

Literature Review

Nasal Steroids – Medications
and Delivery Systems

Medication	Title of Article	PubMed Link
BETAMETHASONE	A prospective randomized blinded cross-over trial using nasal drops in patients with nasal polyposis: an evaluation of effectiveness and comfort level of two head positions.	http://www.ncbi.nlm.nih.gov/pubmed/16955767
BETAMETHASONE	A prospective randomized study to assess the efficacy of post-operative nasal medication after endonasal surgery.	http://www.ncbi.nlm.nih.gov/pubmed/7561468
BETAMETHASONE	A prospective treatment trial of nasal polyps in adults with cystic fibrosis.	http://www.ncbi.nlm.nih.gov/pubmed/10953842
BETAMETHASONE	A randomized double-blind study to compare the effects of nasal fluticasone and betamethasone on the hypothalamo-pituitary-adrenal axis and bone turnover in patients with nasal polyposis.	http://www.ncbi.nlm.nih.gov/pubmed/12472517
BETAMETHASONE	Topical nasal steroids for treating nasal polyposis in people with cystic fibrosis	http://www.ncbi.nlm.nih.gov/pubmed/26098667
BETAMETHASONE	Corticosteroid nasal irrigations after endoscopic sinus surgery in the management of chronic rhinosinusitis.	http://www.ncbi.nlm.nih.gov/pubmed/22566474
BUDESONIDE	A pilot study of the effects of intranasal budesonide delivered by NasoNeb® on patients with perennial allergic rhinitis	http://www.ncbi.nlm.nih.gov/pubmed/24574125
BUDESONIDE	A study of the effect of nasal steroid sprays in perennial allergic rhinitis patients with rhinitis medicamentosa	http://www.ncbi.nlm.nih.gov/pubmed/11555762
BUDESONIDE	Budesonide nebulization added to systemic prednisolone in the treatment of acute asthma in children: a double-blind, randomized, controlled trial	http://www.ncbi.nlm.nih.gov/pubmed/24384609
BUDESONIDE	Budesonide suspension nebulization treatment in Chinese pediatric patients with cough variant asthma: a multi-center observational study	http://www.ncbi.nlm.nih.gov/pubmed/26517446
BUDESONIDE	Clinical effectiveness of nebulised budesonide in the treatment of acute asthma attacks	http://www.ncbi.nlm.nih.gov/pubmed/16924568
BUDESONIDE	Comparative study of budesonide as a nebulized suspension vs pressurized metered-dose inhaler in adult asthmatics	http://www.ncbi.nlm.nih.gov/pubmed/9519224
BUDESONIDE	Comparison of hydrofluoroalkane-beclomethasone dipropionate Autohaler with budesonide Turbuhaler in asthma control	http://www.ncbi.nlm.nih.gov/pubmed/11694816
BUDESONIDE	Effect of budesonide transnasal nebulization in patients with eosinophilic chronic rhinosinusitis with nasal polyps	http://www.ncbi.nlm.nih.gov/pubmed/25483598
BUDESONIDE	Effects of nebulized high-dose budesonide on moderate-to-severe acute exacerbation of asthma in children: a randomized, double-blind, placebo-controlled study	http://www.ncbi.nlm.nih.gov/pubmed/24188203

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BUDESONIDE	Holding chambers versus nebulisers for inhaled steroids in chronic asthma	http://www.ncbi.nlm.nih.gov/pubmed/16437434
BUDESONIDE	Inhaled budesonide in pulmonary sarcoidosis: a double-blind, placebo-controlled study. Dutch Study Group on Pulmonary Sarcoidosis	http://www.ncbi.nlm.nih.gov/pubmed/7656936
BUDESONIDE	Intranasal administration of topical budesonide to allergic patients with chronic rhinosinusitis following surgery	http://www.ncbi.nlm.nih.gov/pubmed/12150618
BUDESONIDE	Nasal inhalation of the glucocorticoid budesonide from a spacer for the treatment of patients with pollen rhinitis and asthma	http://www.ncbi.nlm.nih.gov/pubmed/2244675
BUDESONIDE	Nebulised budesonide using a novel device in patients with oral steroid-dependent asthma	http://www.ncbi.nlm.nih.gov/pubmed/25504995
BUDESONIDE	Nebulized budesonide is as effective as nebulized adrenaline in moderately severe croup	http://www.ncbi.nlm.nih.gov/pubmed/8628614
BUDESONIDE	Nebulized budesonide to treat acute asthma in children	http://www.ncbi.nlm.nih.gov/pubmed/15079179
BUDESONIDE	Pulmonary drug delivery from the Taifun dry powder inhaler is relatively independent of the patient's inspiratory effort	http://www.ncbi.nlm.nih.gov/pubmed/11010599
BUDESONIDE	Randomized, controlled trial of inhaled budesonide as an adjunct to oral prednisone in acute asthma	http://www.ncbi.nlm.nih.gov/pubmed/9523927
BUDESONIDE	The efficacy and safety of a short course of budesonide inhalation suspension via transnasal nebulization in chronic rhinosinusitis with nasal polyps	http://www.ncbi.nlm.nih.gov/pubmed/22730816
BUDESONIDE	The efficacy and safety of budesonide inhalation suspension via transnasal nebulization compared with oral corticosteroids in chronic rhinosinusitis with nasal polyps	http://www.ncbi.nlm.nih.gov/pubmed/26281053
BUDESONIDE	The efficacy and safety of budesonide inhalation suspension: a nebulizable corticosteroid for persistent asthma in infants and young children	http://www.ncbi.nlm.nih.gov/pubmed/10407712
BUDESONIDE	The efficacy of nebulized budesonide in dexamethasone-treated outpatients with croup	http://www.ncbi.nlm.nih.gov/pubmed/8632929
BUDESONIDE	The safety and efficacy of short-term budesonide delivered via mucosal atomization device for chronic rhinosinusitis without nasal polyposis	http://www.ncbi.nlm.nih.gov/pubmed/24449682
BUDESONIDE	Therapeutic effect of inhaled budesonide (Pulmicort® Turbuhaler) on the inflammatory response to one-lung ventilation	http://www.ncbi.nlm.nih.gov/pubmed/24164087

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BUDESONIDE	Use of spacers to facilitate inhaled corticosteroid treatment of asthma	http://www.ncbi.nlm.nih.gov/pubmed/6721271
BUDESONIDE	Topical therapy with high-volume budesonide nasal irrigations in difficult-to-treat chronic rhinosinusitis	http://www.ncbi.nlm.nih.gov/pubmed/26431825
BUDESONIDE	Post-operative budesonide irrigations for patients with polyposis: a blinded, randomized controlled trial	http://www.ncbi.nlm.nih.gov/pubmed/26363164
BUDESONIDE	Effect of intranasal budesonide irrigations on intraocular pressure.	https://www.ncbi.nlm.nih.gov/pubmed/23704078
BUDESONIDE	Budesonide nasal irrigations in the postoperative management of chronic rhinosinusitis	https://www.ncbi.nlm.nih.gov/pubmed/23776108
BUDESONIDE	The effects of serum and urinary cortisol levels of topical intranasal irrigations with budesonide added to saline in patients with recurrent polyposis after endoscopic sinus surgery.	https://www.ncbi.nlm.nih.gov/pubmed/20109316
BUDESONIDE	The Effectiveness of Budesonide Nasal Irrigation After Endoscopic Sinus Surgery in Chronic Rhinosinusitis With Asthma	https://www.ncbi.nlm.nih.gov/pubmed/27440128
BUDESONIDE	Safety of budesonide in saline sinonasal irrigations in the management of chronic rhinosinusitis with polyposis: lack of significant adrenal suppression	https://www.ncbi.nlm.nih.gov/pubmed/19128710
BUDESONIDE	Safety analysis of long-term budesonide nasal irrigations in patients with chronic rhinosinusitis post endoscopic sinus surgery.	https://www.ncbi.nlm.nih.gov/pubmed/26879335
BUDESONIDE	Safety of long-term high-volume sinonasal budesonide irrigations for chronic rhinosinusitis.	https://www.ncbi.nlm.nih.gov/pubmed/26750509
BUDESONIDE	The safety and efficacy of short-term budesonide delivered via mucosal atomization device for chronic rhinosinusitis without nasal polyposis.	https://www.ncbi.nlm.nih.gov/pubmed/24449682
CHITORHINO	Comparison of Nasal Saline Irrigation Bottle Contamination Between Two Solutions	https://www.clinicaltrials.gov/ct2/show/NCT02413125
CHITOSAN	Induction of protective serum meningococcal bactericidal and diphtheria-neutralizing antibodies and mucosal immunoglobulin A in volunteers by nasal insufflations of the Neisseria meningitidis serogroup C polysaccharide-CRM197 conjugate vaccine mixed with chitosan	http://www.ncbi.nlm.nih.gov/pubmed/16299322
CHITOSAN	Analgesic efficacy and safety of morphine-chitosan nasal solution in patients with moderate to severe pain following orthopedic surgery	http://www.ncbi.nlm.nih.gov/pubmed/18254761
CHITOSAN	Intranasal delivery of morphine	http://www.ncbi.nlm.nih.gov/pubmed/11907197

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FLUTICASONE	Placebo-controlled, randomized, double-blind study evaluating the efficacy of fluticasone propionate nasal spray for the treatment of patients with hyposmia/anosmia	http://www.tandfonline.com/doi/abs/10.1080/00016480310002140
FLUTICASONE	Corticosteroid nasal irrigations after endoscopic sinus surgery in the management of chronic rhinosinusitis	https://www.ncbi.nlm.nih.gov/pubmed/22566474
FLUTICASONE	The use of large volume low pressure nasal saline with fluticasone propionate for the treatment of pediatric acute rhinosinusitis	https://www.ncbi.nlm.nih.gov/pubmed/24972936
FLUTICASONE	A prospective randomized blinded clinical trial: large-volume nasal irrigation with fluticasone propionate in the early postoperative period following septoplasty	https://www.ncbi.nlm.nih.gov/pubmed/25845978
FLUTICASONE	Topical corticosteroids in chronic rhinosinusitis: a randomized, double-blind, placebo-controlled trial using fluticasone propionate aqueous nasal spray	https://www.researchgate.net/profile/Glenis_Scadding/publication/11857606_Topical_corticosteroids_in_chronic_rhinosinusitis_A_randomized_double-blind_placebo-controlled_trial_using_fluticasone_propionate_aqueous_nasal_spray/links/09e41511b9e83bd7eb000000/Topical-corticosteroids-in-chronic-rhinosinusitis-A-randomized-double-blind-placebo-controlled-trial-using-fluticasone-propionate-aqueous-nasal-spray.pdf
FLUTICASONE	Nasal irrigation with or without drugs: the evidence	http://journals.lww.com/otolaryngology/Abstract/2012/02000/Nasal_irrigation_with_or_without_drugs_the.11.aspx
FLUTICASONE	MP29-02 (a novel intranasal formulation of azelastine hydrochloride and fluticasone propionate) in the treatment of seasonal allergic rhinitis: A randomized, double-blind, placebo-controlled trial of efficacy and safety	http://www.ingentaconnect.com/content/ocean/aap/2012/00000033/00000004/art00005
FLUTICASONE	The effect of intranasal fluticasone propionate irrigations on salivary cortisol, intraocular pressure, and posterior subcapsular cataracts in postsurgical chronic rhinosinusitis patients.	https://www.ncbi.nlm.nih.gov/pubmed/24124056
FLUTICASONE	Effect of fluticasone on neuropeptides in nasal lavage in persistent allergic rhinitis.	https://www.ncbi.nlm.nih.gov/pubmed/20635787
FLUTICASONE	A comparison of fluticasone propionate nasal spray and cetirizine in ragweed fall seasonal allergic rhinitis	http://www.ncbi.nlm.nih.gov/pubmed/26108088

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FLUTICASONE	Comparison of the effects of fluticasone propionate, aqueous nasal spray and levocabastine on inflammatory cells in nasal lavage and clinical activity during the pollen season in seasonal rhinitis	http://www.ncbi.nlm.nih.gov/pubmed/10520057
FLUTICASONE	Effect of intranasal steroids on rhinosinusitis after radiotherapy for nasopharyngeal carcinoma: clinical study	http://www.ncbi.nlm.nih.gov/pubmed/26740194
FLUTICASONE	Effect of short-term treatment with fluticasone propionate nasal spray on the response to nasal allergen challenge	http://www.ncbi.nlm.nih.gov/pubmed/7893587
FLUTICASONE	Effective treatment of mild-to-moderate nasal polyposis with fluticasone delivered by a novel device	http://www.ncbi.nlm.nih.gov/pubmed/19936370
FLUTICASONE	Effects of intranasal fluticasone and salmeterol on allergen-induced nasal responses	http://www.ncbi.nlm.nih.gov/pubmed/16677243
FLUTICASONE	Long-term, randomized safety study of MP29-02 (a novel intranasal formulation of azelastine hydrochloride and fluticasone propionate in an advanced delivery system) in subjects with chronic rhinitis	http://www.ncbi.nlm.nih.gov/pubmed/24607046
FLUTICASONE	Once daily intranasal fluticasone propionate (200 micrograms) reduces nasal symptoms and inflammation but also attenuates the increase in bronchial responsiveness during the pollen season in allergic rhinitis	http://www.ncbi.nlm.nih.gov/pubmed/8757203
FLUTICASONE	Other anti-inflammatory uses of intranasal corticosteroids in upper respiratory inflammatory diseases	http://www.ncbi.nlm.nih.gov/pubmed/10929865
NASAL IRRIGATION DEVICES	Nasal irrigation for the alleviation of sinonasal symptoms	http://www.ncbi.nlm.nih.gov/pubmed/11458213
NASAL IRRIGATION DEVICES	Is nasal saline irrigation all it is cracked up to be?	http://www.ncbi.nlm.nih.gov/pubmed/22727153
NASAL IRRIGATION TECHNIQUES	Clinical observation and quality of life in terms of nasal sinusitis after radiotherapy for nasopharyngeal carcinoma: long-term results from different nasal irrigation techniques	http://www.ncbi.nlm.nih.gov/pubmed/24814695
NASAL IRRIGATION TECHNIQUES	Does nasal irrigation enter paranasal sinuses in chronic rhinosinusitis?	http://www.ncbi.nlm.nih.gov/pubmed/18954507
NASAL SALINE	Nasal Saline for Chronic Sinonasal Symptoms: A Randomized Controlled Trial	http://www.ncbi.nlm.nih.gov/pubmed/18025315
NASAL SALINE	Nasal saline irrigations for the symptoms of chronic rhinosinusitis	http://www.ncbi.nlm.nih.gov/pubmed/17636843

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NASAL SALINE	Nasal irrigation as an adjunctive treatment in allergic rhinitis: a systematic review and meta-analysis	http://www.ncbi.nlm.nih.gov/pubmed/23168142
NASAL SALINE	Limited evidence: higher efficacy of nasal saline irrigation over nasal saline spray in chronic rhinosinusitis--an update and reanalysis of the evidence base	http://www.ncbi.nlm.nih.gov/pubmed/24243927
NASAL SALINE	Clinical study and literature review of nasal irrigation	http://www.ncbi.nlm.nih.gov/pubmed/10892694
NASONEB	Prospective evaluation of aerosol delivery by a powered nasal nebulizer in the cadaver model	http://www.ncbi.nlm.nih.gov/pubmed/22287468
NASONEB	Particle size and airflow: Implications for nasal and paranasal sinus delivery	http://www.nasoneb.com/pdfs/NasoNebparticlesizeairflow.pdf
NASONEB	Effects of Intranasal Budesonide Delivered by Nasal Nebulizer on Symptoms and Objective Measures of Nasal Congestion in Perennial Allergic Rhinitis (PAR)	http://www.nasoneb.com/pdfs/EffectsIntranasalBudesonideDeliveredbyNasalNebulizer.pdf
NASONEB	NasoNeb Case Study - Habana Hospital Pharmacy	http://www.habanapharm.com/resource-pdfs/NasoNeb-Case-Study.pdf
NEILMED	Decreasing bacterial cross-contamination with a pulsating nasal irrigation device	http://www.ncbi.nlm.nih.gov/pubmed/24827926
NEILMED	Surfactants in the management of rhinopathologies	http://www.ncbi.nlm.nih.gov/pubmed/23710951
NEILMED	Irrigation penetration of nasal delivery systems: a cadaver study	http://www.ncbi.nlm.nih.gov/pubmed/22287307
NEILMED	Radiographic Comparison of Three Methods for Nasal Saline Irrigation	http://www.neilmed.com/articles/laryngoscope2004.pdf
NEILMED/RINOFLOW	Long-term outcome of once daily nasal irrigation for the treatment of pediatric chronic rhinosinusitis	http://www.ncbi.nlm.nih.gov/pubmed/23712296
PARI SINUS NEBULIZER	A prospective controlled trial of pulsed nasal nebulizer in maximally dissected cadavers	http://www.ncbi.nlm.nih.gov/pubmed/18702903
PARI SINUSTAR	The Effects Of Methacholine Challenge Administered Using Three Different Nebulizers On Small Airways Function	https://clinicaltrials.gov/ct2/show/NCT00529477
RINOFLOW	RinoFlow nasal wash and sinus system as a mechanism to deliver medications to the paranasal sinuses: results of a radiolabeled pilot study	http://www.ncbi.nlm.nih.gov/pubmed/10485146
RINOFLOW	A comparative study of three methods of nasal irrigation	http://www.ncbi.nlm.nih.gov/pubmed/15564850
STEROID	Clinical Question: Nasal saline or intranasal corticosteroids to treat allergic rhinitis in children	https://www.ncbi.nlm.nih.gov/pubmed/27328556
STEROID	The effect of nasal irrigation in the treatment of allergic rhinitis	https://www.ncbi.nlm.nih.gov/pubmed/25185277

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STEROID	Nasal saline irrigation facilitates control of allergic rhinitis by topical steroid in children	https://www.ncbi.nlm.nih.gov/pubmed/19047814