**SUPPLEMENTARY MATERIAL**

**Table S1.** Search terms and strategies developed for this systematic review

| Number | Term | Synonyms |
|---|---|---|
| #1 | Chronic rhinosinusitis with nasal polyps | ((Chronic Rhinosinusitis with nasal polyps) OR CRSwNP OR (nasal polyposis)) |
| #2 | Smell impairment | (((Olfact* OR smell) AND (impairment OR dysfunction OR alteration OR disorder OR loss)) OR anosmia OR hyposmia) |
| #3 | Medical treatment | ((oral cortico*) OR (nasal cortico* OR intranasal cortico*) OR (systemic cortico*) OR (topic cortico*) OR (antibiotic) OR (medical treatment)) |
| #4 | Surgical treatment | ((endoscopic sinus surgery) OR (endoscopic nasal surgery) OR (surg*)) |
| #5 | Biological treatment | (biologic* OR (omalizumab OR dupilumab OR mepolizumab OR benralizumab)) |
| #6 | Outcomes | ((olfact* OR anosmia OR hyposmia OR smell OR outcome*) |
| #7 | Tests | ((sniffin* stick) OR UPSIT OR "University of Pennsylvania Smell Identification Test" OR VAS OR "visual analogue scale" OR BSIT OR "Brief Smell Identification Test" OR BAST-24 OR "Barcelona Smell Test-24" OR CCCRC OR "Connecticut Chemosensory Clinical Research Center" OR (Likert scale)) |
| **SEARCH STRATEGIES** | | |
| #1 AND #2 AND (#3 OR #4 OR #5) | | |
| #1 AND #6 AND #7 | | |





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**Table S2a.** Quality assessment of studies selected for inclusion according to the CASP system.

| Study reference | Type of study | Quality level | CASP results[a] | | |
|---|---|---|---|---|---|
| | | | Design | Methods | Outcomes |
| **Biologic treatment** | | | | | |
| **(Bachert, Mannent et al. 2016)** | RCT | High | +++ | ++0++ | ++ |
| **(Bachert, Sousa et al. 2017)** | RCT | High | +++ | ++0++ | ++ |
| **(Bachert, Han et al. 2019)** | Pooled analysis from 2RCTs | Very high | +++ | +++++ | ++ |
| **(Desrosiers, Mannent et al. 2021)** | Pooled subgroup analyses from2 RCTs | Very high | +++ | +++++ | ++ |
| **(Gevaert, Omachi et al. 2020)** | 2RCTs | Very high | +++ | +++++ | ++ |
| **(Gevaert, Saenz et al. 2022)** | OLE from RCTs | Medium-High | +++ | +++00 | ++ |
| **(Han, Bachert et al. 2021)** | RCT | High | +++ | +-+++ | ++ |
| **(Mullol, Bachert et al. 2022)** | Pooled analyses from the SINUS-24 and SINUS-52 phase 3 trials | Very High | +++ | +++++ | ++ |
| **(Mullol, Laidlaw et al. 2021)** | Pooled analyses from the 2RCTs | Medium-High | ++- | +++-+ | ++ |
| **(Naclerio et al., 2017) ABSTRACT** | Phase 2a trial | Very low | ++- | 00000 | ++ |
| **Surgical treatment** | | | | | |
| **(Andrews, Poirrier et al. 2016)** | Prospective cohort study | Very high | +++ | +++++ | ++ |
| **(Arancibia, Langdon et al. 2022)** | Prospective cohort study | Medium | +++ | -++-+ | +0 |
| **(Baradaranfar, Ahmadi et al. 2014)** | Prospective non-randomized clinical trial | Medium-low | +-0 | ---++ | ++ |
| **(Bardaranfar, Ranjbar et al. 2014)** | RCT | Medium | ++0 | +0++0 | ++ |
| **(Beswick, Smith et al. 2021)** | Observational, prospective, multicenter study | Medium-low | +++ | +---+ | +- |
| **(Bogdanov, Walliczek-Dworschak et al. 2020)** | Prospective, randomized study | Medium-low | +++ | ----+ | ++ |
| **(Chen, Deng et al. 2016)** | Prospective, single-center, cohort study | Low | +++ | --0-+ | +- |
| **(Dadgarnia, Rahmani et al. 2019)** | Prospective study | Medium | +++ | +00+- | ++ |
| **(DeConde, Mace et al. 2015)** | Prospective, observational, multi-center cohort study | Medium | +-+ | -++++ | +- |
| **(Djukic, Dudvarski et al. 2015)** | Prospective study | Medium-low | +++ | ---0+ | ++ |
| **(Galletti, Gazia et al. 2019)** | Retrospective study | Lowow | +0+ | ----+ | ++ |
| **(Haxel, Boessert et al. 2017)** | Prospective study | High | +++ | +++0+ | ++ |
| **(Haxel, Fischer et al. 2022)** | Prospective study | Medium-High | +++ | ++++- | +- |
| **(Hema, Rebekah et al. 2021)** | Prospective observational study | Medium-low | +++ | +--0- | ++ |
| **(Levy, Mace et al. 2016)** | Prospective, multi-center, observational cohort study | Medium-High | +0+ | ++-++ | ++ |





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| | | | | | |
|---|---|---|---|---|---|
| **(Lind, Joergensen et al. 2016)** | Prospective cohort study | High | +++ | ++++- | ++ |
| **(Lötsch, Hintschich et al. 2021)** | Prospective open cohort study | Medium | +++ | +00+- | ++ |
| **(Nguyen et al., 2015)** | Prospective observational study | Low | +00 | +0+-- | ++ |
| **(Nguyen et al., 2016)** | Prospective observational study | Medium | +++ | +--++ | +- |
| **(Paksoy et al., 2019)** | Prospective observational study | Medium | +++ | +--+- | ++ |
| **(Szaleniec, 2015)** | Observational | | | | |
| **Medical treatment** | | | | | |
| **(Alobid, Benitez et al. 2014)** | RCT | Medium-low | +++ | ----+ | ++ |
| **(Antonio, Marson et al. 2021)** | RCT | Medium-low | +++ | ----+ | ++ |
| **(Kern, Stolovitzky et al. 2018)** | RCT | Medium-High | +++ | +-+-+ | ++ |
| **(Papadakis et al., 2021)** | Randomized non-blinded clinical study | Low | ++0 | ---+- | ++ |
| **(Poletti et al., 2017)** | Prospective clinical trial pseudo-randomized | Medium-High | +++ | +00++ | ++ |
| **(Van Gerven, 2018)** | Prospective, randomized, open-label trial | Medium-High | +++ | ---++ | ++ |

[a]Quality assessment was performed using CASP checklists for each type of study (https://casp-uk.net/casp-tools-checklists/). Results depicted in the table correspond to questions related to design (questions 1-3), methodology (questions 4-6) and outcomes (questions 7-8) in the corresponding checklists. Each positive (yes) response in the questionnaire is depicted as (+), negative it is indicated as (-), and "can't tell" is depicted as (0). The increasing number of (+) indicates a greater quality assessment score. Quality judgment as been assigned as an indicative measure (not given in the CASP assessment checklist).

RCT: randomized clinical trial.





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**Table S2b.** Quality assessment of systematic reviews with meta-analysis selected for inclusion according to the CASP system.

| Study reference | Type of study | Quality assessment | CASP results[a] | | |
|---|---|---|---|---|---|
| | | | Design | Methods | Outcomes |
| **Biologic treatment** | | | | | |
| **(Cai, Xu et al. 2022)** | SRL and MA of 7 RCTs: | Very high | ++ | +++ | ++ |
| **Ohkyman, Paramo et al., 2022** | NMA of RCT | Very high | ++ | +++ | ++ |
| **(Peters et al., 2021)** | SRL and indirect treatment comparison of 4 RCTs | High | ++ | +-+ | ++ |
| **(Tsetsos, 2020)** | SRL and MA of 7 RCTs | Very high | ++ | +++ | ++ |
| **(Wang, 2022)** | SRL and MA of 7 RCTs | Very high | ++ | +++ | ++ |
| **Surgical treatment** | | | | | |
| **(Kohli, Naik et al. 2016)** | SRL and MA (31 prospective cohort studies) | Medium-high | +- | -++ | ++ |
| **(Zhao, 2021)** | SRL and MA (35 studies: 29 cohort studies, 4 RCT, 2 case-control studies) | Very high | ++ | +++ | ++ |

[a]Quality assessment was performed using CASP checklists for each type of study (https://casp-uk.net/casp-tools-checklists/). Results depicted in the table correspond to questions related to design (questions 1-2), methodology (questions 3-5) and outcomes (questions 6-7) in the corresponding checklists. Each positive (yes) response in the questionnaire is depicted as (+), negative it is indicated as (-), and "can't tell" is depicted as (0). The increasing number of (+) indicates a greater quality assessment score. Quality judgment as been assigned as an indicative measure (not given in the CASP assessment checklist).

SRL: systematic review of literature; MA: Meta-analysis





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**Table S3.** Methodological design and population characteristics of the studies included for qualitative synthesis

| Publication | Study design | Population /sample size | Comorbid asthma (%) | Comorbid NSAID-ERD (%) | Previous sinus surgery (%) | Follow-up time | Specific intervention | Comparator |
|---|---|---|---|---|---|---|---|---|
| | **BIOLOGICAL TREATMENT** | | | | | | | |
| **(Bachert, Mannent et al., 2016)** | Randomized, double-blind, placebo-controlled parallel-group study | Adults with CRSwNP refractory to INS corticosteroids (*n* = 60) | 63.3% in the placebo group; 53.3% in the dupilumab group | 30% in the placebo group; 20% in the dupilumab group | 63.3% in the placebo group and 53.3% in the dupilumab group | 16 weeks | Dupilumab + mometasone furoate nasal spray | Placebo + mometasone furoate nasal spray |
| **(Bachert, Sousa et al. 2017)** | Randomized, double-blind, placebo-controlled trial | Adults with recurrent CRSwNP requiring surgery (*n* = 105) | 75% in placebo group; 81% in mepolizumab group | NA | 100% | 24 weeks | Mepolizumab + intranasal steroids (fluticasone propionate) | Placebo + INS (fluticasone propionate) |
| **(Bachert, Han et al. 2019)** | Pooled analysis from two multinational, multicenter, randomized, double-blind, placebo-controlled, parallel-group studies | Adults with severe, uncontrolled CRSwNP (*n* = 724) | 59% | 28% | 63.4% | 24 weeks/52 weeks | Dupilumab | Placebo |
| **(Desrosiers, Mannent et al. 2021)** | Pooled subgroup analyses from the SINUS-24 and SINUS-52 phase 3 trials | Adults with CRSwNP with (*n* = 538) /without (*n* = 186) prior SCS use and with (*n* = 459)/without (*n* = 265) prior ESS | With/without prior SCS use: 60.2%/ 55.9%; With/without prior ESS: 66.2%/ 46.8% | With/without prior SCS use: 27.5%/ 30.1%; With/without prior ESS: 34.6%/ 17.0% | With/without prior SCS use: 54.3%/ 89.8% | 24 weeks/ 52 weeks | Dupilumab | Placebo |
| **(Gevaert, Omachi et al. 2020)** | Randomized, multicenter, double-blind, placebo-controlled phase 3 studies (POLYP 1 and POLYP 2) | Adults with CRSwNP with inadequate response to INS (*n* = 265) | 48.5 – 61.3 % | 16.7 – 38.7% | 54.2 – 62.9% | 24 weeks | Omalizumab | Placebo + INS (mometasone) |
| **(Gevaert, Saenz et al. 2022)** | Open-label extension study of patients who completed POLYP 1 or POLYP 2 | Adults with CRSwNP with inadequate response to INS (*n* = 249) | 57% | 26.9% | 59% | 52 weeks | Omalizumab | Placebo + INS (mometasone) |





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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Han, Bachert et al., 2021)** | Randomized, double-blind, placebo-controlled, phase 3 trial | Adult patients with recurrent, refractory, severe CRSwNP and at least one NP surgery (*n* = 407) | 71% | 26.5% | 100% | 49 weeks/ 52 weeks | Mepoluzimab | Placebo |
| **(Mullol, Bachert et al., 2022)** | Pooled analyses from the SINUS-24 and SINUS-52 phase 3 trials | Adults with severe, uncontrolled CRSwNP (*n* = 724) | 59% | 28.2% | 63.4% | 24 weeks/ 52 weeks | Dupilumab | Placebo |
| **(Mullol, Laidlaw et al., 2021)** | Pooled analyses from the SINUS-24 and SINUS-52 phase 3 trials | Adults with severe, uncontrolled CRSwNP (*n* = 724) | With/without NSAID-ERD: 88.7%/ 47.5% | 28.2 | With/without NSAID-ERD: 77.9%/ 57.7% | 24 weeks/ 52 weeks | Dupilumab | Placebo |
| **(Naclerio et al., 2017) ABSTRACT** | Phase 2a trial | Adults with CRSwNP (*n* = 60) | NA | NA | NA | 16 weeks | Dupilumab | Placebo + mometasone furoate nasal spray |
| **(Cai, Xu et al., 2022)** | Systematic review and meta-analysis (7 RCT) | Adults with CRSwNP (*n* = 1913) | 53.6% – 78.1% | NA | 58.3% – 100% | Ranges from 24 to 56 weeks | Benralizumab, dupilumab, mepolizumab, omalizumab | Depending on the RCT, the comparison was placebo, standard of care, or no treatment. |
| **Ohkyman, Paramo et al., 2022** | Network meta-analysis of RCT | 29 RCT evaluating 8 interventions (*n* = 3461) | Mean of means: 77% | Mean of means: 34% | Mean of means: 73% | NA | Benralizumab, dupilumab, mepolizumab, omalizumab | NA |
| **(Peters et al., 2021)** | Systematic review and indirect treatment comparison (4 RCT) | Adults with CRSwNP (*n* = 989) | 53.6% – 60.6% | NA | 57.2% – 71.7% | 24 weeks | Dupilumab, omalizumab | Placebo |
| **(Tsetsos, 2020)** | Systematic review and meta-analysis (7 RCT) | Adults with CRSwNP (*n* = 957) | NA | NA | NA | Ranges from 16 to 52 weeks | Dupilumab, omalizumab, mepolizumab | Placebo |
| **(Wang, 2022)** | Systematic review and meta-analysis (7 RCT) | Adults with CRSwNP (n = 799) | 30 ─ 88% | NA | NA | Ranges from 24 to 76 weeks | Benralizumab, mepolizumab, reslizumab | Placebo |





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| | SURGERY | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Andrews Poirrier et al., 2016)** | Prospective cohort study | Adults with CRS (*n* = 113; CRSwNP *n* = 60) | NA | NA | 11.5% | 6 months | ESS | Before and after surgery |
| **(Arancibia, Langdon et al., 2022)** | Prospective cohort study | Adults with moderate-to-severe CRSwNP refractory to medical treatment (*n* = 76, *n* at 12 years = 39) | 55.4% | 31.1% | 19.7% | 12 years | ESS | Before surgery and 12 years after surgery |
| **(Baradaranfar, Ahmadi et al., 2014)** | Prospective non-randomized clinical trial | Patients with CRSwNP (*n* = 60) | NA | NA | 0% | 12 weeks | FESS + postoperative Fluticasone propionate nasal spray for 8 weeks | FESS + medical treatment vs. medical treatment alone |
| **(Bardaranfar, Ranjbar et al., 2014)** | Double-blind randomized controlled trial | Patients with CRSwNP who had complaints of olfactory dysfunction (*n* = 60) | NA | NA | NA | 8 weeks | Triamcinolone+ ESS + Gelfoam (Triamcinolone group) vs. ESS + Gelfoam (control group) | 2 weeks before surgery and 8 weeks after surgery |
| **(Beswick, Smith et al., 2021)** | Observational, prospective, multicenter study | Adults with CRSwNP who underwent ESS (*n* = 165) | 56% | 19% | 63% | 18 months | ESS | 2 months before surgery and every 6 months after surgery until 18 months |
| **(Bogdanov, Walliczek-Dworschak et al., 2020)** | Prospective, randomized study | CRSwNP patients (*n* = 52) divided into control group (*n* = 31) and treatment group (*n* = 21) | NA | 0% | NA | 3 months | ESS without preoperative OCS (control group); ESS with preoperative OCS (treatment group) | Comparison of control and treatment group before surgery vs. 2 weeks, 1 month and 3 months after surgery |
| **(Chen, Deng et al., 2016)** | Prospective, single-center, cohort study | Patients with CRSwNP and asthma (*n* = 47) undergoing EESS (*n* = 23) or FESS (*n* = 24) | 100% | NA | 25% in the EESS group and 22.7% in the FESS group | 1 year | EESS or FESS + prednisolone 30 mg once a day for 7 days before surgery + budesonide nasal spray 128 µg twice a day for at least 3 months or until achieving good control. | Before and after surgery |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Dadgarnia, Rahmani et al., 2019)** | Prospective study | Patients with CRSwNP undergoing ESS (*n* = 40) | NA | NA | NA | 3 months | ESS + 5-day course of prednisolone 0.5 mg/kg in a single dose every morning before surgery + topical fluticasone 100 µg in each nostril daily after surgery for 6 weeks. | Before surgery and 3 months after surgery |
| **(DeConde, Mace et al., 2015)** | Prospective, observational, multi-center cohort study | Adult patients with medical refractory CRS (*n* = 342) who either continued medical management (*n* = 69) or underwent ESS (*n* = 273) | 30.4% in medical management group and 37% in ESS group | 11.6% in medical management group and 8.4% in ESS group | 58% in medical management group and 52% in ESS group | At least 6 months and up to 18 months | ESS | Baseline and at least 6-months after continued medical therapy or ESS procedure. |
| **(Djukic, Dudvarski et al., 2015)** | Prospective study | Adult patients with NP who underwent FESS after failure of medical treatment or surgical treatment (*n* = 85) | 38.8% | 25.9% | 44.7% | 12 months | FESS + postoperative intranasal corticosteroid for 3 months | Before surgery and 6 and 12 months after surgery |
| **(Galletti, Gazia et al., 2019)** | Retrospective study | Patients with CRS refractory to medical treatment (*n* = 96), divided into group A (who underwent ESS with computer navigation system) (*n* = 48), and group B (who underwent conventional ESS) (*n* = 48). | NA | NA | NA | 12 months | Group A: ESS with use of the Medtronic FUSION Compact ENT NAVIGATION system. Group B: conventional ESS; + third generation cephalosporins for 5 days, nasal douching with beclomethasone dipropionate, thiamphenicol, acetylcysteine and saline solution twice a day for a month. | Group A: ESS with use of the Medtronic FUSION Compact ENT NAVIGATION system. Group B: conventional ESS + third generation cephalosporins for 5 days + nasal douching with beclomethasone dipropionate, thiamphenicol, acetylcysteine and saline solution twice a day for a month. |
| **(Haxel, Boessert et al., 2017)** | Prospective study | Adult patients with CRS (with and without NP), who | NA | NA | 58.5% | 6 months | ESS + nasal irrigation with saline at least twice a day + | Before surgery, and 2 weeks and 6 months after surgery |





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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | underwent ESS because of unsuccessful conservative treatment with topical and/or systemic steroids (*n* = 41) | | | | | topical nasal steroid (fluticasone furoate) once a day (27.5 mg), beginning after the surgical intervention and continuing for the entire study period. | |
| **(Haxel, Fischer et al., 2022)** | Prospective study | Patients with CRSwNP undergoing ESS (*n* = 47) | 40% | 11% | 19% | 3 months | ESS + topical nasal steroid after surgery | Before surgery and 3 months after surgery |
| **(Hema, Rebekah et al., 2021)** | Prospective observational study | Patients with medically refractory CRS (*n* = 96; 65.6% with NP). | 11% | NA | 19% | 6 months | FESS | Before surgery and 6 months after surgery |
| **(Levy, Mace et al., 2016)** | Prospective, multicenter, observational cohort study | Adult patients with medically recalcitrant CRS (*n* = 122), with NP (*n* = 38) and without NP | 31.1% | 7% | 51% | 6, 12 and 18 months | ESS | Before surgery and at 6, 12 and 18 months after surgery |
| **(Lind, Joergensen et al., 2016)** | Prospective cohort study | Patients with CRS with inadequate response to INS (*n* = 97), with CRSwNP (*n* = 75) or CRSsNP (n = 22) | 28% in the CRSwNP group and 10% in the CRSsNP group | 0% (excluded from study) | 31% in the CRSwNP group and 5% in the CRSsNP group | 6 months | ESS | Before surgery, and 1 month and 6 months after surgery |
| **(Lötsch, Hintschich et al., 2021)** | Prospective open cohort study | Patients with CRSwNP (*n* = 158) that had undergone surgery. | NA | NA | NA | 4 months | ESS | Before surgery and 4 months after surgery |
| **(Nguyen et al., 2015)** | Prospective observational study | Patients endoscopically operated for NP (*n* = 96) | 58.33% | NA | 54.17% | 6 weeks | ESS + INS before and after surgery. | Before surgery and 6 weeks after surgery |
| **(Nguyen et al., 2016)** | Prospective observational study | Patients who underwent endoscopic surgery for NP (*n* = 65) | NA | NA | NA | 7 months | ESS (radical ethmoid surgery for NP) + topical steroids once daily after surgery | Before surgery, and 6 weeks and 7 months after surgery |
| **(Paksoy et al., 2019)** | Prospective observational study | Patients with CRSwNP undergoing surgery for NP (n = 30) | NA | NA | NA | 3 months | ESS + standard medical treatment pre and post operative | Before surgery and 3 months after surgery |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Szaleniec, 2015)** | Observational | CRS refractory to medical treatment (*n* = 153) | 35% | 13% | Polypectomy 17%; ESS 17% | 12 months | ESS | Before surgery and 3-6 months after ESS (121 individuals) and 12 months after ESS (58 individuals) |
| **(Kohli, Naik et al., 2016)** | Systematic review and meta-analysis (31 prospective cohort studies) | Patients with CRSwNP (*n* = 599) | NA | NA | NA | Ranges from 6 weeks to 30 months | ESS | Before and after surgery |
| **(Zhao, 2021)** | Systematic review and meta-analysis (35 studies: 29 cohort studies, 4 RCT, 2 case-control studies) | Patients with CRS (*n* = 3164) | NA | NA | NA | Ranges from 1 month to 46 months | ESS | NA |
| | **MEDICAL TREATMENT** | | | | | | | |
| **(Alobid, Benitez et al., 2014)** | RCT | Patients with moderate-to-severe CRSwNP (*n* = 89) | 61% (treatment group), 63% (control group) | 24% (treatment group), 23% (control group) | 6.7% | 14 weeks | Standardized oral prednisone for 2 weeks (30 mg daily for four days followed by a 2-day reduction of 5 mg) and INS budesonide 400 µg BID for 12 weeks | The control group received no corticosteroid treatment for 2 weeks |
| **(Antonio, Marson et al., 2021)** | RCT | Adults with CRSwNP (*n* = 30) | 26.7% (control group), 26.7% (treatment group) | 13.3% (control group), 26.7% (treatment group) | 46.7% (control group), 60% (treatment group) | 12 weeks (T1) and 24 weeks (T2) | INS 0.05% budesonide + 0.1% tretinoin | 0.05% budesonide |
| **(Kern, Stolovitzky et al., 2018)** | Randomized, sham-controlled, double-blind phase 3 trial | Adults with refractory CRSwNP, candidates for repeated surgery (*n* = 300) | 73.6% (treatment group), 61.6% (control group) | 14.9% (treatment group), 17.2% (control group) | 100% | 90 days | Mometasone furoate 200 µg nasal spray and nasal implants containing 1350 µg of mometasone or placebo (shams) | Placebo |
| **(Papadakis et al., 2021)** | Randomized non-blinded clinical study | Adults with CRSwNP with hyposmia (*n* = 140) | NA | NA | NA | 12 weeks and 24 weeks | Group A: 7-day course of oral steroids with a 12-weeks course of INS and douching. Group B: 12-weeks course of INS and douching. | Group A vs. group B |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **(Poletti et al., 2017)** | Prospective clinical trial pseudo-randomized | Patients with CRS (with and without NP) (*n* = 29) | NA | NA | NA | 2 weeks and 6 weeks | 1) conventional nasal spray and (2) a device using pressure and vibration to distribute steroid aerosol endonasally (AMSA®). | Group A vs. group B |
| **(Van Gerven, 2018)** | Prospective, randomized, open-label trial | Patients with CRSwNP after surgery (*n* = 72) | 54% | 28% | NA | 1 year | INS + montelukast | INS |

CRS, chronic rhinosinusitis; NP, nasal polyposis; CRSwNP, chronic rhinosinusitis with nasal polyposis; CRSsNP, chronic rhinosinusitis without nasal polyposis INS, intranasal corticosteroids; NSAID-ERD, non-steroid anti-inflammatory drµg-exacerbated respiratory disease; NA, not available; SCS, systemic corticosteroids; ESS, endoscopic sinus surgery; EESS: extensive endoscopic sinus surgery; FESS, functional endoscopic sinus surgery; RCT, randomized controlled trial; OCS, oral corticosteroids; BID, twice per day