

Antibiotics for rhinosinusitis in children

In children with acute rhinosinusitis or common cold, antibiotic treatment is not recommended unless a bacterial infection is suspected.

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According to the latest evidence, prescribing antibiotics for children and young people with acute rhinosinusitis or the common cold remains a low-value clinical practice. However, it is now relatively uncommon.

Between July 2024 and June 2025, 3,238 children aged 0 to 14 with upper respiratory tract infections or influenza (1.3% of 252,430 episodes) were prescribed antibiotics within 72 hours of diagnosis.

Source: SISAP Registry - Primary Care Services Information System. Catalan Health Institute (ICS). Indicator EQA1003 - Treatment of upper respiratory tract infections (URTI) or influenza.

- Common cold is a self-limiting condition caused by various viruses.
- The prescription of antibiotics is not recommended, as no clinical benefit has been demonstrated in terms of improving symptoms or their duration.
- The patient should be re-evaluated if symptoms worsen after 3-5 days, or if new signs appear, the condition deteriorates, or there is no improvement 10-14 days after onset.

What is rhinosinusitis and why is it not recommended to treat it with antibiotics?

Acute rhinosinusitis, or the **common cold**, is an inflammation of the nasal passages and paranasal sinuses that, in most cases in children, is caused by viral infections. It is characterized by symptoms such as nasal congestion, discolored nasal discharge, or persistent cough, usually lasting less than 7-10 days, although they can sometimes persist longer.¹

Antibiotics are not recommended for the treatment of this condition because the common cold is **viral and self-limiting**, and only a small percentage of cases progress to bacterial infections. Furthermore, there is **no proven clinical benefit** in terms of symptom improvement or duration when antibiotics are administered in these situations.^{2,3}

What does the evidence say about treating acute rhinosinusitis in children?

The evidence shows that acute rhinosinusitis in children is viral in origin and resolves spontaneously. **No significant clinical benefit has been observed with the use of antibiotics, either in reducing**

the duration or the severity of symptoms. A Cochrane systematic review concludes that antibiotics do not improve clinical resolution compared to placebo in children with acute rhinosinusitis and therefore should not be used routinely in these cases.³

Treatment **is based on non-pharmacological measures** such as proper hydration, nasal rinses with isotonic saline solution, and, in children over one year of age, the use of honey in cases of dry nighttime cough that interferes with sleep. Avoiding tobacco smoke and other pollutants is also recommended, as well as reinforcing hygiene measures such as handwashing to prevent viral spread.^{1,4}

In any case, analgesic and/or anti-inflammatory treatment may be considered¹ to relieve discomfort.

What is the scope of antibiotic use for acute rhinosinusitis in children?

Acute respiratory infections represent the most common group of diseases in humans throughout their lives, particularly in children.⁵ In the case of acute viral rhinosinusitis (the common cold), the incidence is very high. In fact, it is estimated that school-aged children may experience seven to ten colds per year.²

In primary care teams in Catalonia, between July 2024 and June 2025, 252,430 episodes of upper respiratory tract infections or influenza were diagnosed in children aged 0 to 14 years. Of these, **3,238 (1.3%) were prescribed antibiotics within 72 hours of diagnosis**, which is considered inappropriate (SISAP Registry - Primary Care Services Information System, Catalan Health Institute-ICS).

What adverse events are associated with the prescription of antibiotics?

The use of antibiotics can cause side effects such as **gastrointestinal disturbances** (diarrhea, nausea) and **allergic reactions**.⁴ In addition, excessive or inappropriate antibiotic use contributes to the development of **bacterial resistance**, making future infections harder to treat and posing a serious public health concern.⁴

Are there any situations in which antibiotics are indicated for rhinosinusitis?

Antibiotics are only indicated in cases of **acute bacterial rhinosinusitis**, a much less common condition. Only between **0.5 and 2% of viral infections progress** to bacterial infection.²

A bacterial superinfection may be suspected when, after 3 to 5 days of illness, the condition worsens; when new clinical signs appear; when the course is unfavourable; or when there is no improvement after 10 to 14 days from symptom onset.¹ These situations are uncommon and should be assessed on a case-by-case basis before initiating antibiotic treatment.²

In conclusion

In children with acute rhinosinusitis, also known as the common cold, routine prescription of antibiotics is not recommended. Indiscriminate use of antibiotics increases the risk of adverse effects and the development of bacterial resistance.

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Sources

1. National Plan against Antibiotic Resistance (PRAN). [\[Acute sinusitis in pediatrics\]](#). Madrid: PRAN; 2021.
2. Fokkens WJ, Lund VJ, Hopkins C, et al. [European Position Paper on Rhinosinusitis and Nasal Polyps 2020](#). Rhinology. 2020;58(Suppl S29):1-464.
3. Kenealy, T, Arroll B. [Antibiotics for the common cold and acute purulent rhinitis](#). Cochrane Database Syst Rev. 2013, CD000247.
4. Institute for Health and Care Excellence (NICE). [Sinusitis \(acute\): antimicrobial prescribing](#). London (United Kingdom): NICE; 2017. NICE guideline [NG79].
5. Francisco González L. Calvo Rey C. [\[Viral respiratory infections\]](#). Protocolo Diagn Ter Pediatr. 2023;2:139-49.

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