NOVARTIS

**Information for patients**
Read this leaflet carefully before taking this medicine. This medicine has been prescribed for you personally. Do not pass it on to anyone else. It may harm them even if their symptoms are the same as yours.
Keep this leaflet. You may want to read it again later.

# Revolade®

**film-coated tablets and powder for oral suspension**

## What Revolade is and what it is used for

Revolade contains the active substance eltrombopag, which belongs to a group of medicines called thrombopoietin receptor agonists. Revolade stimulates the production of blood platelets in the bone marrow (part of the bone that makes blood cells). Revolade is a medicine that may help to increase the number of platelets (thrombocytes), a type of blood cell that helps to reduce or prevent bleeding, in your blood.
Revolade can be used to treat adults with a bleeding disorder called immune thrombocytopenia (ITP).
Revolade can also be used in children aged 1 year and over with a bleeding disorder called immune thrombocytopenia (ITP) if they experience regular bleeding and have not responded to other treatments.
Many patients with a chronic hepatitis C (HCV) infection have a low platelet count (thrombocytopenia). This is not only a result of the disease itself, but also an effect of the medicines used to treat the disease. Adults are treated with eltrombopag to increase and maintain their platelet count before and during antiviral treatment of their HCV infection, thereby improving the chance that the antiviral treatment can be carried out at the optimum dose and for the optimum duration.

Revolade may be used to treat acquired severe aplastic anaemia (SAA):
- In adults and paediatric patients aged 2 years and over as first-line treatment in combination with standard immunosuppressive therapy.
- In adults who have not responded sufficiently to other medicines.

Revolade may only be taken if it has been prescribed by a doctor.

## Do not take Revolade

Do not take Revolade if you are allergic (hypersensitive) to the active substance eltrombopag or any of the other ingredients.

## Warnings and precautions

Follow all of your doctor's instructions exactly. They may differ from the general information contained in this leaflet.
*If any of the following situations apply to you/your child, talk to your doctor before taking Revolade:*
- If you/your child have liver or kidney problems as Revolade must be used with caution in this case.
- If you/your child are taking medicines to decrease the level of fats in your blood (statins) as Revolade may increase the concentration of statins in your body.
- If you, your child or anyone in your family have ever had a blockage of the blood vessels (thrombosis).
- If you/your child have or have ever had cataracts. In clinical studies in HCV patients with thrombocytopenia, cataracts occurred more frequently in patients on eltrombopag compared to the placebo group.
- If you/your child have another blood condition, such as myelodysplastic syndrome (MDS), as Revolade can make MDS worse. Your doctor will carry out tests on you/your child to check that you/your child are not affected by this before you start treatment with Revolade.

*Tell your doctor or pharmacist immediately if you experience any of the following symptoms during treatment with Revolade:*
- If you/your child experience signs of a blockage of the blood vessels in the leg such as swelling, pain or tenderness in one leg.
- If your platelet count is too high during treatment with Revolade, you will have an increased risk of developing a blood clot. However, blood clots can also occur if you have a normal or low platelet count.
- If you have liver cirrhosis, there is a risk that a blood clot will form in one of the veins that leads to the liver (portal vein thrombosis). Severe complications of some types of blood clot include blood clots in the lungs, heart attacks or strokes. Your doctor will monitor your blood platelet count and adjust your dose or stop Revolade if the platelet count is too high.
- If you/your child experience signs of decreased liver function such as yellowing of the skin or conjunctiva of the eyes (jaundice), unusually dark-coloured urine, unusual tiredness, pain in the upper-right abdomen. Revolade may damage your liver and may even cause life-threatening illnesses.
- If you are receiving certain antiviral therapies together with Revolade to treat thrombocytopenia caused by the hepatitis C virus (HCV), some liver problems may get worse. Therefore, your liver function must be checked before and during treatment with Revolade. Your doctor will arrange the necessary tests. In some cases treatment with Revolade may have to be stopped.

*Monitoring during your treatment with Revolade*
Revolade stimulates the formation of new blood platelets in the bone marrow. Therefore, your doctor will regularly check your blood count and, if necessary, adjust the dose of Revolade accordingly or temporarily stop your treatment.
Patients with advanced chronic liver disease and a low platelet count have an increased risk of side effects, which may include fatal liver problems. If your doctor decides that the benefit outweighs the risks, they will monitor you/your child closely during treatment.
Patients between 1-17 years of age who are prescribed Revolade may experience a decreased blood cell count (neutrophils). Therefore, your doctor will regularly carry out blood tests on your child and perform additional blood counts in the event of fever. In the event of a sudden fever contact a doctor immediately.
Patients with hepatitis C receiving antiviral therapy with interferon may experience severe gastrointestinal bleeding when taking Revolade, which may be fatal. Your doctor will monitor you closely for this.
Heart problems (mainly severe heart rhythm disorders (arrhythmias)) may occur during treatment with Revolade. Your doctor will regularly check your/your child's heart.
If you/your child have/has severe aplastic anaemia, your bone marrow may change, causing additional bone marrow disorders. Your doctor will monitor you/your child closely for this.

*Tendency to bleed after stopping treatment*
If your Revolade treatment is stopped, your platelet count will return to pre-treatment levels. This is expected to happen up to 4 weeks after stopping Revolade. This low platelet count may increase your risk of bleeding. Your doctor will check your platelet count for at least 4 weeks. Tell your doctor or pharmacist if you notice any bruising or bleeding after stopping Revolade.

*Elderly patients (aged 65 years and over)*
Only limited data is available on the use of Revolade in patients aged 65 years and over. Revolade should be used with caution in patients aged 65 years and over.

*Children and adolescents (under 18 years of age)*
Revolade is not recommended for ITP patients under 1 year of age, HCV patients under 18 years of age or SAA patients under 18 years of age.
Revolade is not recommended for SAA patients under 18 years of age who have not responded sufficiently to other medicines.
Revolade can be used in combination with standard immunosuppressive therapy as first-line treatment in SAA patients aged 2 years and over.

*Taking with other medicines*
Please note that some medicines and minerals can significantly affect the body's ability to absorb Revolade. These include antacids (mostly used for stomach problems) and vitamin and mineral supplements. Therefore, Revolade should be taken at least 2 hours before or 4 hours after taking antacids or mineral supplements (e.g. aluminium, calcium, iron, magnesium, selenium or zinc) or consuming dairy products.
There are certain groups of medicines that require additional platelet count monitoring. These medicines include lopinavir/ritonavir (medicines used to treat HIV infections) and ciclosporin (used for transplants or immune diseases).
Tell your doctor or pharmacist if you/your child have any other illnesses, have any allergies or are taking any other medicines (including non-prescription medicines).

## Pregnancy and breast-feeding

Revolade may only be taken during pregnancy and breast-feeding if your doctor has expressly instructed you to do so.

## How to take Revolade

Your doctor will prescribe the correct dose for you/your child.

*How much Revolade to take*
The usual starting dose for adult ITP and SAA patients who have already been treated for SAA and did not respond sufficiently is one 50 mg Revolade tablet a day.
The usual starting dose for children with ITP (1-17 years of age) depends on body weight and is determined by your doctor. This dose is taken in the form of tablets or as an oral suspension (prepared from a powder).

*Powder for suspension, supporting age group 1 year to 5 years is not registered and not marketed.*
The usual starting dose for adult HCV patients is one 25 mg Revolade tablet a day.
ITP, HCV and SAA patients of Asian origin (Chinese, Japanese, Taiwanese, Korean or Thai) and ITP, HCV and SAA patients with liver problems start treatment at a lower starting dose: adults start at 25 mg a day and children will have their dose set by their doctor based on body weight.

The usual starting dose for SAA patients in combination with standard immunosuppressive therapy as first-line treatment is:
- For adults and adolescents aged 12 to 17 years: 150 mg once a day for 6 months. Patients of Asian origin (Chinese, Japanese, Taiwanese, Korean or Thai) start treatment at a lower starting dose: 75 mg once a day for 6 months.
- For children aged 6 to 11 years: 75 mg once a day for 6 months. Children (aged 6 to 11 years) of Asian origin (Chinese, Japanese, Taiwanese, Korean or Thai) start treatment at a lower starting dose: 37.5 mg once a day for 6 months.
- For children aged 2 to 5 years the dose depends on body weight: 2.5 mg/kg once a day for 6 months. Children (aged 2 to 5 years) of Asian origin (Chinese, Japanese, Taiwanese, Korean or Thai) start treatment at a lower starting dose: 1.25 mg/kg once a day for 6 months.

Your doctor will prescribe you/your child the appropriate immunosuppressive therapy in addition to Revolade.
Do not change the prescribed dosage yourself. If you think the effect of your medicine is too weak or too strong, talk to your doctor or pharmacist.

*When to take Revolade*
Unless prescribed otherwise, Revolade should be taken daily and always at roughly the same time.
The absorption of Revolade is affected by calcium. As dairy products contain a lot of calcium, you should take/administer Revolade at least 2 hours before or 4 hours after dairy products are consumed. You can discuss the ideal time to take Revolade with your doctor or pharmacist. For example, you could not eat any dairy products in the evening and then take Revolade before going to bed.

*How long to take Revolade*
The duration of treatment will be determined by the patient's doctor.
If you/your child are taking Revolade in combination with standard immunosuppressive therapy as first-line treatment for SAA, Revolade must be stopped after 6 months. Your doctor may order you/your child to stop Revolade earlier.
Revolade may take 1-2 weeks to work. Your doctor may change your daily dose based on your response to Revolade.

*If you forget to take Revolade*
If you forget a dose, do not take a dose to make up for it. Instead, simply take/administer the next dose at the normal time.

*If you stop taking Revolade*
If your doctor advises you to stop taking Revolade, your platelet count will be monitored weekly for the following 4 weeks.

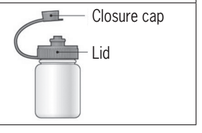
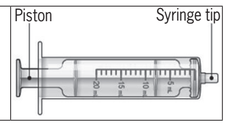
*Instructions for preparing and administering a Revolade suspension:*
The following instructions must be followed exactly when preparing an oral suspension of Revolade. Contact your doctor if you have any questions or if any component is lost or damaged.
The doctor will determine the dose of Revolade (in mg) that you/your child must take. The prescribed daily dose of powder for suspension must be prepared and taken according to Table 1.

**Table 1: Number of sachets and volume of oral suspension per prescribed daily dose**

| Prescribed daily dose in mg | Number of sachets (25 mg powder per sachet) to be dissolved in 20 ml water | Volume of oral suspension in ml to be taken using the syringe |
|---|---|---|
| 6 mg | 1 sachets | 5 ml |
| 7 mg | 1 sachets | 6 ml |
| 8 mg | 1 sachets | 7 ml |
| 9 mg | 1 sachets | 7 ml |
| 10 mg | 1 sachets | 8 ml |
| 11 mg | 1 sachets | 9 ml |
| 12 mg | 1 sachets | 10 ml |
| 13 mg | 1 sachets | 10 ml |
| 14 mg | 1 sachets | 11 ml |
| 15 mg | 1 sachets | 12 ml |
| 16 mg | 1 sachets | 13 ml |
| 17 mg | 1 sachets | 14 ml |
| 18 mg | 1 sachets | 14 ml |
| 19 mg | 1 sachets | 15 ml |
| 20 mg | 1 sachets | 16 ml |
| 21 mg | 1 sachets | 17 ml |
| 22 mg | 1 sachets | 18 ml |
| 23 mg | 1 sachets | 18 ml |
| 24 mg | 1 sachets | 19 ml |
| 25 mg | 1 sachets | 20 ml |
| 26 mg | 2 sachets | 10 ml |
| 27 mg | 2 sachets | 11 ml |
| 28 mg | 2 sachets | 11 ml |
| 29 mg | 2 sachets | 12 ml |
| 30 mg | 2 sachets | 12 ml |
| 40 mg | 2 sachets | 16 ml |
| 50 mg | 2 sachets | 20 ml |
| 75 mg | 3 sachets | 20 ml |

Revolade powder must be mixed with water only. After it has been prepared, the suspension must be administered within 30 minutes. Otherwise, a new suspension must be prepared and the old suspension must be disposed of as instructed by your doctor or pharmacist (not down the drain). Avoid allowing the suspension to come into contact with your skin. However, if skin contact does occur, the affected area must be washed immediately with soap and water. If you experience a skin reaction or have any questions, please contact your doctor. If you spill any liquid, follow the cleaning instructions below. Keep Revolade powder for oral suspension out of the reach of children.

Each pack of Revolade powder for oral suspension contains the following components:

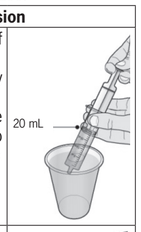
| | |
|---|---|
| 30 sachets of Revolade powder for oral suspension |  |
| 1 reusable mixing bottle with lid and cap |   |
| 1 reusable syringe |   |

The following is needed to prepare and administer a dose of Revolade:
- prescribed number of sachets (from the pack)
- mixing bottle (from the pack)
- syringe (from the pack)
- a clean glass of drinking water
- scissors to cut open the sachets

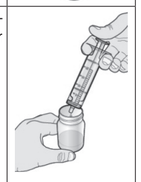
Make sure that the mixing bottle (including the lid and cap) and the syringe are dry before use.

**Preparing the Revolade suspension**

1. Fill the syringe with 20 ml of drinking water from the glass
   - Push the plunger all the way into the syringe
   - Put the tip of the syringe all the way into the water and pull up the plunger to the 20 ml mark




2. Put the water into the mixing bottle by slowly pushing the plunger down.

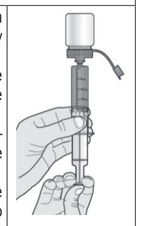


3. Use Table 1 to determine the number of sachets (each containing 25 mg of Revolade powder) to be dissolved in the 20 ml of water for the prescribed daily dose.
4. Put the powder into the mixing bottle:
   - Tap the sachet to make sure that all of the contents collect at the bottom of the sachet.
   - Cut open the sachet at the top end.
   - Put the powder into the mixing bottle. Make sure not to spill any powder.
   - If more than one sachet has been prescribed, repeat the steps given under point 4.

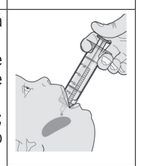
5. Mixing the suspension
   - Screw the lid onto the mixing bottle and make sure that the cap is closed.
   - Gently shake the mixing bottle for at least 20 seconds. To prevent foaming, do not shake too hard.

**Administering the Revolade suspension**

6. Use Table 1 to determine the volume of the oral suspension (in ml) to be drawn into the syringe for the prescribed daily dose.
7. Fill the syringe with the suspension
   - Push the plunger all the way into the syringe
   - Remove the cap and insert the syringe into the opening in the lid of the mixing bottle
   - Turn the mixing bottle upside-down together with the syringe
   - Draw up the required volume (in ml) into the syringe. To do this, pull the plunger back until the medicine in the syringe (dark brown liquid) has reached the correct ml mark.
   - Turn the mixing bottle back to the upright position and remove the syringe.



8. Administering the medicine to a child
   - Place the syringe tip into the child's mouth (inside of the cheek)
   - Push down the plunger slowly; give the child enough time to swallow



**Cleaning instructions**

Carefully wipe up any spilled powder or suspension with a damp, disposable cloth.
- To prevent skin discolouration, wear disposable gloves.
- Throw away the items used to clean (cloth and gloves) in your household waste

Cleaning the mixing components
- Remove the plunger from the syringe
- Throw away any remaining solution as instructed by your doctor or pharmacist
- Rinse the mixing bottle, lid, syringe and plunger under running water and let them air dry. The mixing bottle may be discoloured by the medicine over time. This is normal.
- Wash your hands with soap and water

## Possible side effects

<u>The following side effects have been reported to be associated with Revolade treatment in adult ITP patients:</u>
*Some side effects may be serious.*
If you experience serious side effects, **contact your doctor immediately** (see "Warnings and precautions").

*Common: may affect up to 1 in 10 people:*
- Blood clot: Signs of this are:
- Swelling, pain, sensation of heat, redness or tenderness in one leg
- Sudden shortness of breath, particularly together with sharp pain in the chest or rapid breathing
- Abdominal pain (stomach pain), enlarged abdomen, blood in the stool.

*Uncommon: may affect up to 1 in 100 people:*
- Liver damage: Signs of this are yellowing of the skin or conjunctiva of the eyes (jaundice), unusually dark-coloured urine, unusual tiredness, pain in the upper-right abdomen.
- Kidney failure: A sign of this is severely decreased urine production

Other side effects are given below. If these side effects become severe, please tell your doctor, pharmacist or healthcare professional.
*Very common: may affect more than 1 in 10 people:*
Sore throat and runny nose, infection of the upper airways, headache, diarrhoea, nausea, joint pain, back pain, tiredness.
*Very common side effects that may show up in blood tests:*
Increased liver enzymes.

*Common: may affect up to 1 in 10 people:*
Flu, cold, sore throat, pressure or pain in the cheeks and forehead (signs of sinus inflammation), fever, cough, difficulty breathing or pain when breathing, wheezing, chest pain when breathing (signs of lung inflammation), cold sore, mouth ulcer, inflammation of the tonsils, tiredness and pale skin (anaemia), bleeding, bruising, muscle weakness, muscle spasm, heart rhythm disorder, rash, itching, swelling (oedema), difficulty swallowing, feeling dizzy, leg cramp caused by uric acid (a substance produced when food is broken down), sleeplessness, sleep disorders, anxiety, depression, dizziness, tingling and numbness, migraine, drowsiness, eye problems (cloudy lens, eye pain, dry eye, decreased visual clarity, blurred vision, conjunctival bleeding), high blood pressure, hot flushes, nosebleed, vomiting, abdominal pain, constipation, digestive problems, bleeding gums, bleeding in the mouth, haemorrhoids, abdominal discomfort, flatulence, liver problems, including: increased liver enzymes (produced by the liver), problems with the flow of bile (produced by the liver to help digestion), liver inflammation, yellow skin and eyes, unusual hair loss or thinning, red or purple spots on the skin, excessive sweating, itchy rash, pain in the extremities, muscle pain, muscle spasms, bone pain, fever, flu-like symptoms, chest pain, swelling of the hands, joints and feet, weakness.

*Uncommon: may affect up to 1 in 100 people:*
Weight gain, loss of appetite, joint swelling, joint pain, increased appetite, mood swings, indifference, lack of interest, sadness, disturbed sense of taste, uncontrollable shaking, muscle weakness, balance problems, tingling or numbness in the toes or fingers, speech difficulties, eye problems (watery eyes, eyelid inflammation, retinal bleeding, astigmatism), earache, heart palpitations, chest pain, tiredness, irregular heartbeat, swelling, redness and pain around a vein, blue discolouration of the lips, tongue or skin, sleep apnoea, nose, throat and sinus problems, dry mouth, discoloured stool, pain and burning affecting the mucous membranes of the tongue or mouth, vomiting with blood, frequent bowel movements, discomfort in the mouth, abdominal rigidity, skin bleeding, skin discolouration, red skin, flaky skin, peeling skin or skin blistering, pigmentation problems, muscle weakness, sensation of heaviness, malaise, inflammation of the mucous membranes, night sweats, feeling jittery, unspecified disorder, wound inflammation, foreign body sensation.

<u>The following side effects have been reported to be associated with Revolade treatment in children and adolescents (1-17 years of age) with ITP **in addition to** those mentioned above:</u>
*Very common: may affect more than 1 in 10 people:*
Infection of the upper airways, fever with sore throat and mouth ulcers, cough, abdominal pain, fever.

*Common: may affect up to 1 in 10 people:*
Infection, fever, cough, difficulty breathing or pain when breathing, wheezing, chest pain when breathing (signs of lung inflammation), build-up of pus under the skin, tiredness and pale skin (anaemia), loss of appetite, cloudy eye lens, sore throat and mouth pain, runny nose, diarrhoea, toothache, rash.

<u>The following side effects have been reported to be associated with Revolade treatment in combination with peginterferon and ribavirin in patients with an HCV infection:</u>
Some side effects may be serious. If you experience serious side effects, contact your doctor immediately (see "Warnings and precautions")

*Common: may affect up to 1 in 10 people:*
- Liver damage: Signs of this are yellowing of the skin or conjunctiva of the eyes (jaundice), unusually dark-coloured urine, unusual tiredness, pain in the upper-right abdomen.

- Blood clot: Signs of this are:
- Swelling, pain, sensation of heat, redness or tenderness in one leg
- Sudden shortness of breath, particularly together with sharp pain in the chest or rapid breathing
- Abdominal pain (stomach pain), enlarged abdomen, blood in the stool.

Other side effects are given below. If these side effects become severe, please tell your doctor, pharmacist or healthcare professional.

*Very common: may affect more than 1 in 10 people:*
Tiredness and pale skin (anaemia), loss of appetite, headache, cough, nausea, diarrhoea, itching, muscle pain, fever, exhaustion, flu-like symptoms, weakness

*Common: may affect up to 1 in 10 people:*
Urinary tract infection, sore throat and runny nose, infection of the upper airways, flu, cough, chest pain, fever, cold sore, sore throat, mouth ulcer, anaemia due to breakdown of red blood cells (pale skin, tiredness, difficulty breathing, dark urine), weight loss, high blood sugar (thirst, small amount of dark urine, dry skin, irritability), swollen ankles, depression, anxiety, sleep disorder, light-headedness, dizziness, difficulty concentrating, disturbed sense of taste, mood swings, memory problems, tingling and numbness, eye problems (cloudy lens, dry eye, small, yellow deposits in the retina), disturbances of heart rhythm, shortness of breath, vomiting, abdominal pain, swollen abdomen (due to a build-up of water in the abdomen), indigestion, dry mouth, constipation, toothache, mouth inflammation, heartburn, haemorrhoids, yellowing of the skin and eyes, skin problems (rash, dry skin, itchy rash, red skin), excessive sweating, unusual hair loss or thinning, joint pain, muscle spasms, back pain, pain in the hands and feet, bone pain, irritability, malaise, chest pain swelling (oedema). .

*Uncommon: may affect up to 1 in 100 people:*
Digestive problems (abdominal pain, nausea, vomiting, diarrhoea, swollen abdomen), sore throat, confusion, agitation, yellowing of the white of the eye, retinal bleeding, nausea and abdominal pain (stomach inflammation), flatulence, skin lesions, pain when urinating, night sweats, chest discomfort.

<u>The following side effects have been reported to be associated with Revolade treatment in adult patients with severe aplastic anaemia (SAA) who have not responded sufficiently to other medicines:</u>
Other side effects are given below. If these side effects become severe, please tell your doctor, pharmacist or healthcare professional.

*Very common: may affect more than 1 in 10 people:*
Sleeplessness, headache, dizziness, cough, sore throat and mouth pain, runny nose, nausea, diarrhoea, abdominal pain, pain in the arms, legs, hands and feet (limb pain), muscle spasms, exhaustion, fever, chills.

*Common: may affect more than 1 in 100 people:*
Eye lens clouding, rash, peeling skin, skin redness.
<u>Additional side effects in SAA patients who have not previously received definitive immunosuppressive therapy to treat SAA:</u>
*Common side effects* – these may affect **more than 1 in 100 people**:
More intensive skin colour (hyperpigmentation)
*Very common side effects that may show up in blood tests:* Increased bilirubin (a yellow substance produced in the liver that can cause yellowing of the skin or the white part of the eyes).
If you/your child notice any side effects which are not described here, tell your doctor or pharmacist.

## Further information

Do not store Revolade film-coated tablets above 30°C and keep out of the reach of children.
Do not use after the expiry date (= EXP) printed on the container.
Your doctor or pharmacist will be able to give you more information. They have access to the full prescribing information.

## What Revolade contains

1 Revolade film-coated tablet contains either 12.5, 25, 50 or 75 mg of eltrombopag (as eltrombopag olamine) and *Excipients:*
*Tablet:* Magnesium stearate, mannitol, microcrystalline cellulose, povidone, sodium starch glycolate.
Film coating: Hypromellose, macrogol 400, titanium dioxide, polysorbate 80, colouring agent E172, tableting excipients.
1 sachet of Revolade powder for oral suspension contains 25 mg of eltrombopag (as eltrombopag olamine) and *Excipients*: Mannitol, sucralose, xanthan gum

## Availability/pack sizes

The product can be obtained in pharmacies with a doctor's prescription, which may be used once.
Revolade film-coated tablets:
14 film-coated tablets (12.5 mg each).
14 or 28 film-coated tablets (25 mg each).
14 or 28 film-coated tablets (50 mg each).
28 film-coated tablets (75 mg each).
Revolade powder for oral suspension:
30 sachets (25 mg each).
Not All pack sizes and Presentations are marketed

## Manufacturer

Novartis Pharmaceutical Manufacturing LLC, Ljubljana, Slovenia for Novartis Pharma AG, Basel, Switzerland.

This leaflet was last reviewed by the Swiss Agency for Therapeutic Products (Swissmedic) in August 2019.

® = registered trademark

## This is a medicament

– A medicament is a product, which affects your health, and its consumption contrary to instructions is dangerous for you.
– Follow strictly the doctor's prescription, the method of use and the instructions of the pharmacist who sold the medicament.
– The doctor and the pharmacist are experts in medicine, its benefits and risks.
– Do not by yourself interrupt the period of treatment prescribed for you.
– Do not repeat the same prescription without consulting your doctor.

Keep medicaments out of reach of children

Council of Arab Health Ministers
Union of Arab Pharmacists