



Nasal Preparations in the Pharmacy

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Introduction

Nasal preparations are available as irrigations, sprays, drops, gels and ointments. Irrigations are often used to clean the nasal passages from mucus and allergens and also as preparation before medicated products. Other nasal products are used to treat and prevent nasal symptoms such as dryness, congestion, itching, sneezing and infections. Nasal preparations work locally with fewer systemic side-effects and may therefore be preferred over oral therapy. This article provides an overview of the products available over the counter in South Africa and their proper use.

Normal saline preparations

Normal saline adds moisture to the inside of the nose to soften and dissolve thick or crusty mucus. It also rinses out allergens to prevent irritation and swelling in the nose. Saline products do not contain an active ingredient and are safe to use as often as is necessary on a daily basis. They are suitable for use in all patients, even during pregnancy as well as in babies. Normal saline is often effective on its own to treat mild allergic symptoms, but can also be used to increase the efficacy of other nasal products by cleaning out the nasal passages before dosing with a medicated nasal preparation.

Intranasal steroids

Topical steroids reduce inflammation due to allergies and are most effective when used regularly as maintenance treatment. Aqueous preparations result in less local irritation and are preferred over preparations containing alcohol or propylene glycol. Some nasal steroids are registered for use as

schedule 2 medicines. It may take up to two weeks of continuous use to reach optimal efficacy.

Intranasal decongestants

Decongestants provide relief within minutes by reducing swelling in the nose to ease breathing and improve draining of the mucus. They should only be used for short periods at a time to prevent relapse congestion from occurring. They are not effective in reducing itching or a runny nose. Decongestants are best avoided in pregnancy and patients with high blood pressure, overactive thyroid and other heart conditions should be referred to a doctor.

Intranasal antihistamines

Topical antihistamines work faster than topical cortisones and can be used as necessary. They relieve itching and sneezing and reduce swelling and a runny nose. They cause few side-effects and can be used in adults and children.

Mast cell stabilisers

Sodium cromoglycate can be used for treatment of mild congestion, a runny nose and sneezing. Although it has minimal side-effects, it requires frequent dosing and is less effective than intranasal steroids.

Anti-Infective

Mupirocin nasal ointment is an antibacterial ointment to clear infections of the nose. It is important to continue using the ointment for five days continuously.

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Table 1. A summary of nasal preparations available over the counter in South Africa

Active ingredient	Nasal spray	Nasal drop	Irrigation	Gel	Ointment	Effective to treat
Topical Steroids						
Beclomethasone	√					Itchy nose, severe sneezing, runny nose and blocked nose
Fluticasone propionate	√					
Mometasone furoate						
Topical decongestants						
Oxymetazoline	√	√				Blocked nose
Xylometazoline	√	√				
Phenylephrine	√	√		√		
Topical antihistamines						
Azelastine HCl	√					Sneezing, itching and a runny nose
Levocastastine HCl	√					
Others						
Mupirocin (antibacterial)					√	Staphylococcal infections of the nose
Normal Saline	√	√	√			Mild symptoms of a blocked nose

How to use nasal preparations correctly

To ensure optimal efficacy of nasal preparations they should be administered correctly. Always wash your hands before and after administration of a nasal preparation. Try not to sneeze or blow the nose directly after application of the product. Below are some tips on the correct use of nasal preparations.

Irrigation

- Measure the amount of solution you will need into a clean bowl (200 ml per nostril). The solution may be heated slightly to be lukewarm – NOT hot.
- Work over a sink or in the shower with the head tilted forward.
- Turn the head slightly and use a syringe to squirt the fluid into the nostril that is slightly higher. The fluid should enter the one nostril and flow out of the other.
- Gently blow the nose after rinsing to clear passages of the solution.
- If some solution seems to be trapped in the sinuses, bend over and look up to one side as if “looking under the sink”. Stand up straight and repeat to the other side.

Nasal spray

- Shake the bottle and remove the lid.
- Keep the head in a normal position or slightly lowered.
- Close one nostril by placing a finger on the outside of the nose.
- Place the tip of the spray in the open nostril, pointing it outwards.
- Inhale slowly through the nose, and squirt one spray into the nostril while inhaling gently to pull the spray in to the higher parts of the nose.
- Remove the spray from the nose and exhale through the mouth.
- Bend the head forward towards the knees and hold the position for 20 seconds.
- Repeat these steps for the other nostril if necessary.

If the spray is administered correctly, it should not drip down the back of the throat or the tip of the nose.

Nose drops

- Tilt the head as far back as possible or lie on your back on a flat surface (such as a bed) with the head hanging over the edge.
- Shake and open the container, and instill one drop in each nostril.
- Now bend the head forward and gently move the head left and right to cover the inside of the nostrils with the drops.

Intranasal ointment

- Apply a small quantity of the ointment (around a match-head size) to a cotton-tipped applicator.
- Spread the ointment around the insides of the nostrils.
- Close the nostrils after application of the ointment by pressing the sides of the nose together several times.

Conclusion

In addition to recommending the most suitable nasal product based on symptoms, it is essential to ensure that patients know how to correctly administer the product to obtain optimal results.

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