



Focus on....

New nasal sprays

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Rhinitis occurs for a variety of reasons in both adults and children.¹ In South Africa, 20–30% of these cases occur as a consequence of allergy.² Characteristics of allergic rhinitis include symptoms such as rhinorrhoea, congestion, nasopharyngeal itching and sneezing.² Ocular symptoms, such as red, itchy, watery eyes may also be present.³

Allergic rhinitis places a burden on the individual's quality of life.¹ Therapeutic options range from nasal sprays to oral antihistamines, or a combination of both.¹

Focus on: Ectoine present as Ectoin® in Allerguard™ Nasal Hygiene and Allerguard™ Allergy Nasal Spray

Mechanism of action

Ectoine is an osmolyte (naturally generated within cells in response to organic stresses) which is produced by bacteria in response to extreme environmental conditions.⁴ It has natural cell-protective properties, with the ability to stabilise the cell membrane, as well as reduce inflammation.⁵ The interaction of ectoine with water and the resulting effects on the membranes of the tissue being treated, improves tissue barrier function, and may therefore prevent and relieve the symptoms of allergic rhinitis.¹

Both Allerguard™ Allergy Nasal Spray and Allerguard™ Nasal Hygiene are formulated as slightly hypertonic solutions.^{5,6}

Indications

Allerguard™ Nasal Hygiene is indicated in the prevention and treatment of symptoms associated with rhinitis and rhinosinusitis.⁵ Nasal mucosal inflammation is reduced and symptoms such as sneezing, itching, congestion, as well as dryness and soreness of the nasal mucosa are relieved.⁵ Crust formation on nasal mucosa is alleviated.⁵

Allerguard™ Allergy Nasal Spray is indicated in the treatment and prevention of allergic rhinitis, reducing the associated symptoms, such as nasal congestion, sneezing, itching of nose and rhinorrhoea.⁶

Dosing

Allerguard™ Nasal Hygiene is suitable for use in children and adults from 12 years of age.⁵

It may be applied two to six times a day, or as often as is required according to manufacturer's instructions.⁵

Allerguard™ Allergy Nasal Spray is suitable for use in children and adults.⁶ One to two sprays should be applied in each nostril several times a day, or as recommended by a healthcare provider.⁶

Efficacy and safety

A meta-analysis comparing the treatment of allergic rhinitis with ectoine-containing nasal sprays and three current guideline-recommended medications (antihistamines, nasal glucocorticoids and cromoglicic acid) or placebo was conducted.¹ This meta-analysis involved four small, unpublished studies in patients with mostly mild symptoms. It was concluded that ectoine nasal spray was as effective as guideline-recommended medications used in the treatment of allergic rhinitis.¹ This meta-analysis also demonstrated the safety of ectoine as having "virtually no side-effects".¹

Both Allerguard™ Allergy Nasal Spray and Allerguard™ Nasal Hygiene are preservative-free.^{5,6}

Special warnings and precautions for use

Hypersensitivity to ectoine or to any of the other ingredients in the nasal sprays preclude future use.^{5,6}

Allerguard™ Allergy Nasal Spray should not be used after an injury to the nose or after a nasal operation.⁶

Interactions

There are no known interactions between Allerguard™ Allergy Nasal Spray and other nasal sprays.⁶ There is no available data regarding interactions between Allerguard™ Nasal Hygiene and other topical nasal preparations.⁵

Pregnancy and breastfeeding

There is no available data regarding the use of ectoine in pregnancy and breastfeeding.⁶

Presentation

Allerguard™ Allergy Nasal Spray contains 2% Ectoin® in a 20 ml solution of sea salt and water.⁶

Allerguard™ Nasal Hygiene contains Ectoin®, sea salt and purified water as a nasal douche in 100 ml or 125 ml solution.⁵

References

1. Eichel A, Bilstein A, Werkhäuser N, Mösges R. Meta-analysis of the efficacy of ectoine nasal spray in patients with allergic rhinoconjunctivitis. *Journal of Allergy*. Vol. 2014, Article ID 292545, 12 pages, 2014. <https://doi.org/10.1155/2014/292545>
2. Allergy Foundation South Africa (AFSA). Allergy (2017). Available from: <https://www.allergyfoundation.co.za/allergy-and-immunology/allergy/>
3. Hudd TR. Managing allergic rhinitis: tips to improve therapeutic selection and symptom control. *Pharmacy Times*. 24 Apr 2018. Available from: <https://www.pharmacytimes.com/publications/issue/2018/april2018/managing-allergic-rhinitis-tips-to-improve-therapeutic-selection-and-symptom-control>
4. Werkhäuser N, Bilstein A, Sonnemann U. Treatment of allergic rhinitis with ectoine containing nasal spray and eye drops in comparison with azelastine containing nasal spray and eye drops or with cromoglycic acid containing nasal spray. *Journal of Allergy*. vol. 2014, Article ID 176597, 13 pages, 2014. <https://doi.org/10.1155/2014/176597>
5. Allerguard™ Nasal Hygiene. Package Insert. iNova Pharmaceuticals (Pty) Ltd. March 2018.
6. Allerguard™ Allergy Nasal Spray. Package Insert. iNova Pharmaceuticals (Pty) Ltd. July 2016.

Focus on: Hydroxypropyl methylcellulose (HPMC) 800 mg present in the Nexa dry powder nasal spray variants¹

Mechanism of action

Hydroxypropyl methyl cellulose (cellulose) powder, when applied to the moist nasal mucosa, forms a gelatinous coating.² This gelatinous coating creates a barrier, protecting or shielding the nasal membrane against contact with airborne allergens, as well as airborne microbes.^{3,4,5}

Dosing

Nexa Allershield™ 800 mg and Nexa Allershield Junior™ 800 mg	<p>Nexa Allershield™ 800 mg: for use in adults and children from 18 months of age³</p> <ul style="list-style-type: none"> • Apply 2 to 3 times per day or as often as necessary <p>Nexa Allershield Junior™ 800 mg: for use in children from 18 months of age⁶</p> <ul style="list-style-type: none"> • Apply 2 to 3 times daily or as often as necessary <p>Should be used before the start of symptoms. If allergic response has already started, may be used once immediate symptoms have subsided (approximately 30 minutes later)</p>
Nexa Flushhield™ 800 mg	<p>For use in adults and children from 3 years of age⁴</p> <ul style="list-style-type: none"> • Apply 2 to 3 times daily <p>Should be used before onset of colds or flu, but may be applied if symptoms have already started</p>
Nexa Travelshield™ 800 mg	<p>For use in adults and children from 3 years of age⁵</p> <ul style="list-style-type: none"> • Apply 2 to 3 times daily <p>Use prior to exposure of high virus risk environment. May be used 3 times per day if symptoms have already started</p>

Efficacy

The efficacy of hydroxypropyl methylcellulose nasal spray has been compared to mometasone nasal spray in the control of the symptoms of allergic rhinitis and has been found to be as effective as mometasone.⁷ A study of 53 children between the ages of 8 and 18 years with allergy to birch pollen, showed that cellulose powder reduced allergic symptoms, especially rhinorrhoea as compared to control (lactose powder).⁸ A double-blind, placebo-controlled study in 108 adults with allergic rhinitis due to grass pollen, showed that nasally applied cellulose powder significantly improved seasonal allergic rhinitis symptoms.⁹ The frequency of use of Nexa Allershield™ may be dependent on the strength of the pollen count, proximity of the allergen, as well as the severity of the patient's allergies.³

Safety

Cellulose is considered to be safe.² The Nexa dry powder nasal spray variants do not contain any medication. Nexa Allershield™, Nexa Flushhield™ and Nexa Travelshield™ can safely be used in athletes, as well as in pregnant and lactating women.^{3,4,5}

Special warnings and precautions for use

Nexa Allershield™: Should not be used if there is a sensitivity to cellulose and/or mint.³

Nexa Allershield Junior™: Should not be used if there is a sensitivity to cellulose and/or strawberry.⁶

Nexa Flushhield™: Should not be used if there is a sensitivity to cellulose, mint or garlic.⁴

Nexa Travelshield™: Should not be used if there is a sensitivity to cellulose, mint or garlic.⁵

Possible side-effects (Nexa range)

- Burning or tingling sensation upon first use, which should dissipate with continued use.³
- Initial irritation of nasal membrane, particularly if membrane is irritated or inflamed, which quickly subsides.³
- Blocked nose sensation, due to cellulose barrier formation.³
- In the rare event of allergic reactions, the product should be discontinued immediately, and a healthcare provider consulted.³

Interactions

Nexa dry powder nasal spray may be used concomitantly with other medications to treat associated symptoms. If used concurrently with another nasal spray, Nexa dry powder nasal spray should be re-applied afterwards in order to maintain barrier function.^{3,4,5} Cellulose may interfere with the absorption of other nasal sprays.⁸

References

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