at least after taking Afatinib.

**ALECTINIB (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6227.00	<p>CAPSULE</p> <p>Each capsule contains: Alectinib hydrochloride 161.33 mg equivalent to 150 mg of alectinib.</p> <p>Collective box with 4 boxes with 56 150 mg capsules</p>	<p>First treatment line in patients with ALK-positive advanced non-small cell lung cancer (NSCLC).</p> <p>Treatment for adult patients with ALK-positive advanced non-small cell lung cancer (NSCLC) previously treated with crizotinib.</p>	<p>Oral</p> <p>Adults</p> <p>Dose 600 mg (4 capsules of 150 mg), twice a day (total daily dose of 1200 mg).</p>

**Generalities**

Alectinib is a highly selective and potent inhibitor of the ALK and RET receptor tyrosine kinases. Both in vitro and in vivo, alectinib was shown to have activity against mutant forms of the ALK enzyme, including mutations responsible for crizotinib resistance.

Based on non-clinical data, alectinib is not a substrate of P-glycoprotein (P-gp) or breast cancer resistance protein (BCRP), efflux transporter proteins in the blood-brain barrier, so alectinib can be distributed and maintained in the central nervous system. Alectinib induced tumor regression in nonclinical mouse xenograft models, including antitumor activity in the brain, and prolonged survival in animal models of intracranial tumors.

**Risk in Pregnancy** c**Adverse effects**

The most common adverse drug reactions (≥20%) were constipation (36%), edema (34%, including peripheral, generalized, periorbital, eyelid), myalgia (31%), nausea (22%), elevated bilirubin (21%), anemia (20%) and rash (20%).

**Contraindications and Precautions**

Alectinib is contraindicated in patients with known hypersensitivity to alectinib or any of the excipients.

Do not administer during pregnancy and lactation. Cases of interstitial lung disease/pneumonitis have been reported in clinical trials with Alectinib. Patients should be monitored for pulmonary symptoms suggestive of pneumonitis. Elevations in the concentration of alanine aminotransferase (ALT) and aspartate aminotransferase (AST) have been recorded. Liver function (determination of ALT, AST and total bilirubin) should be evaluated before starting treatment and thereafter every 2 weeks during the first 3 months of treatment; periodically thereafter. Myalgia or musculoskeletal pain was reported in patients in the pivotal studies with Alectinib, including Grade 3 events. Recommend patients to report.

**Interactions**

No interactions have been identified to date.

**AMIFOSTINE**

Clue	Description	Indications	Route of administration and dosage
010.000.5439.00	<p>INJECTABLE SOLUTION.</p> <p>Each vial contains: Amifostine (anhydrous base) 500 mg</p> <p>Container with a vial.</p>	<p>Protection from toxicity renal, neurological and hematological caused by chemotherapy with alkylating agents and platinum analogues.</p>	<p>Intravenous infusion slow.</p> <p>Adults:</p> <p>910 mg/m<sup>2</sup> body surface area /once a day, 30 minutes before starting chemotherapy.</p>

**Generalities**

It selectively protects normal tissues against the cytotoxicity of ionizing radiation and alkylating chemotherapeutics.

**Risk in Pregnancy** x**Adverse effects**

Hypotension, nausea, vomiting, redness, chills, dizziness, drowsiness, hiccups, sneezing, hypocalcemia, allergic reactions.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, hypotension, dehydration, renal failure, liver failure.  
Not in children.

Precautions: Antihypertensive treatment.

**Interactions**

Increases the effect of antihypertensives.

**ANASTRAZOLE**

Clue	Description	Indications	Route of administration and dosage
010.000.5449.00	<p>TABLET</p> <p>Each tablet contains: Anastrozole 1 mg.</p> <p>Package with 28 tablets.</p>	Breast cancer advanced in postmenopause.	<p>Oral.</p> <p>Adults:</p> <p>One tablet every 24 hours.</p>

**Generalities**

Non-steroidal aromatase inhibitor, it significantly reduces plasma concentrations of estradiol, without effect on the formation of adrenal corticosteroids or aldosterone.

**Risk in Pregnancy** x**Adverse effects**

Diarrhea, asthenia, nausea, headache, lumbar and abdominal pain, dyspnea, vomiting, anorexia, dry mouth, peripheral edema, depression, high blood pressure, thrombophlebitis, anemia, leukopenia.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, pregnancy, lactation.

**Interactions**

Estrogens decrease its antineoplastic effect and inhibit the effect of antihypertensives.

**APALUTAMIDE (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6350.00	<p>TABLET</p> <p>Each tablet contains: Apalutamide 60 mg.</p> <p>Container with 120 tablets</p>	Treatment of cancer castration-resistant, non-metastatic prostate and metastatic, castration-sensitive prostate cancer.	<p>Oral.</p> <p>The recommended dose of apalutamide is 240 mg (four 60 mg tablets) administered orally once daily.</p> <p>Swallow the tablets whole. It can be taken with or without food</p>

**Generalities**

Apalutamide is an orally available second-generation non-steroidal anti-androgen that has been designed as a next-generation inhibitor of the androgen receptor (AR), to competitively inhibit androgen binding to the ligand-binding domain of AR.

**Risk in Pregnancy**

The safety and effectiveness of apalutamide have not been established in women. Based on its mechanism of action, apalutamide may cause fetal harm and pregnancy loss. There are no human data on the use of apalutamide in pregnant women. APALUTAMIDE is not indicated for use in women, therefore animal embryo-fetal development toxicology studies were not performed.

**Adverse effects**

The most common adverse reactions (15%) reported in the randomized clinical study that occurred most commonly (>2%) in the apalutamide arm were fatigue, rash, weight loss, arthralgia, and falls.

**Contraindications and Precautions**

Contraindications: It is contraindicated in women who are or may become pregnant (see Restrictions on use during pregnancy and lactation). Cautions: Seizures; Permanently discontinue apalutamide in patients who develop seizures during treatment.

**Interactions**

Strong CYP2C8 inhibitors, Strong CYP3A4 inhibitors, CYP3A4/CYP2C8 inducers, Reducing agents of acid and Medications that affect transporters.

## APREPITANT

Clue	Description	Indications	Route of administration and dosage
010.000.4442.00	<p>CAPSULE</p> <p>Each capsule contains: 125 mg of Aprepitant.</p> <p>Each capsule contains: 80 mg of Aprepitant.</p> <p>Package with a 125 mg capsule and 2 capsules of 80 mg.</p>	Nausea vomiting and associated with oncological therapy.	<p>Oral.</p> <p>Adults:</p> <p>125 mg during the first day. 80 mg during the second day and third day.</p>

### Generalities

Selective antagonist of substance P/neurokinin 1 receptors.

### Risk in Pregnancy

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### Adverse effects

Fatigue, nausea, constipation, diarrhea, anorexia, headache, vomiting, dizziness, dehydration, abdominal pain, gastritis.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, terfenadine, astemizole and cisapride.  
Precautions: Potentiates the effect of medications that are metabolized via CYP3A4.

### Interactions

With contraceptives and fluvastatin its effect decreases.

## ATEZOLIZUMAB (In prescription control program)

Clue	Description	Indications	Route of administration and dosage
010.000.6193.00	<p>INJECTABLE SOLUTION</p> <p>Box with a vial contains:</p> <p>Atezolizumab 1200 mg</p> <p>Package with a vial with 1200 mg in 20 mL (1200 mg/20 mL).</p>	<p>Treatment of adult patients with non-small cell lung cancer after</p> <p>previous chemotherapy based on platinum, with advanced disease, negative for EGFR or ALK, with positive PD-L1 biomarker (<math>\geq 10\%</math>).</p>	<p>Intravenous infusion.</p> <p>Adults:</p> <p>The recommended dose of Atezolizumab is 1200 mg every 3 weeks.</p>

### Generalities

Atezolizumab is a humanized immunoglobulin monoclonal antibody that targets PD-L1 on tumor-infiltrating immune cells or tumor cells. Atezolizumab binds directly and selectively to PD-L1, thus preventing it from binding to its PO 1 and 87.1 receptors, which function as inhibitory receptors expressed on activated T lymphocytes and other tumor-infiltrating immune cells. Interference of interactions between PD-L1 and PD-1 and between PD-L1 and 87.1 may enhance the magnitude and quality of the tumor-specific T cell response through increased priming, expansion, or effector function.

Atezolizumab is designed to eliminate the effector function of Fc through a single amino acid substitution at position 298 of the heavy chain, resulting in a non-glycosylated antibody that has minimal binding to Fc receptors. This, in turn, eliminates detectable Fc effector function and cell-mediated antibody-dependent cytotoxicity so that antibody-mediated elimination of activated effector T cells is prevented.

### Risk in pregnancy C

### Adverse effects

In the clinical studies carried out with Atezolizumab the most serious adverse reactions were: Inflammation of the lung tissue (Pneumonitis related to the immune response). Inflammation of the liver (Hepatitis related to the immune response). Inflammation of the colon (Colitis related to the immune response). Diseases that affect the glands and hormones (hypothyroidism, hyperthyroidism, adrenal insufficiency, type 1 diabetes mellitus). Inflammation of the brain and its lining (immune-related meningoencephalitis). Diseases of the nervous system related to the defense system (myasthenic syndrome/myasthenia gravis, Guillain-Barré syndrome) Inflammation of the Pancreas (Pancreatitis related to the immune response) Inflammation of the kidneys (Nephritis related to the immune response).

with

### Contraindications and Precautions

Atezolizumab is contraindicated in patients with known hypersensitivity to atezolizumab or any of the excipients. Do not administer during pregnancy and lactation. It is recommended in order to improve the traceability of biological medicines, the commercial name and batch number of the administered product must be clearly recorded (or indicated) in the patient's file.

### Interactions

No interaction has been identified to date.

## AXITINIB (In prescription control program)

Clue	Description	Indications	Route of administration and dosage
010.000.6006.00	<p>TABLET</p> <p>Each tablet contains: Axitinib 5 mg</p> <p>Package with 60 tablets.</p>	<p>Second treatment Advanced Renal Cell Carcinoma (RaCC) line with failure to a tyrosine kinase inhibitor.</p>	<p>Oral.</p> <p>Adults: 5 mg twice daily, with or without food.</p> <p>Increase or reduce dosage based on individual safety and tolerability.</p>

### Generalities

Axitinib is a potent and selective inhibitor of vascular endothelial growth factor receptor (VEGFR)-1, VEGFR-2, and VEGFR-3 tyrosine kinases. These receptors participate in pathological angiogenesis, tumor growth, and metastatic progression of cancer. Axitinib has been shown to potently inhibit VEGF-mediated endothelial cell survival and proliferation.

### Risk in Pregnancy

c

### Adverse effects

Diarrhea, hypertension, fatigue, decreased appetite, nausea, dysphonia, palmo-plantar erythrodysesthesia syndrome (hand-foot syndrome), weight loss, vomiting, asthenia and constipation.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Hypertension, thyroid dysfunction, arterial thromboembolic events, venous thromboembolic events, hemorrhage, gastrointestinal perforation and fistula formation, complications in wound healing, syndrome of reversible posterior leukoencephalopathy (RPLS), liver damage, effects on the ability to drive and use machinery.

### Interactions

Medications that increase the plasma concentration of Axitinib: CYP3A4/5 inhibitors, such as Ketoconazole, Itraconazole, Clarithromycin, Atazanavir, Indinavir, Nefazodone, Nelfinavir, Ritonavir, Saquinavir, Telithromycin and grapefruit. If a strong CYP3A4/5 inhibitor must be co-administered, a dose adjustment of Axitinib is recommended.

Medications that decrease the plasma concentration of Axitinib: CYP3A4/5 inducers such as: Rifampin, Dexamethasone, Phenytoin, Carbamazepine, Rifabutin, Rifapentin, Phenobarbital, and Hypericum perforatum [also known as St. John's Wort]). If it is necessary to co-administer a strong CYP3A4/5 inducer, dose adjustment is recommended.

## AZACITIDINE

Clue	Description	Indications	Route of administration and dosage
010.000.5887.00	<p>INJECTABLE SUSPENSION</p> <p>Each vial with lyophilisate contains: Azacitidine 100 mg</p> <p>Container with a vial bottle with freeze-dried.</p>	<p>Treatment of patients adults who are not considered suitable for hematopoietic progenitor cell transplantation and who suffer from: intermediate II and high-risk myelodysplastic syndromes.</p>	<p>Subcutaneous.</p> <p>Adults: 75 mg/m<sup>2</sup> of body surface area, injected daily, for seven days, followed by a rest period of 21 days (treatment cycle 28 days).</p> <p>It is recommended that patients receive treatment for a minimum of six cycles.</p>

### Generalities

Azacitidine exerts its antineoplastic effects through various mechanisms, including cytotoxicity on abnormal hematopoietic cells in the bone marrow and DNA hypomethylation. The cytotoxic effects of azacitidine may be due to various mechanisms, including inhibition of DNA, RNA, and protein synthesis, incorporation into RNA and DNA, and activation of pathways that cause DNA damage. The cells

Non-proliferative cells are relatively insensitive to azacitidine. Incorporation of azacitidine into DNA results in inhibition of DNA methyltransferases, leading to DNA hypomethylation. DNA hypomethylation of aberrantly methylated genes, which are involved in the normal regulation pathways of the cell cycle, differentiation and death, can result in the re-expression of genes and the restoration of cancer suppressive functions in cancer cells. The relative importance of DNA hypomethylation versus cytotoxicity or other activities of azacitidine with clinical outcomes has not been established.

**Risk in Pregnancy** x

**Adverse effects**

Pneumonia, nasopharyngitis, febrile neutropenia, neutropenia, leukopenia, thrombocytopenia, anemia, anorexia, dizziness, headache, dyspnea, diarrhea, vomiting, constipation, nausea, abdominal pain, petechiae, pruritus, rash, schimosi, astralgia, fatigue, pyrexia, chest pain, erythema at the injection site, pain at the injection site.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug. Pregnancy, lactation, advanced malignant liver tumors.  
Precautions: Treatment with azacitidine is associated with anemia, neutropenia and thrombocytopenia, especially in the first two cycles. Complete blood counts should be performed when necessary to monitor response and toxicity, but at least before each treatment cycle. After administration of the recommended dose for the first cycle, the dose for subsequent cycles should be reduced or its administration should be delayed depending on the nadir count and hematological response. Patients should be warned to report febrile episodes immediately. Patients and physicians are advised to be alert for signs and symptoms of bleeding.

Renal abnormalities ranging from increased serum creatinine to renal failure and death have been reported in patients treated with intravenous azacitidine in combination with other chemotherapeutic drugs.

Additionally, five patients with chronic myeloid leukemia (CML), treated with azacitidine and etoposide, developed renal tubular acidosis, defined as a decrease in serum bicarbonate to < 20 mmol/L, associated with alkaline urine and hypokalemia (serum potassium < 3 mmol/L). If unexplained decreases in serum bicarbonate (< 20 mmol/l) or increases in serum creatinine or NUS occur, the dose should be decreased or administration delayed.

Patients with a known history of cardiovascular or pulmonary disease showed a significantly increased incidence of cardiac events with azacitidine. Therefore, caution is advised when prescribing azacitidine to these patients. Cardiopulmonary evaluation should be considered before and during treatment.

**Interactions**

Azacitidine is not mediated by cytochrome P450 (CYP) isoenzymes, UDP-glucuronosyltransferases (UGT), sulfotransferases (SULT) or glutathione transferases (GST); therefore, interactions related to these metabolizing enzymes in vivo are considered unlikely.

## IMMUNOTHERAPEUTIC BCG

Clue	Description	Indications	Route of administration and dosage
010.000.3050.00	<p>SUSPENSION</p> <p>Each vial with lyophilisate contains:</p> <p>Calmette-Guerin bacillus 81,00 mg equivalent to <math>1.8 \times 10^8 - 19.2 \times 10^8</math> UFC (colony forming units)</p> <p>Package with a vial with lyophilisate and a 3 mL vial of diluent.</p>	Treatment of Superficial transitional cell carcinoma of the urinary bladder.	<p>Intravesical.</p> <p>Adults:</p> <p>81 mg, reconstituted, in 50 mL of sterile saline.</p>

**Generalities**

They are live attenuated bacilli that stimulate the acute inflammatory and subacute granulomatous response through an antitumor effect.

**Risk in Pregnancy** c

**Adverse effects**

Fever, prostatitis, pneumonitis, hepatitis, arthralgia, hematuria.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, congenital or acquired immunodeficiencies  
Precautions: Assess risk benefit in pregnancy, lactation and infections.

**Interactions**

None of clinical importance.



**BENDAMUSTINE**

Clue	Description	Indications	Route of administration and dosage
010.000.6325.00	INJECTABLE SOLUTION  Each vial contains: bendamustine hydrochloride 100 mg/4 mL  Container with 1 vial	Indolent Non-Hodgkin Lymphoma  Follicular in patients who have progressed during or after a regimen with  Rituximab  Relapsed Chronic Lymphocytic Leukemia: Binet B or C in patients for whom combination therapy with fludarabine is not appropriate.	Intravenous  Adults 120 mg/m <sup>2</sup> days 1 and 2 every 3 weeks.  Intravenous  Adults  100 mg/m <sup>2</sup> body surface area on days 1 and 2 of 4-week cycles, administered over 10 minutes in 50 mL of solution.

**Generalities**

Bendamustine belongs to the alkylating antineoplastic agents, which exerts its **FUNCTION** through the apoptosis of tumor cells through its p53-dependent alkylating activity; which has a more pronounced and longer lasting DNA damaging effect compared to other alkylating agents.

**Risk in Pregnancy** d**Adverse effects**

The most common adverse reactions reported with Bendamustine hydrochloride are hematological (leukopenia and thrombocytopenia), dermatological toxicities (allergic reactions), constitutional symptoms (fever) and gastrointestinal symptoms (nausea, vomiting).

Hypersensitivity reactions are common adverse effects of Bendamustine. Anaphylactic reactions including anaphylactic shock have been reported. In immunosuppressed patients, the risk of infection (for example, with herpes zoster) may be increased. There are isolated reports of necrosis after accidental extravascular administration and toxic epidermal necrosis, tumor lysis syndrome and anaphylaxis.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to Bendamustine or any of its components. It is contraindicated in pregnancy and lactation.

Precautions: Should be avoided in case of severe hepatic impairment (serum bilirubin >2.0 mg/dL and/or jaundice). It should not be administered in patients with severe bone marrow suppression and severe alterations in the blood count (leukocyte values less than 3000/  $\mu$ L (microliter) and/or platelets less than 7500/  $\mu$ L (microliter)). It should not be administered 30 days before major surgery due to risk of aplasia or post-surgical infection. Its use is not recommended in patients at risk of opportunistic infections or with severe lymphocytopenia. Do not administer if there is received the yellow fever vaccine.

**Interactions**

Increased toxicity by myelosuppressants.

Risk of lymphoproliferation due to excessive immunosuppression with cyclosporine, tacrolimus.

Risk of infection with live virus vaccines.

There is a potential for interaction with CYP 1A2 inhibitors such as fluvoxamine, ciprofloxacin, acyclovir, cimetidine, since Bendamustine is metabolized by this isoenzyme.

**BEVACIZUMAB (In Catalog II program)**

Clue	Description	Indications	Route of administration and dosage
010.000.5472.00	INJECTABLE SOLUTION  Each vial contains: Bevacizumab 100 mg.  Container with vial bottle with 4 mL.	Metastatic carcinoma of the colon or rectum.  Locally recurrent or metastatic breast carcinoma.	Intravenous infusion. Adults:  Colorectal cancer. 5 mg/kg body weight once every 14 days.  Breast cancer.
	INJECTABLE SOLUTION  Each vial contains: Bevacizumab 400 mg.  Container with vial bottle with 16 mL.	Epithelial ovarian, fallopian tube and primary peritoneal cancer.  Patients in FIGO IV stage, in FIGO III stage with residual tumor greater than 1 cm after cytoreductive surgery, or inoperable patients.	10 mg/kg body weight once every 14 days. Ovarian cancer.  7.5 mg/kg body weight every 21 days coadministered with carboplatin and paclitaxel-based chemotherapy (starting in the second cycle) for 6 cycles, followed by monotherapy until progression or a maximum of 12 cycles in monotherapy.

		Persistent Cervical Cancer. recurrent or metastatic.	Cervical Cancer. 15 mg/kg, every 21 days as an intravenous infusion together with chemotherapy based on with paclitaxel and cisplatin until disease progression.
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**Generalities**

Monoclonal antibody with anti-angiogenic activity by inhibiting "Endothelium Growth Factor" Vascular" (VEGF).

**Risk in Pregnancy** c

**Adverse effects**

Asthenia, diarrhea, nausea and pain, proteinuria.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.  
Precautions. The risk of developing tumor-associated hemorrhage, gastrointestinal perforations, high blood pressure, and arterial thromboembolism (including cerebral vascular events, transient ischemic attacks, and myocardial infarction) may be increased. The wound healing process may be affected.

**Interactions**

None of clinical importance.

### BICALUTAMIDE

Clue	Description	Indications	Route of administration and dosage
010.000.5440.00 010.000.5440.01	TABLET  Each tablet contains: Bicalutamide 50 mg  Package with 14 tablets. Package with 28 tablets.	Metastatic carcinoma prostate.	Oral.  Adults:  50 mg every 24 hours, at the same time.

**Generalities**

Nonsteroidal antiandrogen that competitively inhibits the androgen receptor. When it has been used as a monodrug, an increase in serum testosterone and estradiol has been observed, so it should be administered concomitantly with LHRH.

**Risk in Pregnancy** x

**Adverse effects**

Facial redness, diaphoresis, hypertension, nocturia, hematuria, gynecomastia, impotence, breast pain, pathological fractures, peripheral edema, hypochromic anemia, headache, nausea, diarrhea, sometimes melena, rectal bleeding.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, liver failure.

**Interactions**

It interferes with the action of coumarins, so serial prothrombin times should be performed.

### BLEOMYCIN

Clue	Description	Indications	Route of administration and dosage
010.000.1767.00  010.000.1767.01	INJECTABLE SOLUTION  Each vial or vial with lyophilisate contains: Bleomycin sulfate equivalent to 15 IU of bleomycin.  Package with a vial or a vial and 5 mL diluent  Container with a vial or a vial and diluent of 10	Testicular cancer. Head and neck cancer. Hodgkin's disease. Non-Hodgkin lymphomas. Esophagus cancer.	Intravenous or Intramuscular. Adults:  10 to 20 U/m2 of body surface. Once or twice a week up to a total of 300 a 400 units.  After a 50% response, the maintenance dose is 1 U/day or 5 U/week.  The schemes vary according to the condition, the response, the toxic effects

mL

and the doctor's experience.

#### Generalities

It inhibits DNA synthesis and causes the cleavage of single- and double-stranded DNA.

#### Risk in Pregnancy

#### Adverse effects

Stomatitis, fever, skin rashes, myalgia, pulmonary fibrosis, arterial hypotension, erythroderma, alopecia, skin hyperpigmentation, nausea, vomiting, hyperesthesia of the scalp and fingers.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

#### Interactions

With other antineoplastics, their therapeutic and adverse effects increase. The cellular uptake of methotrexate is affected by bleomycin, the glycosides decrease its plasma concentration.

### *BLINATUMOMAB (In prescription control program)*

Clue	Description	Indications	Route of administration and dosage
010.000.6096.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with lyophilized powder contains: Blinatumomab 35 µg</p> <p>Package with one vial with lyophilized powder and one vial with IV stabilizing solution.</p>	<p>Lymphoblastic Leukemia Acute (ALL) B cell precursor chromosome Philadelphia negative in relapsed or refractory adults and chromosome Philadelphia negative and positive in relapse or refractory in pediatric population.</p>	<p>Administration Intravenous Adults:</p> <p>In patients weighing 45 kg or more, the dose is 9 µg/day (fixed dose) from day 1-7 and 28 µg/day from day 8-28 in the first treatment cycle. For subsequent cycles administer 28 µg/day on days 1-28.</p> <p>2 weeks of free treatment should be allowed between blinatumomab cycles.</p> <p>Children: In patients weighing 45 kg or more, the dose is 9 µg/day (fixed dose) from day 1-7 and 28 µg/day from day 8-28 in the first treatment cycle. For subsequent cycles administer 28 µg/day on days 1-28.</p> <p>In patients weighing less than 45 kg The dose is 5 µg/m<sup>2</sup>/day (not to exceed 9 µg/day) on days 1-7 and 15 µg/m<sup>2</sup>/day (not exceeding 28 µg/day) on days 8-28 in the first treatment cycle. For subsequent cycles administer 15 µg/m<sup>2</sup>/day on days 1 to 28 (not to exceed 28 µg/day). 2 weeks of free treatment should be allowed between blinatumomab cycles.</p>

#### Generalities

Blinatumomab is a bispecific CD3 T cell coupler, targeting CD19 and binding to CD19, expressed on the surface of B-lineage lymphocytes with CD3 expressed on the surface of T cells. This activates endogenous T lymphocytes by connecting of CD3 in the T cell receptor (TCR) complex with CD19 on benign and malignant B cells. Blinatumomab acts as a mediator in the formation of a cytolytic synapse between the T lymphocyte and the tumor cell, increasing cell adhesion, the production of cytolytic proteins, the release of inflammatory cytokines and the proliferation of T lymphocytes and produces the elimination of CD19 + lymphocytes .

#### Risk in Pregnancy

c

#### Adverse effects

Cytosine release syndrome, neurological toxicity, infections, tumor lysis syndrome, Neutropenia and febrile neutropenia, effects on the ability to drive and use machinery, elevated liver enzymes and leukoencephalopathy.

#### Contraindications and Precautions

Contraindications and Precautions: Hypersensitivity to the drug.

#### Interactions

Initiation of treatment with Blinatumomab causes transient release of cytokines that may suppress enzymes. CYP450. No interactions between drugs and Blinatumomab have been studied.

**BORTEZOMIB**

Clue	Description	Indications	Route of administration and dosage
010.000.4448.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Bortezomib 3.5 mg  Container with a vial.	Multiple myeloma in relapsed and/or refractory.	Intravenous  Adults: 1.3 mg/m <sup>2</sup> body surface area/dose.  Administer as an intravenous bolus twice a week for two weeks (days 1, 4, 8 and 11) followed by a 10-day rest period (days 12 to 21). At least 72 hours should elapse between consecutive doses.  These 3 weeks are considered a treatment cycle.

Generalities
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The active ingredient of Bortezomib is modified dipeptidyl acid, which is a reversible proteasome inhibitor. 26S, protein complex with chymotrypsin-like activity in mammalian cells. The 26S proteasome is a large protein complex that degrades ubiquitinated proteins.

Risk in Pregnancy	x
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Adverse effects
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Fatigue, weakness, nausea, diarrhea, decreased appetite (including anorexia), constipation, thrombocytopenia, peripheral neuropathy, fever, vomiting and anemia.

Contraindications and Precautions
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Contraindications: hypersensitivity to the drug.  
 Precautions: Peripheral neuropathy, hypotension.

Interactions
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Concomitantly with other drugs that inhibit or induce cytochrome P450 3A4, they should be closely monitored for the timely detection of toxic effects or detection of reduced efficacy of Bortezomib. In vitro studies with human liver microsomes indicate that the active ingredient of Bortezomib is a substrate of cytochrome P450 3A4, 206, 2C19, 2C9 and 1A2.

**BRENTUXIMAB VEDOTIN (In prescription monitoring program)**

Clue	Description	Hodgkin	Route of administration and dosage
010.000.6085.00	INJECTABLE SOLUTION  Each vial with lyophilized powder contains:  Brentuximab Vedotin 50 mg  Container with a vial with lyophilized powder.	lymphoma indications relapsed or refractory.	Intravenous.  1.8 mg/Kg of body weight administered by intravenous infusion applied over a period of 30 minutes, once every three weeks.  It should not be administered as a rapid intravenous injection or bolus.

Generalities
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Brentuximab Vedotin is an antibody conjugate (AbC) that delivers an antineoplastic agent that selectively produces apoptotic cell death of CD30-expressing tumor cells.

Risk in Pregnancy	d
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Adverse effects
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Peripheral sensory neuropathy, fatigue, nausea, diarrhea, pyrexia, upper respiratory tract infection, neutropenia, vomiting and cough.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.  
 Precautions: In combination with bleomycin it causes pulmonary toxicity.

Interactions
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CYP3A4 Inhibitors, Inducers, and Substrates: Coadministration of brentuximab vedotin with ketoconazole, a strong CYP3A4 inhibitor, did not alter brentuximab vedotin exposure; however, a moderate increase in MMAE exposure was observed. Patients receiving strong CYP3A4 inhibitors concomitantly with brentuximab vedotin should be closely monitored for adverse events.

**BUSULFAN**

Clue	Description	Indications	Route of administration and dosage
010.000.1755.0	TABLET Each tablet contains: Busulfan 2 mg Package with 25 tablets.	granulocytic leukemia chronicle.  Conditioning treatment prior to hematopoietic progenitor cell transplantation.	Oral.  Adults:  4 to 8 mg daily but can vary from 1 to 12 mg daily (0.6 mg/kg body weight or 1.8 mg/ m <sup>2</sup> body surface area) at the beginning of therapy. Maintenance dose: 1 to 3 mg daily. It will be adjusted according to hematological and clinical response.
010.000.6307.00	INJECTABLE SOLUTION  Each mL contains: Busulfan 6.0 mg.  Container with ampoule bottle or vial of 60 mg/10 mL.  INJECTABLE SOLUTION  Each mL contains: Busulfan 6.0 mg.		Children:  0.06 to 0.12 mg/kg body weight or 1.8 to 4.6 mg/m <sup>2</sup> body surface area, daily.

**Generalities**

Alkylant that interferes with DNA replication and RNA transcription. At conventional doses it only has myelosuppressive properties.

**Risk in Pregnancy**

d

**Adverse effects**

Myelosuppression, fetal malformations, hyperuricemia, interstitial pulmonary fibrosis and Addison's disease-like syndrome.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: In hyperuricemia, gout and immunosuppressed.

**Interactions**

With furosemide, thiazides, ethambutol and pyrazinamide the risk of hyperuricemia increases.

**CABAZITAXEL**

Clue	Description	Indications	Route of administration and dosage
010.000.5658.00	INJECTABLE SOLUTION  Each vial contains: Cabazitaxel acetone solvate 60 mg  Container with a vial bottle with 1.5 mL and a vial with 4.5 mL of diluent.	Metastatic cancer of prostate refractory to hormonal therapy, previously treated with a regimen containing Docetaxel.	Intravenous infusion.  25 mg/m <sup>2</sup> body surface area for 1 hour, every 3 weeks, in combination with 10 mg prednisone (or prednisolone).

**Generalities**

Cabazitaxel is an antineoplastic agent that acts by disrupting the microtubular network in cells.

Cabazitaxel binds to tubulin and promotes the attachment of tubulin to microtubules while simultaneously inhibiting their disassembly. This results in the stabilization of microtubules, resulting in the inhibition of mitotic and interphase cellular functions.

**Risk in Pregnancy**

d

**Adverse effects**

Neutropenia, leukopenia, anemia, febrile neutropenia, diarrhea, fatigue and asthenia, nausea, vomiting, constipation, abdominal pain, dyspepsia, upper abdominal pain, hemorrhoids, reflux disease, fatigue, pyrexia, mucosal inflammation, musculoskeletal and spinal disorders connective tissue, back pain, arthralgia, muscle spasms, metabolism and nutrition disorders, anorexia, dehydration, renal and urinary tract disorders, hematuria, dysuria, urinary incontinence, acute renal failure, respiratory, thoracic and mediastinal disorders, dyspnea, cough, skin and subcutaneous tissue disorders, alopecia, infections and infestations, urinary tract infection, nervous system disorders, dysgeusia, peripheral neuropathy, vertigo, headache, peripheral sensory neuropathy.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: Neutrophil count  $\leq 1,500/\text{mm}^3$ , liver failure (bilirubin  $\geq 1 \times \text{ALN}$ , or AST/SGTO and/or ALT/SGTP  $\geq 1.5 \times \text{ALN}$ ). It is essential to monitor complete blood count weekly during the 1st cycle and subsequently before each treatment cycle, so that the dose can be adjusted, if necessary. Reduce the dose in case of febrile neutropenia or prolonged neutropenia, despite appropriate treatment.

Restart treatment only when neutrophils recover to a level of  $\geq 1,500/\text{mm}^3$ .

#### Interactions

In vitro studies have shown that cabazitaxel is primarily metabolized by CYP3A.

Although specific drug interaction trials have not been performed for cabazitaxel, concomitant administration of strong CYP3A inhibitors (e.g., ketoconazole, itraconazole, clarithromycin, atazanavir, indinavir, nefazodone, nelfinavir, ritonavir, saquinavir, telithromycin, voriconazole) increase cabazitaxel concentrations. Therefore, coadministration with strong CYP3A inhibitors should be avoided. Caution should be exercised with concomitant use of moderate CYP3A inhibitors.

Although specific drug interaction trials have not been performed for cabazitaxel, concomitant administration of strong CYP3A inducers (e.g. phenytoin, carbamazepine, rifampicin, rifabutin, rifapentine, phenobarbital) would be expected to reduce cabazitaxel concentrations. Therefore, coadministration with strong CYP3A inducers should be avoided. Additionally, patients should refrain from taking St. John's wort or St. John's wort.

In vitro, cabazitaxel has also been shown to inhibit the transport of Organic Anion Transporting Polypeptide OATP1B1 proteins. The risk of interaction with OATP1B1 substrates (e.g. statins, valsartan, repaglinide) is possible, particularly during the duration of the infusion (1 hour) and up to 20 minutes after completion of the infusion. A time interval of 12 hours before infusion and at least 3 hours after completion of the infusion is recommended before administering OATP1B1 substrates.

Administration of live or live-attenuated vaccines in patients immunocompromised by chemotherapeutic agents may result in serious or fatal infections. Vaccination with live-attenuated vaccines should be avoided in patients treated with cabazitaxel. Killed or inactivated vaccines can be administered; however, the response to these vaccines may decrease.

## CAPECITABINE

Code	Description	Indications	Route of administration and dosage
010.000.5460.00	TABLET  Each tablet contains: Capecitabine 150 mg  Package with 60 tablets.	Breast cancer.	Oral.  Adults: Breast cancer: 2,500 mg/m <sup>2</sup> body surface area/day, divided into two doses. Treatment cycles are two weeks with one week off.
010.000.5461.00	TABLET  Each tablet contains: Capecitabine 500 mg  Package with 120 tablets.	Breast cancer.  Adjuvant and metastatic colorectal cancer.	Colon, colorectal cancer: 1,000 mg/m <sup>2</sup> body surface area administered twice daily for two weeks, followed by a period of seven-day rest, in combination with the corresponding chemotherapy regimen.  or 1,250 mg/ m <sup>2</sup> of body surface area administered twice daily for two weeks, followed by a seven-day rest period, as monotherapy.

#### Generalities

It is a fluoropyrimidine carbamate, an oral cytotoxic agent activated by tumors and with selectivity for them.

Risk in Pregnancy x

#### Adverse effects

Diarrhea, stomatitis, hand-foot syndrome, nausea, vomiting, fatigue, elevation of transaminases and bilirubin.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug and to fluoropyrimidines or fluorouracil.

#### Interactions

None of clinical importance.

**CARBOPLATIN**

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION.	Testicular cancer.	Intravenous infusion.
	Each vial with or without lyophilized contains:	Bladder cancer.	Adults:
010.000.4431.00	Carboplatin 150 mg	Epithelial ovarian cancer.	400 mg/m <sup>2</sup> body surface area / day.
	Container with a vial.	cancer cells of small lung	The infusion can be repeated every month.
	Each vial with or without lyophilized contains:	Head and neck cancer.	Children:
010.000.6290.00	Carboplatin 450 mg.		The dose must be adjusted according to the patient's conditions and the specialist's judgment.
	Container with a vial.		

**Generalities**

It inhibits DNA synthesis which alters cell proliferation (nonspecific alkylator of the cell cycle).

**Risk in Pregnancy** d**Adverse effects**

Myelosuppression, nephrotoxic, ototoxic; nausea and vomiting, anaphylactic reactions, alopecia, hepatotoxicity, central neurotoxicity.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, cisplatin, or compounds containing platinum or mannitol, bone marrow depression, renal failure.

Precautions: Do not use equipment containing aluminum for administration.

**Interactions**

Enhances the effect of other oncological medications and radiotherapy. Nephrotoxic agents or bone marrow depressants potentiate these toxic effects.

**CARFILZOMIB**

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION		intravenous,
	Each vial with lyophilized powder contains:	Treatment of patients with relapsed and refractory multiple myeloma, and who have received at least two prior therapies, including bortezomib and an immunomodulatory agent.	Adults:
010.000.6086.00	Carfilzomib 60 mg		Dose of 20 mg/m <sup>2</sup> body surface area in cycle 1 on days 1 and 2. If tolerated, the dose should be increased to
	Container with vial bottle with lyophilized powder.	Carfilzomib in combination with lenalidomide plus dexamethasone for the treatment of patients with Relapsed or Refractory Multiple Myeloma who have received one to three lines of therapy.	27 mg/m <sup>2</sup> body surface area on day 8 of cycle 1.
			administer intravenously on two consecutive days, every week for three weeks (days 1, 2, 8, 9, 15 and 16), followed by a 12-day rest period (days 17 to 28).
			- Each 28-day period is considered a treatment cycle. Initial carfilzomib dose of 20 mg/m <sup>2</sup> body surface area in cycle 1 on days 1 and 2. If tolerated, the dose should be increased to 27 mg/m <sup>2</sup> body surface area on the same day.
			8 of cycle 1. From cycle 13, skip doses on days 8 and 9. Discontinue after Cycle 18. Lenalidomide 25 mg is administered orally on Days 1 to 21 and dexamethasone 40 mg orally or intravenously on days 1, 8, 15 and 22 of the 28-day cycles.

**Generalities**

Carfilzomib is an epoxyketone tetrapeptide proteasome inhibitor that selectively and irreversibly binds to the N-terminal threonine-containing active sites of the 20S proteasome, the proteolytic core particle within the 26S proteasome, and shows little or no activity against other classes of proteases. Carfilzomib showed antiproliferative and proapoptotic activities in preclinical models in solid and hematological tumors. In animals, carfilzomib

inhibits proteasome activity in blood and tissues and delays tumor development in models of multiple myeloma, hematological and solid tumors

**Risk in Pregnancy** d

**Adverse effects**

Thrombocytopenia, nausea, diarrhea, vomiting, fatigue, pyrexia, chills, increased blood creatinine and elevated aspartate aminotransferase and dyspnea; infusion-related and infusion site reactions, elevated alanine aminotransferase; uncommon, tumor lysis syndrome.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: Cardiopulmonary disorders, infusion reactions, tumor lysis syndrome, thrombocytopenia, liver toxicity, neutropenia.

**Interactions**

Carfilzomib is primarily metabolized through the activity of peptidases and epoxide hydrolases and, as a result, the pharmacokinetic profile of carfilzomib is unlikely to be affected by concomitant administration of cytochrome P450 inhibitors and inducers. Carfilzomib is not expected to influence the exposure of other drugs.

## CARMUSTINE

Clue	Description	Indications	Route of administration and dosage
010.000.1758.00	<p>INJECTABLE SOLUTION.</p> <p>Each vial with lyophilisate contains:</p> <p>Carmustine 100 mg</p> <p>Container with a vial and sterile diluent (absolute ethanol) 3 mL.</p>	<p>Hodgkin's disease.</p> <p>Non-Hodgkin's lymphoma.</p> <p>Multiple myeloma.</p> <p>Malignant melanoma.</p> <p>Primary brain carcinoma.</p>	<p>Intravenous infusion.</p> <p>Adults:</p> <p>75 to 100 mg/m<sup>2</sup> of body surface area, daily for 2 days, repeat every 6 weeks with platelet control and leukocyte count.</p> <p>The dose is reduced by 50% below 2 000/mm<sup>3</sup> leukocytes and less than 25 000/mm<sup>3</sup> of platelets.</p> <p>Alternative regimen 200 mg/m<sup>2</sup> body surface, single dose, repeat every 6 to 8 weeks.</p>

**Generalities**

It cross-links cellular DNA strands and interferes with RNA transcription, causing an imbalance in development that leads to cell death. It is nonspecific for the cell cycle.

**Risk in Pregnancy** d

**Adverse effects**

Anorexia, nausea, bone marrow depression, leukopenia, thrombocytopenia, injection site pain, skin hyperpigmentation, nephrotoxicity, hepatotoxic, hyperuricemia, pulmonary fibrosis.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, gout, kidney or liver damage.

**Interactions**

Cimetidine may increase bone marrow toxicity. Do not use them combined.

## CERITINIB

Clue	Description	Indications	Route of administration and dosage
010.000.6301.00	<p>CAPSULES</p> <p>Each capsule contains:</p> <p>Ceritinib 150 mg.</p> <p>Container with 150 capsules.</p>	<p>Patient treatment</p> <p>Adults with anaplastic lymphoma kinase (ALK)-positive advanced non-small cell lung cancer previously treated with crizotinib.</p>	<p>Oral.</p> <p>750 mg administered orally, once a day.</p>

**Generalities**



Highly selective and potent oral inhibitor of anaplastic lymphoma kinase (ALK). Ceritinib inhibits ALK autophosphorylation, ALK-mediated phosphorylation of downstream signaling pathway proteins, and ALK-dependent cancer cell proliferation in vitro and in vivo.

#### Risk in Pregnancy

X (Its administration is not recommended during pregnancy)

#### Adverse effects

Anemia; decreased appetite, hyperglycemia, hypophosphatemia, visual disturbance, pericarditis, bradycardia, pneumonitis, diarrhea, nausea, vomiting, abdominal pain, constipation, esophageal disturbance, pancreatitis, abnormal liver function parameters, hepatotoxicity, rash; renal failure, fatigue, abnormal liver laboratory parameters, weight decreased, blood creatinine increased, electrocardiogram QT prolongation, lipase increased, amylase increased

#### Contraindications and Precautions

Administer with caution in patients with renal and hepatic insufficiency.

#### Interactions

Plasma concentrations increased by: strong CYP3A/P-gp inhibitors. Concomitant use with strong CYP3A inducers (including, but not limited to, ritonavir, saquinavir, telithromycin, ketoconazole, itraconazole, voriconazole, posaconazole, and nefazodone) should be avoided.

### CETUXIMAB (In Catalog II program)

Code	Description	Indications	Route of administration and dosage
010.000.5475.00	INJECTABLE SOLUTION Each vial contains: Cetuximab 100 mg Container with vial bottle with 50 mL (2 mg/mL).	Colorectal cancer refractory metastatic.  Recurrent or metastatic head and neck squamous cell cancer.	Intravenous infusion.  Adults:  Initial dose: 400 mg/m <sup>2</sup> of body surface in the first week of treatment.
010.000.5475.01	Container with vial bottle with 20 mL (5 mg/mL).		Maintenance dose: 250 mg/m <sup>2</sup> body surface once a week.  Administer undiluted.

#### Generalities

Cetuximab is a chimeric IgG1 monoclonal antibody that binds specifically and with high affinity to EGFR, and competitively inhibits the binding of endogenous ligands. This reduces cellular functions involved in tumor growth, development, and metastasis, such as tumor proliferation, survival, cell invasion, DNA repair, and angiogenesis. It also induces the internalization of EGFR, which can lead to a decrease in the density of these receptors. By binding to EGFR expressed by tumor cells, cetuximab also activates the antibody-mediated cytotoxic cellular immune response.

#### Risk in Pregnancy

c

#### Adverse effects

There is no evidence that the safety profile of cetuximab is influenced by antineoplastic agents or vice versa.

In combination with irinotecan, additional adverse reactions are those that might be expected with irinotecan, such as diarrhea, nausea, vomiting, mucositis, fever, leukopenia and alopecia. Acne-type rash and nail alterations.

#### Contraindications and Precautions

Contraindications: hypersensitivity to the drug.

Precautions: During pregnancy and lactation. No studies have been conducted in children or in patients with disorders hematological or pre-existing renal and hepatic functions (serum creatinine  $\geq$  1.5 times, transaminases  $\geq$  5 times and bilirubin  $\geq$  1.5 times in relation to the upper normal limits).

#### Interactions

A formal interaction study in humans showed that the pharmacokinetics of cetuximab and irinotecan did not change after coadministration. Clinical data did not show any influence on the safety profile of cetuximab or vice versa. In clinical studies for colorectal cancer, non-small cell lung cancer and squamous cell head and neck cancer, different antineoplastic therapeutic modalities were used in first or second lines within the regimens used were: FOLFOX (5-fluorouracil, Folinic acid Oxaliplatin) FOLFIRI (5-fluorouracil, Folinic Acid, Irinotecan) CV (cisplatin, vinorelbine), Bevacizumab, platinum or carboplatin. In none of the studies were significant drug interactions or significantly increased toxicity found.

**CYCLOPHOSPHAMIDE**

Clue	Description	Indications	Route of administration and dosage
010.000.1751.00 010.000.1751.01	DRAGEE  Each dragee contains: Cyclophosphamide monohydrate equivalent to 50 mg. of cyclophosphamide.  Container with 30 dragees. Container with 50 dragees.	Carcinoma of head and neck.  Lung cancer.  Ovarian cancer.  Hodgkin's disease.	Intravenous, oral.  Adults:  40 to 50 mg/kg body weight in a single dose or in 2 to 5 doses.  Maintenance 2 to 4 mg/kg of body weight daily for 10 days.
010.000.1752.00	INJECTABLE SOLUTION  Each vial with lyophilisate or injectable solution contains: Cyclophosphamide monohydrate equivalent to 200 mg of cyclophosphamide.  Container with 5 vials.	Acute lymphoblastic leukemia.  Chronic lymphocytic leukemia.  Chronic myelocytic leukemia.	Children:  2 to 8 mg/kg body weight or 60 to 250 mg/m <sup>2</sup> body surface /day for 6 days.
010.000.1753.00 010.000.1753.01	INJECTABLE SOLUTION.  Each vial or vial with lyophilisate contains:  Cyclophosphamide monohydrate equivalent to 500 mg of cyclophosphamide.  Package with 2 ampoule bottles or vial. Package with 1 vial or bottle.	Non-Hodgkin lymphoma.  Multiple myeloma.  Sarcoma.	Oral maintenance dose: 2-5 mg/kg body weight or 50-150 mg/m <sup>2</sup> of body surface, twice a week.
010.000.6214.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains: Cyclophosphamide monohydrate equivalent to 1000 mg of cyclophosphamide.  Container with 1 vial.		

**Generalities**

Cytotoxic that produces an imbalance in growth within the cell causing cell death. It has important immunosuppressive activity.

**Risk in Pregnancy**

d

**Adverse effects**

Anorexia, nausea, vomiting, aphthous stomatitis, enterocolitis, jaundice, pulmonary fibrosis, hemorrhagic cystitis, leukopenia, thrombocytopenia, azoospermia, amenorrhea, alopecia, hepatitis.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: Myelosuppression, infections.

**Interactions**

Phenobarbital, phenytoin, chloral hydrate, corticosteroids, allopurinol, chloramphenicol, chloroquine, imipramine, phenothiazines, vitamin A, succinylcholine and doxorubicin promote adverse effects.

**CISPLATIN**

Clue	Description	Indications	Route of administration and dosage
010.000.3046.00	INJECTABLE SOLUTION  The vial with lyophilisate or solution contains: Cisplatin 10 mg Container with a vial.	Carcinoma of the testicle.  Ovarian carcinoma.  Advanced bladder cancer.	Intravenous.  Adults and children:  In general, 20 mg/m <sup>2</sup> of body surface area/day are used for five days.
010.000.3046.01	INJECTABLE SOLUTION  The vial with injectable solution contains: cisplatin 10 mg. Container with 10 vials  Each vial with lyophilisate or solution contains:		Repeat every 3 weeks or 100 mg/m <sup>2</sup> of body surface area, once, repeating it every four weeks.

010.000.6291.00

Cisplatin 50 mg.  
Container with a vial.

#### Generalities

It cross-links cellular DNA strands and interferes with RNA transcription, causing a growth imbalance that leads to cell death. It is nonspecific for the cell cycle.

#### Risk in Pregnancy

d

#### Adverse effects

Acute renal failure, central deafness, leukopenia, peripheral neuritis, bone marrow depression. Nausea and vomiting that begin one to four hours after administration and last one day. There are cases of anaphylactoid reaction.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, kidney dysfunction.

Precautions: Assess risk-benefit in myelosuppression, severe infections or hearing disorders.

#### Interactions

Aminoglycosides and furosemide increase adverse effects.

## CYTARABINE

Clue	Description	Indications	Route of administration and dosage
010.000.1775.00	INJECTABLE SOLUTION  Each vial or vial with lyophilisate contains:  Cytarabine 500 mg  Pack with a vial or with a vial with lyophilisate.	Acute lymphocytic leukemia.  Acute granulocytic leukemia.  Erythroleukemia.  Meningeal leukemia.	Intravenous or intrathecal.  Adults and children:  Acute leukemias and erythroleukemias: 100 to 200 mg/m <sup>2</sup> of body surface area per day in continuous infusion over 24 hours.  Meningeal leukemia: 30 mg/m <sup>2</sup> body surface area intrathecally until cerebrospinal fluid is normal, then an additional dose.
010.000.1775.01	Each vial contains: cytarabine 500 mg.  Container with 10 vials with injectable solution		

#### Generalities

Inhibits DNA synthesis. To exert its effect, it must be "activated" by conversion to a 5-monophosphate nucleotide that reacts with the appropriate nucleotide cymases to form the diphosphate and triphosphate nucleotides.

#### Risk in Pregnancy

d

#### Adverse effects

Anorexia, asthenia, nausea, vomiting, leukopenia, added infection, thrombocytopenia, diarrhea, dizziness, headache, hyperuricemia, nephropathy, alopecia, gastro-intestinal hemorrhage, megaloblastic anemia, fever.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, liver or kidney failure, infections, bone marrow depression.

#### Interactions

Radiotherapy increases its effectiveness but also its toxic effects. It is incompatible with methotrexate and fluorouracil.

## CHLOFARABINE

Clue	Description	Indications	Route of administration and dosage
010.000.6288.00	SOLUTION  Each vial contains: Clofarabine 20 mg  Package with vial bottle with 20 mg of clofarabine.	Treatment of pediatric patients with relapsed or refractory Acute Lymphoblastic Leukemia (ALL) with at least two prior treatment regimens.	Intravenous  The recommended monotherapy dose is 52 mg/m <sup>2</sup> body surface area per day, administered by intravenous infusion over a 2-hour interval, for 5 consecutive days.

### Generalities

It is a purine nucleoside analogue antimetabolite. Its antitumor activity is believed to be due to inhibition of DNA polymerase alpha, inhibition of ribonucleoside reductase, and disruption of mitochondrial membrane integrity.

### Risk in Pregnancy

X (contraindicated in pregnancy).

### Adverse effects

Septic shock, sepsis, bacteremia, pneumonia, herpes zoster, oral candidiasis, tumor lysis syndrome, febrile neutropenia, anorexia, decreased appetite, dehydration, anxiety, headache, hearing loss, flushing, vomiting, nausea, diarrhea, fatigue, pyrexia, mucosal inflammation, pruritus, pain in extremities, myalgia, bone pain, weight loss.

### Contraindications and Precautions

Patients with severe renal failure or deterioration in liver function. Hypersensitivity to the drug or any of its components.

### Interactions

There is no detectable metabolism of the drug by the cytochrome P450 (CYP) enzyme system. Therefore, it is unlikely to interact with those active ingredients capable of inducing or inhibiting cytochrome P450 enzymes.

## CHLORAMBUCYL

Clue	Description	Lymphocytic indications	Route of administration and dosage
010.000.1754.00	<p>TABLET</p> <p>Each tablet contains: Chlorambucil 2 mg</p> <p>Package with 25 tablets.</p>	<p>Chronic leukemia.</p> <p>Non-Hodgkin lymphoma.</p> <p>Hodgkin's disease.</p> <p>Macroglobulinemia primary.</p>	<p>Oral.</p> <p>Adults and children: 0.1 to 0.2 mg/kg body weight/day for 3 to 6 weeks.</p> <p>Support dose according to the case and at the discretion of the specialist.</p>

### Generalities

It cross-links DNA strands and interferes with cellular RNA transcription. It is nonspecific to the cell cycle.

### Risk in Pregnancy

d

### Adverse effects

Myelosuppression, seizures, nausea, vomiting, sterility, hypersensitivity.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug and alkylating molecules, immunosuppression, myelosuppression.

### Interactions

Immunosuppressive or myelosuppressive medications favor its adverse effects.

## RADIO 223 CHLORIDE

Clue	Description	Indications	Route of administration and dosage
010.000.6166.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Chloride of radium 223 6600 KBq corresponding to 3.5 ng of radium 223</p> <p>Lead container with a vial with 6 mL of solution (1100 KBq/mL).</p>	<p>Treatment of patients with castration-resistant prostate cancer with symptomatic bone metastases without visceral disease or known visceral disease.</p>	<p>Intravenous.</p> <p>Adults: 55 KBq per kg body weight administered at 4-week intervals for a total of 6 injections.</p>

### Generalities

The active group of Radium-223 Chloride is the calcium-limiting isotope radium-223 and selectively targets bones, especially areas of bone metastases, by forming complexes with the bone mineral hydroxyapatite. The high linear energy transfer of alpha emitters (80 keV/micrometer) produces double-stranded DNA fractures.

chain in adjacent cells, resulting in a potent and localized antitumor effect. The range of the radium 223 alpha particle is less than 100 micrometers (less than 10 cell diameters) which minimizes damage to surrounding normal tissue.

**Risk in Pregnancy** x

**Adverse effects**

Diarrhea, nausea, vomiting, thrombocytopenia, neutropenia, leukopenia and pancytopenia.

**Contraindications and Precautions**

Contraindications and precautions: This product is not indicated for women and men under 18 years of age.

**Interactions**

There are no compatibility studies, so radium 223 should not be mixed with other medications. Concomitant chemotherapy may have additive effects on bone marrow suppression, but the safety and efficacy of concomitant chemotherapy with radium-223 have not been established.

## CRIZOTINIB

Code	Description	Indications Lung	Route of administration and dosage
010.000.5770.00	CAPSULE Each capsule contains: Crizotinib 200 mg Container with 60 capsules.	cancer non-small cells with gene mutation encoding the ALK protein.	Oral. Adults. 250 mg 2 times a day. Depending on response and tolerability, the dose may be decreased to 200 mg 2 times a day. If a greater decrease is required, administer 250 mg once a day.
010.000.5771.00	CAPSULE Each capsule contains: Crizotinib 250 mg Container with 60 capsules.		

**Generalities**

Crizotinib is a small molecule, selective inhibitor of the ALK receptor tyrosine kinase (RTK) and its oncogenic variants (i.e., ALK fusion events and selected ALK mutations). Crizotinib also inhibits the tyrosine kinase activity of the hepatocyte growth factor receptor (HGFR, c-Met). Crizotinib demonstrated concentration-dependent inhibition of ALK and c-Met kinase activity in biochemical assays, and in cellular assays it inhibited phosphorylation and modulated kinase-dependent phenotypes. Crizotinib demonstrated potent and selective growth inhibitory activity and induced apoptosis of tumor cell lines displaying ALK fusion events (such as EML4-ALK and NPM-ALK) or displaying amplification of the *MET* or *ALK gene locus*. Crizotinib demonstrated antitumor efficacy, including marked cytoreductive activity, in mice bearing tumor heterografts expressing ALK fusion proteins. The antitumor efficacy of crizotinib was dose-dependent and showed a correlation with pharmacodynamic inhibition of phosphorylation of ALK fusion proteins (such as EML4-ALK and NPM-ALK) in tumors *in vivo*.

**Risk in Pregnancy** c

**Adverse effects**

Vision disorders, nausea, diarrhea, vomiting, edema, constipation and fatigue. increased ALT, neutropenia, hepatotoxicity with fatal outcome, severe pneumonitis, QT prolongation.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug, severe kidney or liver disease.

Precautions: Liver function tests, including ALT, AST, and total bilirubin, should be performed twice monthly during the first two months of treatment, and monthly thereafter and when clinically indicated, with more frequent repetition of the tests. determinations in case of increases of degree 2, 3 or 4. You must

Crizotinib treatment should be discontinued if pneumonitis is suspected. Other causes of pneumonitis should be excluded, and Crizotinib treatment must be permanently suspended in patients diagnosed with treatment-related pneumonitis. Crizotinib should be administered with caution in patients with a history of or predisposition to QTc prolongation, or who are receiving medications with a known QT prolonging effect. When Crizotinib is used in these patients, periodic monitoring by electrocardiogram and determination of electrolytes should be performed.

**Interactions**

Concomitant use of strong CYP3A inhibitors (certain protease inhibitors such as atazanavir, indinavir, nelfinavir, ritonavir, saquinavir, and certain azole antifungals such as itraconazole, ketoconazole, and voriconazole, and certain macrolides such as clarithromycin, telithromycin, and troleandomycin) should be avoided. Grapefruit can increase

plasma concentrations of crizotinib, so it should be avoided.

Concomitant use of strong CYP3A inducers, including carbamazepine, phenobarbital, phenytoin, rifabutin, rifampicin, and St. John's wort, should be avoided.

Concomitant administration of crizotinib with CYP3A substrates with a narrow therapeutic index, including alfentanil, cisapride, cyclosporine, ergot derivatives, fentanyl, pimozone, quinidine, sirolimus and tacrolimus, should be avoided. If the combination is necessary, close monitoring should be performed.

## BCG CULTURE

Clue	Description	Indications	Route of administration and dosage
010.000.5466.00	<p>SUSPENSION</p> <p>Each bottle with lyophilisate contains: Mycobacterium bovis (BCG) Danish strain 1331 30 mg</p> <p>Container with 4 vials.</p>	Auxiliary immunotherapy in primary or recurrent transitional cell carcinoma of the bladder grade Ta or T1.	<p>Intravesical.</p> <p>Adults: 120 mg reconstituted in 50 mL of sterile saline.</p>

### Generalities

Culture of *Mycobacterium tuberculosis*, Calmette-Guerin strain, attenuated that induces a granulomatous reaction at the site of administration.

### Risk in Pregnancy

c

### Adverse effects

Urinary symptoms. Hypersensitivity, shock, flu syndrome and regional adenitis immune complex disease. Thrombocytopenia, eosinophilia, polyneuritis, osteomyelitis.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, acute illnesses, burns, immunodeficiency.

### Interactions

Antineoplastics, immunosuppressants and glucocorticoids can cause fatal infection.

## DACARBAZINE

Clue	Description	Indications	Route of administration and dosage
010.000.3003.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with powder contains: Dacarbazine 200 mg</p> <p>Container with a vial.</p>	Malignant melanoma. Soft tissue sarcoma.	<p>Intravenous.</p> <p>Adults and children:</p> <p>In Hodgkin's disease, 150 mg/m<sup>2</sup> of body surface area/day for five days and repeat every three weeks.</p> <p>In malignant melanoma, 2 to 4.5 mg/kg of body weight or 70 to 160 mg/m<sup>2</sup> of body surface area/day, for ten days, then repeat every four weeks as tolerated.</p>
010.000.3003.01	<p>Each vial contains: Dacarbazine 200 mg.</p> <p>Container with 10 vials.</p>	Hodgkin's lymphoma.	<p>The dose should be adjusted at the discretion of the specialist.</p>

### Generalities

It cross-links cellular DNA strands and interferes with RNA transcription, causing an imbalance that leads to cell death. It is nonspecific for the cell cycle.

### Risk in Pregnancy

c

### Adverse effects

Anorexia, nausea, severe vomiting that begins one hour after administration and lasts twelve hours. Leukopenia and thrombocytopenia, neurotoxicity, phototoxicity, increased liver enzymes. Very intense pain if the solution infiltrates. Alopecia and sometimes catarrhal syndrome.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, infections, chickenpox and herpes zoster.

Precautions: Use with caution in patients with decreased kidney or liver function, or with bone marrow disorders.

## Interactions

Immunosuppressive or myelosuppressive medications favor its adverse effects.

**DACTINOMICIN**

Clue	Description	Indications	Route of administration and dosage
010.000.4429.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Dactinomycin 0.5 mg  Container with a vial.	Choriocarcinoma.  Wilms tumor.  Rhabdomyosarcoma.  Kaposi sarcoma.  Ewing's sarcoma.	Intravenous infusion.  Adults:  10 to 15 µg/kg body weight/day or 400 to 600 mg/m <sup>2</sup> body surface area/day, for five days, repeat every three to four weeks according to toxicity.  Children:  0.015 mg/kg body weight/day, for 5 days.  The dose should be adjusted at the discretion of the specialist.  Administer diluted in intravenous solutions packaged in glass bottles.

## Generalities

It interferes by intercalation with DNA-dependent RNA synthesis.

## Risk in Pregnancy C

## Adverse effects

Anemia, leukopenia, thrombocytopenia, pancytopenia, anorexia, nausea, vomiting, abdominal pain, diarrhea, stomatitis, erythema, skin hyperpigmentation, acneiform eruptions, phlebitis, reversible alopecia and hepatotoxicity.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: in patients with decreased kidney or liver function, or with alterations in the bone marrow.

## Interactions

None of clinical importance.

**DAROLUTAMIDE**

Clue	Description	Indications	Route of administration and dosage
010.000.7076.00	TABLET  Each tablet contains: Darolutamide 300 mg  Cardboard box with bottle with 120 tablets and attached instructions	Patient treatment with non-metastatic castration-resistant prostate cancer (nmCRPC)	Oral.  Adults: 600 mg (two coated tablets) 300 mg) twice a day, equivalent to the total daily dose of 1200mg

## Generalities

Darolutamide is an androgen receptor (AR) inhibitor. Darolutamide competitively inhibits androgen binding, RA nuclear translocation, and RA-mediated transcription. A major metabolite, ketodarolutamide, exhibited similar in vitro activity to darolutamide. Furthermore, darolutamide functioned as a progesterone receptor (PR) antagonist in vitro (approximately 1% activity compared to RA). Darolutamide reduced prostate cancer cell proliferation in vitro and tumor volume in prostate cancer xenograft models in mice.

## Risk in Pregnancy

The safety and effectiveness of darolutamide in women have not been established. Based on its mechanism of action, darolutamide may cause fetal harm and pregnancy loss. Animal embryofetal developmental toxicology studies were not performed with darolutamide. There are no human data on the use of darolutamide in pregnant women.

## Adverse reactions

Tiredness, pain in extremities, rash, hypertension, diarrhea, pneumonia, nausea, ischemic heart disease, and failure

cardiac.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the components of the formula.

Precautions: Patients with severe renal impairment (eGFR 15-29 mL/min/1.73m<sup>2</sup>) who are not receiving hemodialysis have increased exposure to darolutamide and a dose reduction is recommended. Patients with moderate hepatic impairment (Child Pugh Class B) have increased exposure to darolutamide and a dose reduction is recommended.

#### Interactions

Avoid concomitant use of darolutamide with combined P-gp inducers and strong or moderate CYP3A4 inducers. Avoid concomitant use with medications that are substrates of breast cancer resistance proteins (BCRP) when possible.

### ***DASATINIB (In Catalog II program)***

Clue	Description	Lymphoblastic	Route of administration and dosage
010.000.4323.00	TABLET  Each tablet contains: Dasatinib 50 mg  Package with 60 tablets.	Acute <b>indications</b> leukemia, chromosome Philadelphia positive.  Chronic myeloid leukemia with resistance or intolerance to previous therapy.	Oral.  Adults:  100 mg every 24 hours in a single dose.

#### Generalities

It inhibits the activity of BCR-ABL kinase and SRC family kinases along with other specific oncogenic kinases including c-KIT, ephrin receptor (EPH) kinases and the PDGF receptor. It is a potent inhibitor, at subnanomolar concentrations (0.6-0.8 nM), of the BCR-ABL kinase. It binds not only to the inactive conformation of the BCR-ABL enzyme, but also to the active one.

#### Risk in Pregnancy

d

#### Adverse effects

Ascites, pulmonary edema, pericardial effusion with or without superficial edema, diarrhea, rash, headache, bleeding, fatigue, nausea, dyspnea, musculoskeletal pain, fever and febrile neutropenia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Patients with moderate to severe liver failure, in those who use antiplatelet or anticoagulants and QTc prolongation.

#### Interactions

With strong CYP3A4 inhibitors or inducers. In acid-peptic disease, consider the use of antacids instead of H<sub>2</sub>-antagonists or proton pump inhibitors.

### ***DAUNORUBICIN***

Clue	Description	Indications	Route of administration and dosage
010.000.4228.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Daunorubicin hydrochloride equivalent to 20 mg of daunorubicin.  Container with a vial.	Lymphocytic leukemia acute and acute granulocytic.	Intravenous infusion.  Adults:  30 to 60 mg/m <sup>2</sup> of body surface area/day, for 3 days, repeat in 3 to 4 weeks.  Children over 2 years:  25 mg/ m <sup>2</sup> of body surface area / day.  Administer diluted in solutions IVs packaged in glass bottles.

#### Generalities

It interferes by intercalation with DNA-dependent RNA synthesis.

#### Risk in Pregnancy

d

#### Adverse effects

Nausea, vomiting, stomatitis, esophagitis, anorexia, diarrhea, bone marrow depression, irreversible cardiomyopathy,



arrhythmias, pericarditis, myocarditis, erythema, nail pigmentation, alopecia, fever, hepatotoxicity, nephrotoxicity, hyperuricemia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In decompensated heart disease, depressed bone marrow and kidney or liver failure.

#### Interactions

With cardiotoxic and myelosuppressive medications, adverse effects increase.

## DEGARELIX

Code	Description	Indications	Route of administration and dosage
010.000.5970.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Degarelix 120 mg  Container with two vials with lyophilisate and two vials with 6 mL of diluent each, 2 syringes, 2 needles for reconstitution and 2 needles for injection.	Prostate cancer advanced.	Subcutaneous.  Adults: Starting dose: 240 mg administered in two injections of 120 mg each . Maintenance dose -monthly administration 80 mg.  The first maintenance dose should be administered one month after the starting dose.
010.000.5970.01	Container with two vials with lyophilisate, 2 prefilled syringes with 3 mL of diluent, 2 adapters, 2 plungers, and 2 sterile needles.		
010.000.5971.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Degarelix 80 mg  Package with one vial with lyophilisate and one vial with 6 mL of diluent, 1 syringe, 1 needle for reconstitution and 1 needle for injection.		
010.000.5971.01	Container with a vial with lyophilisate, a prefilled syringe with 4.2 mL of diluent, 1 vial adapter, 1 plunger, and a sterile needle.		

#### Generalities

Selective antagonist of the GnRH receptor, which binds competitively and reversibly with the GnRH receptors of the pituitary gland, rapidly reducing the release of gonadotrophins and consequently the concentration of testosterone to the level of "medical castration" (T < 0.5 ng / mL .

Risk in Pregnancy NE

#### Adverse effects

Hot flashes and increase in body weight (25% and 7%). Pain, erythema and inflammation at the injection site. Antiandrogen is not required, because it does not produce the "flare" effect.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Patients with a history of psychotic disorders. In patients who wish to conceive, treatment should be interrupted, as long as there is very close monitoring of the concentration of PSA and Testosterone serum.

#### Interactions

No pharmaceutical product-pharmaceutical product interaction studies have been carried out.

**DENOSUMAB (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6013.00	INJECTABLE SOLUTION  Each vial contains: Denosumab 120 mg  Container with a vial bottle with 1.7mL	Prevention of events related to the skeleton (pathological fractures, bone radiotherapy, spinal cord compression or bone surgery) patients with advanced malignant neoplasms with bone involvement.	Subcutaneous.  Adults: 120 mg every 4 weeks in the thigh, abdomen or arm.

## Generalities

Denosumab is a humanized monoclonal antibody (IgG2) that targets and binds with high affinity and specificity to the RANKL receptor, preventing its activation; which is found on the surface of osteoclasts and their precursors. RANK ligand exists as a transmembrane or soluble protein. RANK ligand is essential for the formation, function and survival of osteoclasts, the only cell type responsible for bone resorption. The increase in osteoclast activity, stimulated by the RANK ligand, is a key mediator in bone destruction in bone disease in metastatic tumors and in multiple myeloma. Prevention of the interaction of the RANK ligand with the receptor results in a reduction in the number and function of osteoclasts, decreasing cancer-induced bone resorption and destruction.

## Risk in Pregnancy c

## Adverse effects

Urinary tract infection, upper respiratory tract infection, sciatica, cataracts, constipation, abdominal discomfort, rash, eczema, pain in extremities, musculoskeletal pain.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: It is important that all patients receive an adequate supply of calcium and vitamin D. Hypocalcemia, skin infections, osteonecrosis of the jaw, atypical femur fractures, kidney failure.

## Interactions

No drug-drug interaction studies have been performed with Denosumab.

**DEXRAZOXANE**

Clue	Description	Indications	Route of administration and dosage
010.000.4444.00	INJECTABLE SOLUTION  The vial contains: Dexrazoxane hydrochloride equivalent to 500 mg of dexrazoxane.  Container with a vial.	Prevention of anthracycline-induced cardiotoxicity.	Intravenous.  Adults and children candidates to receive anthracyclines  Dose according to the anthracycline used and according to the doctor's judgment.

## Generalities

Prodrug analogous to EDTA that, through its chelating action, prevents the formation of Fe complexes (antineoplastics) preventing the cardiotoxic effects of antineoplastic drugs.

++-anthracyclines

## Risk in Pregnancy NE

## Adverse effects

Leukopenia, nausea, vomiting.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In myelosuppression, heart disease or liver disease.

## Interactions

None of clinical importance.

**DOCETAXEL**

Clue	Description	Indications	Route of administration and dosage
010.000.5437.00	INJECTABLE SOLUTION  Each vial contains: Docetaxel anhydrous or trihydrate equivalent to 80 mg. docetaxel  Package with a vial with 80 mg and a vial with 6 mL of diluent.	lung cancer not small cells.  Small cell lung cancer.  Breast cancer.  Ovarian cancer.	Intravenous infusion.  Adults: 100 mg/m <sup>2</sup> body surface area/day, each 3 weeks.
010.000.5437.01	Container with vial bottle with 80 mg with 4 mL.		
010.000.5437.02	Container with vial bottle with 80 mg with 8 mL.		
010.000.5457.00	INJECTABLE SOLUTION  Each vial contains: Docetaxel anhydrous or trihydrate equivalent to 20 mg. docetaxel  Container with vial bottle with 20 mg and vial bottle with 1.5 mL of diluent.		
010.000.5457.01	Container with vial bottle with 20 mg with 1 mL.		
010.000.5457.02	Container with vial bottle with 20 mg with 2 mL.		

**Generalities**

Antineoplastic that promotes the binding of tubulin within microtubules and inhibits its unbinding, this causes a decrease in free tubulin. It disrupts the microtubule network in cells, which is essential for mitosis and interphase functions.

**Risk in Pregnancy** d**Adverse effects**

Leukopenia, neutropenia, anemia, thrombocytopenia, fever, hypersensitivity reactions, fluid retention, stomatitis, paresthesia, dysesthesia and alopecia.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug and taxols.

Precautions: Assess risk benefit in neutropenia, hyperbilirubinemia, fever, infections, thrombocytopenia and severe stomatitis.

**Interactions**

Its adverse effects increase with bone marrow depressants, radiotherapy, immunosuppressants, inhibitors of the liver microsomal enzyme system and vaccines (killed or live viruses).

**DOXORUBICIN OR DOXORUBICIN**

Clue	Description	Indications	Route of administration and dosage
010.000.1764.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Doxorubicin hydrochloride or doxorubicin 10 mg.  Container with a vial.	Acute lymphoblastic leukemia.  Acute myeloblastic leukemia.  Breast cancer.  Lung cancer.	Intravenous.  Adults:  60 to 75 mg/m <sup>2</sup> body surface area /single dose, every three weeks. either  30 mg/m <sup>2</sup> of body surface area/day, three days, for four weekly cycles. -- 20 mg/m <sup>2</sup> of body surface, once a week, for four weeks.
010.000.1764.01	INJECTABLE SOLUTION  Each vial with solution injectable contains: Doxorubicin hydrochloride or doxorubicin 10 mg.  Container with 10 vials.	Stomach cancer.  Ovarian cancer.  Bladder cancer.  Thyroid cancer.	Maximum dose: 550 mg/m <sup>2</sup> of body surface.  The dose and route of administration must be adjusted at the discretion of the specialist.

010.000.1765.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with lyophilisate contains:</p> <p>Doxorubicin hydrochloride or doxorubicin 50 mg.</p> <p>Container with a vial.</p>	<p>Hodgkin's disease.</p> <p>Neuroblastomas.</p> <p>Non-Hodgkin's lymphoma.</p>	<p>Administer diluted in intravenous solutions packaged in glass bottles.</p>
010.000.1765.01	<p>INJECTABLE SOLUTION</p> <p>Each vial with injectable solution contains:</p> <p>Doxorubicin hydrochloride or doxorubicin 50 mg.</p> <p>Container with a vial</p>		
010.000.1765.02	<p>INJECTABLE SOLUTION</p> <p>Each vial with injectable solution contains:</p> <p>Doxorubicin hydrochloride or doxorubicin 50 mg.</p> <p>Container with 10 vials</p>		
010.000.1766.00	<p>INJECTABLE SUSPENSION</p> <p>Each vial contains: Doxorubicin hydrochloride or pegylated liposomal doxorubicin equivalent to 20 mg.</p> <p>of doxorubicin or doxorubicin (2 mg/ mL).</p> <p>Package with a vial with 10 mL (2 mg/ mL).</p>	<p>Kaposi's sarcoma associated with AIDS, resistant to other treatment.</p> <p>Ovarian cancer.</p> <p>breast cancer metastatic.</p>	<p>Intravenous.</p> <p>Adults:</p> <p>20 mg/m<sup>2</sup> body surface every 2 or 3 weeks.</p>

#### Generalities

It interferes by intercalation with DNA-dependent RNA synthesis.

#### Risk in Pregnancy

d

#### Adverse effects

Leucopenia, agranulocytosis, thrombocytopenia, cardiac arrhythmias, irreversible cardiomyopathy. Hyperuricemia, nausea, vomiting, diarrhea, stomatitis, esophagitis, alopecia. Hyperpigmentation in radiated areas and cellulitis or slough if the medication extravasates.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.  
Precautions: In myelosuppression, heart disease or liver disease.

#### Interactions

With streptokinase since it increases blood values. Do not mix with heparin.

### ENZALUTAMIDE (In prescription monitoring program)

Clue	Description	Indications	Route of administration and dosage
010.000.6097.00	<p>CAPSULE</p> <p>Each capsule contains: Enzalutamide 40 mg</p> <p>Container with 120 capsules.</p>	<p>Patients with cancer metastatic castration-resistant prostate who have received treatment with Docetaxel.</p> <p>Patients with metastatic castration-resistant prostate cancer who are asymptomatic or mildly symptomatic after unsuccessful androgen deprivation therapy, and for whom chemotherapy is not yet clinically indicated.</p>	<p>Oral.</p> <p>Adults:</p> <p>160 mg per day.</p>

#### Generalities

Potent inhibitor of androgen receptor signaling that blocks several steps in the signaling pathway

of the androgen receptor. It competitively inhibits the binding of androgens to androgen receptors, inhibits the nuclear translocation of activated receptors and inhibits the association of the activated androgen receptor with DNA, even in situations of overexpression of the receptor and resistant prostate cancer cells. to antiandrogens.

Risk in Pregnancy  Does not apply

Adverse effects

Fatigue, hot flush and headache.

Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In patients with a history of seizures or other predisposing risk factors including but not limited to underlying brain damage, stroke, primary brain tumors or brain metastases, or alcoholism.

Use with caution with drugs with a narrow therapeutic range that are substrates of CYP3A4 enzymes, CYP2C9, CYP2C19 and UGT1A1, and dose adjustments may be necessary to maintain therapeutic plasma concentrations.

Interactions

Warfarin and coumaric type coagulants.

## EPIRUBICIN

Clue	Description	Indications	Route of administration and dosage
010.000.1773.00	<p>INJECTABLE SOLUTION</p> <p>Each container contains: Epirubicin hydrochloride 10 mg</p> <p>Container with a vial with lyophilisate or container with a vial with 5 mL of solution (10 mg/5 mL).</p>	<p>lymphoblastic leukemia acute. Acute myeloblastic leukemia.</p> <p>Hodgkin's lymphoma. Non-Hodgkin's lymphoma. Neuroblastoma. Sarcoma of soft tissues and bone.</p>	<p>Intravenous.</p> <p>Adults:</p> <p>Dilute in a sodium chloride solution and administer at a rate of 90 to 110 mg/m<sup>2</sup> of body surface over a period of 3 to 5 minutes every three weeks, monitoring bone marrow recovery.</p>
010.000.1774.00	<p>INJECTABLE SOLUTION</p> <p>Each container contains: Epirubicin hydrochloride 50 mg</p> <p>Container with a vial with lyophilisate or container with a vial with 25 mL of solution (50 mg/25 mL).</p>	<p>Breast cancer. Ovarian cancer. Thyroid cancer. Bladder cancer.</p>	<p>The cumulative dose should not exceed 700 mg/m<sup>2</sup> of body surface.</p> <p>The dose and route of administration must be adjusted at the discretion of the specialist.</p> <p>Administer diluted intravenous solutions packaged in glass vials.</p>

Generalities

It is a cytotoxic anthracycline derivative with antineoplastic properties and toxicity similar to doxorubicin. It intercalates with DNA, affects its functions and inhibits the synthesis of nucleic acids.

Risk in Pregnancy  d

Adverse effects

Anorexia, nausea, vomiting, stomatitis, diarrhea, conjunctivitis, bone marrow depression. Cardiomyopathy, arrhythmias, alopecia, tissue necrosis due to extravasation, hypersensitivity reactions.

Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In heart or liver failure.

Interactions

Administered with actinomycin D and/or radiotherapy, its effects are enhanced. It is not chemically compatible with heparin. Adverse effects increase with cardiotoxic medications.

## ERLOTINIB

Clue	Description	Indications	Route of administration and dosage
	COMPRESSED	Non-small cell lung cancer	Locally advanced or metastatic non-small cell lung cancer with

010.000.5474.00	Each tablet contains: Erlotinib hydrochloride equivalent to 150 mg. of erlotinib.  Container with 30 tablets	locally advanced or metastatic with positive EGFR mutation in 1a., 2a., or 3a. line.	positive EGFR mutation in 1st, 2nd, or 3rd. line.
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#### Generalities

Erlotinib strongly inhibits the intracellular phosphorylation of HER1/EGFR, it is expressed on the surface of normal cells and cancer cells. In preclinical models, inhibition of EGFR-phosphotyrosine produces stasis and death cell phone.

#### Risk in Pregnancy

#### Adverse effects

Anorexia, dyspnea, cough, diarrhea, nausea, vomiting, rash, fatigue.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the medication.

#### Interactions

It may interact with medications that inhibit or induce CYP3A4 enzymes and to a lesser extent with CYP1A2, and the pulmonary CYP1A1 isoform. It can also interact with medications that are metabolized by these enzymatic pathways.

## ESTRAMUSTINE

Clue	Description	Indications	Route of administration and dosage
010.000.5443.00	CAPSULE  Each capsule contains: Estramustine sodium phosphate equivalent to 140 mg. of estramustine phosphate.  Container with 100 capsules.	Palliative treatment of metastatic prostate carcinoma.	Oral.  Adults:  600 mg/m <sup>2</sup> of body surface area/day, in three doses, one hour before or 2 hours after meals.

#### Generalities

It is a combination of 17-beta estradiol and a nitrogen mustard, linked by a carbamate bond. It suppresses androgen release and inhibits cell mitosis in metaphase.

#### Risk in Pregnancy

#### Adverse effects

Sodium and water retention, anemia, leukopenia, thrombocytopenia, thrombosis, gynecomastia, decreased sexual interest, diarrhea, vomiting, nausea.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In active thromboembolic disorders, heart failure, bronchial asthma, epilepsy, deterioration of kidney and liver function, current or recent chickenpox, herpes zoster, bone marrow depression.

#### Interactions

It can increase the half-life, toxic and therapeutic effects of corticosteroids, synergistic action with hepatotoxic drugs, decreases the response to vaccines with killed viruses, and can increase the adverse side effects of vaccines with live viruses.

## ETOPOSIDE

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION  Each vial or vial contains:  Etoposide 100 mg	Small cell carcinoma of the lung.  Acute granulocytic leukemia, lymphosarcoma.  Hodgkin's disease.  Testicular carcinoma.	Intravenous.  Adults: 45 to 75 mg/m <sup>2</sup> body surface area/day, for 3 to 5 days, repeat every three to five weeks. either  200 to 250 mg/m <sup>2</sup> of body surface area per week; or 125 to 140 mg/m <sup>2</sup> body surface area/day, three days a week every five weeks.

010.000.4230.00	Package with 10 vials or 5 mL vials.		The dose and route of administration must be adjusted at the discretion of the specialist. Administer diluted in intravenous solutions packaged in glass bottles.
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**Generalities**

Semisynthetic derivative of podophyllotoxin that stops cell mitosis.

**Risk in Pregnancy**

d

**Adverse effects**

Myelosuppression, leukopenia and thrombocytopenia. Hypotension during infusion, nausea and vomiting, phlebitis, headache and fever. Alopecia.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.  
Precautions: Do not administer intrapleural and intrathecal.

**Interactions**

With warfarin the prothrombin time is lengthened. Adverse effects increase with myelosuppressive medications.

## EVEROLIMUS

Clue	Description	Indications	Route of administration and dosage
010.000.5651.00	Compressed  Each tablet contains: Everolimus 5 mg  Package with 30 tablets.	Second line treatment for adults with metastatic renal cell cancer.  Treatment of advanced cancer in combination in with exemestane, in postmenopausal women with positive hormone receptors and negative HER2 who failed non-steroidal aromatase inhibitors.	Oral.  Adults: 10 mg every 24 hours.

**Generalities**

It is a selective inhibitor of mtor (the target of rapamycin in mammals) which is a potent regulator of growth and proliferation of tumor cells, endothelial cells, fibroblasts and smooth muscle cells of the blood vessel wall, reduces glycolysis and angiogenesis of solid tumors in vivo and thus offers two independent mechanisms of tumor growth inhibition: a direct antineoplastic activity in the cells and an inhibition of the tumor stromal compartment.

**Risk in Pregnancy**

c

**Adverse effects**

Stomatitis, rash, fatigue, asthenia, diarrhea, anorexia, nausea, mucositis, vomiting, cough, peripheral edema, infections, skin dryness, epistaxis, pruritus, dyspnea, Hypertriglyceridemia, thrombocytopenia, pleural effusion, hypercholesterolemia, hyperlipidemia.

**Contraindications and Precautions**

Hypersensitivity to the drug, to other derivatives of rapamycin.

**Interactions**

Everolimus is a substrate of CYP3A4 and is also a moderately inhibitory substrate of the drug efflux pump known as P-glycoprotein. Therefore, drugs that affect CYP3A4 or P-glycoprotein may alter the absorption and subsequent elimination of Everolimus. .

Avoid with live microorganism vaccines.  
Take contraceptive measures and up to 8 months after treatment.  
Cyclosporine increases the bioavailability of Everolimus.

## EXEMESTANE

Clue	Description	Indications	Route of administration and dosage
	DRAGEE	breast cancer in	Oral.

010.000.5418.00 010.000.5418.01 010.000.5418.02	Each dragee contains: Exemestane 25.0 mg  Container with 15 dragees. Container with 30 dragees. Container with 90 dragees.	menopause.	Adults:  25 mg a day.
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#### Generalities

Irreversible steroid aromatase inhibitor, useful in the treatment of advanced breast cancer in postmenopausal women.

#### Risk in Pregnancy

c

#### Adverse effects

Lethargy, drowsiness, asthenia, dizziness, nausea, insomnia, diaphoresis, anorexia, peripheral edema, constipation and dyspepsia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In premenopause, pregnancy, lactation, liver failure and kidney failure.

#### Interactions

It should be used with caution with drugs that are metabolized via CYP3A4 and should not be administered with medications that contain estrogens.

## FILGRASTIM

Clue	Description	Indications In	Route of administration and dosage
010.000.5432.00	INJECTABLE SOLUTION  Each vial or syringe contains:  Filgrastim 300 µg  Container with 5 vials or syringes.	myelosuppressive chemotherapy patients.  Neutropenia.  Bone marrow transplant.	Subcutaneous, Intravenous infusion.  Adults: 5 µg/kg body weight once a day for 2 weeks.  Administer 24 hours after cytotoxic chemotherapy, not before.  Transplant: 10 µg/kg body/day. weight  Administer diluted in intravenous solutions packaged in glass bottles.

#### Generalities

Granulocyte colony-stimulating factor that stimulates the proliferation, differentiation and functional activity of neutrophils.

#### Risk in Pregnancy

c

#### Adverse effects

Nausea, vomiting, diarrhea, anorexia, dyspnea, cough, myalgia, fatigue, generalized weakness, splenomegaly.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk-benefit in renal failure, liver failure and myeloid-type malignant processes.

#### Interactions

Myelosuppressive medications decrease their therapeutic effect.

## FINASTERIDE

Clue	Description	Indications	Route of administration and dosage
	DRAGEE OR COATED TABLET  Each coated tablet or dragee contains:  Finasteride 5 mg	Benign prostatic hyperplasia.  Adjuvant in prostate carcinoma.	Oral.  Adults: 5 mg once a day.



010.000.4302.00 Container with 30 coated dragees or tablets.

**Generalities**

5-alpha reductase inhibitor, which prevents the conversion of testosterone to dihydrotestosterone.

**Risk in Pregnancy** x

**Adverse effects**

Decreases libido and ejaculation volume. Impotence. Gynecomastia. Hypersensitivity reactions.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

**Interactions**

None of clinical importance.

**FLUDARABINE**

Clue	Description	Indications	Route of administration and dosage
010.000.5455.00	<p>COMPRESSED</p> <p>Each tablet contains: Fludarabine phosphate 10 mg.</p> <p>Package with 15 tablets.</p>	<p>lymphocytic leukemia chronicle.</p> <p>Non-Hodgkin lymphoma.</p>	<p>Oral.</p> <p>Adults:</p> <p>40 mg/m<sup>2</sup> of body surface area, five consecutive days per cycle. Every 28 days.</p> <p>Maximum 6 cycles.</p> <p>The recommended dose is 25 mg/m<sup>2</sup> of body surface area intravenously, once a day for 5 consecutive days.</p>

**Generalities**

Specific antimetabolite of the S phase of the cell cycle. It inhibits the synthesis of DNA and RNA polymerase, which causes a decrease in growth and protein synthesis, which are not compatible with cellular life, which is why it dies.

**Risk in Pregnancy** x

**Adverse effects**

Neutropenia, thrombocytopenia and anemia; tumor lysis syndrome, stomatitis, anorexia, nausea, vomiting, diarrhea, gastrointestinal bleeding, edema, dyspnea, cough, skin rashes, visual disturbances, psychomotor agitation, disorientation and weakness.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk-benefit in patients with bone marrow depression, history of neurotoxicity to chemotherapy, renal failure and serious infections.

**Interactions**

With medications that produce myelosuppression and radiotherapy, adverse effects increase. With pentostatin (deoxycoformycin) high incidence of fatal pulmonary complication. Its effectiveness is decreased with dipyridamole and other adenosine uptake inhibitors.

**FLUOROURACIL**

Clue	Description	Indications	Route of administration and dosage
010.000.3012.00	<p>INJECTABLE SOLUTION</p> <p>Each vial or vial contains: Fluorouracil 250 mg</p> <p>Container with 10 vials or vials with 10 mL.</p>	<p>Colon and rectal carcinoma.</p> <p>Ovarian carcinoma.</p> <p>Breast carcinoma.</p> <p>Carcinoma of head and neck.</p>	<p>Intravenous infusion.</p> <p>Adults and children:</p> <p>7 to 12 mg/kg body weight/day, for four days, after 3 days 7 to 10 mg/kg body weight for 3 to 4 days per 2 weeks. EITHER</p> <p>12 mg/kg body weight for 5 days followed one day later by 6 mg/kg body weight, only 4 to 5 doses, for a</p>
	INJECTABLE SOLUTION	Gastric and esophageal carcinoma.	

	Each vial or vial contains:		total of two weeks.
	Fluorouracil 500 mg.	Bladder carcinoma.	Maintenance dose 7 to 12 mg/kg body weight, every 7 to 10 days or 300 to 500 mg/m <sup>2</sup> of body surface every 4 to 5 days monthly.
010.000.6220.00	Container with vial and vial with 10 mL of diluent.	Liver carcinoma.	
		Pancreatic carcinoma.	
010.000.6220.01	Container with vial and/or vial with 500 mg of lyophilisate without diluent.		It should not exceed 800 mg/day or in very sick patients 400 mg/day.
010.000.6220.02	Container with 10 vials		The dose and route of administration must be adjusted at the discretion of the specialist.
010.000.6220.03	Container with 5 vials		
010.000.6220.04	Container with 25 vials		

#### Generalities

Specific antimetabolite of the S phase of the cell cycle. It inhibits DNA synthesis, which causes unbalanced growth that is not compatible with cellular life, so it dies.

#### Risk in Pregnancy

d

#### Adverse effects

Leukopenia, thrombocytopenia, pancytopenia, aphthous stomatitis, nausea, vomiting, diarrhea, alopecia, hyperpigmentation, anginal crises, ataxia, nystagmus, dermatosis, disorientation, weakness, drowsiness, euphoria.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In malnutrition, bone marrow depression, recent surgery, kidney failure and serious infection.

#### Interactions

Adverse effects increase with medications that produce myelosuppression and with radiotherapy.

## FLUTAMIDE

Clue	Description	Indications	Route of administration and dosage
	TABLET		Oral.
	Each tablet contains: Flutamide 250 mg	Treatment of stage D2 metastatic prostatic carcinoma in combination with luteinizing hormone-releasing hormone analogues such as leuprolide acetate.	Adults: 250 mg orally every 8 hours.
010.000.5426.00	Container with 90 tablets.		The dose and route of administration must be adjusted at the discretion of the specialist.

#### Generalities

Competitive androgen antagonist that interferes with testosterone activity and complements the medical castration produced by leuprolide.

#### Risk in Pregnancy

d

#### Adverse effects

Diarrhea, nausea, vomiting, impotence, loss of libido. edema, hypertension, gynecomastia, hot flashes, drowsiness, confusion, elevated liver enzymes, hepatitis. erythema, photosensitivity.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

#### Interactions

With warfarin the anticoagulant effect increases.

## FOSAPREPITANT

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION		Intravenous infusion
	Each vial with lyophilisate contains:	Nausea and vomiting associated with moderate and highly emetogenic oncological therapy.	Adults: 150 mg on day 1 for 20 to 30

	Fosaprepitant dimeglumine equivalent to 150 mg. of fosaprepitant.		minutes, starting 30 minutes before chemotherapy.
010.000.6023.00	Container with a vial.		
010.000.6023.01	Container with 10 vials.		

#### Generalities

Fosaprepitant dimeglumine is a water-soluble prodrug of aprepitant. A selective NK1 receptor antagonist in combination with a 5HT3 receptor antagonist and a corticosteroid to prevent nausea and vomiting induced by moderate and highly emetogenic chemotherapy.

#### Risk in Pregnancy

c

#### Adverse effects

Hiccups, elevation of alanine, aminotransferase, dyspepsia, constipation, headache and decreased appetite.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: There are limited data in patients with moderate hepatic impairment and no data in patients with severe hepatic impairment. Fosaprepitant should be used with caution in these patients.

Fosaprepitant should be used with caution in patients who are concomitantly receiving active substances metabolized mainly through CYP3A4 and with a narrow therapeutic range, such as cyclosporine, tacrolimus, sirolimus, everolimus, alfentanil, diergotamine, ergotamine, fentanyl and quinidine. Furthermore, action must be taken with particular caution when coadministered with irinotecan because this combination may cause increased toxicity.

Particular caution should be taken when fosaprepitant is administered concomitantly with active substances that are inhibitors of CYP3A4 activity (e.g. ketoconazole, itraconazole, voriconazole, posaconazole, clarithromycin, telithromycin, nefazodone and protease inhibitors), since combination is expected cause an increase in plasma concentrations of aprepitant.

#### Interactions

As a weak inhibitor of CYP3A4, fosaprepitant 150 mg single dose may cause a transient increase in plasma concentrations of co-administered active substances that are metabolized through CYP3A4. Total exposure of CYP3A4 substrates may increase up to approximately 2-fold per day.

1 and 2 after coadministration with a single dose of fosaprepitant 150 mg. Fosaprepitant should not be used concomitantly with pimozone, terfenadine, astemizole or cisapride. Fosaprepitant inhibits CYP3A4, which may cause an increase in plasma concentrations of these active ingredients, potentially causing serious or life-threatening adverse reactions. Special care should be taken during the concomitant administration of fosaprepitant and active substances that are mainly metabolized through CYP3A4 and with a narrow therapeutic range, such as cyclosporine, tacrolimus, sirolimus, everolimus, alfentanil, diergotamine, ergotamine, fentanyl and quinidine

The dose of oral dexamethasone on days 1 and 2 should be reduced by approximately 50% when coadministered with fosaprepitant 150 mg on day 1 to achieve dexamethasone exposures similar to those obtained when administered without fosaprepitant 150 mg. Fosaprepitant 150 mg, administered as a single intravenous dose on day 1, the AUC<sub>0-24 h</sub> of dexamethasone, a CYP3A4 substrate, increased by 100% on day 1, 86% on day 2, and 18 % on day 3, when dexamethasone was coadministered as a single oral dose of 8 mg on days 1, 2, and 3.

Concomitant administration of fosaprepitant with active substances that significantly induce CYP3A4 activity (e.g., rifampicin, phenytoin, carbamazepine, phenobarbital) should be avoided, as the combination may cause decreases in aprepitant plasma concentrations that may lead to a decrease in effectiveness. Concomitant administration of fosaprepitant with herbal preparations containing St. John's Wort (*Hypericum perforatum*, also known as St. John's Wort) is not recommended. Rifampin decreased the terminal half-life of oral aprepitant by 68%.

### ***FULVESTRANT (In prescription monitoring program)***

Clue	Description	Indications	Route of administration and dosage
010.000.5880.00	<p>INJECTABLE SOLUTION</p> <p>Each prefilled syringe contains: Fulvestrant 250 mg</p> <p>Package with 2 prefilled syringes, with 5 mL each.</p>	<p>Treatment of locally advanced or metastatic breast cancer in postmenopausal women with positive ER receptors and progression on previous endocrine therapy.</p> <p>to</p> <p>Treatment of locally advanced or metastatic breast cancer in women</p>	<p>Intramuscular</p> <p>Adults: 500 mg every month, with two injections of 5mL applied to the gluteus. With an additional dose of 500 mg administered 2 weeks after the initial dose.</p> <p>Administer slowly, 1-2 minutes per injection.</p>

		postmenopausal women who have not been previously treated with endocrine with a treatment.	
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#### Generalities

Antiestrogen downregulates the estrogen receptor (ER) by binding with high affinity to estrogen receptor alpha, inducing a rapid loss of ER alpha proteins from breast cancer cells.

#### Risk in Pregnancy

The use of fulvestrant should be avoided in pregnant or breast-feeding women.

#### Adverse effects

Injection site reactions, asthenia, elevated liver enzymes, nausea, hot flashes, headache, vomiting, diarrhea, anorexia, rash, urinary tract infections, hypersensitivity reactions.

#### Contraindications and Precautions

Fulvestran is contraindicated in patients with known hypersensitivity to the drug substance or any of its excipients.

Precautions: In patients with hepatic insufficiency since clearance may be reduced in patients with creatinine clearance <30mL/min; in patients with hemorrhagic diathesis, thrombocytopenia or antiagagants.

#### Interactions

The coadministration of darunavir and ritonavir and drugs metabolized mainly by CYP3A4 for clearance increases plasma concentration, prolonging its therapeutic effect and increasing adverse reactions. Co-administration of duranavir/ritonavir and rifampin may cause a significant decrease in plasma concentrations of duranavir.

### GEFITINIB (In Catalog II program)

Clue	Description	Indications First	Route of administration and dosage
010.000.5470.00	<p>TABLET</p> <p>Each tablet contains: Gefitinib 250 mg</p> <p>Package with 30 tablets.</p>	<p>line treatment for non-small cell lung cancer in patients with activating mutations of the epidermal growth factor receptor tyrosine kinase gene.</p>	<p>Oral.</p> <p>Adults: 250 mg every 24 hours.</p>

#### Generalities

Selective inhibitor of epidermal growth factor receptor tyrosine kinase, which prevents tumor growth, metastasis and angiogenesis and increases tumor cell apoptosis.

#### Risk in Pregnancy

d

#### Adverse effects

Diarrhea, erythema, pruritus, dry skin and acne. They usually occur in the first month of treatment and are reversible.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

#### Interactions

Its concentrations decrease with rifampicin and increase with itraconazole. Its absorption decreases with the concomitant use of antacids.

### GEMCITABINE

Clue	Description	Indications	Route of administration and dosage
010.000.5438.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Gemcitabine hydrochloride equivalent to 1 g of gemcitabine.</p> <p>Container with a vial.</p>	<p>Metastatic pancreatic cancer.</p> <p>Non-small cell lung cancer.</p>	<p>Intravenous infusion.</p> <p>Adults: 1000 mg/m<sup>2</sup> of body surface, every 7 days for 3 weeks.</p> <p>Children:</p>

Not recommended.

Generalities
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Pyrimidine analogue antimetabolite that is transformed into two active metabolites that, when incorporated as nucleotides into the molecule, inhibit DNA synthesis.

Risk in Pregnancy
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Adverse effects
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Anemia, edema, hematuria, leukopenia, proteinuria, thrombocytopenia, bronchospasm, arterial hypertension.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk benefit in patients with myelosuppression and cardiovascular disorders.

Interactions
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With immunosuppressive medications such as azathioprine, corticosteroids, cyclophosphamide, adverse effects increase.

**GOSERELIN**

Clue	Description	Indications	Route of administration and dosage
010.000.3048.00	<p>RELEASE IMPLANT PROLONGED</p> <p>Each implant contains: Goserelin acetate equivalent to 3.6 mg. of goserelin base.</p> <p>Package with sterile cylindrical implant in a syringe ready for application.</p>	<p>Prostate cancer.</p> <p>Breast cancer.</p> <p>Endometriosis.</p> <p>Uterine fibromatosis.</p>	<p>Subcutaneous implant.</p> <p>Adults:</p> <p>One subcutaneous implant every 28 days in the upper abdominal wall.</p>
010.000.3049.00	<p>RELEASE IMPLANT PROLONGED</p> <p>Each implant contains: Goserelin acetate equivalent to 10.8 mg. of goserelin.</p> <p>Package with a syringe containing a sterile cylindrical implant.</p>	<p>Prostate cancer.</p> <p>Endometriosis.</p> <p>Myomatosis.</p>	<p>Subcutaneous.</p> <p>Adults:</p> <p>One implant every three months.</p>

Generalities
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Inhibition of pituitary secretion of LH, which produces a decrease in testosterone concentrations in men and estradiol in women.

Risk in Pregnancy
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x

Adverse effects
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Nausea, vomiting, edema, anemia, hypertension, chest pain, hot flashes and decreased sexual potency, bone pain that subsides with treatment, insomnia, kidney failure.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk benefit in patients resistant to treatment with estrogens, antiandrogens or orchiectomy.

Interactions
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Adverse effects increase with antiandrogens.

**GRANISETRON**

Clue	Description	Indications	Route of administration and dosage
	<p>DRAGEE OR TABLET</p> <p>Each dragee or tablet contains: Granisetron hydrochloride equivalent to 1 mg. of granisetron.</p>	<p>Nausea, vomiting and secondary to radiotherapy and antineoplastic chemotherapy.</p>	<p>Oral. Adults:</p> <p>1 mg every 12 hours or 2 mg every 24 hours. Start 1 hour before chemotherapy.</p>

010.000.4439.00	Package with 2 dragees or tablets.		
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#### Generalities

Highly selective antagonist of 5-hydroxytryptamine (5-HT<sub>3</sub>) receptors in the peripheral terminals of the vagus nerve and in the vomiting trigger zone in the area postrema of the CNS.

Risk in Pregnancy d

#### Adverse effects

Headache and nasal constipation, rarely hypersensitivity reactions with skin rash and anaphylaxis. Mild increase in hepatic transaminases.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

#### Interactions

Increases its plasma clearance with phenobarbital. It does not interact with cancer chemotherapy or antiulcer medications, benzodiazepines, or neuroleptics.

### HYDROXYCARBAMIDE

Clue	Description	Indications	Route of administration and dosage
010.000.4226.00	<p>CAPSULE</p> <p>Each capsule contains: Hydroxycarbamide 500 mg</p> <p>Container with 100 capsules.</p>	<p>Granulocytic leukemia chronic.</p> <p>Polycythemia vera.</p>	<p>Oral.</p> <p>Adults: 60 to 80 mg/kg body weight in a single dose every three days.</p> <p>Support: 20 to 40 mg/kg body weight per day, for 6 weeks.</p>

#### Generalities

It inhibits ribonucleoside diphosphate reductase, blocking DNA synthesis in the S phase.

Risk in Pregnancy d

#### Adverse effects

Leukopenia, thrombocytopenia, anemia, megaloblastosis, bone marrow depression, drowsiness, hallucinations, anorexia, nausea, vomiting, diarrhea, stomatitis, hyperuricemia, rash, pruritus, elevation of creatinine and serum nitrogen.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, severe spinal depression, post-radiotherapy and post-chemotherapy, upper respiratory tract infection, active bleeding, undiagnosed fever and renal failure.

#### Interactions

With medications that produce myelosuppression, adverse effects increase.

### IBRUTINIB (In prescription control program)

Clue	Description	Indications	Route of administration and dosage
010.000.6042.00	<p>Capsule or Tablet</p> <p>Each capsule contains: Ibrutinib: 140 mg</p> <p>Container with 90 capsules.</p>	<p>Treatment of adult patients with mantle cell lymphoma who have received at least one prior treatment. Treatment should continue until loss of response or intolerance to the medication.</p>	<p>Oral.</p> <p>Adults: Mantle cell lymphoma: 560 mg every 24 hours.</p>
010.000.6042.01	<p>Container with 120 capsules.</p>	<p>Treatment of patients with chronic lymphocytic leukemia with 17 p deletion.</p>	<p>Chronic lymphocytic leukemia: 420 mg every 24 hours.</p>
010.000.7107.00	<p>Each tablet contains Ibrutinib 140 mg Container with 30 tablets</p>		
010.000.7108.00	<p>Each tablet contains: Ibrutinib 420 mg</p>		

	Container with 30 tablets		
010.000.7109.00 Each tablet	Each tablet contains: Ibrutinib 560 mg Container with 30 tablets		

#### Generalities

It is a small molecule, it is a potent inhibitor of Bruton's tyrosine kinase (BTK). Ibrutinib forms a stable covalent bond with a cysteine residue (Cys-481) at the BTK site, thereby generating sustained inhibition of its enzymatic activity. BTK is a key signaling molecule of the B cell receptor complex that plays a critical role in the survival of malignant B cells. Additionally, Ibrutinib affects three key processes in malignant B cells, which are promoting apoptosis, inhibiting adhesion, and modulating chemotaxis.

#### Risk in Pregnancy

d

#### Adverse effects

Diarrhea, fatigue, nausea, peripheral edema, dyspnea, constipation, upper respiratory tract infection, vomiting, decreased appetite.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Minor hemorrhagic events, such as confusion, epistaxis, and petechia, and major hemorrhagic events including gastrointestinal bleeding, intracranial hemorrhage, and hematuria. Infections including sepsis, bacterial, viral or fungal infections. Neutropenia, thrombocytopenia and anemia. Atrial fibrillation and flutter handset.

#### Interactions

Drugs that inhibit or induce CYP3A may increase or decrease exposure to Ibrutinib.

## IDARUBICIN

Clue	Description	Indications	Route of administration and dosage
010.000.4434.00	INJECTABLE SOLUTION  Each vial contains: Idarubicin hydrochloride 5 mg  Package with vial bottle with lyophilisate or vial bottle with 5 mL (1 mg/mL).	Myeloblastic leukemia acute.	Slow intravenous (10 to 15 minutes).  Adults:  15 mg/ m2 of body surface area/ day for three days, administered with cytarabine.
010.000.5441.00	CAPSULE  Each capsule contains: Idarubicin hydrochloride 25 mg  Container with a capsule.	leukemia treatment acute lymphocytic.  Treatment of acute non-lymphocytic leukemia.  Breast cancer.	Oral  Adults:  5 to 45 mg/m2 body surface area/day.  Treatment can be one second administered.

#### Generalities

It interferes by intercalation with DNA-dependent RNA synthesis.

Daunorubicin analogue that has an inhibitory effect on nucleic acid synthesis and interacts with the enzyme Topoisomerase II.

#### Risk in Pregnancy

d

#### Adverse effects

Headache, peripheral neuropathy and seizures, atrial fibrillation, myocardial infarction and heart failure; nausea, vomiting, diarrhea, enterocolitis; renal insufficiency; myelosuppression; changes in liver function and tissue necrosis; alopecia, fever and hyperglycemia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, myelosuppression, heart disease or liver disease.

Precautions: In kidney and liver failure, bone marrow suppression or heart disease.

#### Interactions

Streptokinase increases blood values. Do not mix with heparin due to chemical incompatibility.

**IFOSFAMIDE**

Clue	Description	Indications	Route of administration and dosage
010.000.4432.00	INJECTABLE SOLUTION  Each vial with powder or lyophilisate contains:  Ifosfamide 1 g  Container with a vial.  Each vial with powder or freeze-dried contains: Ifosfamide 1 g	Testicular cancer. Cervical-uterine cancer. Breast cancer. Ovarian cancer. Lung cancer. Hodgkin's lymphoma. Non-Hodgkin's lymphoma. Multiple myeloma.	Intravenous.  Adults: 1.2 g/m <sup>2</sup> of body surface area/day, for 5 consecutive days. Repeat every 3 weeks or after patient recovers from hematological toxicity.  Therapy should always be administered with MESNA.
010.000.4432.01	Each vial with powder or freeze-dried contains: Ifosfamide 1 g  Container with 10 vials.		

Generalities
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It cross-links cellular DNA strands and interferes with RNA transcription. It is nonspecific for the cell cycle.

Risk in Pregnancy
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 d

Adverse effects
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Dysuria, hematuria, cylindruria and cystitis. Myelosuppression, drowsiness, confusion and depressive psychosis. Nausea and vomiting.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug, renal failure.

Interactions
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With mesna the risk of irritation in the urinary tract is reduced. Increases myelosuppression with other oncological drugs.

**IMATINIB**

Clue	Description	Indications	Route of administration and dosage
010.000.4225.00	COATED TABLET  Each coated tablet contains:  Imatinib mesylate 100 mg  Package with 60 coated tablets.	Chronic myeloid leukemia (blastic crisis, accelerated phase or chronic phase).  Unresectable or metastatic gastrointestinal stromal tumors.	Oral  Adults: Chronic myeloid leukemia. Initial dose: 400-600 mg/day.  Accelerated phase and blast crisis of chronic myeloid leukemia. Initial dose: 600 mg/day.  Children:  260-340 mg/m <sup>2</sup> body surface area per day
010.000.4227.00	COMPRESSED  Each tablet contains: Imatinib mesylate equivalent to 400 mg of imatinib.  Package with 30 tablets.	Chronic myeloid leukemia (blastic crisis, accelerated phase or chronic phase).  Unresectable or metastatic gastrointestinal stromal tumors (GIST).	Oral  Adults: Chronic myeloid leukemia, in chronic phase, 400 mg every 24 hours.  Chronic myeloid leukemia, in accelerated phase and blast crisis, 600 mg each 24 hours.  In TEGi, 400 mg every 24 hours.  Maximum dose in insufficient response and absence of adverse reactions, 800 mg every 24 hours.  Children over 3 years: Chronic myeloid leukemia, in chronic phase, 260 mg/m <sup>2</sup> body surface every 24 hours.  Advanced chronic myeloid leukemia, 340 mg/m <sup>2</sup> body surface every 24



			hours.
			Maximum dose 600 mg every 24 hours.

#### Generalities

Antineoplastic. Derived from phenylaminopyrimidine that selectively inhibits BCR-ABL tyrosinokinas, an enzyme to which chronic myeloid leukemia has been attributed. It is well absorbed, transformed in the liver by CYP3A4 and a metabolite is generated with the same activity as the original drug. Most is excreted in feces and 5% in urine. Half life of 15 hours.

#### Risk in Pregnancy

d

#### Adverse effects

Fluid retention, muscle contractures, nausea, vomiting and diarrhea are common. Hepatotoxicity, neutropenia, and thrombocytopenia may occur.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In liver and kidney failure, myelosuppression, fluid retention and edema, viral and bacterial infections.

#### Interactions

Erythromycin, itraconazole, warfarin.

### *IPILIMUMAB (In prescription control program)*

Clue	Description	Indications	Route of administration and dosage
010.000.6016.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Ipilimumab 50 mg</p> <p>Package with a vial with 10 mL (50 mg/10 mL).</p>	<p>Treatment of patients with advanced non-resectable or metastatic failure to previous treatment with dacarbazine or temozolamide.</p>	<p>Intravenous infusion.</p> <p>Adults: Dose: 3 mg/kg body weight, during 90 minutes, every three weeks, for a total of four doses.</p>

#### Generalities

Cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) is a key regulator of T cell activity. Ipilimumab is a CTLA-4 immune checkpoint inhibitor, which blocks inhibitory T cell signals induced through the CTLA-4 pathway and increases the number of effector T cells that are mobilized to direct a targeted immune attack. to T-cells against tumor cells. CTLA-4 blockade can also reduce T-cells with regulatory function that could contribute to the anti-tumor immune response. Ipilimumab could selectively decrease regulatory T cells in the tumor area, allowing an increase in the intratumoral ratio of effector T cells/regulatory T cells that would therefore lead to the death of tumor cells.

#### Risk in Pregnancy

c

#### Adverse effects

Severe symptoms (abdominal pain, severe diarrhea or significant change in the number of bowel movements, blood in the stool, gastrointestinal bleeding, gastrointestinal perforation). Severe elevations in aspartate aminotransferase (AST), alanine aminotransferase (ALT), or total bilirubin or symptoms of hepatotoxicity. Life-threatening skin rash (including Stevens-Johnson syndrome or toxic epidermal necrolysis) or severe generalized pruritus that interferes with activities of daily living or requires medical intervention. New or worsening severe motor or sensory neuropathy. Serious adverse reactions in the endocrine glands, such as hypophysitis and thyroiditis that are not adequately controlled with hormone replacement therapy or high-dose immunosuppressive therapy. Nephritis, pneumonitis, pancreatitis, non-infectious myocarditis.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Ipilimumab is associated with inflammatory adverse reactions that occur due to increased or excess immune activity (adverse reactions related to the immune system), probably related to its mechanism of action. Immune-related adverse reactions, which may be serious or life-threatening, may involve the gastrointestinal system, liver, skin, nervous system, endocrine system, or other organ systems. Although most immune-related adverse reactions occurred during the induction period, they have also been reported to occur months after the last dose of ipilimumab. Unless an alternative etiology has been identified, diarrhea, increased stool frequency, bloody stools, PFH elevations, rash, and endocrinopathy should be considered inflammatory and related to ipilimumab. Early diagnosis and appropriate management are essential to minimize life-threatening complications.

High-dose systemic corticosteroids with or without additional immunosuppressive treatment may be necessary to

the management of serious immune-related adverse reactions.

#### Interactions

Ipilimumab is a human monoclonal antibody that is not metabolized by cytochrome P450 (CYP) enzymes or other drug-metabolizing enzymes. A drug interaction study was conducted with ipilimumab administered alone or in combination with chemotherapy (dacarbazine or paclitaxel/carboplatin) to evaluate the interaction with CYP isoenzymes (specifically CYP1A2, CYP2E1, CYP2C8, and CYP3A4) in patients with naïve advanced melanoma. any treatment. No relevant pharmacokinetic interactions were observed between ipilimumab and paclitaxel/carboplatin, dacarbazine or its metabolite, 5-aminoimidazole-4-carboxamide (AIC).

The use of systemic corticosteroids should be avoided at baseline, prior to starting treatment with ipilimumab, due to their potential interference with the pharmacodynamic activity and efficacy of ipilimumab. It is known that the use of anticoagulants increases the risk of gastrointestinal bleeding. Since gastrointestinal bleeding is an adverse reaction of ipilimumab, patients requiring anticoagulant treatment concomitant use should be carefully monitored.

## IRINOTECAN

Clue	Description	Indications	Route of administration and dosage
010.000.5444.00	<p>INJECTABLE SOLUTION</p> <p>The vial contains: Irinotecan hydrochloride or irinotecan hydrochloride trihydrate 100 mg</p> <p>Container with a 5 mL vial.</p>	Colon and rectal cancer metastatic.	<p>Intravenous infusion.</p> <p>Adults: 125 mg/m<sup>2</sup> body surface area/day.</p>

#### Generalities

Prevents the synthesis of DNA chains.

Risk in Pregnancy x

#### Adverse effects

Neutropenia, leukopenia, thrombocytopenia, diarrhea, nausea, vomiting, asthenia, fever, liver function disorders, alopecia, rashes.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug and uncontrolled infections.

Precautions: Assess risk benefit in patients with anti-infective treatment, or with leukopenia and thrombocytopenia.

#### Interactions

Laxatives favor gastrointestinal effects. With other antineoplastics, myelosuppression increases, with dexamethasone lymphocytopenia and hyperglycemia can increase, and with diuretics it can cause dehydration.

## IXAZOMIB

Clue	Description	Indications	Route of administration and dosage
010.000.6314.00	<p>Ixazomib Citrate 5.70 mg equivalent to 4.0 mg of ixazomib</p> <p>Collective box with 3 capsules. Each capsule is contained in a bubble wrap sealed in a cardboard wallet, inside an individual box.</p>	Indicated in combination with lenalidomide and dexamethasone for the treatment of patients with multiple myeloma who have received at least one prior therapy	<p>Oral</p> <p>The recommended starting dose of ixazomib is 4 mg administered orally once weekly on days 1, 8, and 15 of a 28-day treatment cycle.</p> <p>The first dose reduction of ixazomib due to adverse events is 3 mg and the second reduction is 2.3 mg.</p>

#### Generalities

Ixazomib is a reversible proteasome inhibitor. Ixazomib preferentially binds to and inhibits the chymotrypsin-like activity of the beta 5 subunit of the 20S proteasome.

Ixazomib induced apoptosis of several types of tumor cells in vitro. Ixazomib has demonstrated in vitro cytotoxicity against myeloma cells from patients who had relapsed after multiple prior treatments, including bortezomib, lenalidomide, and dexamethasone. The combination of Ixazomib and lenalidomide showed synergistic cytotoxic effects in multiple myeloma cell lines. In vivo, Ixazomib showed antitumor activity in a mouse multiple myeloma tumor xenograft model, including multiple myeloma models.

Risk in Pregnancy x

#### Adverse effects

Upper respiratory tract infection, herpes zoster, thrombocytopenia, peripheral neuropathies, diarrhea, constipation, nausea, vomiting, rash, back pain, peripheral edema.

#### Contraindications and Precautions

Hypersensitivity to the drug or some of the excipients. Since Ixazomib is administered in combination with lenalidomide and dexamethasone; See the contraindications of each of these drugs. Pregnancy, breastfeeding and children under 18 years of age. Thrombocytopenia, gastrointestinal toxicities.

#### Interactions

Avoid concomitant administration of Ixazomib with strong CYP3A inducers (such as rifampin, phenytoin, carbamazepine, and St. John's wort).

### LAPATINIB (In prescription control program)

Clue	Description	Indications	Route of administration and dosage
010.000.5421.00	TABLET  Each tablet contains: Lapatinib ditosylate equivalent to 250 mg lapatinib.  Package with 70 tablets.	Patients with cancer advanced metastatic breast. --  Co-administer with capecitabine to patients whose tumors over-express ErbB2+ (HER2+) and prior who have received treatment including trastuzumab.	Oral.  Adults. 1250 mg every 24 hours. It should be taken at least one hour before or one hour after food.

#### Generalities

Lapatinib, a 4-anilinoquinazoline, is an inhibitor of the intracellular tyrosine kinase domains of the EGFR (ErbB1) and HER2 (ErbB2) receptors (estimated Ki app values of 3Nm and 13Nm, respectively) with a slow elimination rate from these receptors. (half-life greater than or equal to 300 minutes). Lapatinib inhibits ErbB-mediated tumor cell growth in vitro and in several animal models.

#### Risk in Pregnancy C

#### Adverse effects

Anorexia, insomnia, headache, decreased left ventricular ejection fraction, diarrhea, nausea, vomiting, dyspepsia, stomatitis, constipation, abdominal pain, hyperbilirubinemia, hepatotoxicity, rash, dry skin, palmar-plantar erythrodysesthesia, alopecia, pruritus, joint disorders nails including paronychia, pain in extremities, back pain, arthralgia, fatigue, mucosal inflammation, asthenia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Patients with diseases: that affect the function of the left ventricle, that cause a prolongation of the QTc interval, with symptoms of pulmonary toxicity, with liver failure, with kidney failure.

#### Interactions

With strong CYP3A4 inhibitors, such as ritonavir, saquinavir, telithromycin, ketoconazole, itraconazole, voriconazole, posaconazole, nefazodone. With CYP3A4 inducers, such as rifampicin, rifabutin, carbamazepine, phenytoin or *Hypericum perforatum*. Lapatinib is a substrate for the transport proteins Pgp and BCRP. Inhibitors (ketoconazole, itraconazole, quinidine, verapamil, cyclosporine, erythromycin) and inducers (rifampicin, St. John's wort) of these proteins may alter the exposure and distribution of lapatinib. Treatment together with substances that increase gastric pH should be avoided, because it may decrease the solubility and absorption of lapatinib.

### LANREOTID

Clue	Description	Indications	Route of administration and dosage
010.000.5610.01	INJECTABLE SOLUTION  Each prefilled syringe contains: Lanreotide acetate equivalent to 90 mg lanreotide.  Package with a 0.5 mL prefilled syringe with safety device	Acromegaly and neuroendocrine tumors	Deep subcutaneous.  Adults: Acromegaly. 60 to 120 mg every 28 days. Neuroendocrine tumors. Initial dose: 60 to 120 mg every 28 days. If the response is insufficient, the dose can be adjusted to 120 mg every 28 days.

010.000.5611.01	<p>INJECTABLE SOLUTION</p> <p>Each prefilled syringe contains: Lanreotide acetate equivalent to 120 mg lanreotide.</p> <p>Package with a 0.5 mL prefilled syringe with safety device</p>		<p>Extended treatment:</p> <p>In patients well controlled with somatostatin analogues, they can be treated with lanreotide 120 mg every 42 or 56 days.</p>
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#### Generalities

Lanreotide, like somatostatin and its analogues, produces inhibition of insulin and glucagon secretion.

#### Risk in Pregnancy C

#### Adverse effects

Fatigue, headache, vertigo, bradycardia, hypoglycemia and hyperglycemia, diarrhea, abdominal pain, nausea, vomiting, dyspepsia, flatulence, acute pancreatitis, steatorrhea, gallstones, increased bilirubin, anemia, weight loss.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Lanreotide may reduce gallbladder motility and cause gallstones. Patients should be monitored frequently.

#### Interactions

Insulin, oral hypoglycemic medications, cyclosporine. Lanreotide acetate may reduce intestinal absorption of concomitantly administered drugs.

## L-ASPARAGINASE

Clue	Description	Indications	Route of administration and dosage
010.000.4229.00	<p>INJECTABLE SOLUTION.</p> <p>Each vial with powder contains:</p> <p>L-Asparaginase 10,000 IU</p>	Acute lymphocytic leukemia.	<p>Intramuscular and intravenous infusion.</p> <p>Adults:</p> <p>50 to 200 IU/kg body weight/day for 28 days.</p> <p>Children:</p> <p>200 IU/kg body weight/day for 28 days.</p>
010.000.4229.01	Container with 5 vials.		<p>As part of the therapeutic regimen (Intramuscular) 6,000 IU/m<sup>2</sup> of body surface; on the 4th, 7th, 13th, 16th, 19th, 22nd, 25th and 28 of the treatment period, in combination with vincristine and prednisone.</p> <p>In both cases, adjust the dose to the patient's age and conditions.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>

#### Generalities

It fractionates asparaginase into aspartic acid and ammonium, an action that interferes with protein synthesis and the formation of DNA and RNA.

#### Risk in Pregnancy C

#### Adverse effects

Anorexia, nausea, vomiting, abdominal pain, severe allergic reactions, hepatotoxicity, renal failure, leukopenia, added infections, thrombosis, intracranial hemorrhage.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, chickenpox, herpes zoster, liver or kidney dysfunction and uncontrolled systemic infections.

Precautions: Assess risk benefit in alcoholic and breastfeeding patients.

Interactions
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With vincristine, prednisone, immunosuppressants and radiation, its toxicity increases. Interferes with the effect of methotrexate.

### *LENALIDOMIDE (In prescription monitoring program)*

Clue	Description	Indications	Route of administration and dosage
010.000.5617.00	CAPSULE  Each capsule contains: Lenalidomide 10 mg  Container with 21 capsules.	Refractory multiple myeloma.  Myelodysplastic syndrome with low/intermediate-risk 5q deletion-1	Oral. Refractory multiple myeloma 25 mg every 24 hours, on days 1 to 21 of repeated 28-day cycles.  Dexamethasone 40 mg every 24 hours on days 1-4, 9-12 and 17-20 of each 28-day cycle for the first 4 treatment cycles, thereafter 40 mg each  24 hours on days 1-4 every 28 days.
010.000.5618.00	CAPSULE  Each capsule contains: Lenalidomide 15 mg  Container with 21 capsules.		Adjust dose for toxicities hematological during treatment, according to the guide attached to the packaging.  Myelodysplastic syndrome with low/intermediate-risk 5q deletion-1 Starting dose: 10 mg once daily on days 1-21 of 28-day repeat treatment cycles.
010.000.5619.00	CAPSULE  Each capsule contains: Lenalidomide 25 mg  Container with 21 capsules.		

Generalities
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Lenalidomide has immunomodulatory, antiangiogenic and antineoplastic properties.

Risk in Pregnancy	x
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Adverse effects
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Alterations of the hematopoietic system, alterations in skin and subcutaneous tissues, gastrointestinal alterations, thrombocytopenia and neutropenia.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug. Pregnancy, women with gestational capacity who do not comply with contraceptive methods of a pregnancy prevention program, lactation.  
Precautions: No formal studies have been carried out in patients with renal failure. This medication is excreted by the kidneys, and the risk of adverse reactions may be greater in patients with damaged kidneys.

Interactions
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It does not interact through the cytochrome P450 pathway, it does not interact with Warfarin, when it is necessary to use digoxin, perform periodic evaluations of serum levels of digoxin.

### *LENVATINIB (In prescription monitoring program)*

Clue	Description	Indications	Route of administration and dosage
010.000.6171.00	CAPSULE  Each capsule contains: Lenvatinib mesylate equivalent to 4 mg lenvatinib  Container with 30 capsules.	Treatment of patients with Locally advanced or metastatic progressively differentiated thyroid cancer refractory to radioactive iodine.	Oral.  Adults: Thyroid cancer: The recommended daily dose is 24 mg (two 10 mg capsules and one 4 mg capsule), taken once every  24 hours.
010.000.6172.00	CAPSULE  Each capsule contains: Lenvatinib mesylate equivalent to 10 mg lenvatinib  Container with 30 capsules.		

Generalities
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Lenvatinib is a receptor tyrosine kinase (RTK) inhibitor that selectively inhibits the kinase activities of the vascular endothelial growth factor (VEGF) receptors, VEGFR1 (FLT1), VEGFR2 (KDR), and VEGFR3 (FLT4), in addition to other RTKs related to pro-angiogenic and oncogenic pathways, including growth factor (FGF) receptors FGFR1, 2, 3 and 4; as well as the platelet-derived growth factor (PDGF) receptor PDGFR $\alpha$ ; KIT; and RET.

Risk in Pregnancy

 x

Adverse effects

Lymphopenia, thrombocytopenia, heart failure, QT prolongation, hypothyroidism, abdominal pain, increased amylase, constipation, diarrhea, dry mouth, dyspepsia, flatulence, gastrointestinal perforation and fistula, increased lipase, nausea, oral pain, pancreatitis, stomatitis, vomiting, asthenia, peripheral edema, fatigue, malaise, cholecystitis, hepatotoxicity, urinary tract infection, weight loss, decreased appetite, dehydration, hypercholesterolemia, hypocalcemia, hypokalemia, hypomagnesemia, arthralgia, back pain, musculoskeletal pain, myalgia, extremity pain, dizziness, dysgeusia, headache, posterior reversible leukoencephalopathy syndrome, insomnia, proteinuria, kidney failure, renal failure, cough, dysphonia, pulmonary embolism, alopecia, hyperkeratosis, palmar-plantar erythrodysesthesia syndrome, redness, arterial thromboembolic events, hemorrhage, hypertension, hypotension.

Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Hypertension: Hypertension has been reported in patients treated with Lenvatinib. Proteinuria: Proteinuria has been reported in patients treated with lenvatinib. Monitor urine protein regularly. Renal Failure and Insufficiency: Events of renal failure (including renal failure) have been reported in patients treated with lenvatinib. Heart Failure: Heart failure and decreased left ventricular ejection fraction have been reported in patients treated with lenvatinib. Hemorrhagic events: Serious bleeding events have been reported in patients treated with lenvatinib. Hypocalcemia: Hypocalcemia has been reported in patients treated with lenvatinib.

Monitor blood calcium levels periodically and replace calcium as needed during treatment with lenvatinib.

Interactions

Effect on Cytochrome P450 or UGT Enzymes: Lenvatinib is not considered a strong inducer or inhibitor of cytochrome P450 or uridine 5-diphosphoglucuronosyl transferase (UGT) enzymes.

## LETROZOLE

Clue	Description	Indications	Route of administration and dosage
010.000.5541.00	DRAGEE OR TABLET  Each dragee or tablet contains: Letrozole 2.5 mg  Package with 30 dragees or tablets.	Breast cancer advanced with postmenopausal status.	Oral.  Adults:  One dragee every 24 hours.

Generalities

Highly selective inhibitor of aromatase, a **KEY** enzyme in the biosynthesis of estrogens, without modifying the biosynthesis of other steroid hormones.

Risk in Pregnancy

 x

Adverse effects

Headache, nausea, malleolar edema, fatigue, alopecia, erythematous and maculopapular rash, vomiting, dyspepsia, weight gain, musculoskeletal pain, anorexia.

Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, premenopausal and in minors.

Precautions: Use with caution in severe renal failure and liver failure.

Interactions

Because it is an isoenzyme inhibitor, it should be administered with caution in patients taking medications that are transformed in the liver.

**LEUPRORELIN**

Clue	Description	Indications	Route of administration and dosage
010.000.5431.00	<p>INJECTABLE SUSPENSION</p> <p>Each vial with lyophilized microspheres contains:</p> <p>Leuprorelin Acetate 3.75 mg</p> <p>Package with a vial and diluent with 2 mL and equipment for administration.</p>	<p>palliative treatment of advanced prostate cancer.</p> <p>Uterine fibrosis.</p> <p>Endometriosis.</p> <p>Early puberty.</p>	<p>Intramuscular.</p> <p>Adults:</p> <p>3.75 mg once a month.</p>
010.000.3055.00 010.000.3055.01	<p>INJECTABLE SUSPENSION</p> <p>Each syringe prefilled with lyophilized powder or each vial with lyophilized microspheres contains: Leuprorelin acetate 7.5 mg</p> <p>Package with prefilled syringe with lyophilized powder and prefilled syringe with 0.3 mL with release system.</p> <p>Package with a vial with lyophilized microspheres, a vial with 2 mL of diluent and a 3 mL syringe.</p>	<p>Prostate cancer advanced.</p>	<p>Subcutaneous or intramuscular.</p> <p>Adults:</p> <p>7.5 mg per month.</p>
010.000.5434.00	<p>INJECTABLE SUSPENSION</p> <p>The vial contains:</p> <p>Leuprorelin Acetate 11.25 mg</p> <p>Package with a vial, vial with 2 mL of diluent and administration equipment.</p>		<p>Subcutaneous.</p> <p>Adults:</p> <p>11.25 mg every three months.</p>
010.000.5450.00	<p>INJECTABLE SUSPENSION</p> <p>Each syringe prefilled with lyophilized powder contains:</p> <p>Leuprorelin Acetate 22.5 mg</p> <p>Package with prefilled syringe with lyophilized powder and prefilled syringe with 0.5 mL with release system.</p>		<p>Subcutaneous.</p> <p>Adults:</p> <p>22.5 mg every three months.</p>
010.000.5972.00	<p>INJECTABLE SUSPENSION</p> <p>Each syringe prefilled with lyophilized powder contains:</p> <p>Leuprorelin Acetate 45 mg</p> <p>Container with prefilled syringe with lyophilized powder and prefilled syringe with 0.5 mL of diluent.</p>		<p>Subcutaneous.</p> <p>Adults:</p> <p>45 mg every six months.</p>

Generalities
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Gonadotropin-releasing hormone agonist.

Risk in Pregnancy
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Adverse effects
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Hot flashes, burning at the application site, fatigue, testicular atrophy and gynecomastia. As with any LHRH analogue, a transient increase in serum testosterone concentration is possible during the first week of treatment. Therefore, exacerbation of signs and symptoms of the disease during the first weeks of treatment is to be expected in patients with spinal metastases and/or urinary obstruction or hematuria. If these conditions worsen they can lead to neurological problems such as: weakness and paresthesia of the lower limbs or exacerbation of urinary symptoms.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.  
 Cautions: Changes in bone mineral density may occur during any hypoestrogenic state. Loss of bone mineral density may be reversible after discontinuation of leuprorelin acetate.  
 Leuprorelin Acetate has not been studied in women or children. It is known that Leuprorelin can cause fetal damage, therefore, it is contraindicated in pregnancy and lactation.  
 Leuprorelin Acetate 45 mg is contraindicated in pediatric patients.

## Interactions

No pharmacokinetic studies have been performed on the risk of interaction with other drugs. Its particular pharmacological behavior and low binding to plasma proteins mean that negative interactions are not expected.

**LEVAMISOL**

Clue	Description	Indications	Route of administration and dosage
010.000.5502.00	<p>TABLET</p> <p>Each tablet contains: Levamisole hydrochloride equivalent to 50 mg. of levamisole.</p> <p>Package with 2 tablets.</p>	Adjuvant in colon carcinoma chemotherapy.	<p>Oral.</p> <p>Adults: Initial dose: 50 mg every 8 hours for three days.</p> <p>Sustaining dose: 50 mg every 8 hours for 2 weeks.</p>

## Generalities

Immunomodulator that stimulates the formation of antibodies by stimulating T lymphocytes and the proliferation of neutrophil macrophage monocytes. The primary indication is to treat patients with surgically treated colon adenocarcinoma in stage C as an adjuvant to 5-Fluorouracil. It has anthelmintic activity against ascaris and pinworms.

## Risk in Pregnancy

C

## Adverse effects

Nausea, diarrhea, dermatitis, fatigue, arthralgia, drowsiness, leukopenia, vomiting.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, agranulocytosis, anemia, leukopenia, presence of HLA B27 in rheumatoid arthritis.

## Interactions

With alcohol it produces a disulfiram effect and with warfarin it increases the prothrombin time. Increases the plasma concentration of phenytoin.

**LIPEGFILGRASTIM (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6120.00	<p>INJECTABLE SOLUTION</p> <p>Each prefilled syringe contains: Lipegfilgrastim 6 mg</p> <p>Package with 1 prefilled syringe with 6 mg/0.6 mL (with cap and without safety cap).</p>	<p>Duration reduction of neutropenia in adult patients with malignant tumors treated with cytotoxic chemotherapy (with the exception of chronic myeloid leukemia and syndromes myelodysplastic).</p>	<p>Subcutaneous.</p> <p>Adults: 6 mg for each cycle of chemotherapy. Administer 24 hours after cytotoxic chemotherapy.</p>

## Generalities

Lipegfilgrastim is a covalent conjugate of filgrastim, human G-CSF, which is a glycoprotein that regulates the production and release of functional neutrophils from the bone marrow. Lipegfilgrastim is a sustained-acting form of filgrastim due to reduced renal clearance. Lipegfilgrastim binds to the human G-CSF receptor, as do filgrastim and pegfilgrastim.

## Risk in Pregnancy

X

## Adverse effects

Musculoskeletal pain, thrombocytopenia, hypokalemia, chest pain, headache, erythema and belching.

## Contraindications and Precautions

Contraindications and Precautions: Hypersensitivity to the drug. Do not use in patients with chronic myeloid leukemia and myelodysplastic syndromes.

## Interactions

Concomitant use of lipegfilgrastim with any chemotherapy drug has not been evaluated in patients.



In vitro data indicate that lipegfilgrastim has little or no effect or activity on CYP1A2, CYP2B6, CYP2C8, CYP2C9, CYP2C19, and CYP3A5, therefore, lipegfilgrastim is not likely to affect metabolism by human cytochrome P450 enzymes.

**LOMUSTINA**

Clue	Description	Indications	Route of administration and dosage
010.000.4428.00	<p>CAPSULE</p> <p>Each bottle with two capsules contains:</p> <p>Lomustine 10 mg Lomustine 40 mg Lomustine 100 mg</p> <p>Package with 3 bottles containing 2 capsules of each quantity.</p>	<p>Brain cancer.</p> <p>Hodgkin's disease.</p>	<p>Oral.</p> <p>Adults and children:</p> <p>130 mg/ m<sup>2</sup> body surface, as single dose every 6 weeks.</p> <p>Reduce dosage according to the degree of bone marrow suppression.</p> <p>Doses should not be repeated until leukocytes are more than 4,000/mm<sup>3</sup> and platelets more than 100,000/mm<sup>3</sup>.</p>

**Generalities**

It cross-links cellular DNA strands and interferes with RNA transcription.

**Risk in Pregnancy**

d

**Adverse effects**

Leukopenia, thrombocytopenia, nausea and vomiting.

**Contraindications and Precautions**

Hypersensitivity to the drug, leukopenia, thrombocytopenia, kidney, liver or lung failure.

**Interactions**

With cytotoxic medications and radiotherapy its adverse effects increase.

**MECHLORETHAMINE**

Clue	Description	Indications	Route of administration and dosage
010.000.5447.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Mechlorethamine hydrochloride 10 mg</p> <p>Container with 1 vial.</p>	<p>Hodgkin's disease</p> <p>Lymphosarcoma. Leukemia</p> <p>chronicle. Carcinoma</p> <p>bronchogen.</p>	<p>Intravenous infusion.</p> <p>Adults:</p> <p>0.2 mg/kg of body weight, for two consecutive days.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>

**Generalities**

Nitrogen mustard with an alkylating effect, very active, combines with organic radicals of amino acids, thereby altering the fundamental mechanisms of growth, mitotic activity, differentiation and cellular functions.

**Risk in Pregnancy**

x

**Adverse effects**

Nausea, vomiting, bone marrow depression, leukopenia, thrombocytopenia, alopecia, anorexia, thrombophlebitis, maculopapular skin rash, prolonged amenorrhea.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

**Interactions**

With other antineoplastic drugs, their adverse effects increase.

**MEGESTROL**

Clue	Description	Indications	Route of administration and dosage
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010.000.5430.00	TABLET	Breast cancer.	Oral.
	Each tablet contains: Megestrol acetate 40 mg	Endometrial cancer.	Adults:
	Package with 100 tablets.		Breast: 40 mg, every 6 hours. Endometrium: 20 to 80 mg every 6 hours

**Generalities**

Progestogen that inhibits the pituitary and produces regression of the carcinoma.

**Risk in Pregnancy**

d

**Adverse effects**

Weight gain, fluid retention, high blood pressure, menstrual disorders.

**Contraindications and Precautions**

Hypersensitivity to the drug and progestogens. Use with caution in patients with a history of thromboembolism and thrombophlebitis, epilepsy, diabetes mellitus, kidney disease, heart disease or migraine.

**Interactions**

With hormonal contraceptives the risk of thromboembolism increases. Interferes with the effect of bromocriptine.

**MELPHALAN**

Clue	Description	Indications	Route of administration and dosage
010.000.1756.00	TABLET	Multiple myeloma.	Oral.
	Each tablet contains: Melphalan 2 mg	Breast carcinoma.	Adults:
	Package with 25 tablets.	Testicular seminoma.  Non-Hodgkin's lymphoma.  Unresectable advanced ovarian cancer.	150 µg/kg body weight for seven consecutive days, followed by a 3-week rest period.  When the leukocyte count is elevated, maintenance dose of 100 to 150 µg/kg body weight daily for 2 to 3 weeks or 250 µg/kg body weight daily for 4 days, followed by rest for 2-4 weeks.  With a leukocyte count of 3000/mm <sup>3</sup> and platelets above 75000/mm <sup>3</sup> , give a maintenance dose of 2-4 mg/day.  — 250 µg/kg body weight daily or 7 mg/m <sup>2</sup> body surface area/day for 5 days, every 5 to 6 weeks.

**Generalities**

Alters growth mechanisms, mitotic activity, differentiation and cellular **FUNCTION** ; Cell death occurs in interphase.

**Risk in Pregnancy**

d

**Adverse effects**

Bone marrow depression, acute nonlymphocytic leukemia, nausea, vomiting, diarrhea, and stomatitis. Alopecia, pneumonitis, pulmonary fibrosis and dermatitis.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: In kidney damage and hematological conditions, or with previous radiotherapy and chemotherapy.

**Interactions**

Adverse effects increase with myelosuppressive medications and radiation.

**MERCAPTOPURINE**

Clue	Description	Indications	Route of administration and dosage
	TABLET	Leukemia lymphoblastic	Oral.

010.000.1761.00	Each tablet contains: Mercaptopurine 50 mg	acute. Acute myeloblastic leukemia.	Adults: 80 to 100 mg/m <sup>2</sup> of body surface area/day.
010.000.1761.01	Package with 20 tablets.	Chronic myeloblastic leukemia.	In a single dose 2.5 to 5 mg/kg body weight/day.
	Package with 25 tablets.		Children: 70 mg/m <sup>2</sup> body surface area/day. Sustaining dose of 1.5 to 2.5 mg/kg body weight/day.

#### Generalities

It inhibits the synthesis of purine nucleotides, blocks the synthesis of RNA and DNA, and prevents cell division in the S phase.

#### Risk in Pregnancy

d

#### Adverse effects

Anemia, leukopenia, thrombocytopenia, nausea, vomiting, anorexia, diarrhea, mouth ulcers, jaundice, liver necrosis, hyperuricemia, erythema, hyperpigmentation.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk benefit in myelosuppression, systemic infection, hepatic or renal dysfunction and hyperuricemia.

#### Interactions

Adverse effects increase with radiation and myelosuppressive medications. The anticoagulant effect of warfarin is inhibited. With thiazides and furosemide the risk of hyperuricemia increases.

## ERIBULIN MESYLATE

Clue	Description	Indications	Route of administration and dosage
010.000.6082.00	INJECTABLE SOLUTION  Each vial contains: Eribulin mesylate 1,130 mg  Container with vial bottle with 1 mg/ 2 mL of solution.	For the treatment of adult patients with locally advanced or metastatic breast cancer with disease progression after at least one chemotherapy regimen for advanced disease. Prior therapy must have included an anthracycline and a taxane in the adjuvant or metastatic setting unless these treatments were not appropriate for the patients.	Intravenous Adults 1.4 mg/m <sup>2</sup> of body surface, during 2 to 5 minutes, on days 1 and 8 of each 21-day cycle.

#### Generalities

Eribulin Mesylate is a first-class halichondrin B-based inhibitor of microtubule dynamics. It is a structurally simplified synthetic analogue of halichondrin B, a natural product isolated from the marine sponge *Halichondria okadae*.

Eribulin inhibits the growth phase of microtubules without affecting the shortening phase and sequesters tubulin in non-productive aggregates. Eribulin exerts its effects through a tubulin-based antimetabolic mechanism that results in G2/M cell cycle block, disruption of mitotic spindles finally, apoptotic death after prolonged and irreversible mitotic block.

Eribulin mesylate also affects the tumor microenvironment and tumor phenotype through mechanisms that are not linked to its antimetabolic effects. These additional effects of Eribulin include: (i) remodeling of the tumor vasculature whereby the internal tumor cores are better perfused and less hypoxic and (ii) the phenotypic changes from more aggressive mesenchymal phenotypes to less aggressive epithelial phenotypes of the reversal of the epithelial-mesenchymal transition.

#### Risk in Pregnancy

Women of childbearing potential should be informed to avoid becoming pregnant while they or their partners are receiving Eribulin mesylate and to use effective contraception during and for up to 3 months after completing treatment.

There is no information on the use of eribulin mesylate in pregnant women. Eribulin mesylate is embryotoxic, phenotoxic and teratogenic in rats. Eribulin mesylate should not be used during pregnancy unless clearly necessary and after careful consideration of the needs of the mother and the risk to the fetus.

There is no information on the excretion of eribulin mesylate or its metabolites in human or animal breast milk. However, the risk for newborns or infants cannot be excluded, so eribulin mesylate should not be used during breast-feeding.

#### Adverse effects

Neutropenia, leukopenia, anemia, febrile neutropenia, lymphopenia, thrombocytopenia, peripheral neuropathy, headache, dysgeusia, dizziness, anxiety, depression, insomnia, increased lacrimation, asthenia/fatigue, mucosal inflammation, pyrexia, peripheral edema, pain, constipation, diarrhea, nausea, vomiting, stomatitis, dry mouth, dyspepsia, abdominal pain, aspartate aminotransferase increased, alanine aminotransferase increased, gamma glutamyl transferase increased, hyperbilirubinemia, arthralgia/myalgia back pain, bone pain, leg pain extremities, muscle spasm, muscle weakness, weight loss, decreased appetite, hypokalemia, hypomagnesemia, hypocalcemia, dehydration, cough, dyspnea, alopecia, rash, rash, pruritus, sepsis, pneumonia, upper respiratory tract infection, urinary tract infection, drug hypersensitivity, hepatitis, pancreatitis, interstitial lung disease, Stevens-Johnson syndrome, toxic epidermal necrolysis.

#### Contraindications and Precautions

Contraindications: hypersensitivity to the drug or to the components of the formula. Pregnancy and breastfeeding.

General precautions:

Hematology

Myelosuppression is dose-dependent and manifests primarily as neutropenia. Febrile neutropenia occurred in patients treated with eribulin mesylate.

Complete blood chemistry monitoring should be performed before each dose in all patients receiving eribulin mesylate.

Patients with febrile neutropenia, severe neutropenia or thrombocytopenia should be treated according to recommendations.

Patients with alanine aminotransferase (ALT) or aspartate aminotransferase (AST) > 3 X ULN (upper limit of normal)

They had a higher incidence of grade 4 neutropenia and febrile neutropenia. Although data are limited, patients with bilirubin >15 x ULN also have a higher incidence of grade 4 neutropenia and febrile neutropenia.

Peripheral neuropathy

Monitor patients closely for signs of peripheral and sensory neuropathy. Peripheral neuropathy should be treated by delaying and adjusting the dose according to recommendations.

QT interval prolongation

In an uncontrolled open-label ECG study in 26 patients, QT prolongation was observed on day 8, regardless of eribulin concentration, with QT prolongation not observed on day 1. ECG monitoring is recommended if treatment is initiated in patients with heart failure, congestive heart disease, bradyarrhythmias, treatments with medications known to prolong the QT interval, including class Ia and III antiarrhythmics, and electrolyte disturbances. Correct hypocalcemia or hypomagnesemia before initiating treatment with eribulin mesylate, and monitor these electrolytes periodically during therapy. Treatment with eribulin mesylate should be avoided in patients with congenital long QT syndrome.

Effects on ability to drive and use machines.

Eribulin may cause side effects such as tiredness and dizziness which may have a mild or moderate influence on the ability to drive or use machines. Patients should be advised not to drive or use machines if they feel tired or dizzy.

#### Interactions

Drug and other interactions

No drug interactions are expected with CYP3A4 inhibitors, CYP3A4 inducers, or P-glycoprotein (P-gp) inhibitors. There is no effect on Eribulin exposure (area under the curve AUC) and maximum concentration (C<sub>max</sub>) when Eribulin was administered with or without ketoconazole, a potent CYP3A4 inhibitor, or when administered with rifampin, a potent CYP3A4 inducer.

Eribulin does not inhibit or induce CYP1A2, CYP2C9, CYP2C19, CYP2D6, CYP2E1 or CYP3A4 enzymes.

CYP1A2, CYP2C9, CYP2C19 OR CYP3A4 at clinically relevant concentrations.

## MESNA

Code	Description	Indications	Route of administration and dosage
010.000.4433.00	<p>INJECTABLE SOLUTION</p> <p>Each ampoule or vial contains:</p> <p>Mesna 400 mg</p> <p>Package with 5 ampoules or vials with 4 mL (100 mg/mL).</p>	<p>Prophylaxis of hemorrhagic cystitis in patients receiving ifosfamide or cyclophosphamide.</p>	<p>Intravenous.</p> <p>Adults:</p> <p>240 mg/m<sup>2</sup> body surface area, administered together with the antineoplastic.</p> <p>The doses are repeated 4 to 8 hours after administration of the antineoplastic.</p>

#### Generalities

Prevents ifosfamide-induced hemorrhagic cystitis by reacting with the toxic metabolites of this compound.

## Risk in Pregnancy

b

## Adverse effects

Dysgeusia, diarrhea, nausea, vomiting, fatigue, hypotension.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug and compounds with sulfhydryl groups.

Precautions: In thrombocytopenia.

## Interactions

Prevents adverse effects of ifosfamide.

**METHENOLONE**

Clue	Description	Indications	Route of administration and dosage
040.000.1710.00	INJECTABLE SOLUTION  Each vial contains: Methenolone enanthate 50 mg Package with vial with 1 mL.	nitrogen catabolism negative.  Aplastic anemia.	Intramuscular.  Adults:  50 to 100 mg every two to four weeks.

## Generalities

Promotes protein anabolism and reverses the negative nitrogen catabolic process. Stimulates the secretion of erythropoietin and heme synthesis.

## Risk in Pregnancy

d

## Adverse effects

Oligospermia, priapism, gynecomastia, testicular atrophy and prostate growth. In women: virilization. In children: interruption of growth and early sexual development. Acne, stomatitis, local irritation, hypercalcemia, cholestatic jaundice, insomnia.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, prostate or breast cancer in men.

Precautions: Assess risk benefit in hypercalcemia, liver dysfunction, cardiovascular or kidney diseases, epilepsy, migraine and breastfeeding.

## Interactions

The risk of edema increases with the use of corticosteroids, increases the action of oral anticoagulants and decreases blood glucose.

**METHOTREXATE**

Clue	Description	Indications	Route of administration and dosage
010.000.1759.00	TABLET  Each tablet contains: Methotrexate sodium equivalent to 2.5 mg. of methotrexate.  Package with 50 tablets.	Acute lymphocytic leukemia.  Choriocarcinoma. Cancer of the mother. Carcinoma  epidermoid of the head and neck.	Oral,  Adults and children: Psoriasis 2.5 mg per day for 5 days.  Rheumatoid arthritis 7.5 to 15 mg once a week for six months.
010.000.1760.00	INJECTABLE SOLUTION  Each vial with lyophilisate or solution contains: Methotrexate sodium equivalent to 50 mg. of methotrexate.  Container with a vial.	Lymphomas.  Osteogenic sarcoma.  Infiltration prevention leukemic of the meninges and central nervous system.	Intramuscular, intravenous or intrathecal.  Intravenously or intramuscularly: 50 mg/m <sup>2</sup> body surface.  Intrathecally: 5 to 10 mg/m <sup>2</sup> . of body surface.
010.000.1760.01	Container with 10 vials	Rheumatoid arthritis.  Psoriasis.	Administer diluted in intravenous solutions packaged in glass bottles.
	INJECTABLE SOLUTION  Each vial with lyophilisate or solution contains:		

010.000.1776.00	Methotrexate sodium equivalent to 500 mg. of methotrexate. Container with a vial.
	INJECTABLE SOLUTION
	Each vial with lyophilisate contains:  Methotrexate sodium equivalent to 1g. of methotrexate.
010.000.2194.00	Container with a vial.

**Generalities**

Folic acid antimetabolite in the S phase of the cell cycle. It inhibits the synthesis of DNA, RNA, thymidylate and proteins and interrupts cell replication. It is moderate as an immunosuppressant.

**Risk in Pregnancy**

d

**Adverse effects**

Anorexia, nausea, vomiting, abdominal pain, diarrhea, ulcerations, gastrointestinal perforation, stomatitis, bone marrow depression, liver and kidney failure, pulmonary fibrosis, neurotoxicity.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.  
Precautions: Assess risk benefit in malnutrition, serious infections, bone marrow depression, immunodeficiency, nephropathy and pulmonary alveolitis.

**Interactions**

Overdosage requires intravenous calcium folinate. Salicylates, sulfas, phenytoin, phenylbutazone and tetracyclines increase their toxicity. Folic acid reduces its effect.

**MIDOSTAURINE**

Clue	Description	Indications	Route of administration and dosage
010.000.6285.00	CAPSULE  Each capsule contains midostaurin 25 mg.  Package with 112 capsules (4 boxes with 28 capsules) of 25 mg.	In combination with standard with induction and consolidation chemotherapy, followed by maintenance monotherapy, in adult patients with FLT3 mutation-positive acute myeloblastic leukemia.	Oral Adults  Twice a day with an interval between doses of 12 hours. The capsules should be taken with food.  The recommended dose of midostaurin is 50 mg orally twice daily. It is taken from day 8 to day 21 of the consolidation induction chemotherapy cycles, and then, in patients with a complete response, every day in maintenance treatment until relapse for 12 cycles of 28 days each. In patients receiving a hematopoietic stem cell transplant (HSCT), midostaurin should be discontinued 48 hours before the start of pre-HSCT conditioning treatment.

**Generalities**

Midostaurin is an inhibitor of tyrosine kinases, such as FLT3 and KIT. It inhibits signal transduction by the FLT3 receptor, induces cell cycle arrest and promotes apoptosis in leukemic cells that express mutated ITD or TKD receptors or that overexpress normal receptors.

**Risk in Pregnancy**

Should not be administered during pregnancy

**Adverse effects**

Upper respiratory tract infection, neutropenic sepsis, febrile neutropenia, petechiae, lymphopenia, hypersensitivity, hyperuricemia, insomnia, headache, syncope, tremor, eyelid edema, hypotension, tachycardia, hypertension, pericardial effusion, epistaxis, laryngeal pain, nausea, vomiting, stomatitis, epigastralgia, hemorrhoids, exfoliative dermatitis, hyperhidrosis, back pain, arthralgia, pyrexia, hyperglycemia, prolongation of partial thromboplastin activated time.

**Contraindications and Precautions**

Neutropenia, infections, cardiac dysfunction, pulmonary toxicity, embryo-fetal toxicity and lactation

**Interactions**

Midostaurin is extensively metabolized in the liver via the CYP3A4 isoform that is induced or inhibited by a number of concomitant medications. Those drugs that inhibit or induce this family of cytochromes should be monitored.

**MIFAMURTIDA**

Clue	Description	Indications	Route of administration and dosage
010.000.5650.00	INJECTABLE SUSPENSION  Each vial contains: Mifamurtide 4 mg  Container with vial bottle with powder.	Treatment of Non-metastatic resectable high-grade osteosarcoma after macroscopically complete surgical resection.	Intravenous.  Children, adolescents and adults.  2 mg/m <sup>2</sup> body surface. Cycle 36 weeks, 2 per week the first 12 weeks and one per week for the next 24 weeks.

**Generalities**

Mifamurtide (muramyl tripeptide phosphatidyl ethanolamine, MTP-PE) is a synthetic derivative of muramyl dipeptide (MDP), with immunostimulant effects similar to natural MDP, with the additional advantage of a longer half-life in plasma. Specific ligand for NOD2, a receptor found mainly in monocytes, dendritic cells and macrophages. MTP-PE is a potent activator of monocytes and macrophages. Activation of these cells is associated with the production of cytokines, including tumor necrosis factor (TNF-alpha), interleukin-1 (IL-1beta), IL-6, IL-8, and IL-12, and adhesion molecules, including lymphocyte function-associated antigen 1- (LFA-1) and intercellular adhesion molecule-1 (ICAM-1).

**Risk in Pregnancy**

C

**Adverse effects**

Anemia, leukopenia, headache, dizziness, anorexia, tachycardia, dyspnea, cough, vomiting, diarrhea, myalgia, arthralgia, fever and asthenia.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug. Children < 2 years. During pregnancy and lactation

Precautions: History of: autoimmune, inflammatory or other collagen-related diseases; of venous thrombosis, vasculitis, unstable cardiovascular disorders, asthma, or other chronic obstructive diseases.

It should be prescribed and supervised only by a specialist doctor.

**Interactions**

Simultaneous use with cyclosporine or other calcineurin inhibitors. Simultaneous use with high-dose non-steroidal anti-inflammatory drugs (NSAIDs, cyclooxygenase inhibitors).

**MYTHOMYCIN**

Clue	Description	Indications	Route of administration and dosage
010.000.3022.00	INJECTABLE SOLUTION  Each vial with powder contains:  Mitomycin 5 mg  Container with a vial.	Stomach cancer.  Pancreatic cancer.  Colon cancer.  Lung cancer.  Breast cancer.	Intravenous.  Adults: 2 mg/m <sup>2</sup> of body surface area, intravenously/ daily for five days or 10 to 20 mg/m <sup>2</sup> body surface as a single dose.  Treatment will be suspended if the leukocyte count is less than 3,000/mm <sup>3</sup> or if the platelets are below 75,000/mm <sup>3</sup> .

**Generalities**

It forms cross-links between DNA helices, which inhibits DNA synthesis. It also inhibits the synthesis of RNA and proteins to a lesser extent.

## Risk in Pregnancy

d

## Adverse effects

Leukopenia and thrombocytopenia. Nausea, vomiting, diarrhea, stomatitis, dermatitis, fever and malaise, pulmonary fibrosis and edema, interstitial pneumonia, uremic syndrome, renal failure.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, patients with leukocyte counts less than 3,000/mm<sup>3</sup>, platelets less than 75,000/mm<sup>3</sup> or serum creatinine levels above 1.7 mg/100 mL.

## Interactions

With myelosuppressive medications, adverse effects increase. Dextran and urokinase enhance the cytotoxic action of the drug.

**MITOXANTRONE**

Clue	Description	Indications	Route of administration and dosage
010.000.4233.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Mitoxantrone hydrochloride equivalent to 20 mg of mitoxantrone base.</p> <p>Container with a 10 mL vial.</p>	<p>Non-Hodgkin lymphomas.</p> <p>Acute granulocytic leukemias.</p> <p>Breast cancer.</p>	<p>Intravenous infusion.</p> <p>Adults:</p> <p>8 to 14 mg/m<sup>2</sup> body surface, each 21 days.</p> <p>Children:</p> <p>8 mg/m<sup>2</sup> of body surface area/day, per 5 days.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>

## Generalities

Antiproliferative in slow and fast growing tissues, it stimulates the formation of breaks in DNA strands, an action mediated by topoisomerase II.

## Risk in Pregnancy

x

## Adverse effects

Myelotoxicity, arrhythmias, precordial pain, tachycardia, alopecia, cough, dyspnea, jaundice, hypersensitivity reactions.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, liver or kidney failure, cardiomyopathy.

## Interactions

Adverse effects increase with myelosuppressive medications and radiotherapy.

**MOLGRAMOSTIM**

Clue	Description	Indications	Route of administration and dosage
010.000.5429.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with lyophilisate contains:</p> <p>Molgramostim 400 µg</p> <p>Package with a vial and a one mL vial with diluent.</p>	<p>Myelosuppressive therapy.</p> <p>Aplastic anemia.</p> <p>Neutropenia.</p> <p>Bone marrow transplant.</p>	<p>Subcutaneous or intravenous infusion.</p> <p>Adults:</p> <p>1 to 3 µg/kg/day. The maximum daily dose should not exceed 10 mg/kg day.</p> <p>The duration of treatment depends on the therapeutic response.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>

## Generalities

It is an essential protein that intervenes in the regulation of hematopoiesis and leukocyte functional activity. Stimulates colonies of granulocytes and macrophages.

## Risk in Pregnancy

d



## Adverse effects

Fever, bone pain, rash, dyspnea, nausea, muscle pain, hypotension and fatigue.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: History of autoimmune thrombocytopenic purpura.

## Interactions

Thrombocytopenia may occur with cytotoxic drugs.

**NILOTINIB (In Catalog II program)**

Clue	Description	Indications	Route of administration and dosage
010.000.4322.00 010.000.4322.01	<p>CAPSULE</p> <p>Each capsule contains: Nilotinib hydrochloride equivalent to 200 mg of nilotinib.</p> <p>Container with 112 capsules. Container with 120 capsules.</p>	<p>myeloid leukemia</p> <p>chronic positive for Philadelphia chromosome, resistance with or intolerance to previous imatinib. treatment, including</p>	<p>Oral.</p> <p>Adults:</p> <p>400 mg every 12 hours.</p> <p>It should be administered at least 2 hours before food and no food should be consumed one hour after the dose.</p>

## Generalities

Bcr-Abl kinase inhibitor. It inhibits the proliferation of leukemic cell lines derived from patients with Philadelphia chromosome-positive chronic myeloid leukemia.

## Risk in Pregnancy

d

## Adverse effects

Anorexia, alopecia, erythema and asthenia, urticaria, pruritus, nausea, headache, fatigue, constipation, diarrhea, generalized bone pain, arthralgia, muscle spasms and peripheral edema. Thrombocytopenia, anemia and neutropenia. Pleural effusion, pericardial effusion, gastrointestinal and central nervous system bleeding. Pneumonia, urinary tract infections, hypercalcemia, insomnia, anxiety, taste disturbance, QT prolongation, and decreased visual acuity.

## Contraindications and Precautions

Contraindications: Known hypersensitivity to nilotinib or any of its excipients. Myelosuppressed patients. Serious uncontrolled infections.

Precautions: In patients who develop myelosuppression during treatment, biweekly or monthly hematological monitoring and temporarily reduce or suspend treatment. In patients who have or may develop QT prolongation. Correct hypomagnesemia and hypokalemia before starting treatment. Avoid grapefruit juice and other foods that inhibit CYP3A4. Severe lactose or galactose intolerance. Patients with liver failure.

## Interactions

Avoid concomitant use with strong CYP3A4 inhibitors such as ketoconazole, itraconazole, voriconazole, clarithromycin or ritonavir, which prolongs the QT interval.

**NIVOLUMAB (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6109.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Nivolumab 100 mg</p> <p>Container with a vial with 10 mL of solution (10 mg/mL).</p>	<p>PD-L1 biomarker-positive (≥10%) metastatic non-squamous non-small cell lung cancer showing progression during or after platinum-based chemotherapy.</p> <p>Patients with EGFR or ALK tumor genetic alterations must have experienced disease progression with therapy for these alterations before receiving treatment.</p>	<p>Intravenous.</p> <p>Adults: 3 mg/kg body weight administered intravenously infused over 60 minutes every two weeks until disease progression or unacceptable toxicity.</p>
	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Nivolumab 40 mg</p>	<p>Metastatic squamous histology non-small cell lung cancer that</p>	

010.000.6110.00	Container with a vial with 4 mL of solution (10 mg/mL).	<p>shows progression during or after platinum-based chemotherapy.</p> <p>Treatment of patients with unresectable or metastatic melanoma in first line with or without ipilimumab for unresectable or metastatic melanoma.</p> <p>Treatment of patients with Classical Hodgkin Lymphoma who have relapsed or progressed after an autologous hematopoietic progenitor cell transplant and who present failure after the use of post-transplant brentuximab vedotin.</p> <p>Recurrent or metastatic squamous head and neck cancer with disease progression or after platinum-based therapy.</p>	
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**Generalities**

Binding of the PD-1 ligands, PD-L1 and PD-L2, to the PD-1 receptor found on T cells inhibits T cell proliferation and cytokine production. Increased PD-1 ligands occur in some tumors and signaling through this pathway may contribute to the inhibition of tumor immune surveillance by active T cells. Nivolumab is a human immunoglobulin G4 (IgG4) monoclonal antibody that binds to the PD-1 receptor and blocks its interaction with PD-L1 and PD-L2, releasing inhibition of the immune response mediated by the PD-1 pathway, including the antitumor immune response.

**Risk in Pregnancy**

X

**Adverse effects**

Pneumonitis, colitis, hepatitis, nephritis, rash, encephalitis and immunologically mediated endocrinopathies.

**Contraindications and Precautions**

Contraindications and Precautions: Hypersensitivity to the drug.

**Interactions**

No formal drug interaction study has been performed with nivolumab.

**OBINUTUZUMAB (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
010.000.6037.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains:</p> <p>Obinutuzumab 1000 mg</p> <p>Container with vial bottle with 40 mL (1000 mg/40 mL).</p>	<p>In combination with Chlorambucil is indicated for the treatment of patients with chronic lymphocytic leukemia (CLL) without prior treatment.</p> <p>In combination Bendamustine, with followed by maintenance Obinutuzumab is indicated for the treatment of follicular lymphoma (FL) patients who did not respond or had progression during or after treatment with rituximab or a regimen that included rituximab.</p>	<p>Chronic lymphocytic leukemia</p> <p>Intravenous infusion</p> <p>Adults:</p> <p>1000 mg on days 1, 8 and 15 of the first 28-day treatment cycle, followed by 1000 mg administered on day 1 only in each subsequent treatment cycle (cycles 2-6).</p> <p>On day 1, 100 mg is administered at a rate of 25 mg/h in 4 hours. If the patient tolerates it, the rest of the dose can be infused this same day or on day 2, 900 mg is administered and it can be increased by 50 mg/h every 30 minutes to a maximum rate of 400 mg/h.</p> <p>On days 8, 15, and day 1 of subsequent cycles, administer 1000 mg at a rate of 100 mg/h and increase in increments of 100 mg/h every 30 minutes to a maximum rate of 400 mg/h.</p> <p>On days 8, 15, and day 1 of subsequent cycles, administer 1000 mg at a rate of 100 mg/h and increase in increments of 100 mg/h every 30 minutes to a maximum rate of 400 mg/h.</p> <p>Refractory/recurrent follicular lymphoma (at a</p>

previous treatment with rituximab)

The recommended dose of Obinutuzumab is 1000 mg administered on days 1, 8 and 15 of the first 28-day treatment cycle, followed by 1000 mg administered on day 1 only of each subsequent treatment cycle (cycles 2 to 6)

Bendamustine is administered IV on days 1 and 2 in cycles 1 to 6 at 90 mg/m<sup>2</sup>/day.

Patients who respond to induction treatment (first 6 cycles) should continue Obinutuzumab 1000 mg as maintenance therapy every 2 months for 2 years.

#### Generalities

Obinutuzumab is a recombinant monoclonal antibody CD20 type II and IgG1 isotype, humanized and modified by glucoengineering. It acts specifically against the extracellular domain of the transmembrane antigen CD20 present on the surface of pre-B and mature B lymphocytes. The modification of the FC fragment of obinutuzumab by glucoengineering determines that the affinity of this antibody for the FcγRIII receptors present on effector immune cells such as natural killer (NK) lymphocytes and macrophages and monocytes is greater than that of antibodies not subjected to said modification. It induces direct cell death and mediates antibody-dependent cellular cytotoxicity (ADCC) and antibody-dependent cellular phagocytosis (ADCF) through the recruitment of effector cells of the immune system that express FcγRIII receptors.

#### Risk in Pregnancy

C

#### Adverse effects

The most frequent adverse reactions reported are reactions at the infusion site, cases of tumor lysis syndrome have been reported in patients with high tumor burden, neutropenia and thrombocytopenia that should be part of the routine monitoring of patients, and those with heart disease. The presence of arrhythmias should be monitored. Reactivation of hepatitis B has been described.

#### Contraindications and Precautions

It is contraindicated in patients with known hypersensitivity (IgE-mediated) to Obinutuzumab or any of the excipients.

#### Interactions

No formal drug interaction studies have been conducted. A risk of interactions with concomitantly used medications cannot be excluded.

## OLAPARIB

Clue	Description	Indications	Route of administration and dosage
010.000.6358.00	<p>TABLET</p> <p>Each tablet contains: Olaparib 100 mg</p> <p>Cardboard box with 56 tablets of 100 mg each</p>	<p>Monotherapy for the maintenance treatment of adult patients with high-grade serous epithelial ovarian cancer, fallopian tube cancer, or peritoneal cancer</p> <p>primary, recurrent platinum with sensitivity containing BRCA mutation (germline and/or somatic), responding (complete or partial response) to platinum-based chemotherapy.</p>	<p>Oral.</p> <p>Adults: 400 mg twice a day.</p> <p>Patients should initiate treatment with olaparib no later than 8 weeks after completion of their last administration of the platinum-containing regimen.</p>
010.000.6359.00	<p>TABLET</p> <p>Each tablet contains: Olaparib 150 mg</p> <p>Cardboard box with 56 tablets of 150 mg each</p>	<p>Monotherapy for the treatment of adult patients with metastatic triple-negative breast cancer with germline BRCA mutation, who have been previously treated with chemotherapy.</p> <p>Treatment of adult patients with refractory metastatic prostate cancer</p>	<p>Oral.</p> <p>Adults: 300 mg twice a day</p> <p>Patients should initiate treatment with olaparib no later than 8 weeks after completion of their last administration of the platinum-containing regimen.</p> <p>Initial dose reduction: 250 mg (one 150 mg tablet and one 100 mg tablet)</p>

	<p>castration, with mutations in the homologous recombination repair genes (germinal and/or somatic) and whose disease progressed after a new previous hormonal agent.</p> <p>Maintenance treatment of adult patients with metastatic pancreatic adenocarcinoma with germline BRCA mutation, whose disease has not progressed and who have received at least 4 months of first-line platinum-based chemotherapy treatment</p>	<p>mg) twice daily (total daily dose: 500mg) For further reductions use: 200 mg (2 100 mg tablets) twice daily (total daily dose: 400 mg)</p>
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**Generalities**

Active inhibitor of Poly (ADP-ribose) polymerase (PARP). When olaparib is bound to the active site of PARP, it prevents dissociation from the DNA, becoming trapped, thus blocking the repair of the genetic material of tumor cells with mutation in BRCA1 or BRCA2, the accumulation of damage activates cell death exclusively of malignant cells. . In normal cells, alternative pathways are used to repair DNA double-strand breaks.

**Risk in Pregnancy**

d

**Adverse effects**

Gastrointestinal toxicities are common, generally grade (1 and 2). Antiemetic prophylaxis is not required. Anemia, thrombocytopenia, neutropenia and lymphopenia are generally low grade (1 and 2), however there are reports of grade 3 and major events. Baseline testing is recommended, followed by monthly monitoring for the first 12 months and periodically thereafter.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the active substance or any of its excipients.  
Precautions: Myelodysplastic syndrome (MDS), acute myeloid leukemia (AML), pneumonitis, due to its mechanism of action it could cause embryo-fetal toxicity when administered to a pregnant woman, so it should not be used during pregnancy and in women of childbearing age. who do not use reliable contraceptive methods (during treatment and 1 month after the last dose) and breastfeeding (during treatment and 1 month after the last dose).  
Asthenia, fatigue and dizziness have been reported and those patients experiencing these symptoms should exercise caution when driving or using machines.

**Interactions**

It is not recommended for use in combination with other antineoplastic agents (myelosuppressive activity may be potentiated or prolonged) and requires caution if coadministered with immunosuppressants or vaccines (due to potential pharmacodynamic interactions).

Coadministration of olaparib with strong CYP3A inducers or inhibitors should be avoided.

**ONDANSETRON**

Clue	Description	Indications	Route of administration and dosage
010.000.2195.00	<p>TABLET</p> <p>Each tablet contains: Hydrochloride ondansetron dihydrate equivalent to 8 mg of ondansetron.</p> <p>Package with 10 tablets.</p>	<p>Nausea and vomiting secondary to antineoplastic chemotherapy and radiotherapy.</p>	<p>Oral.</p> <p>Adults: One tablet every 8 hours, one to two hours before radiotherapy. The treatment can be for five days.</p> <p>Children over four years old: Half a tablet every eight hours for five days.</p>
	<p>INJECTABLE SOLUTION</p> <p>Each vial or vial contains: Hydrochloride dihydrate</p>		<p>Slow intravenous or infusion.</p> <p>Adults: One vial, 15 minutes before chemotherapy. Repeat at 4 and 8 hours</p>

010.000.5428.00	ondansetron equivalent to 8 mg ondansetron.  Container with 3 vials or vials with 4 mL.		after the first dose.  Intravenous infusion: 1 mg/hour up to 24 hours.  Children over four years old: 5 mg/m <sup>2</sup> of body surface, for fifteen minutes immediately before chemotherapy.  Administer diluted in intravenous solutions packaged in glass bottles.
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#### Generalities

Selective serotonin antagonist at the level of three receptors that reduces the incidence and severity of nausea and vomiting induced by various cytotoxic drugs.

#### Risk in Pregnancy

b

#### Adverse effects

Headache, diarrhea, constipation and hypersensitivity reactions.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.  
Precautions: Assess risk benefit in breastfeeding.

#### Interactions

Inducers or inhibitors of the hepatic microsomal enzyme system modify its transformation.

### *OSIMERTINIB (In prescription control program)*

Clue	Description	Indications	Route of administration and dosage
010.000.6173.00	TABLET  Each tablet contains: Mesylate Osimertinib equivalent to 80 mg osimertinib  Package with 30 tablets.	Second line of treatment of adult patients with locally advanced or metastatic epidermal growth factor receptor (EGFR) mutation-positive non-small cell lung cancer (NSCLC)  T790M, after progression to EGFR tyrosine kinase inhibitors (TKI).	Oral.  Adults: 80 mg once daily until disease progression or unacceptable toxicity.

#### Generalities

Osimertinib irreversibly inhibits epidermal growth factor receptors that harbor the T790M mutation, providing significant clinical benefit in patients with this mutation who have been previously treated with TKIs.

#### Risk in Pregnancy

c

#### Adverse effects

Diarrhea, stomatitis, rash, dry skin, paronychia, pruritus, keratitis, interstitial lung disease, QT prolongation.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.  
Precautions: EGFR T790M mutation status should be determined. A validated test should be performed using either tumor-derived DNA from a tissue sample or circulating tumor DNA obtained from a plasma sample.

#### Interactions

Do not administer simultaneously with St. John's wort.

**OXALIPLATIN**

Clue	Description	Indications	Route of administration and dosage
010.000.5458.00	INJECTABLE SOLUTION  Each vial contains: Oxaliplatin 50 mg.  Package with a vial with lyophilisate or package with a vial with 10 mL.	Colon and rectal cancer metastatic.	Intravenous infusion.  Adults:  130 mg/m <sup>2</sup> of body surface, in 250 to 500 mL for 2 to 6 hours, every 21 days.  Administer diluted in intravenous solutions packaged in glass bottles.
010.000.5459.00	INJECTABLE SOLUTION  Each vial contains: Oxaliplatin 100 mg.  Package with a vial with lyophilisate or package with a vial with 20 mL.		
010.000.5459.01	INJECTABLE SOLUTION  Each vial contains: Oxaliplatin 100 mg.  Box with 10 vials		

**Generalities**

Cytotoxic antineoplastic agent belonging to the group of platinum derivatives and whose mechanism of action is the formation of covalent bonds, within and between the chains of the DNA molecule.

**Risk in Pregnancy**

x

**Adverse effects**

Vomiting, diarrhea, peripheral neuropathy.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug and platinum derivatives.

**Interactions**

With concomitant administration with raltitrexed, the clearance of oxaliplatin increases and its terminal half-life decreases.

**PACLITAXEL**

Clue	Description	Indications	Route of administration and dosage
010.000.5435.00	INJECTABLE SOLUTION  Each vial contains: Paclitaxel 300 mg  Each vial contains: Paclitaxel 30 mg.  Package with a 50 mL vial, with or without polyvinylchloride (PVC)-free infusion equipment and a filter with a membrane no larger than 0.22 $\mu$ m.	Advanced epithelial cancer of the ovary.  Breast carcinoma.	Intravenous infusion.  Adults:  135 to 250 mg/m <sup>2</sup> of body surface, in 24 hours, every three weeks.
010.000.6295.00	INJECTABLE SOLUTION  Each vial contains: Paclitaxel 30 mg (30 mg/5mL)		
010.000.6295.01	Package with 1 vial or bottle.  Box with 20 vials or vials		

**Generalities**

At the cellular level, it stabilizes microtubules and promotes the union of tubulin dimers, to prevent their

depolymerization.

**Risk in Pregnancy**

x

**Adverse effects**

Anemia, thrombocytopenia, leukopenia, hepatotoxicity, bradycardia, hypotension, dyspnea, nausea, vomiting, alopecia and peripheral neuropathy.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug and medications formulated with polyoxytylated castor oil.

Precautions: Assess risk benefit in neutropenia.

**Interactions**

With cisplatin, etoposide, carboplatin and fluorouracil, myelotoxicity increases. With ketoconazole its effect decreases.

**PALBOCICLIB (In prescription control program)**

Code	Description	Indications	Route of administration and dosage
010.000.6142.00	CAPSULE OR TABLET  Each capsule or tablet contains: Palbociclib 75 mg  Cardboard box with 21 capsules or tablets.	Cancer treatment metastatic breast with hormone receptor positive and HER2 negative in combination  with Fulvestrant in post-menopausal women with failure to previous treatment with non-steroidal aromatase inhibitors.	Oral.  Adults: One 125 mg capsule every 24 hours, for 3 weeks followed by 1 week off.  This regimen is repeated until progression or treatment failure.  Doses can be decreased to 100 mg or 75 mg based on individual safety and tolerability.
010.000.6143.00	CAPSULE OR TABLET  Each capsule or tablet contains: Palbociclib 100 mg  Cardboard box with 21 capsules or tablets.	Cancer treatment advanced/ metastatic breast with hormone receptor positive and HER2 negative in combination with Letrozole as initial endocrine therapy in postmenopausal women.	When administered concomitantly with palbociclib, the recommended dose of fulvestrant is 500 mg administered intramuscularly on days 1, 15, 29 and once monthly every 28 days.  When administered concomitantly with palbociclib the recommended dose of letrozole is 2.5 mg taken orally once daily continuously during the 28-day cycle.
010.000.6144.00	CAPSULE OR TABLET  Each capsule or tablet contains: Palbociclib 125 mg  Cardboard box with 21 capsules or tablets.		

**Generalities**

Palbociclib is a small molecule taken orally and is a highly selective inhibitor of cyclin-dependent kinases (CDK) 4 and 6. Through inhibition of CDK 4/6, Palbociclib reduced cell proliferation by blocking cell progression from the G1 phase to the S phase of the cell cycle to slow tumor progression in patients with hormone receptor-positive HER2- cancer.

**Risk in Pregnancy**

c

**Adverse effects**

The most common adverse effects (incidence  $\geq 10\%$ ) were neutropenia, leukopenia, fatigue, anemia, upper respiratory tract infection, nausea, stomatitis, alopecia, diarrhea, thrombocytopenia, decreased appetite, vomiting, asthenia, peripheral neuropathy, and epistaxis.

**Contraindications and Precautions**

Hypersensitivity to Palbociclib or any component of the formula, in pregnancy and lactation, under 18 years of age. Monitor complete blood count prior to initiation of therapy and at the beginning of each cycle, as well as on day 14 of the first two cycles, and as clinically indicated to prevent and manage near-series neutropenia. Monitor signs and symptoms and withhold dosage as appropriate for infections. May cause fetal harm. Counsel patients about the potential risk to the fetus and about using effective contraception.

## Interactions

Palbociclib is primarily metabolized by CYP3A and the sulfotransferase (SULT) enzyme SULT2A1. CYP3A inhibitors increase the plasma concentrations of Palbociclib, therefore their concomitant use should be avoided. CYP3A inducers reduce Palbociclib plasma concentrations, therefore concomitant use of strong CYP3A inducers with Palbociclib should be avoided.

**PALONOSETRON**

Clue	Description	Indications	Route of administration and dosage
010.000.4437.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Palonosetron hydrochloride equivalent to 0.25 mg of palonosetron.</p> <p>Container with a 5 mL vial.</p>	Prevention of nausea and Acute and delayed vomiting after chemotherapy and radiotherapy.	<p>Intravenous.</p> <p>Adults:</p> <p>0.25 mg. Single dose administered as a bolus over a period of 30 seconds, 30 minutes before the start of chemotherapy.</p>

## Generalities

Antiemetic and anti-nausea agent, selective antagonist of the serotonin receptor subtype 3 (5HT3).

## Risk in Pregnancy

b

## Adverse effects

Headache and constipation, diarrhea, dizziness, fatigue, abdominal pain, insomnia.

## Contraindications and Precautions

Contraindications: hypersensitivity to the drug.

Precautions: Administer with caution in patients who present prolongation of cardiac conduction intervals, particularly QTc interval.

## Interactions

The potential for clinically significant interactions appears to be very low. In controlled clinical studies it has been safely administered with corticosteroids, analgesics, antiemetics/antinausea, antispasmodics and anticholinergic agents. It does not inhibit the antitumor activity of chemotherapeutic agents.

**PALONOSETRON / NETUPITANT**

Clue	Description	Indications	Route of administration and dosage
010.000.6174.00	<p>CAPSULE</p> <p>Each capsule contains: Netupitant 300 mg Palonosetron hydrochloride equivalent to 0.5 mg of palonosetron.</p> <p>Container with 1 capsule.</p>	Prevention of nausea and Acute and delayed vomiting associated with initial and repeated courses of moderately and highly emetogenic cancer chemotherapy.	<p>Oral.</p> <p>Adults:</p> <p>Administer one capsule approximately one hour before starting each chemotherapy cycle.</p>

## Generalities

Netupitant acts as a selective antagonist of human substance P neurokinin 1 (NK1) receptors. On the other hand, palonosetron is a 5-HT3 receptor antagonist with a strong binding affinity to this receptor and little or no affinity to other receptors.

## Risk in Pregnancy

x

## Adverse effects

Headache, constipation and fatigue.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: The medication may cause constipation, serotonin syndrome, QT prolongation.

## Interactions

Netupitant may significantly increase dexamethasone exposure in a dose- and time-dependent manner. Exposure to docetaxel and etoposide increased by 37% and 21%, respectively, when administered together with palonosetron/netupitant. Cases of serotonin syndrome have been reported after concomitant use of



5-HT3 antagonists and other serotonergic medications (selective serotonin reuptake inhibitors and serotonin and norepinephrine reuptake inhibitors, among others).

## PANITUMUMAB

Clue	Description	Indications	Route of administration and dosage
010.000.5653.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Panitumumab 100 mg</p> <p>Container with vial bottle with 5 mL.</p>	<p>Treatment for patients with metastatic colorectal cancer, with non-mutated (wild) KRAS in combination chemotherapy FOLFOX (First line), FOLFIRI with (Second line) or as monotherapy after failure of standard chemotherapy.</p>	<p>Intravenous.</p> <p>Adults: 6 mg/kg body weight administered by intravenous infusion, once every two weeks.</p>

### Generalities

Panitumumab is a fully human IgG2 recombinant monoclonal antibody, which binds with high affinity and specificity to human EGFR. EGFR is a transmembrane glycoprotein that belongs to a subfamily of type I tyrosine kinase receptors, which includes EGFR (HER1/c-ErbB-1), HER2, HER3, and HER4. EGFR enhances cell growth in normal epithelial tissues, including skin and hair follicles, and is expressed in a variety of tumor cells.

### Risk in Pregnancy

d

### Adverse effects

Paronychia, pustular rash, cellulitis, folliculitis, localized infection, anemia, leukopenia, Hypokalemia, anorexia, hypomagnesemia, hypocalcemia, dehydration, hyperglycemia, hypophosphatemia, insomnia, anxiety, headache, dizziness, conjunctivitis, blepharitis, eyelash growth, increased lacrimation, ocular hyperemia, xerophthalmia, ocular pruritus, eye irritation, tachycardia, deep vein thrombosis, hypotension, hypertension, flushing, dyspnea, cough, pulmonary embolism, epistaxis, diarrhea, nausea, vomiting, abdominal pain, stomatitis, constipation, rectal bleeding, mouth dry, dyspepsia, aphthous stomatitis, cheilitis, gastroesophageal reflux disease, dermatitis acneiform, rash, erythema, pruritus, dry skin, skin fissures, acne, alopecia, palmar-plantar erythrodysesthesia syndrome, skin ulcer, scab, hypertrichosis, onychoclasia, nail disorders, back pain, pain in the extremities, Fatigue, pyrexia, asthenia, mucosal inflammation, peripheral edema, chest discomfort, pain, chills, weight loss, decrease in magnesium in the blood.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug. Patients with interstitial pneumonitis or pulmonary fibrosis. The combination of Panitumumab with oxaliplatin-containing chemotherapy is contraindicated in patients with *KRAS*-mutated mCRC or in whom *KRAS* status in mCRC is unknown.

Precautions: Dermatologic reactions, a pharmacologic effect seen with epidermal growth factor receptor (EGFR) inhibitors, occur in nearly all patients (approximately 90%) treated with Panitumumab. Patients with a history or signs of interstitial pneumonitis or pulmonary fibrosis were excluded from clinical trials. Cases of interstitial lung disease (ILD) have been reported, with outcomes mortal and non-fatal. Progressive decreases in serum magnesium levels leading to severe hypomagnesemia (grade 4) have been observed in some patients. Patients should be periodically monitored for the development of hypomagnesemia and associated hypocalcemia before initiating treatment with Panitumumab. Acute renal failure has been observed in patients who develop severe diarrhea and dehydration. Patients experiencing severe diarrhea should be instructed to consult a healthcare professional urgently.

### Interactions

Panitumumab should not be administered in combination with IFL-containing chemotherapy or with combinations of bevacizumab and chemotherapy. A high incidence of severe diarrhea has been observed when panitumumab was administered in combination with IFL and an increase in toxicity and deaths was observed when panitumumab was combined with bevacizumab and chemotherapy.

The combination of Panitumumab with oxaliplatin-containing chemotherapy is contraindicated in patients with *KRAS*-mutated mCRC or in whom the *KRAS* status in mCRC is unknown. A decrease in progression-free survival and overall survival was observed in a clinical trial in patients with *KRAS*-mutated tumors who received panitumumab and FOLFOX.

## PAZOPANIB (In Catalog II program)

Clue	Description	Indications	Route of administration and dosage
	<p>TABLET</p> <p>Each tablet contains:</p>	<p>Patients with advanced or metastatic renal cell carcinoma</p>	<p>Oral.</p> <p>Adults:</p>

010.000.5654.00	Pazopanib hydrochloride equivalent to 200 mg. of Pazopanib.  Package with 30 tablets.	First line	800 mg once a day. It should be taken without food (at least one hour before or two after a meal).  It should be taken whole with water and should not be broken or crushed.
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#### Generalities

Orally administered Pazopanib is a potent tyrosine kinase inhibitor (TKI) that inhibits multiple Vascular Endothelial Growth Factor Receptors (VEGFR)-1, -2 and -3, inhibits platelet-derived growth factor receptors (PDGFR).  $\gamma$  and  $\delta$ , and inhibits the stem cell factor receptor (c-KIT), with IC50 values of 10, 30, 47, 71, 84 and 74 nM, respectively.

#### Risk in Pregnancy

d

#### Adverse effects

Transient ischemic attack, ischemic stroke, myocardial ischemia, myocardial infarction and cerebral infarction, heart failure, gastrointestinal perforation and fistula, QT prolongation and pulmonary, gastrointestinal and cerebral hemorrhage, venous thromboembolic events, left ventricular dysfunction and pneumothorax. Fatal events possibly related to pazopanib included gastrointestinal bleeding, pulmonary hemorrhage/hemoptysis, abnormal liver function, intestinal perforation, and ischemic stroke. The most common adverse reactions of any grade included: diarrhea, changes in hair color, skin hypopigmentation, exfoliative rash, hypertension, nausea, headache, fatigue, anorexia, vomiting, dysgeusia, stomatitis, decreased weight, pain, elevations of alanine aminotransferase and aspartate aminotransferase.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Hepatic effects, hypertension, posterior reversible encephalopathy syndrome (PRES)/reversible posterior leukoencephalopathy syndrome (RPLS), cardiac dysfunction/heart failure, QT prolongation and Torsade de Pointes, arterial thrombotic events, venous thromboembolic events, microangiopathy thrombosis, hemorrhagic events, gastrointestinal perforations and fistula, hypothyroidism, proteinuria, pneumothorax, infections,

#### Interactions

Inhibitors of CYP3A4, P-gp, BCRP, inducers of CYP3A4, P-gp, BCRP, concomitant use of pazopanib and simvastatin, concomitant administration of pazopanib with esomeprazole decreases the bioavailability of pazopanib by approximately 40% (AUC and Cmax),

## PEGASPARGASA

Clue	Description	Indications	Route of administration and dosage
010.000.6335.00	SOLUTION  Each vial contains: Pegaspargase 3,750 IU Excipient cbp 5 ML  Cardboard box with a vial of 3,750 IU in 5 mL (750 IU/mL)	Component of a Multi-agent chemotherapy regimen for the first-line treatment of pediatric patients with acute lymphoblastic leukemia with hypersensitivity to native forms of L-asparaginase.	Parenteral (Intravenous infusion) or intramuscular  The recommended dose in pediatric patients with a body surface area (BSA) < 0.6 m <sup>2</sup> is 82.5 U (equivalent to 0.1 mL) / Kg of body weight every 14 days.  The recommended dose for pediatric patients with BSA $\geq$ 0.6 m <sup>2</sup> and $\leq$ 21 years of age is 2500 U (equivalent to 3.3 mL) / m <sup>2</sup> BSA every 14 days.

#### Generalities

Antineoplastic agent and immunomodulatory agent. L-asparaginase is an enzyme that catalyzes the conversion of the amino acid L-asparagine to aspartic acid and ammonia. The mechanism of action is based on the selective destruction of leukemic cells due to the depletion of exogenous plasma L-asparagine. Leukemic cells with low expression of asparagine synthetase have a reduced ability to synthesize L-asparagine and are therefore dependent on an exogenous source of asparagine for their survival. However, normal cells, due to their ability to synthesize L-asparagine, are less affected by the depletion of plasma L-asparagine.

#### Risk in Pregnancy

x

#### Adverse effects

Anaphylactic reaction, alanine aminotransferase increased, aspartate aminotransferase increased, blood bilirubin increased, hypoalbuminemia, febrile neutropenia, blood fibrinogen decreased, hyperglycemia, lipase increased, pancreatitis, hypoglycemia, embolism, hypersensitivity.

#### Contraindications and Precautions

History of anaphylactic or severe hypersensitivity reactions to the active substance or any of the excipients, history of severe thrombosis during previous treatment with asparaginase, history of pancreatitis, including pancreatitis related to previous therapy with asparaginase, history of serious bleeding events during prior asparaginase therapy; severe liver failure.

#### Interactions

No formal drug interaction studies have been performed between pegaspargase and other medications. The following drug interactions have been observed with other asparaginase products, and may occur with pegaspargase: a) effects on protein-bound drugs, b) effects with concomitant use of other chemotherapeutic agents: immediate or concomitant treatment with vincristine may increase the pegaspargase toxicity. Therefore, vincristine should be administered in a timely manner before administration of pegaspargase in order to minimize toxicity, c) effects on the metabolism and clearance of other drugs, d) effects on live vaccines.

### PEGFILGRASTIM

Clue	Description	Indications	Route of administration and dosage
010.000.5452.00	<p>INJECTABLE SOLUTION</p> <p>Each prefilled syringe contains: Pegfilgrastim 6 mg</p> <p>Package with a prefilled syringe with 6 mg/0.60 mL.</p>	<p>stimulating factor granulocyte colonies.</p>	<p>Subcutaneous.</p> <p>Adults and people over 18 years of age:</p> <p>6 mg for each cycle of chemotherapy applied 24 hours after it.</p>

#### Generalities

Granulocyte colony-stimulating factor. Stimulates the proliferation, differentiation and functional activity of granulocytes.

#### Risk in Pregnancy

c

#### Adverse effects

Bone pain, myalgia, arthralgia, nausea, vomiting, dyspnea, cough, hypersensitivity reactions, splenomegaly.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the medication.

Precautions: In patients with acute leukemia, since efficacy and safety have not been investigated in these patients.

#### Interactions

None of clinical importance.

### PEMBROLIZUMAB (In Catalog II program)

Clue	Description	Indications First	Route of administration and dosage
010.000.6153.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Pembrolizumab 100 mg</p> <p>Container with a vial with 4 mL of solution (100 mg/4 mL).</p>	<p>line of patient treatment with metastatic non-small cell lung cancer (NSCLC) whose tumors express PD-L1 with tumor expression ratio score (TPS) &gt; 50% determined by a validated test, without EGFR and ALK tumor genomic aberrations.</p>	<p>Intravenous.</p> <p>Adults: Dose:</p> <p>200 mg administered as an intravenous infusion for 30 minutes every 3 weeks or 400 mg every 6 weeks until disease progression or unacceptable toxicity.</p>

#### Generalities

Pembrolizumab is a humanized IgG4 monoclonal antibody of recombinant DNA origin expressed in Chinese hamster ovary (CHO) cells. Pembrolizumab has a high affinity against PD-1, PD-1 is an immune control receptor that limits the activity of T lymphocytes in peripheral tissues. The PD-1 pathway is an immune checkpoint that can be compromised by tumor cells to inhibit immune surveillance of active T cells. Pembrolizumab exerts a double ligand blockade of the PD-1 pathway, including PD-L1 and PD-L2, in

antigen-presenting or tumor cells. By inhibiting the PD-1 receptor from binding to its ligands, Pembrolizumab reactivates tumor-specific cytotoxic T lymphocytes in the tumor microenvironment and reactivates antitumor immunity.

**Risk in Pregnancy** d

**Adverse effects**

Pneumonitis, colitis, hepatitis, nephritis, hypophysitis, type 1 diabetes mellitus, hypothyroidism, hyperthyroidism and severe immune-mediated skin reactions may occur.

**Contraindications and Precautions**

Contraindications: It is contraindicated in patients with hypersensitivity to any of the components of the formula, in pregnancy or lactation.

General Precautions: Immune-mediated adverse reactions: Immune-mediated adverse reactions occurred in patients receiving Pembrolizumab. In clinical studies, the majority of immune-mediated adverse reactions were reversible and manageable with discontinuation of pembrolizumab, administration of corticosteroids and/or supportive care. Immune-mediated adverse reactions may occur simultaneously affecting more than one body system, such as: Immune-mediated pneumonitis, Immune-mediated colitis, Immune-mediated hepatitis, Immune-mediated nephritis, Immune-mediated endocrinopathies Severe skin reactions immune-mediated.

Infusion-related reactions: Hypersensitivity and anaphylaxis have been reported.

**Interactions**

No formal pharmacokinetic drug interaction studies have been performed.

**PEMETREXED**

Clue	Description	Indications	Route of administration and dosage
010.000.5453.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Pemetrexed disodium heptahydrate ~ Pemetrexed disodium equivalent to 500 mg of pemetrexed.  Container with vial bottle.	Pleural mesothelioma malignant in combination with Cis-platinum.  Advanced or metastatic non-small cell lung cancer with prior chemotherapy.	Intravenous infusion.  Adults: 500 mg/m <sup>2</sup> body surface area administered as an intravenous infusion over 10 minutes on the first day of each 21-day cycle.  Administer diluted in intravenous solutions packaged in glass bottles.

**Generalities**

Antineoplastic agent, antifolates, which exerts its action by interrupting folate-dependent metabolic processes, essential for cell replication.

**Risk in Pregnancy** c

**Adverse effects**

Anemia, leukopenia, neutropenia, nausea, vomiting, anorexia, stomatitis, pharyngitis, diarrhea, constipation, fever, fatigue, transaminasemia, rash and/or skin peeling, pruritus, alopecia, hypersensitivity reactions.

**Contraindications and Precautions**

Contraindications: hypersensitivity to the drug.

Precautions: pregnancy, myelosuppressive diseases. Fever and neutropenia.

**Interactions**

Its adverse effects would be increased with bone marrow depressants. When their use is associated with cisplatin, non-steroidal anti-inflammatory drugs should be used with caution.

**PERTUZUMAB (In prescription control program)**

Clue	Description	Indications	Route of administration and dosage
	SOLUTION INJECTABLE  Each vial contains:	Patients with HER 2 positive metastatic breast cancer without prior exposure to anti-HER treatment, or whose disease has relapsed (with	Intravenous infusion.  Adults: 840 mg administered over 60 minutes, followed by

010.000.6024.00	<p>Pertuzumab 420mg</p> <p>Container with vial bottle with 14 mL.</p>	<p>more than 6 months interval) after adjuvant therapy.</p> <p>Neo-adjuvant treatment of breast cancer indicated in combination with Trastuzumab and docetaxel for patients with HER2 positive, locally advanced, inflammatory breast cancer or candidate for surgical treatment.</p>	<p>420 mg every 3 weeks. In combination therapy with trastuzumab plus docetaxel.</p> <p>Neo-adjuvant treatment of breast cancer. Pertuzumab, Trastuzumab and docetaxel should be administered as indicated above as part of one of the following regimens:</p> <ul style="list-style-type: none"> <li>ÿ For 3 cycles after FEC therapy.</li> <li>ÿ For 4 cycles before FEC therapy.</li> <li>ÿ For 6 cycles with carboplatin ( docetaxel dose increase is not recommended above 75 mg/m2 )</li> </ul> <p>After surgery, patients should be treated with adjuvant Trastuzumab until complete 1 year of treatment.</p>
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#### Generalities

Pertuzumab is a recombinant humanized monoclonal antibody directed specifically against the extracellular dimerization domain (subdomain II) of the human epidermal growth factor receptor 2 (HER2) protein, thereby blocking ligand-dependent heterodimerization of HER2 with other members of the HER family, such as EGFR, HER3 and HER4. As a result, Pertuzumab inhibits ligand-initiated intracellular signaling through two important signaling pathways, mitogen-activated protein kinase (MAP) and phosphoinositide 3-kinase (PI3K).

Inhibition of these signaling pathways can cause cell growth arrest and apoptosis, respectively. Additionally, Pertuzumab mediates antibody-dependent cellular cytotoxicity.

#### Risk in Pregnancy

c

#### Adverse effects

Upper respiratory tract infection Nasopharyngitis. Febrile neutropenia, Neutropenia, Leukopenia, Anemia. Hypersensitivity/anaphylactic reaction, infusion reaction/cytokine release syndrome. Decreased appetite, Insomnia. Peripheral neuropathy, Headache, Dysgeusia, cough. Diarrhea, Vomiting, Stomatitis, Nausea, Constipation, Dyspepsia. Alopecia, Exanthema, Nail disorders. Myalgia, Arthralgia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Decreases in LVEF have been reported with drugs that antagonize HER2 activity, including Pertuzumab. Patients who have previously received anthracyclines or radiation therapy to the thoracic region may be at increased risk of decreased LVEF.

Pertuzumab has not been studied in patients with: a pre-treatment LVEF value <50%; history of congestive heart failure (CHF); decreases in LVEF to <50% during prior adjuvant treatment with trastuzumab; or processes that may alter left ventricular function such as uncontrolled hypertension, recent myocardial infarction, severe cardiac arrhythmia requiring treatment, or prior cumulative anthracycline exposure > 360 mg/m<sup>2</sup> doxorubicin or its equivalent.

Patients treated with Pertuzumab, trastuzumab and docetaxel have a higher risk of febrile neutropenia compared to patients treated with placebo, trastuzumab and docetaxel, especially during the first 3 treatment cycles.

#### Interactions

No pharmacokinetic interactions have been observed between pertuzumab and trastuzumab, or between pertuzumab and docetaxel in a substudy in 37 patients of the CLEOPATRA randomized pivotal trial in metastatic breast cancer.

## PLERIXAFOR

Clue	Description	Indications	Route of administration and dosage
010.000.5307.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains: Plerixafor 24 mg</p> <p>Container with vial with 24 mg/1.2 mL (20 mg/mL).</p>	<p>In combination with granulocyte colony-stimulating factor (G-CSF) to mobilize progenitor cells</p> <p>hematopoietic to peripheral blood for collection and subsequent autologous transplantation in patients with non-Hodgkin lymphoma and multiple myeloma.</p>	<p>Subcutaneous.</p> <p>Adults: 0.24mg/Kg of body weight/24 hours. Administer within 6 to 11 hours before starting apheresis and always after pretreatment with a 4-day granulocyte colony-stimulating factor (G-CSF). Repeat the dose of plerixafor for up to 4 consecutive days.</p> <p>Based on increased exposure with increasing body weight, the dose of plerixafor should not exceed 40 mg/day.</p> <p>If creatinine is &lt;50 mL/min, reduce the dose by one third to 0.16 mg/Kg of</p>

			body weight/24 hours.
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#### Generalities

CXCR4 antagonist drug used with G-CSF to mobilize HSC into peripheral blood for harvest and subsequent autologous transplantation in patients with non-Hodgkin lymphoma and multiple myeloma.

Risk in Pregnancy x

#### Adverse effects

Insomnia, headache, dizziness, diarrhea, nausea, flatulence, abdominal pain, vomiting, abdominal distension, dry mouth, stomach discomfort, constipation, dyspepsia, oral hypoesthesia, arthralgia, hyperhidrosis, erythema at the injection site.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Do not use in patients with leukemia. Observation of the increase in circulating leukocytes and decrease in the number of platelets is recommended during the use of plerixafor. Possible rupture of the spleen, it is recommended to evaluate patients who report abdominal pain on the upper left side and/or pain in the scapula or shoulder.

#### Interactions

There are no clinical studies.

## POMALIDOMIDE

Clue	Description	Indications	Route of administration and dosage
010.000.6145.00	<p>CAPSULE</p> <p>Each capsule contains: Pomalidomide 1 mg</p> <p>Container with 21 capsules.</p>	<p>Pomalidomide in combination with dexamethasone is indicated for the treatment of relapsed and refractory multiple myeloma in patients who have received lenalidomide and a proteasome inhibitor.</p>	<p>Oral.</p> <p>Adults: 4 mg daily, on days 1 to 21 of repeated 28-day cycles (21/28) until disease progression.</p> <p>Dexamethasone 40 mg daily, days 1, 8, 15 and 22 of each 28-day treatment cycle.</p> <p>The dose is continued or modified based on clinical and laboratory findings.</p> <p>Adjust the dose for hematological toxicities during treatment.</p>

#### Generalities

Pomalidomide is an oral immunomodulatory agent with direct antimyeloma tumoricidal activity, immunomodulatory activities, and inhibits stromal cell support for the growth of multiple myeloma tumor cells. Specifically, pomalidomide inhibits the proliferation and induces apoptosis of hematopoietic cells. tumors.

Risk in Pregnancy x

#### Adverse effects

Anemia, neutropenia, thrombocytopenia, leukopenia, fatigue, fever, peripheral edema, pneumonia, constipation, diarrhea, nausea, bone pain, muscle spasms, dyspnea, cough, decreased appetite.

#### Contraindications and Precautions

Contraindications and Precautions: Hypersensitivity to the drug.

#### Interactions

Pomalidomide is not anticipated to cause clinically relevant pharmacokinetic drug interactions due to inhibition or induction of enzymes or inhibition of transporters when coadministered with substrates of these enzymes or transporters. The potential for drug interactions, including the potential impact of pomalidomide on oral contraceptive exposure, has not been evaluated clinically.

## PONATINIB (In Catalog II program)

Clue	Description	Indications	Route of administration and dosage
	TABLETS	Chronic myeloid leukemia in chronic phase, accelerated phase or blast phase	Oral.

010.000.6302.00	Each tablet contains: Ponatinib 45 mg.  Package with 30 tablets.	resistant to dasatinib or nilotinib or T315I mutation  Philadelphia chromosome positive acute leukemia with resistance to dasatinib or T315I mutation.	The recommended starting dose is 45 mg once a day.
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#### Generalities

Potent pan-BCR-ABL inhibitor with structural elements, such as a carbon-carbon triple bond, that provide high-affinity binding to wild-type BCR-ABL and mutant forms of ABL kinase. Ponatinib inhibits the tyrosine kinase activity of ABL and T315I mutant ABL.

#### Risk in Pregnancy

X (Its administration is not recommended during pregnancy)

#### Adverse effects

Upper respiratory tract infection, pneumonia, sepsis, folliculitis, cellulitis; anemia, decreased platelet count, decreased neutrophil count, pancytopenia, febrile neutropenia, decreased leukocyte count, decreased lymphocyte count; decreased appetite, hypothyroidism; dehydration, fluid retention, hypocalcemia, hyperglycemia, hyperuricemia, hypophosphatemia, hypertriglyceridemia, hypokalemia, weight loss, hyponatremia; insomnia; headache, dizziness; stroke, cerebral infarction, peripheral neuropathy, lethargy, migraine, hyperesthesia, hypoesthesia, paresthesia, transient ischemic attack; blurred vision, dry eyes, periorbital edema, eyelid edema, conjunctivitis, visual disturbance; heart failure, myocardial infarction, congestive heart failure, coronary artery disease, angina pectoris, pericardial effusion, atrial fibrillation, decreased ejection fraction, acute coronary syndrome, atrial flutter; HTN, peripheral occlusive arterial disease, peripheral ischemia, peripheral arterial stenosis, intermittent claudication, deep vein thrombosis, flushing, hot flashes; dyspnea, cough, pulmonary embolism, pleural effusion, epistaxis, dysphonia, pulmonary hypertension; abdominal pain, diarrhea, vomiting, constipation, nausea, increased lipase; pancreatitis, increased blood amylase, gastroesophageal reflux disease, stomatitis, dyspepsia, abdominal distension, abdominal discomfort, dry mouth, gastric bleeding, increased alanine aminotransferase, increased aspartate aminotransferase, increased blood bilirubin, increased blood alkaline phosphatase, increased gamma-glutamyltransferase; rash, dry skin, pruritic rash, exfoliative dermatitis, erythema, alopecia, pruritus, skin exfoliation, night sweats, hyperhidrosis, petechiae, ecchymosis, skin pain, exfoliative dermatitis, hyperkeratosis, skin hyperpigmentation; bone pain, arthralgia, myalgia, pain in an extremity, back pain; muscle spasms, musculoskeletal pain, neck pain, musculoskeletal chest pain; erectile dysfunction; fatigue, asthenia, peripheral edema, fever; pain, chills, flu-like illness, non-cardiac chest pain, palpable nodule, facial edema.

#### Contraindications and Precautions

Severe hepatic failure, renal failure with Clcr < 50 mL/min or end-stage renal disease; myelosuppression, arterial occlusion, more common with age and with a history of ischemia, hypertension, diabetes or hyperlipidemia. Do not use with a history of myocardial infarction, previous revascularization or stroke, unless there is a risk benefit. History of pancreatitis or alcoholism.

#### Interactions

Plasma concentrations increased by: strong CYP3A inhibitors, such as clarithromycin, indinavir, itraconazole, ketoconazole, nefazodone, nelfinavir, ritonavir, saquinavir, telithromycin, troleandomycin, voriconazole and grapefruit juice.

Plasma concentrations decreased by: strong CYP3A4 inducers, such as carbamazepine, phenobarbital, phenytoin, rifabutin, rifampicin and St. John's wort.

Enhances the therapeutic effect and toxicity of: digoxin, dabigatran, colchicine, pravastatin, methotrexate, rosuvastatin, sulfasalazine.

## PROCARBAZINE

Clue	Description	Indications	Route of administration and dosage
010.000.1771.00	CAPSULE OR TABLET  Each capsule or tablet contains: Procarbazine hydrochloride equivalent to 50 mg of procarbazine.  Package with 50 capsules or tablets.	Disease of Hodgkin.	Oral.  Adults:  2 to 4 mg/kg body weight/day, as a single or divided dose for the first week, followed by 4 to 6 mg/kg body weight/day until response occurs or toxic effects occur. Maintenance dose 1 to 2 mg/kg body weight/day.  Children:

50 mg/day, during the first week, then 100 mg/m<sup>2</sup> of body surface, until a response occurs or toxic effects occur. Maintenance dose 50 mg/day after bone marrow recovery.

#### Generalities

The exact mechanism of action is unknown. It inhibits the synthesis of DNA, RNA and proteins as well as the S phase of cell division.

#### Risk in Pregnancy

d

#### Adverse effects

Anorexia, nausea, vomiting, bone marrow depression, rash, confusion, nystagmus, depression, peripheral neuropathy, hemolysis, dry mouth, dysphagia, stomatitis, constipation, diarrhea, myalgia, arthralgia, pleural effusion.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, poor bone marrow reserve, liver and kidney damage.

#### Interactions

Increases the effect of antidepressants by inhibiting the action of monoamine oxidase, increases the effects of barbiturates, hypotensive agents, sympathomimetics and phenothiazines.

### RALTITREXED

Clue	Description	Indications	Route of administration and dosage
010.000.5425.00	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Raltitrexed 2 mg  Container with a vial.	Palliative treatment of advanced colon and rectal cancer.	Intravenous infusion.  Adults: 3 mg/m <sup>2</sup> body surface, diluted in 50 to 100 mL of solution, the dose can be repeated every 3 weeks in the absence of toxicity.

#### Generalities

It is a folate analogue corresponding to the family of anti-metabolites and has a potent inhibitory activity against the enzyme thymidylate synthetase.

#### Risk in Pregnancy

x

#### Adverse effects

Nausea, vomiting, elevated transaminases, bone marrow toxicity, mucositis, palpitations.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

#### Interactions

None of clinical importance.

### RIBOCICLIB

Clue	Description	Indications In	Route of administration and dosage
010.000.6165.00	COMPRESSED  Each tablet contains: Ribociclib succinate 254 mg equivalent to 200 mg ribociclib  Package with 63 tablets.	combination with a aromatase inhibitor, is indicated for the initial endocrine treatment of pre/perimenopause postmenopausal women with advanced metastatic breast cancer hormone receptor (HR) -- positive and human epidermal growth factor receptor 2 (HER2) negative.  -- with  of	Oral.  Adults: 3 tablets of 200 mg every 24 hours, in a single dose, for 21 consecutive days, followed by 7 days without treatment, which completes the 28-day cycle.  This regimen is repeated until progression or treatment failure. Doses can be decreased to 400 mg or 200 mg based on individual safety and tolerability.

#### Generalities



Ribociclib is a selective inhibitor of cyclin-dependent kinases (CDK) 4 and 6. These kinases are activated by binding to cyclins D and play a crucial role in signal transduction pathways leading to cell cycle progression and cell proliferation. Cyclin D-CDK4/6 complexes regulate cell cycle progression through phosphorylation of retinoblastoma-associated protein (pRb). Ribociclib should always be administered in combination with an aromatase inhibitor.

#### Risk in Pregnancy

c

#### Adverse effects

Neutropenia, leukopenia, headache, back pain, nausea, fatigue, diarrhea, vomiting, constipation, alopecia, rash, abnormal liver function tests, lymphopenia, hypophosphatemia, and QT prolongation

#### Contraindications and Precautions

Contraindications: contraindicated in patients with hypersensitivity to the active substance or any of the excipients.

Precautions: Before starting treatment with Ribociclib, a complete blood count should be performed. It will be repeated every 2 weeks during the first 2 cycles, at the beginning of each of the following 4 cycles, and thereafter when there is a clinical indication.

Liver function tests (LFT) should be performed before starting treatment with Ribociclib, every 2 weeks during the first 2 cycles, at the beginning of each of the following 4 cycles, and thereafter when there is a clinical indication.

Before starting treatment, an electrocardiographic evaluation should be carried out. Ribociclib will only be started if the patient has a QTcF interval less than 450 ms. The electrocardiogram (ECG) will be repeated around day 14 of the first cycle, at the beginning of the second cycle, and thereafter when there is a clinical indication.

#### Interactions

Ribociclib is primarily metabolized by CYP3A and is a time-dependent inhibitor of CYP3A in vivo. Therefore, medications that affect the activity of the CYP3A isomorph may alter the pharmacokinetics of Ribociclib. The simultaneous use of strong CYP3A inhibitors or inducers should be avoided. Coadministration of Ribociclib with medications that may prolong the QT interval should be avoided.

## RITUXIMAB

Code	Description	Indications Non-	Route of administration and dosage
010.000.5433.00	INJECTABLE SOLUTION Each vial contains Rituximab 100 mg Container with 1 vial with 10 mL.	Hodgkin lymphoma.  Chronic lymphocytic leukemia. Rheumatoid arthritis. Granulomatosis with polyangiitis (Wegener's) (GPA) Microscopic Polyangiitis (PAM).	Intravenous infusion.  Adults: 375 mg/m <sup>2</sup> body surface area/day, every 7 days.  Administer diluted in intravenous solutions packaged in glass bottles.
010.000.5433.01	Container with 2 vials with 10 mL.		
010.000.5445.00	INJECTABLE SOLUTION Each vial contains Rituximab 500 mg Container with a 50 mL vial.		
010.000.5445.01	Container with two vials with 50 mL each.		

#### Generalities

Murine/human chimeric monoclonal antibody that binds to the transmembrane antigen CD 20 on B lymphocytes causing immunological reactions.

#### Risk in Pregnancy

d

#### Adverse effects

Nausea, vomiting, fatigue, headache, pruritus, rash, bronchospasm, angioedema, rhinitis, hypotension, flushing, cardiac arrhythmias, exacerbation of angina pectoris or heart failure, thrombocytopenia, neutropenia or anemia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: In ischemic heart disease or with myelosuppression.

## Interactions

With myelosuppressive medications, its adverse effects increase.

**SORAFENIB (In Catalog II program)**

Clue	Description	Indications	Route of administration and dosage
010.000.5480.00	COMPRESSED  Each tablet contains: Sorafenib tosylate equivalent to 200 mg sorafenib.  Package with 112 tablets.	Kidney cancer.  Hepatocellular carcinoma.	Oral.  Adults:  400 mg every 12 hours.

## Generalities

Inhibitor of serine/threonine kinases and tyrosine kinases, tumor cell receptors and tumor vessel cells, thus inhibiting angiogenesis and tumor proliferation.

## Risk in Pregnancy

d

## Adverse effects

Rash, diarrhea, asthenia and adynamia, fatigue, arterial hypertension.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug or to any of the components of the medication formulation.

## Interactions

With compounds that are metabolized and eliminated through the UGT1A1 pathway, such as irinotecan.

**SUNITINIB (In Catalog II program)**

Clue	Description	Indications	Route of administration and dosage
010.000.5482.00	CAPSULE  Each capsule contains: Sunitinib malate equivalent to 12.5 mg sunitinib.  Container with 28 capsules.	cell carcinoma metastatic kidney.  Gastrointestinal stromal tumors with resistance or intolerance to imatinib.	Oral.  Adults. 50 mg every 24 hours, for 4 weeks, followed by 2 weeks off. This regimen is repeated until progression or treatment failure.  Doses may be increased or decreased in ranges of 12.5 or 25 mg based on individual safety and tolerance.

## Generalities

It inhibits multiple receptor tyrosine kinases (RTKs) involved in tumor growth, pathological angiogenesis and metastatic progression of cancer. It has great inhibitory activity against platelet-derived growth factor (PDGFR $\alpha$  and PDGFR $\beta$ ) $\gamma$  vascular endothelial growth factor receptors (VEGFR1, VEGFR2 and VEGFR3), stem cell factor receptor (KIT), tyrosine kinase – 3 (FLT3) similar to Fms, receptor for colony-stimulating factor Type 1 (CSF – 1R) and receptor for glial cell line-derived neurotrophic factor (RET). Its primary metabolite has a potency similar to Sunitinib.

## Risk in Pregnancy

d

## Adverse effects

The most severe are: Pulmonary embolism, thrombocytopenia, tumor hemorrhage, febrile neutropenia and arterial hypertension.  
The most common are: Fatigue, diarrhea, nausea and vomiting, stomatitis, dyspepsia, skin discoloration, dysgeusia and anorexia.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug or to any of the components of the medication formulation.

## Interactions

Medications that increase the plasma concentration of Sunitinib: Strong CYP3A4 inhibitors, such as ketoconazole, ritonavir, itraconazole, erythromycin, clarithromycin, grapefruit juice, grape juice.  
Medications that decrease the plasma concentration of Sunitinib: CYP3A4 inducers, such as rifampicin,

dexamethasone, phenytoin, carbamazepine, phenobarbital, St. John's wort.

## TAMOXIFENE

Clue	Description	Indications	Route of administration and dosage
010.000.3047.00	TABLET  Each tablet contains: Tamoxifen citrate equivalent 20 mg of tamoxifen.  Package with 14 tablets.	breast cancer advanced in premenopausal and postmenopausal women.	Oral.  Adults: 10 mg (half a tablet) every 12 hours.

### Generalities

Nonsteroidal antiestrogen agent with antineoplastic action, which seems to be related to its ability to compete with estrogens for binding sites in target organs, especially the mammary gland.

### Risk in Pregnancy

c

### Adverse effects

Hot flashes, nausea, vomiting, leukopenia, moderate thrombocytopenia.

### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Moderate progression of metastases may occur.

### Interactions

With estrogens their pharmacological effects decrease.

## TEGAFUR-URACIL

Clue	Description	Indications	Route of administration and dosage
010.000.5446.01	CAPSULE  Each capsule contains: Tegafur 100 mg Uracil 224 mg  Container with 120 capsules.	Colon and rectal cancer.	Oral.  Adults:  300 mg/m <sup>2</sup> of body surface area / day, divided into three doses, for 28 days and a 7-day break.  Administer simultaneously with folic acid.

### Generalities

Tegafur is converted into 5 fluorouracil and its association with uracil inhibits its metabolism, prolonging the exposure of the tumor cell to 5 FU, increasing antitumor activity.

### Risk in Pregnancy

x

### Adverse effects

Anorexia, diarrhea, nausea, vomiting, stomatitis, abdominal pain, fatigue, leukopenia.

### Contraindications and Precautions

Contraindications: Hypersensitivity to drugs, malnutrition, renal failure and immunosuppression, or treatment with halogenated antivirals.

### Interactions

With immunosuppressants its pharmacological effect increases.

## TEMOZOLOMIDE

Clue	Description	Indications	Route of administration and dosage
	CAPSULE  Each capsule contains: Temozolomide 100 mg	Recurrent or progressive glioblastoma multiforme.  Anaplastic astrocytoma.	Oral.  Adults and children over 3 years:

010.000.5463.00 010.000.5463.01 010.000.5463.02	Container with 5 capsules. Container with 10 capsules. Container with 20 capsules.	Advanced metastatic melanoma.	200 mg/m <sup>2</sup> of body surface area/day, for 5 days. Repeat the treatment every 28 days.  Patients with previous chemotherapy reduce the dose to 150 mg/m <sup>2</sup> body surface every 24 hours for the first treatment.  In the second treatment, increase the dose according to the patient's clinical and laboratory conditions.
	CAPSULE  Each capsule contains: Temozolomide 20 mg		
010.000.5465.00 010.000.5465.01 010.000.5465.02	Container with 5 capsules. Container with 10 capsules. Container with 20 capsules.		

#### Generalities

Imidoazotetrazine derivative of the alkylating agent dacarbazine. It presents dose-dependent antineoplastic activity by interfering with DNA replication.

#### Risk in Pregnancy

d

#### Adverse effects

Nausea, vomiting, fatigue, constipation, headache, anorexia, itchy skin rash, diarrhea, fever, asthenia, drowsiness.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, severe myelosuppression.

#### Interactions

Temozolomide administered in combination with other alkylating agents may increase the likelihood of myelosuppression occurring. Concomitant administration with valproic acid is associated with a modest but statistically significant decrease in temozolomide clearance.

## TIOTEPA

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION  Each vial with powder contains:  Thiotepa 15 mg	Carcinoma of the breast.  Malignant tumors of the ovary.  Bladder carcinoma.	Intravenous, intratumoral or intracavitary.  Adults and children:  0.3 to 0.4 mg/kg/day, can be repeated between one and 4 weeks, depending on leukocyte and platelet counts.
010.000.3001.00	Container with a vial.		

#### Generalities

Nonspecific alkylating agent of the cell cycle. It breaks DNA bonds and interferes with RNA transcription.

#### Risk in Pregnancy

d

#### Adverse effects

Nausea, vomiting, headache, alopecia, leukopenia, anemia, thrombocytopenia, infertility and hemorrhagic cystitis.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk benefit in patients with myelosuppression, renal failure, or liver failure.

#### Interactions

With myelosuppressive medications, its adverse effects increase.

## THYROTROPIN ALFA

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION  Each vial with lyophilisate contains:  Thyrotropin alfa 1.1 mg	Adjunctive treatment of radioactive iodine ablation of thyroid tissue remnants in thyroidectomy due to thyroid cancer well differentiated.	Intramuscular.  Adults and people over 18 years of age: 0.9 mg every 24 hours for two days.  For scintigraphy or ablation, radioactive iodine administration should occur 24 hours after the last

010.000.5140.01	Container with two vials.	Analysis of serum thyroglobulin with or without total body scintigraphy with radioactive iodine, for detection of differentiated thyroid cancer.	thyrotropin alfa injection. Diagnostic scintigraphy should be performed 48 hours after radioactive iodine administration.  Reconstitute the lyophilisate with 1.2 mL of the diluent (distilled water). 1 mL of the reconstituted solution contains 0.9 mg of thyrotropin alfa.
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**Generalities**

The binding of thyrotropin alfa (Recombinant Human TSH) to TSH receptors on thyroid epithelial cells stimulates the uptake and organization of iodine, and the synthesis and secretion of thyroglobulin (Tg), triiodothyronine (T3) and thyroxine (T4).

**Risk in Pregnancy**

x

**Adverse effects**

Nausea, vomiting, headache, dizziness, paresthesia, asthenia, pseudoflu.

**Contraindications and Precautions**

Contraindications: Hypersensitivity to the drug.

Precautions: In patients with significant renal failure, the nuclear medicine specialist should choose carefully the dose of I<sup>131</sup>.

**Interactions**

None of clinical importance.

**TOPOTECÁN**

Clue	Description	Indications	Route of administration and dosage
010.000.6289.01	Each vial or vial with lyophilisate contains:  Topotecan 4 mg  Packaging with a vial or vial	Metastatic carcinoma of ovary after failure of first-line or subsequent therapy	The recommended dose of topotecan is 1.5 mg/m <sup>2</sup> of body surface area per day administered as intravenous infusion

**Generalities**

Inhibitor of topoisomerase I, inducing the formation of single-stranded DNA fragments associated with protein.

**Risk in Pregnancy**

X (Administration during pregnancy is not recommended).

**Adverse effects**

Myelosuppression, thrombocytopenia, severe anemia, erythema, nausea, vomiting, constipation, abdominal colic, alopecia, headache, hepatotoxicity, asthenia, arthralgia, paresthesia.

**Contraindications and Precautions**

Patients with severe bone marrow depression.

**Interactions**

Administration of granulocyte colony-stimulating factor is recommended after 6 days of starting topotecan therapy.

**TRASTUZUMAB (In Catalog II program)**

Clue	Description	Indications	Route of administration and dosage
010.000.5422.00	INJECTABLE SOLUTION  Each vial with powder contains:  Trastuzumab 150 mg  Container with vial bottle.	Breast cancer, when the Her2Neu oncogene is present.	Intravenous infusion.  Adults:  Initial: 4 mg/kg body weight, administered over 90 min.  Maintenance: 2 mg/kg of weight, every 7

010.000.5423.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with powder contains:</p> <p>Trastuzumab 440 mg</p> <p>Container with a vial with powder and a vial with 20 mL of diluent.</p>	<p>days.</p> <p>Administer diluted in intravenous solutions packaged in glass bottles.</p>
010.000.6046.00	<p>INJECTABLE SOLUTION</p> <p>Each vial contains:</p> <p>Trastuzumab 600 mg</p> <p>Package with a vial with 5 mL (600 mg/5 mL)</p>	<p>Subcutaneous.</p> <p>Dose: 600 mg, every three weeks.</p> <p>The dose application time is approximately 5 minutes.</p>

#### Generalities

Trastuzumab binds with high affinity and specificity to subdomain IV, a juxtamembrane region of the extracellular domain of HER2. Trastuzumab binding to HER2 inhibits the ligand-independent HER2 signaling pathway and prevents proteolytic cleavage of its extracellular domain, a mechanism of HER2 activation. As a result, Trastuzumab has been shown, both in vitro and animal tests, to inhibit the proliferation of human tumor cells that overexpress HER2.

#### Risk in Pregnancy

c

#### Adverse effects

Cardiac dysfunction, infusion-related reactions, haematotoxicity (particularly neutropenia), infections and pulmonary adverse reactions.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the biological.

Precautions: The determination of HER2 must be carried out in a specialized laboratory that can ensure adequate validation of the assessment procedures. Patients treated with trastuzumab have an increased risk of developing CHF or asymptomatic cardiac dysfunction. Herceptin and anthracyclines should not be administered simultaneously in combination for adjuvant treatment. During the post-marketing period, there have been serious pulmonary reactions reported with the use of trastuzumab.

#### Interactions

No formal drug interaction studies have been performed. No clinically significant interactions have been observed between trastuzumab and concomitant medications used in clinical trials.

## TRASTUZUMAB EMTANSINE

Code	Description	Indications	Route of administration and dosage
010.000.6017.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with lyophilized powder contains:</p> <p>Trastuzumab emtansine 100 mg</p> <p>Package with a vial with lyophilized powder with 100 mg (20 mg/mL).</p>	<p>HER2 breast cancer positive unresectable, locally advanced or metastatic breast cancer, who have received prior treatment with trastuzumab and a taxane.</p>	<p>Intravenous infusion.</p> <p>Adults:</p> <p>3.6 mg/kg body weight administered every 21 days until disease progression or unacceptable toxicity.</p>
010.000.6018.00	<p>INJECTABLE SOLUTION</p> <p>Each vial with lyophilized powder contains:</p> <p>Trastuzumab emtansine 160 mg</p> <p>Package with a vial with lyophilized powder with 160 mg (20 mg/mL).</p>		

#### Generalities

Trastuzumab emtansine is a HER2-directed antibody-drug conjugate containing the humanized anti-HER2 IgG1 monoclonal antibody trastuzumab, covalently linked to the microtubular inhibitor DM1 (a maytansine derivative) via the stable thioether bond MCC (4-[N -maleimidomethyl]cyclohexane-1-carboxylate).

Emtansine represents the MCC-DM1 complex. Each molecule of trastuzumab is conjugated to an average of 3.5 molecules of DM1.

## Risk in Pregnancy

c

## Adverse effects

Urinary tract infection, Thrombocytopenia, Anemia, Hypokalemia, Insomnia, Peripheral neuropathy, Headache, Dizziness, Hemorrhage, Epistaxis, Cough, Dyspnea, Rash, Stomatitis, Diarrhea, Vomiting, Nausea, Constipation, Dry mouth, Abdominal pain, Musculoskeletal pain, Arthralgia, Myalgia, Fatigue, Pyrexia, Asthenia, Chills, transaminases elevated.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

Precautions: It is recommended to permanently discontinue treatment with trastuzumab emtansine if diagnosed Interstitial Lung Disease (ILD) or pneumonitis.

Liver function should be monitored before starting treatment and administering each dose. Patients with an increase in ALT from baseline (e.g. due to liver metastases) may be predisposed to liver injury with an increased risk of a Grade 3-5 hepatic event or increased tested liver function.

Conventional tests (echocardiogram or radionuclide angiography [MUGA]) should be performed to assess cardiac function before starting treatment and at regular intervals (e.g. every three months) during treatment.

In clinical trials, patients were required to have a baseline LVEF  $\geq$  50%. Patients with a history of congestive heart failure (CHF), serious cardiac arrhythmias requiring treatment, history of myocardial infarction or unstable angina pectoris within 6 months prior to randomization, or current dyspnea at rest due to advanced malignant disease, were excluded from clinical trials. In cases with left ventricular dysfunction, treatment should be delayed or interrupted.

It is recommended to check platelet counts before administering each dose of trastuzumab emtansine. Patients with thrombocytopenia ( $\leq$  100,000/mm<sup>3</sup>) and patients receiving anticoagulants (e.g. warfarin, heparin, low molecular weight heparins) should be closely monitored during treatment with trastuzumab emtansine. Trastuzumab emtansine has not been studied in patients with platelet counts  $\leq$  100,000/mm<sup>3</sup> before starting treatment. If Grade 3 or greater platelet count decreases are observed ( $<$  50,000/mm<sup>3</sup>), trastuzumab emtansine will not be administered until the platelet count is restored to Grade 1 ( $\geq$  75,000/mm<sup>3</sup>).

Treatment with trastuzumab emtansine should be temporarily discontinued in patients who develop Grade 3 or 4 peripheral neuropathy until symptoms resolve or regress to Grade  $\leq$  2. Patients should be monitored clinically on an ongoing basis for signs or symptoms of neurotoxicity.

## Interactions

No interaction has been identified to date.

**TRETINOIN**

Clue	Description	Indications	Route of administration and dosage
010.000.5436.00	CAPSULE  Each capsule contains: Tretinoin 10 mg  Container with 100 capsules.	Promyelocytic leukemia acute.	Oral.  Children and adults:  45 mg/m <sup>2</sup> of body surface, divided into 2 equal doses per day.

## Generalities

Natural metabolite of retinol, which induces differentiation and inhibition of proliferation in transformed hematopoietic cell lines.

## Risk in Pregnancy

x

## Adverse effects

Xerodermia, xerostomia, cheilitis, rash, edema, nausea, vomiting, bone pain, headache and increased triglycerides, cholesterol and transaminases.

## Contraindications and Precautions

Contraindications: Hypersensitivity to the drug.

## Interactions

Drugs that modify the function of cytochrome P-450 may alter plasma concentrations of Tretinoin.

**TRIPTORELIN**

Clue	Description	Indications	Route of administration and dosage
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010.000.6029.00	INJECTABLE SUSPENSION	Early puberty.	Intramuscular.
	Each vial with lyophilisate contains:  Triptorelin Pamoate equivalent to 3.75 mg. triptorelin  Package with a vial with lyophilisate and vial with 2 mL of diluent and administration equipment.		Children and adolescents: 3.75 mg each month.

#### Generalities

It acts at the adenohypophyseal level, stimulating the synthesis and release of the gonadotropins LH (luteinizing hormone) and FSH (follicle-stimulating hormone). The increase in gonadotropin levels causes an increase in the production of testosterone in the testicle or estrogen in the ovary, which in turn inhibit the hypothalamic production of GnRH, through negative feedback, feeding back the hypothalamic-pituitary-gonadal axis.

#### Risk in Pregnancy

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#### Adverse effects

Abdominal pain, nausea; asthenia, fatigue, erythema, inflammation, pain, reaction (all at the injection site), edema; back pain, musculoskeletal pain, pain in extremities; paresthesia in the lower limbs, dizziness, headache; loss of libido, depression, mood swings; erectile dysfunction; hyperhidrosis; hot flushes. Daily format: ovarian hyperstimulation syndrome, ovarian hypertrophy, pelvic pain; dyspnoea.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, in patients with prostate cancer.  
Precautions: Long-term use risk of osteoporosis (patients with additional risk factors for osteoporosis, chronic alcohol abuse, smokers, therapy that reduces bone mineral density, history of osteoporosis, malnutrition). Risk of depression (which can be serious). Men: strict monitoring in the first weeks of treatment, in patients with vertebral metastases, due to risk of spinal cord compression, and in patients with urinary tract obstruction. Evaluate and monitor patients at high risk for metabolic or cardiovascular diseases during androgen deprivation therapy. Monitor prostate specific antigen and plasma testosterone levels. Woman: risk of bleeding. Control of plasma estradiol. Use non-hormonal contraceptive measures. Children: consider treatment in children with progressive brain tumors. Age at start of treatment in girls < 9 years and boys < 10 years. Risk of vaginal bleeding. Exclude pseudo-precocious puberty (gonadal or adrenal tumor or hyperplasia) and gonadotropin-independent precocious puberty (testicular toxicosis, familial Leydig cell hyperplasia).

#### Interactions

Do not use together with drugs that affect pituitary secretion of gonadotropins.

## TROPISETRON

Clue	Description	Indications	Route of administration and dosage
010.000.5427.00	CAPSULE  Each capsule contains: Tropisetron hydrochloride equivalent to 5 mg of tropisetron.  Container with 5 capsules.	Nausea and vomiting secondary to chemotherapy and radiotherapy antineoplastic.	Oral.  Adults: 5 mg/day from the second to sixth day after chemotherapy.  Children over 4 years: 0.2 mg/kg body weight/day from the second to sixth day after chemotherapy.  Maximum dose: 5 mg/day.
010.000.5456.01 010.000.5456.02	INJECTABLE SOLUTION  Each vial contains: Tropisetron hydrochloride equivalent to 5 mg of tropisetron.  Container with 3 vials.  Container with 10 vials.		Slow intravenous or infusion.  Adult: 5 mg every 24 hours.  Children over 5 years: 0.2 mg/kg body weight/day, maximum dose 5 mg/day.  Administer diluted in intravenous solutions packaged in glass bottles.



Generalities
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Selective serotonin antagonist at the level of three receptors that reduces the incidence and severity of nausea and vomiting induced by various cytotoxic drugs.

Risk in Pregnancy
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Adverse effects
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Headache, constipation, hypertension, drowsiness and hypersensitivity reactions.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.

Precautions: In cardiovascular disorders or liver damage.

Interactions
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None of clinical importance.

**VINBLASTINE**

Clue	Description	Indications Hodgkin	Route of administration and dosage
	INJECTABLE SOLUTION.		Intravenous.
	Each vial with lyophilisate contains:	lymphoma and non-Hodgkin lymphoma Hodgkin.	Adults and children:
	Vinblastine Sulfate 10 mg	Breast carcinoma.	0.1 mg/kg body weight/week or 2.5 mg/m <sup>2</sup> body surface area/week, then weekly increments of 0.05 mg/kg body weight or 1.25 mg/m <sup>2</sup> body surface area, until white blood cell count is less than 3 000/mm <sup>3</sup> or the symptoms decrease.
010.000.1770.00	Container with a vial and vial with 10 mL of diluent.	Embryonal carcinoma of the testicle.	
	Each vial with injectable solution contains:	Choriocarcinoma.	Maintenance dose: 10 mg once or twice a month.
	Vinblastine sulfate 10 mg		Administer diluted in intravenous solutions packaged in glass bottles.
010.000.1770.01	Container with 10 vials		

Generalities
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It blocks mitosis in metaphase and inhibits RNA synthesis.

Risk in Pregnancy
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Adverse effects
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Leukopenia, thrombocytopenia, alopecia, nausea, vomiting, joint and muscle pain, edema, hyperuricemia, neurotoxicity.

Contraindications and Precautions
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Contraindications: Hypersensitivity to the drug.

Precautions: Assess risk benefit in infections, bone marrow depression, liver dysfunction.

Interactions
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With myelosuppressants and radiotherapy its adverse effects on the bone marrow increase.

**VINCRISTINE**

Clue	Description	Indications	Route of administration and dosage
	INJECTABLE SOLUTION		Intravenous.
	Each vial with lyophilisate contains:	Acute lymphoblastic leukemia.	Adults:
	Vincristine Sulfate 1 mg	Hodgkin's disease.	10 to 30 mcg/kg body weight or 0.4 to 1.4 mg/m <sup>2</sup> of body surface, weekly.
010.000.1768.00	Container with a vial and a vial with 10 mL of diluent.	Non-Hodgkin's lymphoma.	Maximum dose 2 mg.
		Rhabdomyosarcoma.	Children:
010.000.1768.01	Vial and/or vial with 1 mg of lyophilisate, without diluent.	Neuroblastoma.	1.5 to 2 mg/m <sup>2</sup> of body surface, weekly.
		Wilms tumor.	Maximum dose 2mg.
	INJECTABLE SOLUTION	Lung cancer.	Children less than 10 kg body weight or less than 1 m <sup>2</sup> body surface area. 0.05 mg/kg body weight once a week.
	Each vial with solution		

010.000.1768.02	injectable contains: Vincristine sulfate 1 mg. Container with 10 vials.	Administer diluted in intravenous solutions packaged in glass bottles.
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#### Generalities

It is a specific agent of the M phase cell cycle, which acts by blocking cell mitosis, arresting it in metaphase.

#### Risk in Pregnancy

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#### Adverse effects

Nausea, vomiting, constipation, abdominal pain, weight loss, intestinal necrosis. Neurotoxicity, anemia and leukopenia. Bronchospasm, alopecia.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug and vinca alkaloids, systemic infections, Charcot-Merie Tooth demyelinating syndrome, liver failure and patients receiving radiotherapy in fields that include the liver.

#### Interactions

Adverse effects increase with neurotoxic medications and calcium channel blockers. Increases the effect of methotrexate.

## VINORELBIN

Clue	Description	Indications	Route of administration and dosage
010.000.4435.00	INJECTABLE SOLUTION  Each vial contains: Vinorelbine ditartrate equivalent to 10 mg of Vinorelbine.  Container with a vial bottle with 1 mL.	lung cancer not small cells.  Breast cancer.	Intravenous slow infusion.  Adults:  20 to 30 mg/m <sup>2</sup> body surface area / week.  Administer diluted in intravenous solutions packaged in glass bottles.
010.000.4445.00	CAPSULE  Each capsule contains: Vinorelbine bitartrate equivalent to 20.00 mg. of Vinorelbine.  Container with a capsule.		Oral.  Adults:  60 mg/m <sup>2</sup> body surface area, administered once a week.
010.000.4446.00	CAPSULE  Each capsule contains: Vinorelbine bitartrate equivalent to 30.00 mg. of Vinorelbine.  Container with a capsule.		After the third administration, increase the dose to 80 mg/m <sup>2</sup> body surface area, based on neutrophil count.

#### Generalities

Cytostatic from the group of vinca rosea alkaloids . It acts selectively on mitotic microtubules correlated with antitumor activity.

#### Risk in Pregnancy

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#### Adverse effects

Nausea, vomiting, asthenia, alopecia, anemia, granulocytopenia, leukopenia, chest pain, peripheral neuropathy.

#### Contraindications and Precautions

Contraindications: Hypersensitivity to the drug, liver failure, agranulocytosis.

#### Interactions

With myelosuppressive medications, hematological toxicity increases.