**Belgian guidelines for the treatment of acute rhinosinusitis in general practice**

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**Abstract.** Belgian guidelines for the treatment of acute rhinosinusitis in general practice. Management and treatment guidelines for rhinosinusitis and nasal polyps have been published by the European Academy for Allergy and Clinical Immunology (EAACI) task force in 2005,¹ and have recently been updated.² These guidelines are evidence-based and internationally recognized, and form the basis for the here presented “Belgian Guidelines for the treatment of ARS in general practice”, developed by the sinusitis committee. This document is intended to establish evidence-based management procedures for ARS, one of the most frequent upper airway diseases, mostly treated by the general practitioner. It is recommended to treat ARS with topical glucocorticosteroids 200 mcg BID. Antibiotics are recommended for the treatment of severe ARS, if need be, together with topical glucocorticosteroids BID.

**Introduction**

**Common cold/acute viral rhinosinusitis**

Common cold/acute viral rhinosinusitis (CC) is affecting most adult individuals up to 4 times a year; it is defined as typical upper respiratory tract infection (URTI) symptoms for less than 10 days. Common cold needs symptomatic treatment only (decongestants limited to 5-7 days, pain relief, saline drops). Common cold can lead to post-viral inflammation of the nose and sinuses, due to the mucosal immune response to the viral exposure.

**Acute post-viral rhinosinusitis**

Acute post-viral rhinosinusitis (ARS) is defined as an increase of symptoms after 5 days, or persistent symptoms after 10 days, with less than 12 weeks duration. The symptoms consist of two or more symptoms, one of which should be either obstruction or rhinorrhea, accompanied by nasal discharge (anterior/posterior nasal drip) and/or reduction or loss of smell. Acute rhinosinusitis can occur once or more than once in a defined time period (usually expressed as episodes/year), with complete resolution of symptoms between episodes (genuine recurrent acute rhinosinusitis). Questions on allergic symptoms i.e. sneezing, watery rhinorrhea, nasal itching and itchy watery eyes should be asked for differential diagnosis and to recognize underlying pathology. Acute exacerbations of chronic rhinosinusitis should be managed like ARS.

ARS may present in 2 forms: “moderate” or “severe”, with severe ARS defined by fever >38.3°C, and/or unilateral or localized pain over the sinuses (e.g. the frontal sinus). In severe ARS (approximately 2-4% of all community-acquired ARS), clinically relevant bacterial involvement may be assumed. Severe ARS still is a self-limiting disease, but may lead to complications (mostly orbital, seldom meningeal or other locations) in a few patients per year (incidence app. 1/100.000 inhabitants), which must be recognized and immediately send for adequate treatment by specialists (Table 1). Antibiotic treatment does not necessarily prevent complications, as 90% of patients with complications in a Belgian survey (unpublished observations) received antibiotics.
at the time of admission. Whereas conventional X-rays are not helpful in ARS and thus not indicated, a CT scan can be useful in very severe disease, immunocompromised patients and signs complications. Furthermore, a sinus puncture may be indicated and performed by a specialist in severe acute and persistent maxillary sinusitis.

**Materials and methods**

Based on the internationally recognized and evidence based “Management and treatment guidelines for rhinosinusitis and nasal polyps”, the sinusitis committee consisting of Belgian specialists (C. Bachert (UZG, moderator), B. Bertrand (UCL), J. Daele (CHU Citadelle), M. Jorissen (KUL), P. Levebvre (ULg), P. Rombaux (UCL), B. Schmelzer (ZNA-AZM), and J. Mullol (adviser, Barcelona, Spain)) has developed the here presented “Belgian Guidelines for the treatment of ARS in general practice”.

**Results and discussion**

Treatment recommendations for ARS are summarized in Figure 1 and Table 2.

In moderate ARS, the use of topical glucocorticosteroids (GCS) 200 mcg BID for 2-3 weeks has proven to be more effective than placebo or antibiotic treatment in adults. Topical GCS with low systemic bioavailability should be preferred, combination products are not recommended. Long-term treatment with topical GCS may prevent or postpone recurrence of ARS episodes.

In severe ARS, antibiotic treatment according to national recommendations should be considered. Resistance patterns
of predominant pathogens like Streptococcus pneumoniae, Haemophilus influenzae and Moraxella catarrhalis, vary considerably and should be taken into account. Furthermore, the use of antibiotics is directly correlated to the prevalence of bacterial resistance. A Cochrane review concluded that in acute maxillary sinusitis confirmed radiographically or by aspiration, current evidence is limited but supports the use of penicillin or amoxicillin for 7 to 14 days. No differences in terms of therapeutic efficacy were found comparing the use of different antibiotics. Clinicians should weigh the moderate benefits of antibiotic treatment against the potential for adverse effects.

The addition of topical GCS BID to antibiotic treatment of ARS has been proven effective and superior to antibiotic treatment alone in several studies. Topical GCS can be given together with antibiotics, or precede those 3-4 days in case of doubt about the need for antibiotics.

Please note:
In case of underlying sinus or systemic disease (chronic rhinosinusitis, nasal polyposis, HIV, immunosuppression etc.) refer to specialist (indication CT scan or antibiotics). Children under 12 years of age are especially susceptible to develop (orbital) complications, and should therefore be carefully monitored. There is no evidence yet to indicate topical GCS for ARS in children younger than 12 years. In case of beginning or manifest complications at any time point (Table 1), refer to specialist immediately.

**Conclusion**

By composing this document, we believe that a tool was created that should be helpfull for the general practitioner in his decision making on how to treat ARS, one of the most frequent upper airway diseases.

**References**


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