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Reference: 1. OTRIVIN PLUS Nasal Metered-dose Spray (Solution) package insert February 2021.

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Evolving horizons: the South African Pharmaceutical Journal in 2024

Natalie Schellack

As we embark on a new year in the South African pharmacy landscape, the South African Pharmaceutical Journal (SAPJ) is poised to spearhead the discourse on the profession's evolution and transformation. In this editorial, I reflect on the forthcoming year, which promises to be an eventful one.

Enhancing the SAPJ's content and impact

In 2024, the SAPJ will introduce a series of new features to enrich the content and expand its reach. Firstly, we will be publishing articles that explore the impact of unprofessional behaviour on patient safety, as exemplified by two cautionary tales. Secondly, we will delve into the identity of the pharmacist, a topic that is crucial for the profession's self-reflection and growth. Thirdly, we will feature articles on young and upcoming pharmacists, highlighting their contributions and perspectives.

Diversifying the editorial board

To enhance the journal's exposure and diversity, we will be appointing an editorial board in 2024. This board will be comprised of professionals from various sectors of the pharmacy field, ensuring a multifaceted perspective that includes diversity in the content we publish.

Continuous Professional Development (CPD)

To further enrich the learning experience for our readers, every review paper will now include three questions for CPD. These questions will be designed to stimulate critical thinking and encourage the application of knowledge to real-world scenarios.

South Africa hosts the World Congress of Pharmacy and Pharmaceutical Sciences

In a historic first for sub-Saharan Africa, the 82nd International Pharmaceutical Federation's (FIP) World Congress on Pharmacy

and Pharmaceutical Sciences will be hosted in Cape Town, South Africa, from 1–4 September 2024 at the Cape Town International Convention Centre (CTICC). The Pharmaceutical Society of South Africa (PSSA), the largest voluntary professional association for pharmacists and pharmacy support personnel in the country, is the congress partner for the 82nd International Pharmaceutical Federation's (FIP) World Congress on Pharmacy and Pharmaceutical Sciences. The theme for this event is *"Innovating for the future of healthcare."*

Farewell to a pioneer

We will be missing Mr Ivan Kotze, who is retiring in March 2024. Mr Kotze has been the Executive Director of the Pharmaceutical Society of South Africa (PSSA) since 1994 and has represented the PSSA at the International Pharmaceutical Federation (FIP) for the last 30 years. He has served as a Trustee of the PPS Holdings Trust and has been involved in various capacities within the pharmacy profession for many years.

His dedication to the profession and his unwavering commitment to the advancement of pharmacy in South Africa have left an indelible mark on the field. Mr Kotze's leadership has been instrumental in shaping the PSSA's role as a key stakeholder in the pharmacy profession, and his retirement will be a significant loss for the organisation and the broader community. We are grateful for his contributions to the profession of pharmacy and wish him a fulfilling and well-deserved retirement.

Looking ahead with optimism

As we embark on this new year, I am filled with optimism and excitement for the future of pharmacy in South Africa. I look forward to a year of collaboration, innovation, and growth, and I invite you to join me on this journey. Together, we can shape the future of pharmacy and contribute to the betterment of healthcare in South Africa and beyond.



Colds, flu, and staying healthy: understanding symptoms, treatment, and vaccination

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Abstract

This article explores the common illnesses of colds and flu, providing a clear distinction between their symptoms and treatment approaches. It emphasises the importance of flu vaccination as a primary defence against the flu virus, highlighting its role in protecting individuals and reducing the spread within communities.

Introduction

Colds and the flu are two of the most common respiratory infections affecting populations worldwide, including South Africa. Both conditions share similarities but are caused by different viruses, present distinct symptoms, and require specific treatment approaches. For healthcare professionals like pharmacist's assistants, a deep understanding of these differences is crucial for providing accurate advice, recommending effective treatments, and supporting vaccination efforts.

Colds: causes, symptoms, and treatments

Colds are primarily caused by rhinoviruses, though other viruses like coronavirus and respiratory syncytial virus (RSV) can also lead to similar symptoms. Transmission occurs through respiratory droplets when an infected person coughs or sneezes, or through direct contact with contaminated surfaces.¹

Symptoms

Symptoms of a cold are generally mild and may include:

- Runny or stuffy nose
- Sore throat
- Cough
- Sneezing
- Mild fever
- Mild fatigue¹

Treatments

Treatment for colds focuses on symptom relief, as there is no cure for the viral infection itself. Many home remedies like chicken soup, ginger, honey, and echinacea are also useful.² Medication options include:

- **Decongestants:** To relieve nasal congestion.
- **Antihistamines:** To manage sneezing and runny nose.
- **Pain relievers:** Such as paracetamol or ibuprofen, for sore throat and fever.
- **Cough remedies:** Both suppressants and expectorants.^{1,3}

Many products used for symptoms of a cold are combination products. Good advice for treating symptoms and avoiding possible side effects may be to treat the most predominant symptoms with simpler combination products and avoiding products with a myriad of ingredients.

Flu: causes, symptoms, and treatments

Causes

Influenza viruses are the culprits behind the flu, with both Type A and B viruses being responsible for seasonal outbreaks. Like colds, the flu virus spreads through respiratory droplets and direct contact.⁴

Symptoms

Flu symptoms are usually more severe than those of a cold and can include:

- High fever
- Severe muscle or body aches
- Fatigue
- Dry cough
- Sore throat
- Headaches^{5,6}

Treatments

Antiviral drugs when indicated and prescribed by a doctor, are most effective when administered within the first 48 hours of symptom onset. These are only available on prescription. Symptomatic treatments are similar to those used for colds. It is important for hydration to be maintained, and paracetamol or nonsteroidal anti-inflammatory drugs (NSAIDs) may be used for management of fever, headache, and myalgia.⁴

- **Antiviral medications:** Such as oseltamivir (Tamiflu®).⁴ These are only available on prescription.
- **Increased fluid intake:** To prevent dehydration.
- **Rest:** To aid recovery.
- **Symptomatic treatments:**
 - Taking paracetamol or NSAIDs can help lower fever and relieve head and body aches as well as sore throats.
 - Using a decongestant nasal spray or oral decongestants can help with a runny or stuffy nose.
 - Taking cough suppressants (antitussives) like dextromethorphan can help calm a nagging cough.
 - Using expectorants and mucolytics will make it easier to clear mucus out of the lungs and upper airways.^{3,4}

When to seek medical attention for flu

While the flu often runs its course without needing a doctor's visit, certain situations warrant seeking professional medical help. Here's a guide to navigating when a trip to the doctor becomes crucial:

Emergency warning signs:

- **Difficulty breathing:** This can indicate complications like pneumonia and requires immediate medical attention.
- **Chest pain or pressure:** This could be a sign of a serious infection or underlying condition.
- **Confusion:** Sudden confusion or altered mental state can be a red flag symptom that requires referral to the doctor.
- **Severe or persistent vomiting:** Inability to keep fluids down can lead to dehydration.
- **Sudden dizziness:** This could signal a drop in blood pressure or other complications.
- **Severe neck stiffness:** This can be a symptom of meningitis, requiring urgent medical attention.
- **Loss of consciousness:** Unconsciousness is a medical emergency and requires immediate intervention.⁵

Other reasons to see a doctor:

- **High-risk individuals:** People with chronic health conditions, pregnant women, young children, and adults over 65 are at higher risk of flu complications and should consult a doctor sooner rather than later. Flu vaccines are highly recommended for this group.

- **Worsening symptoms:** If the fever improves but then spikes again, or flu symptoms worsen significantly after a few days, seek medical advice.
- **Lingering symptoms:** If flu symptoms persist beyond two weeks, consult a doctor to rule out other possibilities.
- **Persistent cough:** A cough that doesn't improve or produces thick mucus could indicate a secondary infection.

Table I: Available products for treatment of colds and flu

Product	Example
Cough preparations	
Expectorants and Mucolytics	
Guaifenesin	Benlyn Wet cough
Acetylcysteine	Pholtex Mucus 200
Carbocisteine	Mucospect
Cough suppressants	
Dextromethorphan	Benlyn Dry Cough
Antihistamines	
Chlorphenamine	Allergex
Non-drowsy antihistamines Cetirizine	Texa
Loratadine	Demazin once a day
Decongestants	
Pseudoephedrine	In combination product e.g. Sudafed Sinus Pain
Topical decongestants	
Oxymetazoline	Otrivin
Ipratropium bromide and Xylometazoline	Otrivin Plus
Pain and Fever	
Paracetamol	Panado 500 mg tablets and 120 mg/5 ml syrup
Ibuprofen	Nurofen 200 mg tablets and 100 mg/5 ml syrup
Combination formulations	
Decongestant and analgesic	
Pseudoephedrine and Ibuprofen	Demazin Cold and Flu
Pseudoephedrine and Paracetamol	Sudafed Sinus Pain
Phenylpropanolamine and Paracetamol	Sinuclear
Decongestant and antihistamine	
Pseudoephedrine and Triprolidine	Betafed syrup
Pseudoephedrine and Loratadine	Demazin ND
Chlorpheniramine and Phenylephrine	Demazin syrup
Decongestant, antihistamine and analgesic	
Pseudoephedrine and Diphenhydramine and Paracetamol	Benlyn 4 Flu tablets
Decongestant, antihistamine & cough suppressant	
Dextromethorphan, Pseudoephedrine and Triprolidine	Coryx cough and cold syrup
Pseudoephedrine, Dextromethorphan Paracetamol and Ascorbic acid.	Demazin Cold Flu and Cough

References

SAMF 14th edition

Package inserts

Pholtex[®] Mucus 200

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- ✓ Helps clear it from the airways³
- ✓ Suitable for the whole family > 2 years²
- ✓ Pleasant tasting orange flavour²
- ✓ Available in 20's
(2 packs of 10's)



- **Earache, sinus pain:** If pain concentrates in specific areas like the ear or sinuses, consult a doctor to assess for potential complications.

Remember to rather consult a doctor/clinic when in doubt, as it is the safest course of action.^{5,7,8}

(See Table I for list of products to treat colds and flu.)

Flu vaccines in South Africa

Types and administration

South Africa typically offers both trivalent (three-component) and quadrivalent (four-component) influenza vaccines. These vaccines are designed to protect against the most common strains of the influenza virus predicted for the upcoming flu season.

Vaccines are administered annually, ideally before the flu season starts. They are available through clinics, pharmacies, and some workplaces, and can be administered by qualified healthcare professionals, including nurses and pharmacists with the appropriate training. They are recommended from the age of six months with no upper age limit.

Benefits

The primary benefit of the flu vaccine is its ability to prevent influenza infections, reducing the severity and duration of symptoms for those who still get sick. Vaccination also decreases the risk of serious flu complications, which can be particularly beneficial for high-risk populations like the elderly, young children, pregnant women, and individuals with chronic health conditions.⁶

Side effects

Common side effects of the flu vaccine are generally mild and can include soreness at the injection site, low-grade fever, and muscle

aches. These symptoms are usually mild and typically resolve within a few days.

The risk of complications from the vaccine is much smaller than the risk of complications from being infected with the influenza virus.⁹

Conclusion

For healthcare providers, understanding the nuances of cold and flu infections, including their treatment, prevention and management is essential. By providing informed recommendations and supporting flu vaccination efforts, healthcare professionals can play a significant role in reducing the impact of influenza within the community.

References

1. Sexton D, McClain M. The common cold in adults (Beyond the Basics). 2023. Available from: <https://www.uptodate.com/contents/the-common-cold-in-adults-beyond-the-basics#:>. Accessed 7 March 2024.
2. Armstrong M. 15 cold and flu home remedies. Healthline Media. 2024. Available from: <https://www.healthline.com/health/cold-flu/home-remedies>. Accessed 7 March 2024.
3. The do's and don'ts of easing cold symptoms. 2021. Available from: <https://www.hopkinsmedicine.org/health/wellness-and-prevention/the-dos-and-donts-of-easing-cold-symptoms>. Accessed 7 March 2024.
4. Zachary K. Seasonal influenza in nonpregnant adults treatment Hirsch M, editor. 2024 Available from: <https://www.uptodate.com/contents/seasonal-influenza-in-nonpregnant-adults-treatment?search>. Accessed 7 March 2024.
5. Dolin R. Influenza symptoms and treatment (Beyond the Basics) Hirsch M, editor. 2023 Available from: https://www.uptodate.com/contents/influenza-symptoms-and-treatment-beyond-the-basics?topicRef=4014&source=see_link. Accessed 7 March 2024.
6. World Health Organization. Influenza (seasonal). 2023. Available from: [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal)). Accessed 7 March 2024.
7. Tosh PK. Flu symptoms: Should I see my doctor? Mayo Foundation for Medical Education and Research. 2023. Available from: <https://www.mayoclinic.org/diseases-conditions/flu/expert-answers/flu-symptoms/faq-20057983#>. Accessed 12 March 2024.
8. Flu (influenza). 2023. Available from: <https://www.healthdirect.gov.au/flu#doctor>. Accessed 12 March 2024.
9. Hibberd P. Influenza prevention (Beyond the Basics). Hirsch M, editor. 2022. Available from: https://www.uptodate.com/contents/influenza-prevention-beyond-the-basics?topicRef=4010&source=see_link. Accessed 7 March 2024.



Product focus: Otrivin Plus

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Approved indication

Otrivin Plus is a nasal metered-dose spray solution which is used for symptomatic treatment of nasal congestion and rhinorrhoea associated with the common cold. It is indicated for short-term use in adults from the age of 18 years up.

Mode of action

Otrivin Plus is a combination of two active ingredients, xylometazoline hydrochloride and ipratropium bromide. Xylometazoline is a sympathomimetic drug which has vasoconstrictive effects on the nasal mucosa thereby relieving congestion. Ipratropium has an anticholinergic effect and acts by reducing nasal secretion.

Dosage

Adults should spray one puff into each nostril up to three times per day, with a gap of at least six hours between doses. No more than three applications per nostril should be applied daily, and the duration of treatment should be limited to seven days. If symptoms have been relieved before seven days have passed, treatment may be stopped in order to minimise the risk of adverse effects. Chronic use of xylometazoline may cause swelling of the nasal mucosa and hypersecretion, a side effect known as "rebound effect".

Evidence of efficacy

The decongestant effect of xylometazoline is obtained after five to ten minutes, and lasts for six to eight hours. The anticholinergic effect of ipratropium may be obtained within 15 minutes and last for about six hours.

Precautions

General

There is minimal systemic absorption with topically applied imidazoline sympathomimetics such as xylometazoline, however, Xylometazoline Nasal Spray should be used with caution in patients suffering coronary artery disease, hypertension, hyperthyroidism or diabetes mellitus.

This medicine is intended for short-term use only. Prolonged treatment may lead to reactive hyperemia of the nasal mucosa. This rebound effect may lead to nasal congestion or nasal obstruction during continued use or after discontinuation, resulting in repeated or even continuous use of the medicine by the patient.

Pregnancy and lactation

Since the safety of Otrivin Plus has not been established during pregnancy and lactation, the product should not be used during pregnancy unless absolutely necessary, due to its potential systemic vasoconstrictive effect.

Major adverse effects

Common undesirable side effects include:

- Epistaxis and nasal dryness
- Headache, changes in taste
- Nasal discomfort, congestion, or pain
- Dry throat or mouth, throat irritation

Drug interactions

Drug interactions may occur between Otrivin Plus and some antidepressants including monoaminoxidase inhibitors (MAO inhibitors) and tri- and tetracyclic antidepressants.

The use of the product with these antidepressants may lead to increased sympathomimetic effects. Using Otrivin Plus

concomitantly with these groups of drugs, or within two weeks of stopping their treatment, is not recommended.

Cost: SEP (Incl VAT) R146.95

Patient information

Due to lack of documentation, Otrivin Plus is not indicated for children and adolescents under the age of 18 years. Experience of use is limited in those above 70 years of age.

Avoid spraying Otrivin Plus in or around the eyes.

Before using the pump for the first time, it should be primed by actuating it four times. It will usually remain charged for the duration of the regular daily treatment period. If the spray is not ejected during the full actuation stroke, or if it has not been used for longer than six days, the pump will have to be primed again with four actuations as initially carried out.

Visual disturbances (blurred vision, mydriasis) may occur when using Otrivin Plus. If these symptoms occur, it is advisable not to operate machinery, drive or participate in other activities where these symptoms may put the patient and/or others at risk.

Conclusion

Otrivin Plus is a metered-dose nasal spray indicated for the symptomatic relief of nasal congestion and rhinorrhoea associated with the common cold. It acts within a short time and gives effective relief for six to eight hours. Its use should be limited to no longer than seven days to avoid the occurrence of rebound congestion. The product should always be applied according to the instructions of the doctor or manufacturer.

Bibliography

- Otrivin Plus metered-dose spray (solution). Patient leaflet. GlaxoSmithKline Consumer Health Care South Africa (Pty) Ltd.
- Otrivin Plus 0.5 mg/ml (xylometazoline hydrochloride) + 0.6 mg/ml (ipratropium bromide) nasal spray, solution. Proposed clean professional information. GlaxoSmithKline South Africa (Pty) Ltd.
- Schmidt S. Xylometazoline; relief for a stuffy blocked nose. *SAPA*. 2022;22(3):15–16.
- Mayo Clinic. Pheochromocytoma. Updated 1 Mar 2024. Available from: <https://www.mayoclinic.org/diseases-conditions/pheochromocytoma/symptoms-causes/syc-20355367>. Accessed 20 March 2024.



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^[S2] OTRIVIN PLUS Nasal Metered-dose Spray (Solution). Each 1 ml contains 0,6 mg of ipratropium bromide and 0,5 mg of xylometazoline hydrochloride. (Preservative-free). Reg. no.: 46/16.1/0819. Applicant: Haleon South Africa (Pty) Ltd. 11 Hawkins Avenue, Epping Industria 1, Cape Town, 7460 Company reg. no.: 2014/173930/07. For full prescribing information refer to the professional information approved by the medicines regulatory authority. Always read label prior to use. For any further information, including safety and adverse reactions, please contact the Haleon Hotline on 0800 007 018 or mystory.za@haleon.com. Trademarks are owned by or licensed to the Haleon group of companies. Promotion Number: PM-ZA-OTRI-24-00007.



The role of pharmacist's assistants in promoting the benefits of vaccination

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Abstract

Immunisation is a fundamental component of primary healthcare. In addition to providing personal protection against vaccine-preventable diseases, the community also benefits if vaccination coverage is high. The Expanded Programme on Immunisation (EPI) in South Africa provides routine immunisation, at no cost, to infants and children from birth to 12 years of age. Pharmacist's assistants play a crucial role in promoting vaccination, providing accurate information, dispelling common myths and misconceptions about vaccines, and addressing concerns that patients may have.

Introduction

Immunisation is a fundamental component of primary healthcare and has been found to be one of the safest and most cost-effective healthcare interventions to prevent vaccine-preventable diseases (VPDs).^{1,2}

"The impact of vaccination on the health of the world's peoples is hard to exaggerate. With the exception of safe water, no other modality, not even antibiotics, has had such a major effect on mortality reduction and population growth" – Plotkin.³

Vaccines work by mimicking an infection to trigger an immune response within the body. Should a person encounter the same pathogen (disease-causing organism) again, the immune system will then be able to identify and rapidly neutralise it, before it can cause illness.^{2,4}

With high vaccine coverage, most people in the community will be immune, making it more difficult for the specific pathogen to circulate and spread from person to person. This is known as "herd immunity".⁴ People who are not able to receive their own vaccines, e.g. those with weakened immune systems (i.e. people on chemotherapy) or those who are allergic to some of the vaccine components, rely on herd immunity for protection.⁴

In addition, vaccines play a key role in the prevention and control of outbreaks caused by VPDs and are an essential tool in the fight against antimicrobial resistance.^{1,5}

However, despite the availability of safe and effective vaccines, there are many people who are either reluctant to vaccinate or who refuse to vaccinate. This is referred to as vaccine hesitancy.^{6,7} Vaccine hesitancy has been identified by the World Health Organization (WHO) as one of the top ten threats to global health.⁷ As a consequence, several outbreaks of VPDs, such as measles, are occurring globally, as well as in South Africa.⁸

Reasons why people decide not to vaccinate are complex and multifactorial. Complacency, inconvenience in accessing vaccines and lack of confidence in vaccines, have been identified as the major factors underlying vaccine hesitancy.^{6,7}

The role of pharmacist's assistants in promoting the benefits of vaccination

Pharmacist's assistants (PAs) are viewed as trusted advisors when it comes to vaccines. PAs are in the position to engage in open conversation with patients, to build trust with patients and to promote vaccine acceptance.^{6,7,9}

PAs need to strongly recommend immunisation, and to help parents choose the correct vaccines for their children based on their age, health condition and immunisation history.^{6,9} EPI vaccines are offered, at no cost, at all government healthcare facilities, to children from birth to 12 years of age.¹¹ In addition to the EPI schedule, there are a few other vaccines available in the private sector. Vaccines available in the private sector, namely, measles-mumps-rubella vaccine (MMR), the chickenpox vaccine, the meningococcal meningitis vaccine, and the hepatitis A vaccine, may be used in addition to, or as an alternative to, the vaccines available in EPI-SA.¹²

To ensure optimal protection and to prevent outbreaks of VPDs, all routine vaccines should be given as per the vaccination schedule, at the recommended times, to as many children as possible. PAs are well positioned to review vaccination history and to remind the parents/caregivers about the importance of staying up to date with the recommended vaccines.⁹ Children or adolescents who have missed vaccines or vaccine doses should be caught up with age-appropriate vaccines, adhering to minimum intervals between doses.^{2,9,11}

In addition to actively promoting the acceptance of vaccines, PAs also play a vital role in dispelling common myths and misconceptions about vaccines, addressing vaccine hesitancy and answering questions regarding potential side effects and their management.^{6,9}

EPI in South Africa (EPI-SA)

Immunisation is a fundamental component of public health.¹ The aim of EPI is to ensure access to life-saving vaccines for all children, irrespective of where they live or their socioeconomic status.^{11,13}

The EPI-SA programme has grown over the last few decades and a broader range of vaccines has been introduced.¹³ With the inclusion of rubella vaccine in 2024, EPI-SA now provides routine immunisation to infants and children against 12 diseases, namely:^{11,13}

- Bacillus Calmette-Guérin
- Diphtheria
- *Haemophilus influenzae* type B
- Hepatitis B
- Human papillomavirus
- Measles
- Rubella (German measles)
- Pertussis (whooping cough)
- Pneumococcal disease
- Polio
- Rotavirus
- Tetanus

What is new?

The EPI-SA schedule has been updated and a few changes have been made which are effective from January 2024.¹⁰

Introduction of a different pneumococcal conjugate vaccine (PCV)

The PCV 13-valent (strain) vaccine will be replaced by a PCV 10-valent vaccine. These two vaccines are considered to be interchangeable.¹⁰

Introduction of a measles-rubella (MR) vaccine¹⁰

Rubella infection usually causes mild disease in children. However, it has severe consequences for unborn babies whose mothers become infected with rubella during pregnancy, especially if infection occurs within the first 12 weeks of pregnancy.¹⁰ Rubella infection during pregnancy can lead to miscarriage, stillbirths and serious birth defects in the infant. Congenital rubella syndrome (CRS) is a condition that occurs in an infant whose mother was infected with the rubella virus during pregnancy. It is a major cause of blindness, deafness, and disability in infants, especially in developing countries.¹⁴ Other birth defects may include heart defects, intellectual disabilities, liver, and spleen damage.¹² Seeing that rubella-containing vaccines

are contraindicated during pregnancy, it is essential to ensure that female patients are vaccinated prior to falling pregnant.¹⁴

The MR vaccine protects against measles, as well as rubella and will replace the monovalent-measles vaccine given at 6 and 12 months of age.¹⁰ In addition to protecting children against rubella, vaccination against rubella also plays a major role in the prevention and elimination of CRS.¹⁴

Introduction of a tetanus, reduced diphtheria, and acellular pertussis (Tdap) vaccine

Tdap at 6 and 12 years of age

As per the EPI-SA schedule, a pertussis-containing vaccine (as part of the hexavalent vaccine) is given at 6, 10, and 14 weeks of age and another booster dose at 18 months of age.^{11,12}

However, immunity following childhood vaccination does not provide lifelong protection. Due to waning of immunity, pertussis boosters are recommended to extend the protection.^{15,16} From 2024, the tetanus-diphtheria vaccine (Td) given at 6 and 12 years of age will be replaced by Tdap. This means that children in the public sector will now also benefit from receiving a pertussis-containing booster dose at 6 and 12 years of age.¹⁰

Tdap in pregnancy

Infants, in the first few months of life, before they are protected by their own childhood pertussis-containing vaccines, are at greatest risk of contracting pertussis and having severe and potentially life-threatening complications.¹⁷

From January 2024, Tdap is recommended to be given in pregnancy, between 26 to 34 weeks gestation.¹⁰ This will allow enough time for the mother to develop protection against pertussis and to maximise the passive antibody transfer to the infant (in order to protect infants when they are most vulnerable).¹⁷

Conclusion

Vaccination is considered one of the most cost-effective public health interventions and forms an essential component of public healthcare.^{1,2,5,7} Immunisation prevents illness and death from VPD and “helps people of all ages to live longer, healthier lives”.^{1,5}

Reasons why people decide not to vaccinate are complex and multifactorial and may include vaccine hesitancy, myths, misconceptions and fear of side effects.^{6,7}

As a trusted source of information, PAs are in the position to promote vaccination, provide reliable information and to address concerns and dispel myths.^{6,7,9}

References

1. World Health Organization (WHO). Vaccines and immunization. Available from: https://www.who.int/health-topics/vaccines-and-immunization#tab=tab_1. Accessed 18 March 2024.
2. Centers for Disease Control and Prevention (CDC). Explaining how vaccines work. Available from: <https://www.cdc.gov/vaccines/hcp/conversations/understanding-vacc-work.html>. Accessed 18 March 2024.
3. Plotkin SA, Mortimer EA. Vaccines. Philadelphia, PA: Saunders. 1988
4. World Health Organization (WHO). How vaccines work. Available from: <https://www.who.int/news-room/feature-stories/detail/how-do-vaccines-work>. Accessed 18 March 2024.
5. Centers for Disease Control and Prevention (CDC). Why CDC is involved in global immunization. Available from: <https://www.cdc.gov/globalhealth/immunization/why/index.html>. Accessed 18 March 2024.

6. Haymarket V, Terrie YC. The role of the pharmacist in overcoming vaccine hesitancy. *US Pharm.* 2021;45(4):28–31. Available from: <https://www.uspharmacist.com/article/the-role-of-the-pharmacist-in-overcoming-vaccine-hesitancy>. Accessed 18 March 2024
7. World Health Organization (WHO). Ten threats to global health in 2019. Available from: <https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019>. Accessed 18 March 2024.
8. National Institute for Communicable Diseases (NICD). South African measles outbreak update 2023 (18 September 2023). Available from: <https://www.nicd.ac.za/south-african-measles-outbreak-update-2023-18-september-2023/>. Accessed 19 March 2024
9. Centers for Disease Control and Prevention (CDC). Talking with parents about vaccines for infants. Available from: <https://www.cdc.gov/vaccines/hcp/conversations/talking-with-parents.html>. Accessed 18 March 2024.
10. Western Cape Government. Circular H20/2024. Changes in the expanded programme of vaccination and the maternal vaccination schedule. Western Cape Government. Accessed 19 March 2024.
11. Department of Health Republic of South Africa. Field guide for the catch-up of child health interventions in South Africa. Accessed 19 March 2024.
12. Amayeza Info Services. 2024 Childhood vaccine schedule. Available from: <https://www.amayeza-info.co.za/vaccine-info/>. Accessed 19 March 2024.
13. World Health Organization (WHO). Essential Programme on Immunization. Available from: <https://www.who.int/teams/immunization-vaccines-and-biologicals/essential-programme-on-immunization>. Accessed 19 March 2024.
14. Centers for Disease Control and Prevention (CDC). Pink Book. Rubella. Available from: <https://www.cdc.gov/vaccines/pubs/pinkbook/rubella.html>. Accessed 18 March 2024.
15. National Institute for Communicable Diseases (NICD). Pertussis. Frequently asked questions. Pertussis. Available from: https://www.nicd.ac.za/assets/files/Pertussis%20FAQ_final_20170111. Accessed 20 March 2024.
16. Centers for Disease Control and Prevention (CDC). Pink Book. Pertussis. Available from: <https://www.cdc.gov/vaccines/pubs/pinkbook/pert.html>. Accessed 20 March 2024.
17. Centers for Disease Control and Prevention (CDC). Tdap (pertussis) vaccine and pregnancy. Available from: <https://www.cdc.gov/vaccines/pregnancy/hcp-toolkit/tdap-vaccine-pregnancy.html>. Accessed 20 March 2024.



Side-by-Side

NUTRITION LOVE PROTECTION HEALTHCARE EDUCATION

Expanded Programme on Immunisation

EPI (SA) Revised Childhood Immunisation schedule from January 2024



PROTECTION

Age of child	Vaccines needed	How & where it is given
At birth	BCG Bacilles Calmette Guerin	Right arm
	OPV (0) Oral Polio Vaccine	Drops by mouth
6 Weeks	OPV (1) Oral Polio Vaccine	Drops by mouth
	RV (1) Rotavirus Vaccine	Liquid by mouth
	DTaP-IPV-Hib-HBV (1) Diphtheria, Tetanus, Acellular Pertussis, Inactivated Polio Vaccine and Haemophilus Influenzae Type B and Hepatitis B Combined	Intramuscular/left thigh
	PCV (1) Pneumococcal Conjugated Vaccine	Intramuscular/right thigh
10 weeks	DTaP-IPV-Hib-HBV (2) Diphtheria, Tetanus, Acellular Pertussis, Inactivated Polio Vaccine and Haemophilus Influenzae Type B and Hepatitis B Combined	Intramuscular/left thigh
14 weeks	RV (2) Rotavirus Vaccine*	Liquid by mouth
	DTaP-IPV-Hib-HBV (3) Diphtheria, Tetanus, Acellular Pertussis, Inactivated Polio Vaccine and Haemophilus Influenzae Type B and Hepatitis B Combined	Intramuscular/left thigh
	PCV (2) Pneumococcal Conjugated Vaccine	Intramuscular/right thigh
6 months	Measles Rubella Vaccine (1)**	Subcutaneous/left thigh
9 months	PCV(3) Pneumococcal Conjugated Vaccine	Intramuscular/right thigh
12 months	Measles Rubella Vaccine (2)	Subcutaneous/right arm
18 months	DTaP-IPV-Hib-HBV (4) Diphtheria, Tetanus, Acellular Pertussis, Inactivated Polio Vaccine and Haemophilus Influenzae Type B and Hepatitis B Combined	Intramuscular/left arm
6 years (both boys and girls)	Tdap: Tetanus, reduced strength Diphtheria and acellular Pertussis Vaccine	Intramuscular/left arm
12 years (both boys and girls)	Tdap: Tetanus, reduced strength Diphtheria and acellular Pertussis Vaccine	Intramuscular/left arm

*Rotavirus Vaccine should NOT be administered after 24 weeks
**Do not administer with any other vaccine unless the child is nine months or older



A long and Healthy life for all South Africans





Beyond the tears: managing allergic conjunctivitis in the pharmacy

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Abstract

Allergic conjunctivitis is an eye inflammation resulting from an allergic reaction to substances called allergens. Red, itchy, swollen, watery eyes are bothersome symptoms that affect patients. Allergen avoidance is the best way to avoid or reduce symptoms. Over-the-counter treatments such as artificial tears, medicated eye drops or oral antihistamines are available to help provide symptomatic relief. In addition, patients should be counselled about general eye care to help minimise symptoms and promote healing.

Introduction

Allergic conjunctivitis (AC) is a common condition characterised by inflammation of the conjunctiva, the thin membrane that covers the white part of the eye and lines the inner surface of the eyelids. It occurs as a result of the body's immune response to allergens, such as pollen, dust mites, pet dander, cosmetics (makeup) or certain medications. Exposure to these allergens triggers a reaction leading to inflammation and the typical symptoms associated with AC.¹⁻³ AC is not contagious and cannot be transferred from one person to another.⁴

Signs and symptoms of allergic conjunctivitis

The following are typical signs and symptoms of AC and may vary from mild to very severe:⁴⁻⁶

- Intense itching and burning of the eye and surrounding tissue
- Redness of the eyes

- Swelling of the eyelids
- Tearing, usually a watery discharge that can be stringy at times
- Mild crusting of the eye upon waking
- Sensitivity to light (photophobia)

General eye care to help prevent and alleviate symptoms

Identifying and avoiding the allergen whenever possible is the best way to avoid or reduce symptoms. The following may assist in reducing symptoms:^{2,4-8}

- Discourage patients from rubbing their eyes as this will worsen the condition.
- Applying a cool compress or rinsing the eye with refrigerated natural tear products helps relieve itching.
- Minimise house dust mite exposure by removing carpets in the bedrooms, using barrier encasings for pillows and mattresses, and washing bedding in hot water.
- Where pets are the cause, keep them out of bedrooms. Wash and brush pets regularly and wash hands immediately after contact.
- Minimise exposure to pollen by staying indoors when pollen counts are high, using air conditioning and keeping windows to cars and homes closed during peak pollen seasons. Pollen counts are also highest mid-morning and early evening.
- Wearing glasses or sunglasses when outdoors can help minimise the amount of pollen that gets into the eyes.
- Limit exposure to harsh chemicals, dyes and perfumes.
- Reactions linked to cosmetics are often the result of sensitisation to preservatives, fragrances and additives. Patients should therefore be advised to avoid the use of any cosmetic that has been identified as a culprit.

Treatment

Over-the-counter eye preparations are available to help relieve the symptoms of AC refer to Table I.^{4,5,6}

Table 1: Types of eye drops available to treat allergic conjunctivitis^{4,6}

Type and examples of active ingredients	Action	Important to note
Decongestants e.g. naphazoline, oxymetazoline, and phenylephrine	Short-term relief of redness Also available in combination with an antihistamine to help relieve itching	Decongestant eye drops should not be used for longer than two or three days Contraindicated in patients with glaucoma
Antihistamines e.g. Antazoline, emedastine, levocabastine Antihistamines with mast cell stabilising properties e.g. olopatadine, epinastine, ketotifen	Reduces itching, redness and swelling and provides quick relief	Most effective when used daily May take up to two weeks for maximum symptom relief
Mast cell stabilisers e.g. lodoxamide and sodium cromoglycate	Reduces itching, redness and swelling	Not recommended for the treatment of acute symptoms Full efficacy is expected between five to 14 days after starting treatment

Artificial tears help to dilute and flush out allergens that may be on the surface of the eye. They serve a barrier function and moisten the eye, providing comfort. Preservative-free eye drops are recommended for patients who are allergic to preservatives or suffer from severe dry eyes. Lubricant ointments provide longer-lasting relief but can cause temporary blurring of the eye and patients often prefer to use the ointment only at bedtime.⁴

Oral antihistamines such as fexofenadine, cetirizine, levocetirizine, desloratadine or loratadine can be mildly effective in treating allergic eye conditions and are especially useful if the patient suffers from other allergy-related conditions such as allergic rhinitis.^{4,6}

Conclusion

AC is a common allergic condition characterised by inflammation of the conjunctiva. Patients presenting in the pharmacy with

symptoms of AC should be counselled about general eye care and offered an over-the-counter eye drop to help relieve the bothersome symptoms of itching, redness, tearing and swelling of the eye.¹⁻⁶

References

1. Blenkinsopp A, Duerden M, Blenkinsopp J. Symptoms in the pharmacy. A guide to the management of common illnesses. 8th ed. John Wiley & Sons; 2018.
2. Vally M, Irhuma MO. Allergic conjunctivitis. *S Afr Fam Pract.* 2017;59(5):5-10. <https://doi.org/10.4102/safp.v59i5.4744>.
3. Schmidt S. Olopatadine in the management of allergic conjunctivitis. *S Afr Pharm J.* 2020;87(1):41-44.
4. Davis S. Managing allergic conjunctivitis in the pharmacy. *South African Pharmacist's Assistant.* 2020;20(3):15-16.
5. Van Staden M. Allergic conjunctivitis. *South African Pharmacist's Assistant.* 2023;23(1):5-6.
6. Baab S, Le PH, Gumani B, et al. Allergic conjunctivitis. 26 January 2024. In: StatPearls.
7. Norris MR, Bielory L. Cosmetics and ocular allergy. *Curr Opin Allergy Clin Immunol.* 2018;18(5):404-410. <https://doi.org/10.1097/ACI.0000000000000474>.
8. Steyn L. Allergy or infection? A red-eye review. *S Afr Pharm J.* 2021;88(5):10-15.

Dysmenorrhoea

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Abstract

Pain associated with menstruation is known as dysmenorrhoea. At least 50% of girls and women who menstruate have some pain for one or two days associated with menstruation each month, regardless of age or race. Treatment is generally supportive, providing symptomatic relief. Patients with primary dysmenorrhoea may only require reassurance and simple analgesics, while those with secondary dysmenorrhoea require referral to the doctor for identification and treatment of the underlying problem.

Introduction

Pain associated with menstruation is known as dysmenorrhoea, derived from the Greek words "dys" meaning difficult, abnormal, or painful, "meno" meaning month and "rrhoea" meaning flow.¹ At least 50% of girls and women who menstruate have some pain for one or two days each month, regardless of age or race.² Generally, the discomfort is mild, but for some women, the pain is so severe that it keeps them from doing their normal activities for several days a month.² For some, pain may be accompanied by other symptoms, including diarrhoea, nausea, vomiting, headache, and dizziness.

Dysmenorrhoea, or painful periods, is cramping pain, usually in the lower abdomen, sometimes radiating to the upper thighs and lower back, and occurring shortly before or during menstruation, or both.³

Period pain is common, and many women may not seek medical advice unless self-medication is unsuccessful. Discussing menstrual problems can be embarrassing for the patient, and the pharmacist's assistant must approach the subject with sensitivity and discretion. Dysmenorrhoea may be associated with significant negative emotional and psychological health impacts.

Types of dysmenorrhoea

Primary dysmenorrhoea is defined as pain in the absence of pelvic disease and is thought to be caused by the release of uterine prostaglandins. Prostaglandins are hormone-like compounds which play important roles in various bodily processes. In dysmenorrhoea, prostaglandins cause pain by increasing uterine contractions and pressure.⁴ Primary dysmenorrhoea normally begins within about two years of starting periods. It is a diagnosis made more often in adolescents and young adults than in older women.

Secondary dysmenorrhoea is usually caused by an underlying pelvic disease, such as infection, endometriosis, fibroids, or polyps, and needs to be diagnosed by a medical doctor. A secondary cause is more likely if symptoms started after several years of fairly painless periods. The pain usually differs from primary dysmenorrhoea in that it is not consistently related to menstruation alone.⁴

Mittelschmerz is abdominal pain that occurs in the middle of the cycle, at the time of ovulation. The abdominal pain usually lasts for a few hours but can last for several days. It is usually localised to one side and can occur on different sides with each period (ovulation occurs on a random ovary each cycle). In some women, brief episodes of this pain are the only symptoms of dysmenorrhoea.³

The following risk factors are associated with more severe episodes of dysmenorrhoea:⁷

- Earlier age when periods started
- Long menstrual periods
- Heavy menstrual flow
- Smoking
- Positive family history

Treatment

Over-the-counter (OTC) treatment of dysmenorrhoea is aimed at providing adequate pain relief to allow patients to perform their daily activities. Patient education and reassurance is always a recommended starting point.

Throughout history, a whole host of plants have been used to treat dysmenorrhoea, including lemon balm, catnip and ginger or peppermint tea.⁵ Several herbal remedies are still available to treat period pain.

A preferred initial therapy used by many patients, is heat applied to the area. This may be effective with no associated side effects.

In a pharmacy setting, nonsteroidal anti-inflammatory drugs (NSAIDs) are first-line treatment for dysmenorrhoea. Examples of NSAIDs used for dysmenorrhoea include ibuprofen, naproxen and diclofenac. Mefenamic acid may have slightly better efficacy because it has dual actions of blocking prostaglandin production and inhibiting their action.

Anti-spasmodics, for example hyoscine butylbromide and mebeverine, have been used in the treatment of dysmenorrhoea since muscle spasm has been noted as a cause.

If symptoms do not respond to initial treatments, referral to a doctor should be considered.⁶

Treatment with OTC medicines. Recommendations:

1. Take the first dose as soon as pain begins or period starts, whichever comes first. If this is not adequate, start on the day before the period is due.
2. Take the tablets regularly, for two to three days during menstruation, rather than only when pain builds up.
3. Take the recommended dose for dysmenorrhoea. Adding paracetamol can also help for additional pain relief.

4. Swallow the tablets with plenty of water and stay hydrated throughout the treatment.
5. Side effects are uncommon if taking an anti-inflammatory for just a few days at a time.
6. If indigestion or upper abdominal pain occurs, stop treatment, and refer to a doctor.³

Patients can do several activities at home to manage period pain including regular aerobic exercise, taking a warm bath, getting enough sleep – especially before or during menstruation, meditating or practising yoga.² A variety of dietary and vitamin therapies have been studied for the relief of dysmenorrhoea. Some evidence suggests vitamin B, C, D and E supplementation can be beneficial.⁸ There is some evidence that complementary medicine practices such as acupuncture or reflexology are effective in reducing painful periods. However, further study is needed to confirm the efficacy of these treatments.⁴

Hormonal oral contraceptives are often used to improve symptoms of dysmenorrhoea. However, patients usually need initial evaluation by the doctor or clinic.

Conclusion

Dysmenorrhoea may have a major impact on patients' day-to-day lives, reflected in absenteeism from school or work, and limited participation in sports or social events. With the use of recommended treatment options, the prognosis for primary dysmenorrhoea is generally good. Mild and moderate dysmenorrhoea usually responds well to NSAIDs. Severe dysmenorrhoea may still respond

Table 1: Available OTC treatments for dysmenorrhoea^{6,7}

Drug class	Active ingredient	Trade names	Dosage	Contraindications*	Sideeffects
Nonsteroidal anti-inflammatory propionic or phenylacetic acid derivatives	Ibuprofen	<i>Austifen</i> <i>Brufen</i> <i>Ibucare</i> <i>Ibugesic</i>	200 mg–400 mg three times daily with food or milk	Stomach ulcers, high blood pressure, heart conditions, asthma, pregnancy, breast feeding, tendency to bleed excessively, blood-thinning treatment	Abdominal pain, nausea, heartburn, tight chest, rash, kidney impairment, headache, dizziness, sight impairment, ringing ears, taste disturbances, anxiety
	Diclofenac	<i>Catafast</i> <i>Dicloflam</i> <i>K-Fenak</i> <i>Panamor</i>	50 mg three times daily on an empty stomach		Insomnia, tremor
	Naproxen	<i>Aleve</i> <i>Napflam</i> <i>Nafasol</i>	250 mg–500 mg three times daily with/without food		
Nonsteroidal anti-inflammatory fenamate derivative	Mefenamic acid	<i>Adco-mefenamic acid</i> <i>Fenamin</i> <i>Ponac</i> <i>Ponstel</i>	250 mg–500 mg three times daily with food or milk	Stomach ulcers, heartburn, irritable bowel syndrome, epilepsy, kidney or liver disease, heart conditions, high blood pressure, pregnancy, breast feeding	Water retention, gastric upsets, tight chest, nausea, diarrhoea, rash, palpitations, changes in vision or hearing, dizziness, confusion, tiredness
Anti-spasmodics	Hyoscine butylbromide	<i>Buscopan</i> <i>Hyospasmol</i> <i>Scopex</i>	10 mg–20 mg three times daily with/without food	Myasthenia gravis, porphyria, liver disease, gastric mobility problems, increased heart rate, glaucoma, pregnancy, breast feeding	Changes in heart rate, breathing difficulty, dry mouth, urinary retention, rash, abnormal sweating
	Mebeverine	<i>Bevispas</i> <i>Colofac</i> <i>Mebestend</i>	135 mg three times daily 20 minutes before food	Porphyria, glaucoma	Skin itching, water retention, dry mouth, depression, headache, dizziness, diarrhoea, constipation

*All medicines listed are contra-indicated if there has been a previous hypersensitivity to that active ingredient.

to NSAIDs but may require higher doses or combination/adjuvant therapy. In the case of persistent dysmenorrhoea, other possible causes for dysmenorrhoea should be investigated and the patient should be referred to a doctor.^{4,7}

References

1. Kulkarni A, Deb S. Dysmenorrhoea. *Obstetrics, Gynaecology and Reproductive Medicine*. 2019. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S1751721419301320>.
2. FAQs Dysmenorrhoea: Painful periods. The American College of Obstetricians and Gynaecologists. 2022. Available from: <https://www.acog.org/womens-health/faqs/dysmenorrhea-painful-periods>.
3. Blenkinsopp A, Paxton P, Blenkinsopp J. *Symptoms in the pharmacy*. 9th Edition. John Wiley & Sons, Limited; 2023.
4. Smith RP, Kaunitz AM. Patient education: Painful menstrual periods (dysmenorrhea) (Beyond the Basics) UpToDate. 2023 Available from: <https://www.uptodate.com/contents/painful-menstrual-periods-dysmenorrhea-beyond-the-basics>.
5. Cull S. Treatments for menstrual cramps throughout history. Museum of Healthcare at Kingston 2015. Available from: <https://museumofhealthcare.blog/treatments-for-menstrual-cramps-throughout-history>.
6. Nagy H, Carlson K, Khan MAB. Dysmenorrhoea. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK560834/?report=printable>.
7. Dong A. Dysmenorrhoea. Medscape. 2021. Available from: <https://emedicine.medscape.com/article/253812-print>.
8. Matsas A, Sachinidis, A, Lamprinou M, Stamoula E, Christopoulos E. Vitamin effects in primary dysmenorrhoea. *Life (Basel)*. 2023. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10303710/>.





Paediatric reflux

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Abstract

Gastro-oesophageal reflux (GER) is a normal physiological process that occurs in healthy infants. Most infants with reflux or regurgitation will feed and thrive well and have no other symptoms. Infants with gastro-oesophageal reflux disease (GORD) disease present with reflux as well as other symptoms such as feeding problems and a failure to thrive. These infants require referral to the doctor or clinic. Many infants with GER do not require treatment as the condition often resolves on its own by the time they are 12 to 14 months old. Some infants may experience bothersome symptoms or complications that warrant medical intervention. Doctors may consider medical treatment with a paediatric formulation of a proton pump inhibitor for infants with GORD.

Introduction

Reflux is the backward movement of food and acid from the stomach into the oesophagus, and sometimes into the mouth.¹ It is a normal physiological process that occurs in healthy infants, children, and adults.² Most episodes are brief and do not cause other symptoms, damage to the oesophagus, or other complications.² In contrast, gastro-oesophageal reflux disease (GORD) in children occurs when the reflux episodes are associated with complications such as inflammation in the oesophagus (oesophagitis) or poor weight gain.^{2,3,4}

Reflux is extremely common in healthy infants, in whom stomach contents may reflux into the oesophagus or mouth several times a day.² Children and adults can also have episodes of reflux, but the food does not usually come out of the mouth and is re-swallowed.⁵

Causes of reflux in children

Healthy infants have reflux for many reasons:²

- The circular band of muscle at the junction of the oesophagus and stomach (the lower oesophageal sphincter) normally prevents stomach contents from refluxing into the oesophagus. In infants, this muscle may be underdeveloped or relax at inappropriate times, allowing stomach contents to move back up into the oesophagus.
- Lying flat during feeding or lying down after feeding promotes reflux because gravity is unable to stop the stomach contents from flowing back up into the oesophagus.
- Overfeeding may predispose infants to reflux because it increases pressure on the stomach.
- A food allergy, most commonly cow's milk allergy, or food intolerance can also contribute to reflux, but these are less common causes.

Reflux in infants may also be caused by exposure to caffeine, nicotine, and cigarette smoke.¹

The frequency of reflux episodes declines with increasing age, so that reflux decreases toward the end of the first year of life and is unusual in babies over 18 months of age. Breastfed infants are less likely to have reflux than formula-fed infants and breastfeeding is also associated with more rapid resolution of reflux.⁴

Symptoms

While GER refers to the passage of stomach contents into the oesophagus, regurgitation describes the effortless reflux of stomach contents into the throat or mouth. Regurgitation in infants is also called "spitting up", "spilling" or "possetting".^{2,4}

Reflux is different from vomiting, although some people use the terms interchangeably.⁵ Vomiting is more forceful and is larger in amount while regurgitation or reflux is the effortless bringing up of the feed.⁵

Most infants with reflux or regurgitation feed and thrive well and have no other symptoms; they are often described as "happy spitters".⁴ These infants are usually considered to have uncomplicated reflux.⁵ However, infants with GORD present with regurgitation as well as other symptoms such as:⁴

- Irritability
- Excessive crying
- Feeding problems such as poor appetite, feeding refusal and gagging
- Failure to thrive
- Sleep disturbance
- Breathing difficulties such as coughing or wheezing

Infants presenting with the above symptoms require referral to the doctor/clinic.

Management

In most cases, no treatment is necessary for GER or regurgitation apart from reassuring the parents/caregivers of the benign nature of the condition and that most infants will outgrow the problem within a year to 18 months.^{4,5}

Conservative measures include thickening feeds, postural therapy, and lifestyle changes.⁴

Thickened feedings

In infants, thickening the formula or expressed breast milk with infant cereal is reasonable because the thickened milk or formula is more difficult to bring up.⁴ A rough guide is to add one tablespoon of infant cereal to every 30 ml of formula or expressed breast milk.⁴ Commercial thickened formulas (e.g. Nan® AR) are also available for this purpose.^{4,6} However, breastfeeding should not be stopped for the purposes of thickening feeds.²

Thickening of feeds can increase the caloric density of the feed, which may help infants who are underweight, but it is not ideal in those who are overweight.²

For babies under six months of age, it is recommended to speak to the doctor/clinic before thickening feeds or changing formulas.⁵ Also, do not use thickened feeds for babies who were born prematurely, as they can cause damage to the intestine.⁵

Postural therapy

Keeping the infant in an upright position (e.g. on a caregiver's shoulder) for 20 to 30 minutes after feeding helps to reduce episodes of regurgitation.⁴ Burping the infant after feeding may also help.¹

Lifestyle changes

As breastfed infants are less likely to have reflux than formula-fed infants, breastfeeding should be encouraged.⁴

Avoid over-feeding the baby; parents/caregivers should stop feeding as soon as the baby seems satisfied or loses interest in feeding.⁵ In general, this is more relevant for infants who are bottle-fed (with either formula or breast milk).²

Cigarette smoke (as second-hand smoke) and caffeine (in breast milk) relax the lower oesophageal sphincter and may allow reflux to occur more easily.¹ Avoiding cigarette smoke and changes

to the mother's diet (i.e. avoiding caffeinated drinks) should be encouraged.¹

Formula-fed infants may benefit from a 2- to 4-week trial of a hypoallergenic or extensively hydrolysed formula because they may have a food intolerance or cow's milk allergy.¹ However, it is recommended to speak to the doctor/clinic before changing formulas. In breastfed infants, mothers may consider eliminating cow's milk and potentially allergenic substances (e.g. nuts, eggs, chocolate) from their diet for two to three weeks.^{4,5} If symptoms do not improve, then breastfeeding mothers may resume their usual diet.⁵ If the baby's symptoms improve during the trial, breastfeeding mothers can continue the restricted diet for another month or two.⁵ Then, breastfeeding mothers can try reintroducing cow's milk to their diet every few months to see if the baby has outgrown the reflux problem.⁵ Most babies outgrow a cow's milk intolerance by one year of age.⁵

Medicines for paediatric reflux

In general, medicines are not recommended for most babies with reflux because:^{4,5}

- Babies with uncomplicated reflux (happy spitters) do not benefit from medicines that reduce stomach acid.
- Uncomplicated reflux tends to resolve with time.

For babies with symptoms of GORD (e.g. severe irritability, feeding refusal, or poor weight gain), it is best to refer the baby to the doctor/clinic. In these cases, a trial of an acid-suppressing medicine, e.g. esomeprazole (Nexium® Granules) may be considered after further evaluation by the doctor.^{4,5} Babies with proven GORD may require treatment with medicines.⁵

In summary

GER and regurgitation are extremely common during infancy and typically resolve on their own by one year of age.² Infants without other symptoms and who feed well and who are not unusually irritable have uncomplicated GER and not GORD.² Education and reassurance without other specific interventions are usually sufficient.²

References

1. Belkind-Gerson J. Gastroesophageal reflux in children. MSD Manual Consumer Version. Nov 2023. Available from: <https://www.msmanuals.com/home/childrens-health-issues/gastrointestinal-disorders-in-children/gastroesophageal-reflux-in-children>. Accessed 23 March 2024.
2. Winter HS. Gastroesophageal reflux in infants. 2023. Available from: <https://www.uptodate.com/contents/gastroesophageal-reflux-in-infants>. Accessed 23 March 2024.
3. National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK]. Definition and facts for GER and GERD in children. 2020. Available from: <https://www.niddk.nih.gov/health-information/digestive-diseases/acid-reflux-ger-gerd-children/definition-facts>. Accessed 23 March 2024.
4. Leung AKC, Hon KL. Gastroesophageal reflux in children: an updated review. *Drugs in Context*. 2019;8:212591. <https://doi.org/10.7573/dic.212591>.
5. Winter HS. Patient education: Acid reflux (gastroesophageal reflux) in babies (Beyond the Basics). Available from: <https://www.uptodate.com/contents/acid-reflux-gastroesophageal-reflux-in-babies-beyond-the-basics>. Accessed 23 March 2024.
6. Salvatore S, Savino F, Singendonk M, et al. Thickened infant formula: What to know. *Nutrition*. 2018;49:51-56. <https://doi.org/10.1016/j.nut.2017.10.010>.



Diabetes and diet

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Introduction

Diabetes is a complex disease and a major health concern worldwide.^{1,2,3} Unhealthy lifestyle factors such as smoking, poor dietary habits, overweight and inactivity play a major role in the development of diabetes. Management of diabetes includes medication and lifestyle changes.² Adopting a healthy diet can help to control blood sugar levels, assist with weight-loss, and prevent further health complications.^{1,4,5,6} Dietary changes should be sustainable and tailored to the individual's needs.⁷

What is diabetes?

Diabetes occurs when the body is unable to properly metabolise or use carbohydrates in the body to make energy. This results in abnormally high blood sugar levels.² There are two types of diabetes:

Type 1: Type 1 diabetes occurs when the body's own immune system destroys the cells responsible for making insulin. Insulin is a hormone needed to move sugar out of the blood and into the cells to use for energy. Type 1 diabetes is usually detected in childhood, but its cause is largely unknown. Symptoms of type 1 diabetes include weight-loss, extreme thirst, excessive hunger, frequent urination, fatigue, and dizziness.

Type 2: Type 2 diabetes is the most common form of diabetes and occurs when the body either produces too little insulin or is unable to respond to insulin (i.e. insulin resistance). Genetics and poor lifestyle habits contribute to the development of type 2 diabetes. Symptoms of type 2 diabetes are like those experienced in type 1; but many people will not experience any symptoms in the earlier stages of the illness.

Left untreated, diabetes can cause multiple health issues, including obesity, impaired eyesight, kidney damage, heart disease and poor wound healing. Lifestyle changes can improve the health outcomes of people living with type 2 diabetes.⁸

Nutritional management of diabetes

Diet plays a major role in the prevention of type 2 diabetes and in the management of both type 1 and type 2 diabetes. Many different diets have been recommended for people living with diabetes, including low glycaemic index (GI), low carbohydrate, plant-based and Mediterranean diets. General guidelines recommend a balanced diet consisting of wholegrain, low-GI starches, low-fat dairy, plenty of vegetables, some fruit, legumes, lean protein, and healthy fats. Foods like refined carbohydrates (e.g. sugar), sodium (i.e. salt), alcohol, as well as saturated fat can be enjoyed in moderation as part of a healthy lifestyle; but frequent overconsumption of these foods can be damaging to health.⁶ It is important to remember that each person is different and dietary recommendations should be tailored to each person's needs and preferences (where possible).^{1,5,6} People living with diabetes should consult a registered dietitian for individualised dietary advice.

Weight-loss diets

Overweight and obesity increases the risk of diabetes and related complications. Regardless of the method used, weight loss itself results in marked improvements in blood sugar levels in overweight individuals with type 2 diabetes.^{5,6} Weight loss is also beneficial for heart health and can help to reduce cholesterol levels. You need to achieve a calorie deficit to lose weight; meaning you would need to consume less energy/calories than your body needs.^{5,6} Countless weight-loss trends and diets are advertised to the public, but many are unsafe and unsustainable. In most cases, a slow and sustained weight loss of between 500 g to 1 kg per week is recommended until a person meets their goal weight. Thereafter, the diet can be altered to maintain a healthy weight going forward. There is no "one size fits all" weight-loss diet, and each person should be treated individually under the guidance of a registered dietitian. A good diet is one that is achievable, sustainable and can be adhered to throughout one's life to maintain a healthy weight and relationship with food.

Low GI diets

A low GI diet refers to eating foods that release sugar/glucose slowly into the bloodstream, thereby contributing to blood sugar control. A low GI diet should be high in fibre (contributing 30 to 50 g of daily fibre) and low in refined sugar.¹ Examples of low GI foods include wholegrains (e.g. oats and high fibre bread), plant-based protein (soy, lentils, and beans), and non-starchy vegetables. Prioritising low GI foods can assist with blood sugar control and reduce the risk of heart disease by lowering cholesterol levels.^{1,5,6}

Low carbohydrate diets

Reducing overall carbohydrate intake has been shown to improve blood sugar control and can assist with short-term weight loss. Although beneficial over the short-term, very low carbohydrate diets are generally not sustainable and are not superior to other dietary approaches in the management of type 2 diabetes.⁷

Plant-based diets

Plant-based diets like vegetarianism and veganism are beneficial for those with diabetes. Vegetarian diets are comprised mainly of grains, nuts, seeds, fruit, vegetables and occasionally, eggs and dairy. Vegans avoid eggs and dairy and any other foods derived from animals. Plant-based diets have shown benefits in weight management, blood sugar control and heart health.^{4,6} Plant-based diets need to be carefully planned to avoid vitamin and mineral deficiencies and supplementation of nutrients such as vitamin B₁₂ may be required.^{6,9}

The Mediterranean diet

The Mediterranean diet is well-studied and has shown benefits in the management of diabetes and other chronic illnesses. It improves blood sugar and cholesterol levels and reduces blood pressure. The Mediterranean diet contains low to moderate amounts of carbohydrates and recommends plenty of fruits, vegetables, and legumes. Foods high in healthy fats like seeds, nuts and fish are also included. This diet is nutritionally complete and can be sustained throughout one's lifetime.^{1,4,5,6}

Micronutrients

Micronutrients like vitamins and minerals are required by the body in small amounts for normal body function. People living with diabetes do not have vastly different vitamin and mineral requirements when compared to other populations. Eating a variety of foods is the best way to meet the body's requirements and prevent deficiencies. Specific nutrients such as vitamin D, zinc, magnesium, and chromium have been shown to affect blood sugar levels.¹ Vitamin and mineral supplements can help to correct deficiencies but should not replace a balanced diet for maintaining overall health.⁹

Nutraceuticals

Nutraceuticals are plant-based ingredients, commonly used for their health benefits. Compounds such as curcumin, cinnamon, resveratrol, and quercetin have shown some benefits in improving insulin resistance, but more research is needed in this area before they can be recommended for type 2 diabetes. On the other hand, the use of pre- and probiotics has shown promising results in improving blood sugar and cholesterol levels and should be included in the diet. Fructans are prebiotics and include compounds like inulin, resistant starches, and cellulose. These compounds are not well absorbed by the body but are essential for gut health and have shown to improve overall blood sugar levels.¹

Conclusion

Diabetes is a complicated condition that requires both medication and lifestyle modifications to optimise health and slow the progression of the disease. Overweight individuals should lose weight to improve blood sugar control. Choosing high-fibre, nutritious foods and limiting refined carbohydrates is also advised. Possible diets that can be used for the management of diabetes include the low GI diet, plant-based diets, and the Mediterranean diet. The Mediterranean diet is one of the most well-researched diets and has shown consistent benefits in the management of diabetes. In the absence of deficiency, people living with diabetes do not require specific nutrient supplements. Following a varied and nutritious diet is essential for overall health and is recommended for the prevention and management of diabetes.

References

- Petroni ML, Brodosi L, Marchignoli F, et al. Nutrition in patients with type 2 diabetes: Present knowledge and remaining challenges. *Nutrients*. 2021;13(8):2748. <https://doi.org/10.3390/nu13082748>.
- Guo Y, Huang Z, Sang D, Gao Q, Li Q. The role of nutrition in the prevention and intervention of type 2 diabetes. *Frontiers in Bioengineering and Biotechnology*. 2020;8. <https://doi.org/10.3389/fbioe.2020.575442>.
- Pheiffer C, Pillay-van Wyk V, Turawa E, et al. Prevalence of Type 2 Diabetes in South Africa: A Systematic Review and Meta-Analysis. *Int J Environ Res Public Health*. 2021;18:5868. <https://doi.org/10.3390/ijerph18115868>.
- Szczerba E, Barbaresko J, Schieman T, et al. Diet in the management of type 2 diabetes: umbrella review of systematic reviews with meta-analyses of randomised controlled trials. *BMJ Medicine*. 2023;2(1). <https://doi.org/10.1136/bmjmed-2023-000664>.
- Ajala O, English P, Pinkney J. Systematic review and meta-analysis of different dietary approaches to the management of type 2 diabetes. *Am J Clin Nutr*. 2013;97(3):505-16. <https://doi.org/10.3945/ajcn.112.042457>.
- Ley SH, Hamdy O, Mohan V, Hu FB. Prevention and management of type 2 diabetes: Dietary components and nutritional strategies. *Lancet*. 2014;383(9933):1999-2007. [https://doi.org/10.1016/S0140-6736\(14\)60613-9](https://doi.org/10.1016/S0140-6736(14)60613-9).
- Dyson P. Low carbohydrate diets and type 2 diabetes: What is the latest evidence? *Diabetes Therapy*. 2015;6(4):411-24. <https://doi.org/10.1007/s13300-015-0136-9>.
- Skyler JS, Bakris GL, Bonifacio E, et al. Differentiation of diabetes by pathophysiology, natural history, and prognosis. *Diabetes*. 2016;66(2):241-55. <https://doi.org/10.2337/db16-0806>.
- Whitney E, Rolfes S. *Understanding nutrition*. 40th ed. Stamford: Cengage Learning; 2016.



Managing insomnia in the pharmacy

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Abstract

Insomnia is a sleep disorder that can result in daytime fatigue and affect quality of life in one- to two-thirds of adults. The best way of managing insomnia is to practise good sleep hygiene, but sedating antihistamines such as diphenhydramine or doxylamine are available over-the-counter to treat insomnia for short periods of time. Insomnia lasting for longer than three months or insomnia caused by underlying medical conditions needs referral to a doctor.

Introduction

The number of hours of sleep required varies from one person to another, but according to the Centers for Disease Control and Prevention (CDC), most adults need between seven and nine hours of sleep per night.^{1,2} One- to two-thirds of adults report occasional insomnia, and 10-15% have chronic sleep difficulty. Insomnia is reported to be more common in older adults and women.³

What is insomnia?

Insomnia is a sleep disorder that results in a difficulty falling asleep (onset insomnia), staying asleep (maintenance insomnia) or waking up too early in the morning and not being able to fall back to sleep (late insomnia).^{3,4,5} It can be classified as short-term insomnia (less than three months) or long-term insomnia (at least three nights per week for more than three months),³ and can occur as either primary or secondary insomnia.⁵ Primary insomnia is not linked to any other health conditions, whereas secondary insomnia is when another health condition results in sleep disturbances.⁵

Causes of insomnia

Short-term insomnia is usually associated with stress and often resolves when the stressor is removed or has been addressed.³ Examples of events that can lead to short-term insomnia include:³

- Changes in the sleeping environment (travel, temperature, light, noise)
- Recent illness, surgery, or onset of pain
- Loss of a loved one, divorce or job loss
- Use or withdrawal from stimulants such as caffeine, illegal drugs, alcohol, or medication

Although the use of alcohol can help a person to fall asleep, it can cause disrupted sleep later in the night.³

Long-term insomnia or chronic insomnia lasts longer than three months and can continue for years.^{1,3} Common causes of long-term insomnia include:^{1,3,4}

- Genetics
- Stress, such as concerns about school, work, money, or family
- Frequent travel (jet lag) or working shifts
- Mental health disorders such as depression, post-traumatic stress disorder, or anxiety
- Medical illnesses such as high blood pressure, respiratory disorders, diabetes, gastro-oesophageal reflux disease, overactive thyroid, Parkinson's disease, Alzheimer's disease and conditions that cause pain, stress or limitation of movement
- Use of certain medications such as antidepressants, some treatments for high blood pressure and asthma
- Sleep-related disorders such as sleep apnoea or restless leg syndrome
- Poor sleep habits

All cases of chronic insomnia, as well as insomnia caused by an underlying medical condition, may need to be referred to a doctor.⁶

Daytime effects

In addition to insomnia resulting in disrupted sleep, patients may also experience other symptoms and effects including:^{2,4}

- Daytime fatigue and drowsiness
- Poor concentration and focus
- Low energy or motivation
- Forgetfulness
- Delayed responses leading to errors or accidents
- Mood disruptions such as irritability, depression, or anxiety
- Tension headaches
- Other disruptions in work, social activities, hobbies, or routine activities
- Ongoing worry about sleep

Management of insomnia

The best way to manage insomnia is to implement good sleep hygiene measures, which may include:^{2,4,7}

- Staying active during the day but avoiding strenuous exercise within four hours of bedtime.
- Setting and following the same sleep schedule (or as close as possible) even over weekends and during holidays and avoiding taking naps during the day.
- Creating a relaxing bedtime routine to help get into the right frame of mind to sleep.
- Avoiding using electronic devices for an hour or so before bedtime.
- Limiting afternoon intake of caffeine, alcohol, or nicotine.
- Having a healthy snack but avoiding large meals just before bedtime.
- Avoiding using the bedroom for anything other than sleeping and sex.

Some products available over-the-counter (OTC), can provide relief for temporary insomnia and these are listed in Table I.^{8,9}

These products should not be used in children and should be used with caution in elderly patients.⁸ They may also result in significant

Table I: Medication available OTC in South Africa for insomnia^{8,9}

Active ingredient	Trade name	Adult dose
Diphenhydramine	Betasleep® Sleepeze®	25–50 mg at night
Doxylamine	Somnil® Restwell®	25–50 mg at night

residual sleepiness and other side-effects such as dry mouth, blurred vision and difficulty emptying the bladder. In older patients, they can also cause confusion or memory problems.¹⁰

Conclusion

Insomnia can cause a disruption in sleep that can make it harder to function well during the daytime.¹⁰ Implementation of good sleep hygiene measures can help prevent insomnia and improve daytime function. There are some products available OTC for short-term or intermittent use in adults but they may cause some residual daytime sleepiness.^{8,10}

References

1. Mayo Clinic. Insomnia. Available from: <https://www.mayoclinic.org/diseases-conditions/insomnia/symptoms-causes/syc-20355167>. Accessed 20 March 2024.
2. Dasgupta R. What is insomnia? Everything you need to know. In: Medical News Today. Available from: <https://www.medicalnewstoday.com/articles/9155>. Accessed 20 March 2024.
3. Martin JL, Bonnet MH, et al. Patient education: Insomnia (Beyond the Basics) In: UpToDate. Available from: <https://www.uptodate.com/contents/insomnia-beyond-the-basics>. Accessed 20 March 2024.
4. Cleveland clinic. Insomnia. Available from: <https://my.clevelandclinic.org/health/diseases/12119-insomnia>. Accessed 20 March 2024.
5. Robinson J. Insomnia In: WebMD. Available from: <https://www.webmd.com/sleep-disorders/insomnia-symptoms-and-causes>. Accessed 20 March 2024.
6. Blenkinsopp A, Duerden M, Blenkinsopp J. Symptoms in the Pharmacy: A guide to the management of common illness. Eighth Edition. 2018:453–470.
7. Villalobos N, Lamoreux K, Raypole C. Everything you need to know about insomnia. Healthline. Available from: <https://www.healthline.com/health/insomnia>. Accessed 20 March 2024.
8. Rossiter D, Blockman M, Barnes KI, editors. South African Medicines Formulary. South African Medical Association; 2022.
9. Mims guide to OTC products. 2022;28.
10. Martin JL, Neubauer DN. Patient education: Insomnia treatments (Beyond the Basics) In: UpToDate. Available from: <https://www.uptodate.com/contents/insomnia-treatments-beyond-the-basics>. Accessed 20 March 2024.

Bronchostop introduces new cough syrup, Bronchostop Nite

inova
pharmaceuticals

iNova Pharmaceuticals has launched an innovative addition to the Bronchostop range; Bronchostop Nite which relieves a dry cough as well as night-time cough, early symptoms of common cold and low grade fever¹.

A cough at night has been reported as one of the most common causes of night-time awakenings associated with colds and flu and can have a significant impact on quality of life; including a person's ability to work, sleep and function during the day.² Night-time coughs can be disruptive and frustrating. While rest is integral to helping the body fight illness, a nagging cough can prevent patients from getting the sleep they so badly need.^{2,3}

Bronchostop Nite contains a combination of natural ingredients namely Marshmallow root dry extract, Ribwort Plantain leaf dry extract and Lime flower dry extract. These ingredients work together to reduce the urge to cough and help patients get a better night's sleep.^{1,4,5}

Marshmallow root dry extract and Ribwort Plantain leaf dry leaf extract are mucilaginous demulcents that coat the throat to relieve local irritation and soothe inflammation while protecting against irritants or foreign particles as well as post-nasal drip which irritates the throat lining and triggers the cough reflex.^{1,6}

Lime flower dry extract has a mild diaphoretic effect, to help promote sweating and relieve mild feverish colds. It also has a mild sedative effect to which helps ensure a peaceful night's sleep.⁵

Patients can now benefit from a cough medicine containing natural ingredients which creates a protective coating on the pharynx, reduces cough receptor sensitivity and relieves cough irritation.^{1,5,6,7}

According to the Mayo Clinic, rest is one of the most important ways your body fights off infections. Unfortunately, getting enough rest can also be the hardest thing to accomplish when a patient has a nagging night-time cough.⁸

Now available in leading pharmacies nationwide, Bronchostop Nite is available in a strawberry flavour and is suitable for children over the age of 4 years.¹

Learn more about Bronchostop Nite or rest of the Bronchostop range at www.bronchostop.co.za.

References

1. Bronchostop® Nite professional information, May 2023.
2. Phillipson, G; Aspley, S; Fietze, I. Perceptions of the Importance of Sleep in Common Cold—Two Online Questionnaire-Based Surveys. *SN Comprehensive Clinical Medicine* (2020) 2:596–605. April 2020.
3. Healthline. How to Sleep with a Cough (2024) at <https://www.healthline.com/health/>



how-to-sleep-with-a-cough#causes (website accessed on 14 March 2024)

4. IMS Data on File February 2024.
5. Assessment Report on TiliaCordata. Doc ID: EMA/HMPC/337067/2011
6. Murgia V *et al.* Upper Respiratory Tract Infection-Associated Acute Cough and the Urge to Cough: New Insights for Clinical Practice. *Pediatr Allergy Immunol Pulmonol.* March 2020;
7. Assessment Report on Plantago Lanceolata L., folium. Doc ID: EMA/HMPC/437858/2010
8. Everyday Health. Why Your Cough Symptoms Get Worse at Night (2023) at <https://www.everydayhealth.com/hs/cold-and-flu-relief/nighttime-cough/> (website accessed on 14 March 2024).

Scheduling Status: S0 Proprietary name (and dosage form):
Bronchostop® Nite Syrup.

Composition: Each 5 ml oral solution contains: 62.5 mg Marshmallow root dry extract, 45.5 mg Lime flower dry extract and 50.0 mg Ribwort plantain leaf dry extract.

Pharmacological Classification: Complementary medicine: Discipline Specific Traditional Claims D33.7

Combination product. These unregistered medicines have not been evaluated by the SAHPRA for their quality, safety or intended use. For full prescribing information, refer to the individual professional information or Instructions For Use. Further information is available on request from iNova Pharmaceuticals. **Name and business address of applicant:** iNova

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References: 1. Xailin Fresh Package Insert, VisuFarma February 2017. 2. Xailin Hydrate Package Insert, VisuFarma November 2016. 3. Xailin[®] Plus Package Insert, VisuFarma November 2021. 4. Xailin Gel Package Insert, VisuFarma November 2016. 5. Xailin Night Package Insert, VisuFarma December 2016.

For full prescribing information refer to the approved package insert. **Applicant:** Genop Healthcare (Pty) Ltd. PO BOX 3911, Halfway House, 1685, South Africa. Tel 0861 436 674. Co. Reg. No. 1984/0111575/07. www.genop.co.za. Marketed by Adcock Ingram Healthcare (Pty) Ltd. Reg. No. 2007/019928/07. Private Bag X69, Bryanston, 2021, South Africa. Tel +27 (00) 11 635 0000. www.adcock.com. 03/2023/PROMO/48.