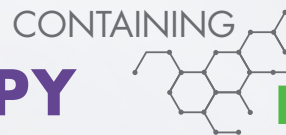


PRODUCTS FOR INHALATION THERAPY



(C₁₄H₂₁NO₁₁)_N

HYALURONIC ACID



LORDE® HYAL – THE DIRECT WAY TO EXCRETE SPUTUM!

- ▶ Acute nasopharyngeal diseases (nasopharyngitis, rhinosinusitis, etc.)
- ▶ Bronchitis
- ▶ Bronchiolitis
- ▶ Chronic obstructive pulmonary disease
- ▶ Perennial allergic rhinitis
- ▶ Seasonal allergic rhinitis

Natural sterile solution for improving of sputum or mucus excretion, reducing of swelling and improving of breathing.

Ingredients: 1 ml of solution contains 30.0 mg of sodium chloride and 1.0 mg of sodium hyaluronate.

Free of additives and dyes! Allowed for application from the moment of birth.

How to use: 1 container 2 times per day inhaled (or according to the scheme prescribed). If necessary, the frequency of inhalations can be increased up to 4 times per day.



NASISOFT – CAREFUL CLEANSING OF THE NASAL MUCOUS MEMBRANE

- ▶ Daily hygiene of the nasal cavity
- ▶ Moisturizing of the mucous membrane
- ▶ Cleansing of the nasal mucous membrane
- ▶ NASISOFT is used in the schemes of complex treatment of acute and chronic diseases of the nasopharynx and paranasal sinuses (nasopharyngitis, rhinosinusitis, seasonal and/or perennial rhinitis, etc.).

Natural sterile solution for improving of nasal breathing.

Ingredients: 1 ml of solution contains 9.0 mg of sodium chloride and 1.0 mg of sodium hyaluronate.

Free of additives and dyes! Allowed for application from the moment of birth.

How to use: 1 container 2 times per day inhaled using a nasal cannula or mask (or according to the scheme prescribed). If necessary, the frequency of inhalations can be increased up to 4 times per day.

Inject into the nasal passages: children 0 to 7 years old - 1-2 drops in each nasal passage 1-3 times per day; 7 to 12 years old and adolescents 13 to 16 years old - 2 drops in each nasal passage 2-4 times per day; adults - 2-3 drops in each nasal passage 3-6 times per day.



OKISTAR HYAL 7 – IMPROVED MUCOLYTIC CARE

7% sodium chloride is recommended by international protocols for use in patients with cystic fibrosis (level of evidence B)⁴.

7% sodium chloride in patients with cystic fibrosis: ⁵

- ▶ Improves lung function
- ▶ Reduces complications
- ▶ Improves quality of life

Hypertonic solution of sodium chloride with hyaluronic acid is developed for patients with cystic fibrosis, bronchiolitis, bronchiectasis.

Ingredients: 1 ml of solution contains 70.0 mg of sodium chloride and 1.0 mg of sodium hyaluronate.

Free of additives and dyes! Allowed for application from the moment of birth.

How to use: 1 container 2 times per day inhaled (or according to the scheme prescribed). If necessary, the frequency of inhalations can be increased up to 4 times per day.

FACTS ONLY



(C14H21NO11)N

HYALURONIC ACID

IN URT DISEASES⁷

In the study, **Lee JH** et al. described that 2 weeks use of 0.2% sodium hyaluronate gel was an effective treatment strategy in patients with recurrent aphthous ulcers, and **Nolan A** and colleagues received similar data in patients with Behçet's disease.⁷

In Pilot study on the effects of high molecular weight sodium hyaluronate in the treatment of chronic pharyngitis (2015), **Leone Carlo** reported on the efficacy of sodium hyaluronate in patients with chronic pharyngitis compared to the control group. He noted: "The results show a significant improvement in symptoms and cytology..."⁸

Palmieri B et al. were the first to evaluate the benefits of sodium hyaluronate in adults suffering from gastroesophageal reflux disease.⁷

IN CHILDREN⁷

Macchi et al. demonstrated that the use of hyaluronic acid solution was helpful for pediatric patients suffering from chronic recurrent infections of the upper respiratory tract (URT) compared to the use of saline solutions without hyaluronic acid:

- restoration of ciliary mobility;
- better dynamics of cytological, microbiological, endoscopic and clinical outcomes of treatment.

In the study, **Di Cicco** et al. proved that in patients with cystic fibrosis the treatment of bacterial rhinosinusitis with sodium hyaluronate in combination with tobramycin was significantly more effective than the sodium hyaluronate monotherapy.

IN ADULTS⁷

Gelardi et al. proved that addition of sodium hyaluronate to the treatment scheme of patients with allergic and non-allergic rhinitis contributed to a significant decrease in the number of neutrophils (cytology).

Cassandro et al. demonstrated that the addition of nebulized sodium hyaluronate to intranasal corticosteroid spray in patients with chronic respiratory syndrome (CRS) and nasal hayfever contributed to a rapid and significant improvement in nasal symptoms, endoscopic parameters, X-ray and saccharine purification tests compared to the control group. In order to minimize the symptoms and prevent the exacerbation in patients with CRS,

Casale et al. used a periodic treatment with sodium hyaluronate after surgical intervention (10 days per month, 3 months during the winter period), which significantly improved the quality of life and reduced the number of complaints in patients compared to those treated only with saline solution.

ANTI-ADHESIVE PROPERTIES AND ABILITY TO PREVENT BIOFILM FORMATION⁶

Almost two decades ago, **Pavesio** et al. were the first to describe the ability of hyaluronic acid to resist bacterial adhesion. **Kandry** and colleagues proved the ability of hyaluronic acid to prevent the biofilm formation.

REFERENCES: 1. Instruction for medical use of LORDE® hyal. 2. Instruction for medical use of NASISOFT. 3. Instruction for medical use of OKISTAR hyal 7. 4. Access point: <https://www.cff.org/Care/Clinical-Care-Guidelines/Respiratory-Clinical-Care-Guidelines/Chronic-Medications-to-Maintain-Lung-Health-Clinical-Care-Guidelines/>. 5. Semin Respir Crit Care Med. 2007 Jun; 28 (3): 295-302. 6. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130637#pone.0130637.ref007>. 7. Manuele Casale Hyaluronic Acid: Perspectives in Upper Aero-Digestive Tract. A Systematic Review. June 29, 2015 <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0130637#pone.0130637.ref0010>. 10. Access point: https://www.researchgate.net/publication/277085504_Pilot_study_on_the_effects_of_high_molecular_weight_sodium_hyaluronate_in_the_treatment_of_chronic_pharyngitis

SHORT INFORMATION ON THE USE OF LORDE® HYAL. MEDICAL PRODUCT: 1 ml of solution contains: sodium chloride - 30.0 mg; sodium hyaluronate - 1.0 mg. Indications: bronchitis, bronchiolitis, cystic fibrosis, bronchiectasis and chronic obstructive pulmonary disease, acute and chronic diseases of the nasopharynx, nasal cavity and sinuses, adenoid hypertrophy in children, perennial and seasonal allergic rhinitis. Contraindications. High individual sensitivity to the drug components. Adverse reactions. In patients with individual intolerance to the components of the solution, allergic reactions are possible. In rare cases, hyperemia of the nasal mucous membrane, cough or bronchospasm may occur.

SHORT INFORMATION ON THE USE OF NASISOFT MEDICAL PRODUCT: 1 ml of solution contains: sodium chloride - 9.0 mg; sodium hyaluronate - 1.0 mg. Indications: daily hygiene of the nasal cavity; moisturizing of the nasal mucous membrane in dry air conditions; cleansing of the nasal mucous membrane from the dust, allergens; contribution to preventing of the respiratory tract; complex treatment of bronchitis, bronchiolitis, cystic fibrosis, bronchiectasis; complex treatment of acute and chronic diseases of the nasopharynx, nasal cavity and sinuses, adenoid hypertrophy in children, perennial and seasonal allergic rhinitis; postoperative period after surgeries on the nasal cavity organs. Contraindication. High individual sensitivity to the drug components. Adverse reactions. In rare cases, hyperemia of the mucous membrane may occur.

SHORT INFORMATION ON THE USE OF OKISTAR HYAL 7 MEDICAL PRODUCT: 1 ml of solution contains: sodium chloride - 70.0 mg; sodium hyaluronate - 1.0 mg. Indications: bronchitis, bronchiolitis, cystic fibrosis, bronchiectasis and chronic obstructive pulmonary disease. Contraindication. High individual sensitivity to the drug components. Adverse reactions. In patients with individual intolerance to the components of the solution, allergic reactions are possible. In rare cases, hyperemia of the nasal mucous membrane, cough or bronchospasm may occur. Precautions when using LORDE® hyal, NASISOFT, OKISTAR hyal 7. The solution is intended for use only by inhalation administration. The first use of the solution should be conducted under the supervision of a physician or qualified staff. The use by children should take place under the supervision of adults! In case of bronchospasm or cough, stop using and inform your doctor. Do not use the solution if the container has been damaged or not completely closed during the first opening. Do not use the product after the expiration date indicated on the packaging.

Information for Healthcare Professionals

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SELF-MEDICATION CAN BE DANGEROUS TO YOUR HEALTH