How to use a corticosteroid nasal spray

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Conflict of interest
None declared

Peer review
This article is subject to external double-blind peer review and checked for plagiarism using automated software

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Rationale and key points
This article outlines the appropriate and effective technique for using a corticosteroid nasal spray. If these sprays are used inappropriately, they will be ineffective and might reduce the patient’s adherence to the treatment. Nurses can use the information in this article to advise patients on the appropriate technique for using a corticosteroid nasal spray.

- Topical corticosteroid nasal sprays are commonly used to treat seasonal and persistent allergic rhinitis, which cause inflammation inside the nose and can lead to nasal blockage. Where inflammation inside the nose is the predominant symptom of non-allergic rhinitis, corticosteroid nasal sprays can also be used as a treatment modality.
- Corticosteroid nasal sprays do not reduce inflammation immediately and can take up to two weeks before the patient experiences the benefits of using the spray. Patients should be made aware that a corticosteroid nasal spray does not work immediately and requires daily use to become effective.
- Preparing the nose through cleansing, for example by performing nasal douching, is recommended as an adjunctive treatment.

Reflective activity
‘How to’ articles can help update your practice and ensure it remains evidence based. Apply this article to your practice. Reflect on and write a short account of:
- How you think this article will change your practice.
- How you could use this information to educate your patients and colleagues on the appropriate technique for using a corticosteroid nasal spray.

Keywords
allergy, clinical procedures, clinical skills, corticosteroid nasal sprays, hay fever, nasal sprays, rhinitis

Preparation
- The nurse should ensure they understand the reasons why the patient requires use of a corticosteroid nasal spray and the appropriate technique for using the spray.
- The nurse should have written information available about the use of corticosteroid nasal sprays to give to the patient. They should also have examples of nasal spray bottles available to demonstrate how they should be used.
- Some corticosteroid nasal sprays are available in pharmacies over the counter, while others will require a prescription.

A corticosteroid nasal spray can be used in the morning, or evening, or both if the patient’s symptoms are severe.

Procedure
1. Wash your hands.
2. Shake the corticosteroid nasal spray bottle before use and test it to ensure it is working and primed.
3. Gently blow your nose into a tissue (Figure 1) or perform nasal douching using a balanced isotonic saline solution, to cleanse your nose (Bartle 2017). This prepares the inside of the nose by removing mucus that otherwise would...
8. Change hands and repeat this action in the other nostril. Using the opposite hand ensures that the spray bottle continues to be angled away from the nasal septum. Usually 1-2 sprays should be used in each nostril.

**Evidence base**

Using a topical corticosteroid nasal spray, commonly referred to as a steroid nasal spray, is recognised as a first-line treatment to manage nasal congestion as a result of allergic rhinitis. Corticosteroid nasal sprays are used to manage the symptoms of seasonal allergic rhinitis (hay fever) and persistent allergic rhinitis. Rhinitis caused by perennial allergens, such as house dust mites, are increasingly likely to cause persistent symptoms and require continuous long-term treatment, especially when a patient has symptoms such as nasal blockage (Brozek et al 2010, Scadding et al 2017). Non-allergic rhinitis is also treated using a corticosteroid nasal spray if inflammation inside the nose is the predominant symptom.

Corticosteroid nasal sprays can be used by adults, and children aged four years and above (Scadding et al 2017). Some corticosteroid nasal sprays can be purchased at a pharmacy over the counter without a prescription. Patients with seasonal allergic rhinitis are encouraged to buy these sprays themselves rather than obtaining a prescription from their GP. However, those...
with asthma and persistent allergic rhinitis may have to use an alternative corticosteroid nasal spray that requires a GP prescription.

Potential adverse effects of corticosteroid nasal sprays include nasal irritation, sore throat and epistaxis (bleeding from the nose), which affect around 10% of patients using such sprays (Scadding et al 2017).

The use of a corticosteroid nasal spray is localised to the turbinates inside the nose (Figure 6). The spray should be aimed away from the nasal septum because this area can be easily damaged.

Corticosteroid nasal sprays reduce inflammation and associated symptoms of increased mucus production and possibly sneezing (Scadding et al 2017). These sprays require daily use to become effective. Their effect is not immediate and can take up to two weeks before the patient perceives the benefit from their use (Scadding et al 2017).

For seasonal allergic rhinitis, treatment should commence two weeks before symptoms are expected to begin (van Cauwenberge et al 2000, Scadding and Church 2006), thereby ensuring the spray is effective by the time the patient’s trigger allergen is airborne. This will occur at different times of the year depending on which type of pollen or spore the patient is allergic to. For example, in the UK, the peak level of grass pollen is in June and July (Bartle 2016); therefore, it is recommended that patients with this allergy begin using a corticosteroid nasal spray in May.

The systemic absorption of a corticosteroid nasal spray depends on the bioavailability of the drug used. Bioavailability refers to the degree and rate at which an administered drug is absorbed by the body’s circulatory system – the systemic circulation (Stone 2017). Long-term use of corticosteroid nasal sprays is considered relatively safe, but it is advisable to use a spray with a low systemic bioavailability when patients require continuous treatment for extended periods (Salib and Howarth 2003). Table 1 shows the various corticosteroid nasal sprays available, and their bioavailability, and can be viewed at: rcni.com/nasal-spray

Performing nasal douching before applying a corticosteroid nasal spray can enhance its efficacy and improve symptom management (Bartle 2017, Scadding et al 2017), and healthcare practitioners often recommend that they are used as an adjunctive treatment. The patient should be advised to rest their nose for 10-20 minutes after nasal douching and before using a corticosteroid nasal spray. Also, some patients may be unwilling to use a corticosteroid nasal spray, for example during pregnancy, and nasal douching may present a safe and effective alternative in the treatment of rhinitis (Bartle 2017, Scadding et al 2017).

References


Figure 6. Anatomy of the nose