

PACKAGE LEAFLET
for medical use of a medicinal product

DEXAMETHASONE–DARNITSA

Qualitative and quantitative composition:

Active substance: dexamethasone;

1 ml of solution contains 4 mg of dexamethasone sodium phosphate;

List of excipients: sodium hydrogen phosphate dodecahydrate, potassium dihydrogen phosphate, glycerin, benzyl alcohol, disodium edetate (Trilon B), water for injections.

Pharmaceutical form. Solution for injection.

Main physical and chemical properties: clear colorless liquid.

Pharmacotherapeutic group: Corticosteroids for systemic use. Glucocorticoids. Dexamethasone. ATC Code H02A B02.

Pharmacological properties.

Pharmacodynamics properties.

Dexamethasone-Darnitsa is a synthetic adrenal cortex hormone (corticosteroid) that has a glucocorticoid effect. It has anti-inflammatory and immunosuppressive effects, and also affects energy metabolism, glucose metabolism and (through negative relationship) on the secretion of the factor activating the hypothalamus and trophic hormone of the adenohypophysis.

The mechanism of action of glucocorticosteroids is still not fully understood. A sufficient amount of data on the mechanism of action of glucocorticosteroids has now been obtained to confirm that they act at the cellular level. There are two well-studied receptor systems in the cytoplasm of cells. Through binding to glucocorticoid receptors, glucocorticosteroids exert anti-inflammatory and immunosuppressive effects and regulate glucose metabolism, and due to binding to mineralocorticoid receptors, they regulate sodium, potassium metabolism and water-electrolyte balance.

Glucocorticosteroids dissolve in lipids and easily penetrate into target cells through the cell membrane. The binding of the hormone to the receptor leads to a change in the conformation of the receptor, which contributes to an increase in its affinity with DNA. The hormone/receptor complex enters the cell nucleus and binds to the regulatory center of the DNA molecule, also called the glucocorticoid response element (GRE). An activated receptor, associated with GRE or with specific genes, regulates mRNA transcription, which can be increased or decreased. The newly formed mRNA is transported to the ribosomes, after which new proteins are formed. Depending on the target cells and the processes occurring in the cells, protein synthesis can be increased (for example, the formation of tyrosine transaminase in liver cells) or decreased (for example, the formation of IL-2 in lymphocytes). Since glucocorticosteroid receptors are found in all types of tissues, it can be assumed that glucocorticosteroids act on most cells in the body.

Pharmacokinetics properties.

Absorption.

Dexamethasone is rapidly absorbed from the injection site. The maximum concentration in blood plasma is reached within the first 5 minutes with intravenous administration and within 1 hour with intramuscular administration.

After local administration to the joint or soft tissues (inflammation focus), absorption is slower than in the case of injection.

With intravenous administration, the onset of action is immediate, with intramuscular administration - after 8 hours.

The medicinal product belongs to the long-acting glucocorticosteroids. The action lasts 17-28 days after intramuscular injection and from 3 days to 3 weeks after topical injection.

Distribution.

In the blood plasma, 77 % of dexamethasone binds to plasma proteins, mainly to albumin. Only a small amount of dexamethasone binds to other proteins. Dexamethasone is fat-soluble, so it freely penetrates into cells and intercellular space. In the central nervous system (hypothalamus, pituitary gland), it binds to and acts through membrane receptors. In peripheral tissues, it binds and acts through cytoplasmic receptors.

Biotransformation.

Dexamethasone metabolism occurs at the site of action, that is, in the cell itself. Dexamethasone is primarily metabolized in the liver, possibly also in the kidneys and other tissues.

Excretion.

The biological half-life of dexamethasone is 24–72 hours. About 80% of the administered dexamethasone is eliminated by the kidneys in the form of glucuronide within 24 hours.

Clinical particulars.

Therapeutic indications.

Dexamethasone is administered intravenously or intramuscularly in urgent cases and when oral administration is impossible.

Endocrine system diseases:

- replacement therapy of primary or secondary (pituitary) adrenal insufficiency (except for acute adrenal insufficiency, in which hydrocortisone or cortisone are more appropriate, given their more pronounced hormonal effect);
- acute adrenal insufficiency (hydrocortisone or cortisone are the medicinal products of choice; concomitant use with mineralocorticoids may be necessary, especially when using synthetic analogs);
- before surgery and in cases of serious injury or illness in patients with established adrenal insufficiency or with undetermined adrenocortical reserve;
- shock resistant to traditional therapy, with existing or suspected adrenal insufficiency;
- congenital adrenal hyperplasia;
- non-suppurative inflammation of the thyroid gland and severe forms of radiation thyroiditis.

Rheumatological diseases (as an adjunct therapy during the period when the basic therapy did not work, that is, in patients whose analgesic and anti-inflammatory effects of nonsteroidal anti-inflammatory drugs were unsatisfactory):

- rheumatoid arthritis, including juvenile rheumatoid arthritis and extra-articular manifestations of rheumatoid arthritis (rheumatic lungs, changes in the heart, eyes, cutaneous vasculitis);
- synovitis with osteoarthritis; post-traumatic osteoarthritis; epicondylitis; acute nonspecific tendosynovitis; acute gouty arthritis; psoriatic arthritis, ankylosing spondylitis; systemic connective tissue diseases; vasculitis.

Skin diseases:

- pemphigus; severe erythema multiforme (Stevens-Johnson syndrome); exfoliative dermatitis; bullous dermatitis herpetiformis; severe forms of exudative erythema; nodal erythema; severe forms of seborrheic dermatitis; severe psoriasis; hives that do not respond to standard treatment; fungoid mycosis; dermatomyositis.

Allergic diseases (not amenable to traditional treatment):

- bronchial asthma; contact dermatitis; atopic dermatitis; serum sickness; chronic or seasonal allergic rhinitis; allergy to medicines; urticaria after blood transfusion.

Diseases of the organs of vision:

- inflammatory diseases of the eyes (acute central choroiditis, optic neuritis); allergic diseases (conjunctivitis, uveitis, scleritis, keratitis, iritis); systemic immune diseases (sarcoidosis,

temporal arteritis); proliferative changes in the orbit (endocrine ophthalmopathy, pseudotumour); immunosuppressive therapy for corneal transplant. The solution can be administered systemically or locally (administration under the conjunctiva and retrobulbar or parabulbar administration).

Gastrointestinal diseases:

- to remove the patient from the critical period with: ulcerative colitis (severe development), Crohn's disease (severe development); chronic autoimmune hepatitis; rejection reaction in liver transplant.

Respiratory tract diseases:

- symptomatic sarcoidosis (symptomatic); acute toxic bronchiolitis; chronic bronchitis and asthma (with exacerbation); focal or disseminated pulmonary tuberculosis (together with appropriate anti-tuberculosis therapy); beryllium disease (granulomatous inflammation); radiation or aspiration pneumonitis.

Hematological diseases:

- acquired or congenital chronic aplastic anemia; autoimmune hemolytic anemia;
- secondary thrombocytopenia in adults; erythroblastopenia; acute lymphoblastic leukemia (induction therapy); idiopathic thrombocytopenic purpura in adults (intravenous administration only — intramuscular administration is contraindicated).

Renal diseases:

- immunosuppressive therapy for kidney transplantation; stimulating diuresis or reducing proteinuria in idiopathic nephrotic syndrome (without uremia) and impaired renal function in systemic lupus erythematosus.

Malignant oncological diseases:

- palliative treatment of leukemia and lymphoma in adults; acute leukemia in children; hypercalcemia in malignant diseases.

Cerebral edema:

- cerebral edema due to a primary or metastatic brain tumor; craniotomy and craniocerebral trauma.

Shock:

- shock that does not respond to classical treatment; shock in patients with adrenal insufficiency; anaphylactic shock (intravenously after adrenaline administration); before surgery to prevent shock if adrenal insufficiency is suspected or established.

Other therapeutic indications:

- tuberculous meningitis with subarachnoid blockade (together with appropriate anti-tuberculosis therapy); trichinosis with neurological symptoms or trichinosis of the myocardium; cystic swelling of the aponeurosis or tendon (ganglion).

Indications for intra-articular or soft tissue injection:

- rheumatoid arthritis (severe inflammation of an individual joint); ankylosing spondylitis (when inflamed joints do not respond to conventional treatment); psoriatic arthritis (oligoarticular form and tendovaginitis); monoarthritis (after evacuation of synovial fluid); osteoarthritis of the joints (only in the case of synovitis and exudation); extra-articular rheumatism (epicondylitis, tendovaginitis, bursitis); acute and gouty arthritis.

Local administration (introduction to the lesion site)

- keloid lesions; hypertrophic, inflammatory and infiltrated lesions in lichen, psoriasis, granuloma annularis, sclerosing folliculitis, discoid lupus and cutaneous sarcoidosis; disc lichen planus; Urbach-Oppenheim disease; localized alopecia.

Contraindications.

- Hypersensitivity to the active substance or to other components of the medicinal product.
- Acute viral, bacterial or systemic fungal infections (if not used properly).
- Vaccination with live vaccine.
- Itsenko-Cushing's syndrome.

- Intramuscular administration is contraindicated in patients with severe diseases of the blood coagulation system.
- In the case of topical application - bacteremia, systemic fungal infections, infections at the site of application, including septic arthritis due to gonorrhea or tuberculosis, use in patients with unstable joints.

Interaction with other medicinal products and other forms of interaction

With the simultaneous use of the medicinal product with other drugs, the following interactions are possible:

with medicinal products that inhibit the CYP 3A4 enzyme (for example, ketoconazole, macrolide antibiotics) - an increase in the concentration of dexamethasone in the blood plasma; ketoconazole can inhibit the adrenal synthesis of glucocorticosteroids, thus, due to a decrease in the concentration of dexamethasone, adrenal insufficiency may develop;

with aminoglutethimide, ephedrine, inhibitors of adrenal cortex function (for example, mitotane), carbamazepine, primidone, rifampicin, rifabutin, phenobarbital, phenytoin - a decrease in the effectiveness of dexamethasone, while the use of medicinal products should increase the dose of dexamethasone;

with azathioprine, antipsychotics, other glucocorticosteroids, carbutamide - an increased risk of developing cataracts;

with albendazole, heparin, potassium diuretics, cyclosporine - an increase in the effectiveness of the latter, with the simultaneous use of cyclosporine and glucocorticosteroids, seizures may occur;

with amphotericin B, β 2-adrenergic agonists, drugs that remove potassium from the body (for example, diuretics) - an increased risk of hypokalemia, which can lead to heart failure, while the use of amphotericin B and glucocorticosteroids also increases the risk of osteoporosis;

with antihypertensive drugs, natriuretics, praziquantel, hypoglycemic agents, salicylates, somatropin (in high doses) - a decrease in the effectiveness of the latter; with the simultaneous use of dexamethasone and salicylates, the dose of dexamethasone should be reduced with caution, since this may result in an increase in the concentration of salicylates in the blood plasma and intoxication;

with antihistamines, m-anticholinergics, nitrates, tricyclic antidepressants - the risk of increased intraocular pressure; with the simultaneous use of tricyclic antidepressants and glucocorticosteroids, the risk of depression also increases;

with anticholinesterase agents - an increased risk of developing severe weakness in patients with myasthenia gravis;

with vitamin D - weakening the effect of the latter on the absorption of calcium from the intestine;

with thyroid hormones - increasing the clearance of glucocorticosteroids;

with isoniazid, mexiletine - a decrease in the concentration of the latter in blood plasma due to an increase in their metabolism;

with immunosuppressants - an increased risk of developing infections, lymphoma or other lymphoproliferative disorders associated with the Epstein-Barr virus;

with carbonic anhydrase inhibitors - an increase in the risk of developing osteoporosis;

with indomethacin - intensification of the toxic effects of dexamethasone (due to its displacement from the connection with albumin);

with live antiviral vaccines and against the background of other types of immunization - increased risk of virus activation and the development of infections;

with coumarin anticoagulants - a change in the action of the latter, while the use of medicinal products should be monitored for prothrombin time;

with muscle relaxants - increasing the severity and duration of muscle blockade against the background of hypokalemia caused by glucocorticosteroids;

with non-steroidal anti-inflammatory drugs, ethanol - increased risk of gastrointestinal bleeding and ulceration;

with paracetamol - increased risk of developing the hepatotoxic effect of paracetamol due to the induction of "liver" enzymes and the formation of its toxic metabolite;

with medicinal products that are metabolized by CYP 3A4 (indinavir, erythromycin) - a decrease in the concentration of the latter due to an increase in their clearance;

with rithordinum - the development of pulmonary edema is possible; a fatal outcome for a woman in labor was reported due to the development of such a condition; the simultaneous use of rithordine and dexamethasone is contraindicated during childbirth;

with cardiac glucosides - the risk of heart rhythm disturbance in patients with hypokalemia and increased toxic effects of glucocorticosteroids;

with steroid hormonal drugs (for example, androgens, anabolics, estrogens, oral contraceptives) - the appearance of acne and hirsutism; estrogens, oral contraceptives enhance the therapeutic and toxic effects of glucocorticosteroids, reducing their clearance;

with thalidomide - an increased risk of developing toxic epidermal necrolysis.

Ergocalciferol and parathyroid hormone prevent the development of osteopathy caused by glucocorticosteroids.

Interactions with Therapeutic Benefits: Co-administration of dexamethasone and metoclopramide, diphenhydramine, prochlorperazine, or 5-HT₃ receptor antagonists (serotonin or 5-hydroxytryptamine receptor type 3, such as ondansetron or granisetron) is effective in preventing the nausea and vomiting caused by cisplatin therapy cyclophosphamide, methotrexate, fluorouracil. Interaction with dexamethasone and all of the aforementioned drugs may distort the dexamethasone suppression test. This should be taken into account when evaluating the test results.

Antacids reduce the absorption of dexamethasone in the stomach. The effect of dexamethasone when taken simultaneously with food and alcohol has not been studied, however, the simultaneous use of drugs and food with a high sodium content is not recommended.

Smoking does not affect the pharmacokinetics of dexamethasone.

Special warnings and precautions for use.

Before and during glucocorticosteroid therapy, it is necessary to carry out a complete blood count, monitor the level of glycaemia and the content of electrolytes in the blood plasma.

During treatment with dexamethasone (especially long-term), it is necessary to observe an ophthalmologist, control blood pressure and water-electrolyte balance, in particular the level of potassium in the blood serum, as well as the picture of peripheral blood and the level of glycaemia.

During parenteral treatment with corticosteroids, hypersensitivity reactions may occur in isolated cases, therefore, appropriate measures must be taken before starting treatment with dexamethasone, given the possibility of allergic reactions (especially in patients with a history of allergic reactions to any other medicinal products).

Withdrawal of the medicinal product in the case of long-term treatment, it is possible to develop a withdrawal syndrome (without visible signs of adrenal insufficiency) with the following symptoms: fever, runny nose, redness of the conjunctiva, headache, dizziness, drowsiness or irritability, lethargy, muscle and joint pain, nausea, vomiting, weight loss, general weakness, convulsions. In this regard, the dose of dexamethasone should be reduced gradually. Sudden discontinuation of use of the medicinal product can be fatal.

If the patient is under severe stress (due to trauma, surgery or serious illness) during therapy or after discontinuation of dexamethasone therapy, the dose should be increased or hydrocortisone or cortisone should be used.

Patients who have been using dexamethasone for a long time and are experiencing severe stress after stopping therapy should resume taking dexamethasone, since the caused adrenal insufficiency can continue for several months after stopping treatment.

Treatment with dexamethasone or natural glucocorticosteroids can mask symptoms of an existing or new infection, as well as symptoms of intestinal perforation. During treatment, contact with people with colds or other infections should be avoided.

Dexamethasone can cause exacerbation of systemic fungal infection, latent amebiasis and pulmonary tuberculosis.

Patients with active pulmonary tuberculosis should receive dexamethasone (along with anti-tuberculosis drugs) only for rapid or disseminated pulmonary tuberculosis. Patients with inactive pulmonary tuberculosis who are being treated with dexamethasone, or patients who are responding to tuberculin, should receive chemical prophylaxis.

Vaccination with live vaccine is contraindicated at dexamethasone treatment. Vaccination with a non-live viral or bacterial vaccine does not lead to the expected development of antibodies and does not give the expected protective effect. Do not prescribe Dexamethasone 8 weeks before vaccination and start using no earlier than 2 weeks after vaccination.

The medicinal product should be prescribed with caution to infectious patients, especially with chickenpox and measles, since these diseases with the use of dexamethasone proceed in a more severe form. Therefore, persons who have not had these diseases should be careful to exclude infection as much as possible. In case of contact with patients, you should immediately consult a doctor. Prophylactic treatment with immunoglobulin is recommended.

Glucocorticosteroids should be used with caution in patients with blistering eyes herpes (*herpes simplex*), as their use can lead to corneal perforation.

Caution and medical supervision are recommended for patients with osteoporosis, arterial hypertension, heart failure, tuberculosis, glaucoma, hepatic or renal failure, diabetes mellitus, gastritis, esophagitis, diverticulitis, active peptic ulcer, with recent intestinal anastomosis, colitis and epilepsy (III-IV degree), nephrourolithiasis, hyperlipidemia, poliomyelitis (except for the form of bulbar encephalitis), hypoalbuminemia and patients in conditions leading to its occurrence, patients with immunodeficiency conditions (including AIDS or HIV infection), lymphadenitis after BCG vaccination.

Patients require special care in the first weeks after myocardial infarction, patients with thromboembolism, severe myasthenia gravis, hypothyroidism, psychosis or psychoneurosis, as well as elderly patients.

During treatment with dexamethasone, an exacerbation of diabetes mellitus or a transition from the latent phase to clinical manifestations may occur.

The effect of glucocorticosteroids is enhanced in patients with liver cirrhosis or hypothyroidism.

Patients with a violation of the water-electrolyte balance should be careful when taking dexamethasone, since medium and large doses of glucocorticosteroids can cause salt and fluid retention in the body, as well as increased potassium excretion. In these cases, restriction of salt intake and additional intake of potassium are indicated. All corticosteroids enhance the process of calcium excretion, as a result of which the secretion of mineralocorticoids can be impaired. Therefore, an additional appointment of salt and/or mineralocorticoids is indicated.

Long-term use of glucocorticosteroids can lead to the development of posterior subcapsular cataract, glaucoma, with damage to the optic nerve, and also increases the risk of secondary viral or fungal eye infections.

Caution is advised in patients recovering from surgery or bone fracture, as dexamethasone can slow wound healing and bone formation.

Special attention should be paid to the use of systemic glucocorticosteroids in patients with severe affective disorders, including depressive, manic-depressive psychosis, previous steroid psychosis, including patients with such disorders. Patients and/or caregivers should be warned of the possibility of serious psychiatric side effects. Symptoms usually appear within days or weeks after starting treatment. The risk of these side effects is higher with high doses. Most reactions resolve with dose reduction or medicinal product withdrawal, although specific treatment is sometimes necessary.

It is necessary to monitor and timely identify changes in the mental state, especially depressed mood, suicidal thoughts and intentions. Corticosteroids should be used with extreme caution in patients with a history of affective disorders, especially in patients with a history of allergic reactions to any other medications, as well as in close relatives. If these symptoms develop, you should consult a doctor. Also, mental disorders can be observed with the abolition of glucocorticosteroids.

Glucocorticosteroids may interfere with the results of allergic skin tests.

Children should only be treated with dexamethasone when clearly needed. During treatment with dexamethasone, careful monitoring of the growth and development of children is necessary.

There is evidence of long-term neurological side effects after early treatment (<96 hours) of premature infants with chronic lung disease at initial doses of 0.25 mg/kg twice daily.

Intra-articular use of the medicinal product can lead to local or systemic adverse reactions. Frequent use can cause cartilage damage or bone necrosis.

Before intra-articular administration of dexamethasone, the synovial fluid should be removed from the joint and examined (check for infection). Do not administer the medicine to patients with infected joints. If a joint infection develops after the injection, proper antibiotic therapy should be started. Frequent intra-articular injections can injure the joint tissue. During treatment, patients should avoid excessive loads on the damaged joints until the inflammatory process disappears completely, even when symptomatic improvement occurs.

The use of the medicinal product should be discontinued in patients who, with intra-articular administration of glucocorticosteroids, have significantly increased pain, which is accompanied by swelling and further limitation of joint mobility, fever and general malaise (these symptoms indicate the occurrence of septic arthritis). If septic arthritis develops and the diagnosis of sepsis is confirmed, appropriate antibiotic therapy should be prescribed.

List of excipients

The medicinal product contains less than 1 mmol of sodium (23 mg) per Dose therefore, it is practically free of sodium.

Fertility, pregnancy and lactation.

Pregnancy period.

Glucocorticosteroids cross the placenta and reach high concentrations in the fetus. A harmful effect on the fetus and newborn baby cannot be ruled out. Dexamethasone inhibits the intrauterine development of the child. According to some reports, even pharmacological doses of glucocorticosteroids increase the risk of placental insufficiency, oligohydramnios, retarded fetal development or intrauterine death, an increase in the number of leukocytes (neutrophils) in the fetus and adrenal insufficiency. There are no data on the teratogenic effect of dexamethasone. Children born to mothers who have been prescribed glucocorticosteroids during pregnancy should be carefully screened for adrenal insufficiency.

The medicinal product should be used in urgent cases when the expected benefit to the expectant mother outweighs the potential risk to the fetus.

Extra caution is advised for preeclampsia. It is generally recommended that the lowest effective dose be used during pregnancy with glucocorticosteroids to control the underlying disease.

Women who have used glucocorticosteroids during pregnancy are advised to take additional doses of them during labor. In the case of prolonged labor or planning a caesarean section, 100 mg of hydrocortisone is recommended every 8 hours.

Breast-feeding period.

The medicinal product is contraindicated during lactation (except in urgent cases).

Glucocorticosteroids pass into breast milk. In the case of the use of dexamethasone, especially at a dose higher than physiological norms (about 1 mg), breastfeeding is not recommended, since this can lead to a slowdown in the growth of the child and a decrease in the secretion of endogenous corticosteroids.

Effects on ability to drive and use machines

There are no data, however, the possibility of the development of adverse reactions from the nervous system and organs of vision should be taken into account.

Posology and method of administration.

The medicinal product should be used for adults and children from birth.

Administered intravenously (as an injection or infusion), intramuscularly or locally - using intra-articular injections or injections into the lesion site on the skin or into the soft tissue infiltrate. Use 0.9% sodium chloride solution or 5% glucose solution as a solvent for infusion.

When used in infants, especially premature babies, solutions intended for intravenous administration or further dissolution of the drug should not contain preservatives.

When mixing a medicinal product with a solvent for infusion, aseptic rules should be observed. The mixture should be applied within 24 hours, as infusion solutions usually do not contain preservatives. Medicines for parenteral administration should be visually inspected for impurities and discoloration each time before administration.

The dose of the medicinal product should be determined individually, in accordance with the disease of a particular patient, the prescribed period of treatment, the tolerance of glucocorticosteroids and the body's response.

Adults.

The medicinal product should be administered parenterally in urgent cases when oral therapy is not possible, and in the cases specified in the "Therapeutic indications" section.

Intravenous and intramuscular administration.

The medicinal product should be used in an initial dose of 0.5 to 9 mg/day, if necessary, the dose can be increased.

Initial doses of dexamethasone should be used until a clinical response occurs, and then the dose should be gradually reduced to the lowest clinically effective. If high doses are used over a period longer than a few days, the dose should be reduced gradually over the next few days or even over a longer period.

Local administration

Usually the medicinal product is used in a dose of 0.2–6 mg, in particular:

- large joints (for example, knee) - 2-4 mg;
- small joints (for example, interphalangeal, temporomandibular) - 0.8-1 mg;
- bursa synovial - 2-3 mg;
- tendon sheaths - 0.4–1 mg;
- infiltration of soft tissues - 2–6 mg;
- ganglia - 1-2 mg.

Re-administration into the joint is possible after 3-4 months. The administration can be performed 3 or 4 times in one joint throughout life. More frequent intra-articular injection can damage articular cartilage and cause bone necrosis. Intra-articular injections are recommended for no more than 2 joints at a time.

The dose of dexamethasone injected into the site of injury is equal to the intra-articular dose. It is recommended to inject dexamethasone into no more than 2 lesions at the same time.

Intra-articular injections of glucocorticosteroids can lead to the development of systemic reactions in addition to local ones.

Intra-articular administration of glucocorticosteroids into infected joints and unstable or deformed joints should be avoided.

For children.

Substitution therapy: the medicinal product is used at a dose of 0.02 mg/kg body weight (0.67 mg/m² body surface area) per day for 3 injections, or 0.008-0.01 mg/kg body weight (0.2-0.3 mg/m² body surface area).

Other therapeutic indications: the medicinal product should be used at a dose of 0.02–0.1 mg/kg (0.8–5 mg/m² of body surface area) every 12–24 hours.

For comparison, the equivalent doses of various glucocorticosteroids in milligrams are given below:

Dexamethasone 0.75 mg	Prednisone 5 mg
Cortisone 25 mg	Methylprednisolone 4 mg
Hydrocortisone 20 mg	Triamcinolone 4 mg
Prednisolone 5 mg	Betamezon 0.75 mg

Children.

The medicinal product should be used from the neonatal period only if absolutely necessary. During treatment with dexamethasone, careful monitoring of the growth and development of children and adolescents is necessary.

Overdose.

Symptoms. There are very rarely reports of acute overdose or death due to acute overdose. Overdose (usually only after several weeks of using excessive doses) is manifested by symptoms of an increase in the described side effects, in particular: first of all, Itsenko-Cushing's syndrome, acne, ecchymosis, hirsutism, nausea, anorexia, gastrointestinal ulcer, arthralgia, myopathy, myalgia, shortness of breath,

dizziness, loss of consciousness, fever, increased blood pressure, hyperlipidemia, osteoporosis, orthostatic hypotension, development of infections, steroid diabetes, "moon-shaped" face, sexual dysfunction.

Treatment: symptomatic and supportive therapy. There is no specific treatment or antidote. Hemodialysis is not effective.

Undesirable effects

The frequency of adverse reactions depends on the dose and duration of treatment.

Adverse reactions with short-term treatment.

Gastrointestinal disorders: peptic ulcer, acute pancreatitis.

Immune system disorders: temporary suppression of adrenal function.

Metabolic and nutritional disorders: decreased tolerance to carbohydrates, increased appetite, weight gain, hypertriglyceridemia.

Psychiatric disorders Mental disorders.

Immune system disorders: Hypersensitivity reactions.

Adverse reactions with long-term treatment.

Eye disorders: cataracts, glaucoma.

Immune system disorders: prolonged suppression of adrenal function, delayed growth in children, premature closure of the epiphyseal growth zones.

Metabolic and nutritional disorders: obesity.

Cardiac disorders: arterial hypertension, telangiectasia.

Immune system disorders: a decrease in the immune response and an increased susceptibility to infectious diseases.

Skin and subcutaneous tissue disorders: thinning of the skin.

Musculoskeletal and connective tissue disorders: muscular atrophy, osteoporosis, fractures of tubular bones, aseptic necrosis of bones.

Adverse reactions that can occur in individual organs and systems during treatment with dexamethasone.

Eye disorders: increased intraocular pressure, glaucoma, cataract, exophthalmos, papilloedema, thinning of the cornea or sclera, retrolental fibroplasia, exacerbation of ophthalmic viral or fungal diseases.

Respiratory, thoracic and mediastinal disorders: pulmonary edema.

Gastrointestinal disorders: nausea, vomiting, dyspepsia, hiccups, flatulence, esophagitis, esophageal candidiasis, increased or decreased appetite; rarely - peptic ulcers of the stomach and duodenum, ulcerative perforations and bleeding in the digestive tract (bloody vomiting, melena), pancreatitis and perforation of the gallbladder and intestines (especially in patients with chronic inflammation of the intestines), atony of the digestive tract are also possible.

Hepatobiliary disorders: increased levels of liver enzymes, hepatomegaly.

Immune system disorders: suppression of the function and atrophy of the adrenal glands (decreased response to stress), suppression of the hypothalamic-pituitary-adrenal system, Itsenko-Cushing's syndrome, delayed sexual development in children, impaired secretion of sex hormones (menstrual irregularities, amenorrhea, hirsutism, impotence), hyperglycemia, "steroid" diabetes mellitus, the transition of latent diabetes to a clinically active form, a decrease in carbohydrate tolerance, an increased need for insulin or oral antidiabetic drugs in patients with diabetes mellitus.

Metabolic and nutritional disorders: increased excretion of calcium ions, hypocalcemia, increased body weight, negative nitrogen balance (increased protein breakdown), fluid and sodium ion retention (peripheral edema), hypernatremia, increased production of potassium ions, hypokalemic syndrome: hypokalemia, hypokalemic alkalosis, arrhythmia, myalgia or muscle spasm, tumor lysis syndrome.

Nervous system disorders: after treatment, edema of the optic nerve head and increased intracranial pressure (pseudotumour), exacerbation of epilepsy, dizziness, fainting, convulsions, headache, hyperkinesia, neuritis, neuropathy, paresthesia may occur; in children, the drug can cause paralysis of the cerebral cortex.

Psychiatric disorders changes in personality and behavior, which often manifest themselves in the form of affective disorders (irritability, euphoria, delirium, paranoia, nervousness, anxiety,

disorientation, depression, mood lability, suicidal thoughts), sleep disturbances, cognitive dysfunction (including confusion and amnesia), psychotic reactions (including mania, hallucinations, psychosis and exacerbation of schizophrenia).

Cardiac disorders: paroxysmal bradycardia, cardiac arrest, cardiac arrhythmias, angina pectoris, heart enlargement, vascular insufficiency, congestive heart failure, chronic heart failure, fatty embolism, arterial hypertension, hypertrophic cardiomyopathy in premature infants; very rarely - heart rupture in patients who have recently had myocardial infarction; also possible polytopic ventricular premature beats, hypertensive encephalopathy, tachycardia, thromboembolism, thrombophlebitis, vasculitis.

Blood and lymphatic system disorders: cases of thromboembolism, thrombophlebitis, a decrease in the number of monocytes and/or lymphocytes, leukocytosis, eosinophilia (as with the use of other glucocorticoids); rarely - thrombocytopenia and non-thrombocytopenic purpura.

Immune system disorders: hypersensitivity reactions, including rashes, itching, flushing, allergic dermatitis, urticaria, Quincke's edema, bronchospasm, anaphylactic shock, immunosuppression.

Skin and subcutaneous tissue disorders: suppression of regenerative and reparative functions of the skin, delayed wound healing, thinning and sensitive skin, dry skin, skin atrophy, hyper- or hypopigmentation, subcutaneous tissue distribution disorders, ecchymosis, sterile abscess, petechiae, acne, stretch marks, telangiectasia, and vaccinations.

Musculoskeletal and connective tissue disorders: muscle weakness, muscle atrophy, steroid myopathy (muscle weakness causes muscle catabolism), osteoporosis (increased calcium excretion), fractures of the tubular bones or compression fractures of the spine, aseptic osteonecrosis (often aseptic necrosis of bone heads) shoulders), tendon ruptures (especially with the simultaneous use of some quinolones), growth retardation and bone mineralization in children, premature closure of the epiphyseal growth zones.

General disorders and administration site conditions: hypersensitivity reactions, including rash, itching, redness and tingling of the skin, painless destruction of the joint, which symptomatically resembles neurogenic arthropathy (Charcot's joint).

Other: unusual weakness and fatigue, increased risk of occurrence or exacerbation of fungal, viral or bacterial infections, the development of opportunistic infections, inhibition of regenerative and reparative processes, edema, sweating, leukocyturia, withdrawal syndrome. The medicinal product can be physically addictive.

Signs of glucocorticosteroid withdrawal syndrome.

In patients treated with dexamethasone for a long time, withdrawal syndrome and adrenal insufficiency, hypotension, and possible lethal outcome may occur during very rapid dose reduction. In some cases, the symptoms of withdrawal syndrome may be similar to signs of worsening or recurrence of the disease from which the patient was treated.

Shelf life. 2 years.

Special precautions for storage

Store in the original package at a temperature not exceeding 15 °C. Do not freeze. Keep out of the reach of children.

Incompatibilities.

Concomitant use of retortin and dexamethasone is contraindicated as it may lead to pulmonary edema. Fatalities have been reported for women in labor due to the development of this condition.

Nature and contents of container.

1 ml in an ampoule; 5 ampoules in a contour honeycomb package; 2 contour honeycomb packages in a pack; 5 or 10 ampoules in a contour honeycomb package; 1 contour honeycomb package in a pack.

Category of release. Prescription only medicine.

Manufacturer. PrJSC "Pharmaceutical firm "Darnitsa".

The manufacturer's location and address of the place of business
13, Boryspilska Street, Kyiv, 02093, Ukraine.

Date of last revision.