

# Nose and Sinus Disorders in Infants and Children

Joanna S. Cohen

Dewesh Agrawal

## REFERENCES

- Wald ER, Applegate KE, Bordley C, et al: Clinical practice guideline for the diagnosis and management of acute bacterial sinusitis in children aged 1 to 18 years. *Pediatrics* 132: e262, 2013. [PMID: 23796742]
- Revai K, Dobbs L, Nair S, et al: Incidence of acute otitis media and sinusitis complicating upper respiratory tract infection: the effect of age. *Pediatrics* 119: e1408, 2007. [PMID: 17545367]
- Dugar DR, Lander L, Mahalingam-Dhingra A, Shah RK: Pediatric acute sinusitis: predictors of increased resource utilization. *Laryngoscope* 120: 2313, 2010. [PMID: 21113928]
- Anand V: Epidemiology and economic impact of rhinosinusitis. *Ann Otol Rhinol Laryngol* 113: 3, 2004. [PMID: 5174752]
- Slavin RG, Spector SL, Bernstein IL, et al: The diagnosis and management of sinusitis. *J Allergy Clin Immunol* 116: S13, 2005. [PMID: 16416688]
- Wald ER: Microbiology of acute and chronic sinusitis in children. *J Allergy Clin Immunol* 90: 452, 1992. [PMID: 1527336]
- Brook I: Bacteriology of acute and chronic ethmoid sinusitis. *J Clin Microbiol* 43: 3479, 2004. [PMID: 16000483]
- Otten FW, Grote JJ: The diagnostic value of transillumination for maxillary sinusitis in children. *Int J Pediatr Otorhinolaryngol* 18: 9, 1989. [PMID: 2681031]
- American Academy of Pediatrics, Subcommittee on Management of Sinusitis and Committee on Quality Improvement: Clinical practice guideline: management of sinusitis. *Pediatrics* 132: e262, 2013. [PMID: 23796742]
- Glasier CM, Mallory GB Jr, Steele RW: Significance of opacification of the maxillary and ethmoid sinuses in infants. *J Pediatr* 114: 45, 1989. [PMID: 2909706]
- Wald ER, Milmo GJ, Bowen A, et al: Acute maxillary sinusitis in children. *N Engl J Med* 304: 749, 1981. [PMID: 6970333]
- Shaikh N, Wald ER, Pi M: Decongestants, antihistamines and nasal irrigation for acute sinusitis in children. *Cochrane Database Syst Rev* 9: CD007909, 2012. [PMID: 22972113]
- Barlan TB, Erkan E, Bakir M, et al: Intranasal budesonide spray as an adjunct to oral antibiotic therapy for acute sinusitis in children. *Ann Allergy Asthma Immunol* 18: 598, 1997. [PMID: 9207726]
- Meltzer EO, Orgel HA, Backhaus JW, et al: Intranasal flunisolide spray as an adjunct to oral antibiotic therapy for sinusitis. *J Allergy Clin Immunol* 92: 812, 1993. [PMID: 8258615]
- Cornelius RS, Martin J, Wippold FJ 2nd, et al: ACR appropriateness criteria sinonasal disease. *J Am Coll Radiol* 10: 241, 2013. [PMID: 23420025]
- Slavin RG, Spector SL, Bernstein IL, et al: The diagnosis and management of sinusitis: a practice parameter update. *J Allergy Clin Immunol* 116 (6 Suppl): S13, 2005. [PMID: 16416688]
- Steele RW: Chronic sinusitis in children. *Clin Pediatr* 44: 465, 2005. [PMID: 16015392]
- Brook I: The role of bacteria in chronic rhinosinusitis. *Otolaryngol Clin North Am* 38: 1171, 2005. [PMID: 16326177]
- Lai L, Hopp RJ, Lusk RP: Pediatric chronic sinusitis and asthma: a review. *J Asthma* 43: 719, 2006. [PMID: 17169821]
- Brook I: Chronic sinusitis in children and adults: role of bacteria and antimicrobial management. *Curr Allergy Asthma Rep* 5: 482, 2005. [PMID: 16216174]
- Ramadan HH: Pediatric sinusitis: update. *J Otolaryngol* 34: S14, 2005. [PMID: 16089235]
- Cazzavillan A, Castelnovo P, Berlucchi M, et al: Management of chronic rhinosinusitis. *Pediatr Allergy Immunol* 23 (Suppl) 22: 32, 2012.
- Dursun E, Korkmaz H, Eryilmaz A, et al: Clinical predictors of long-term success after endoscopic sinus surgery. *Otolaryngol Head Neck Surg* 129: 526, 2003. [PMID: 14595275]
- Chang PH, Lee LA, Huang CC, et al: Functional endoscopic sinus surgery in children using a limited approach. *Arch Otolaryngol Head Neck Surg* 130: 1033, 2004. [PMID: 15381588]
- Shapiro GG, Virant FS, Furukawa CT, et al: Immunologic defects in patients with refractory sinusitis. *Pediatrics* 87: 311, 1991. [PMID: 2000270]
- Asher MI, Montefort S, Bjorksten B, et al: Worldwide time trends in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and eczema in childhood: ISAAC phases one and three repeat multicountry cross-sectional surveys. *Lancet* 368: 733, 2006. [PMID: 16935684]
- Walker S, Khan-Wasti S, Fletcher M, et al: Seasonal allergic rhinitis is associated with a detrimental effect on examination performance in United Kingdom teenagers: case-control study. *J Allergy Clin Immunol* 120: 381, 2007. [PMID: 17560637]
- Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and atopic eczema: ISAAC. The International Study of Asthma and Allergies in Childhood (ISAAC) Steering Committee. *Lancet* 351: 1225, 1998. [PMID: 9643741]
- Papsin B, McTavish A: Saline nasal irrigation: its role as an adjunct treatment. *Can Fam Physician* 49: 168, 2003. [PMID: 12619739]
- Wu W, Walters RD, Nadeau GA, et al: An integrated analysis of the efficacy of fluticasone furoate nasal spray versus placebo on the nasal symptoms of perennial allergic rhinitis. *Allergy Asthma Proc* 34: 283, 2013. [PMID: 23676578]
- Nasser M, Fedorowicz Z, Aljufairi H, McKerrow W: Antihistamines used in addition to topical nasal steroids for intermittent and persistent allergic rhinitis in children. *Cochrane Database Syst Rev* 7: CD006989, 2010. [PMID: 20614452]
- Nayak AS, Philip G, Lu S, et al: Efficacy and tolerability of montelukast alone or in combination with loratadine in seasonal allergic rhinitis: a multicenter, randomized, double-blind, placebo-controlled trial performed in the fall. *Ann Allergy Asthma Immunol* 88: 592, 2002. [PMID: 12086367]
- Meltzer EO, NasalCrom Study Group: Efficacy and patient satisfaction with cromolyn sodium nasal solution in the treatment of seasonal allergic rhinitis: a placebo-controlled study. *Clin Ther* 88: 592, 2002. [PMID: 12117084]
- Kim JM, Lin SY, Suarez-Cuervo C, et al: Allergen-specific immunotherapy for pediatric asthma and rhinoconjunctivitis: a systematic review. *Pediatrics* 131: 1155, 2013. [PMID: 23650298]
- Dretzke J, Meadows A, Novielli N, et al: Subcutaneous and sublingual immunotherapy for seasonal allergic rhinitis: a systematic review and indirect comparison. *J Allergy Clin Immunol* 131: 1361, 2013. [PMID: 23557834]
- Kadish HA, Corneli H: Removal of nasal foreign bodies in the pediatric population. *Am J Emerg Med* 15: 54, 1997. [PMID: 9002571]
- Baker D: Foreign bodies of the ears and nose in childhood. *Pediatr Emerg Care* 3: 67, 1987. [PMID: 3615236]
- Brown L, Denmark D, Wittlake W, et al: Procedural sedation use in the ED: management of pediatric ear and nose foreign bodies. *Am J Emerg Med* 22: 310, 2004. [PMID: 15258875]
- Sharpe SJ, Rochette LM, Smith GA: Pediatric battery-related emergency department visits in the United States, 1990-2009. *Pediatrics* 129: 1111, 2012. [PMID: 22585763]
- Loh WS, Leong J, Tan HK: Hazardous foreign bodies: complications and management of button batteries in the nose. *Ann Otol Rhinol Laryngol* 112: 379, 2003. [PMID: 12731636]
- Glynn F, Amin M, Kinsella J: Nasal foreign bodies in children: should they have a plain radiograph in the accident and emergency? *Pediatr Emerg Care* 24: 217, 2008. [PMID: 18431219]
- Sandoval C, Dong S, Visintainer P, et al: Clinical and laboratory features of 178 children with recurrent epistaxis. *J Pediatr Hematol Oncol* 24: 47, 2002. [PMID: 11902740]

## USEFUL WEB RESOURCES

- American Academy of Pediatrics Guidelines Index, Clinical Practice Guideline: Management of Sinusitis—<http://pediatrics.aappublications.org/site/aappolicy/index.xhtml>
- American Academy of Otolaryngology, Head and Neck Surgery: Fact Sheets—<http://www.entnet.org/healthinformation/Pediatric.cfm>
- Centers for Disease Control and Prevention: The Common Cold: Rhinitis vs. Sinusitis: Physician Information Sheet (Pediatrics)—<http://www.cdc.gov/getsmart/campaign-materials/info-sheets/child-rhin-vs-sinus.html>
- National Institutes of Health, National Institute of Allergy and Infectious Diseases: Sinus Infection—<http://www3.niaid.nih.gov/topics/sinusitis>