Allied Health Professional Symposium: Session 2. How can we manage allergic disease?

Management of rhinosinusitis

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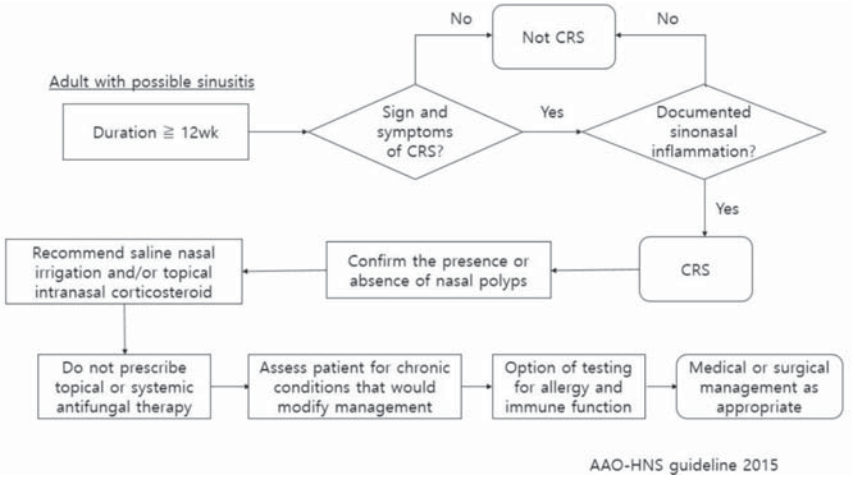
Rhinosinusitis refers to a group of heterogeneous disorders characterized by inflammation of the mucosa of the nose and paranasal sinuses. It is categorized by duration of symptoms (acute rhinosinusitis, chronic rhinosinusitis, recurrent acute rhinosinusitis, acute exacerbation of chronic rhinosinusitis).

The goal of antibacterial therapy is to shorten the duration of symptoms, eradicate the pathogen, and prevent the development of complications. Antibiotic therapy is recommended if symptoms worsen or persist for more than 7～10 days and fail conservative therapy. If no improvement is observed within 3 days of antibiotic therapy, a nonbacterial cause or infection with drug resistant bacteria should be considered.

There are two representative guidelines for the treatment of rhinosinusitis and the purpose of this multidisciplinary guideline is to identify quality improvement opportunities in managing adult rhinosinusitis and to create actionable recommendations to implement these opportunities in clinical practice.

Treatment guideline for chronic rhinosinusitis (based on AAO-HNS 2015)



Summary of updated points in AAO-HNS 2015

* Below treatment stratigies are strongly recommended
  1) Saline nasal irrigation
  2) Topical intranasal corticosteroid
  * Topical or systemic antifungal therapy is prohibited for chronic rhinosinusitis patients

EPOS 2012 Guideline for chronic rhinosinusitis

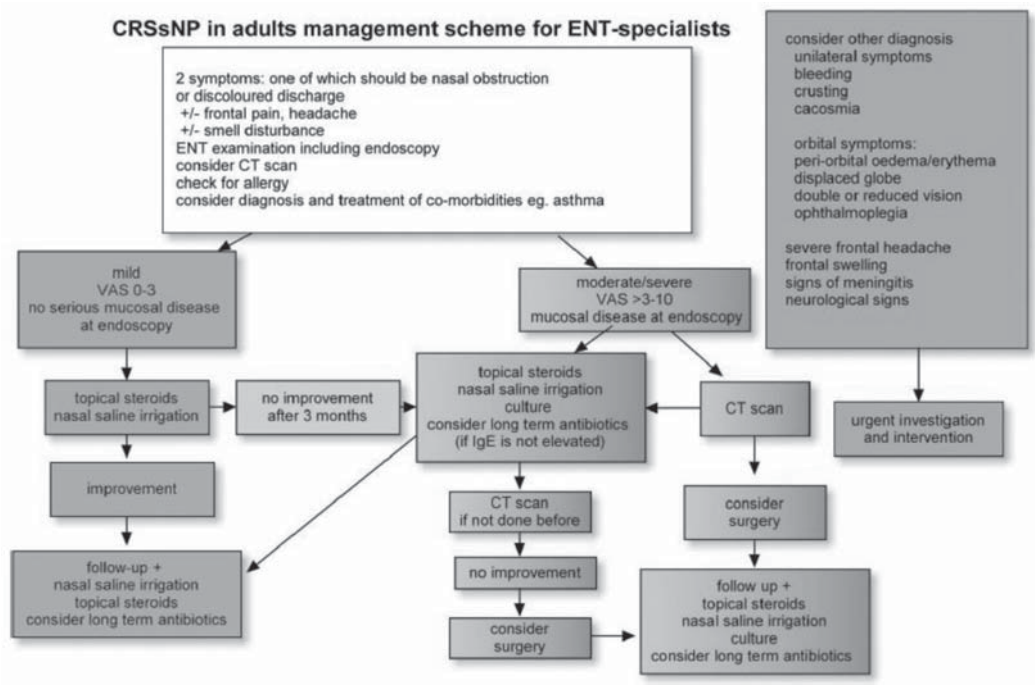
The European Position Paper on Rhinosinusitis and Nasal Polyps 2012 is the update of similar evidence based position papers. Available evidence for management of acute rhinosinusitis and chronic rhinosinusitis with or without nasal polyps in adults and children is analyzed and presented and management schemes based on the evidence are also proposed.

The diagnosis criteria of chronic rhinosinusitis meets follows: presence of two or more symptoms one of which should be either nasal blockage/obstruction/congestion or nasal discharge (anterior/posterior nasal drip): ± Facial pain/pressure; ± reduction or loss of smell; for ≥12 weeks.

1) Flowchart for chronic rhinosinusitis without nasal polyp (CRSsNP)

Table 8.3. Treatment evidence and recommendations for adults with chronic rhinosinusitis without nasal polyps * %.

Therapy	Level	Grade of recommendation	Relevance
steroid – topical	Ia	A	yes
nasal saline irrigation	Ia	A	yes
bacterial Lysates (OM-85 BV)	Ib	A	unclear
oral antibiotic therapy short term < 4 weeks	II	B	during exacerbations
oral antibiotic therapy long term ≥12 weeks**	Ib	C	yes , especially if IgE is not elevated
steroid – oral	IV	C	unclear
mucolytics	III	C	no
proton pump inhibitors	III	D	no
decongestant oral / topical	no data on single use	D	no
allergen avoidance in allergic patients	IV	D	yes
oral antihistamine added in allergic patients	no data	D	no
herbal en probiotics	no data	D	no
immunotherapy	no data	D	no
probiotics	Ib (-)	A(-)	no
antimycotics – topical	Ib (-)	A(-)	no
antimycotics - systemic	no data	A(-)	no
antibiotics – topical	Ib (-)	A(-)$	no

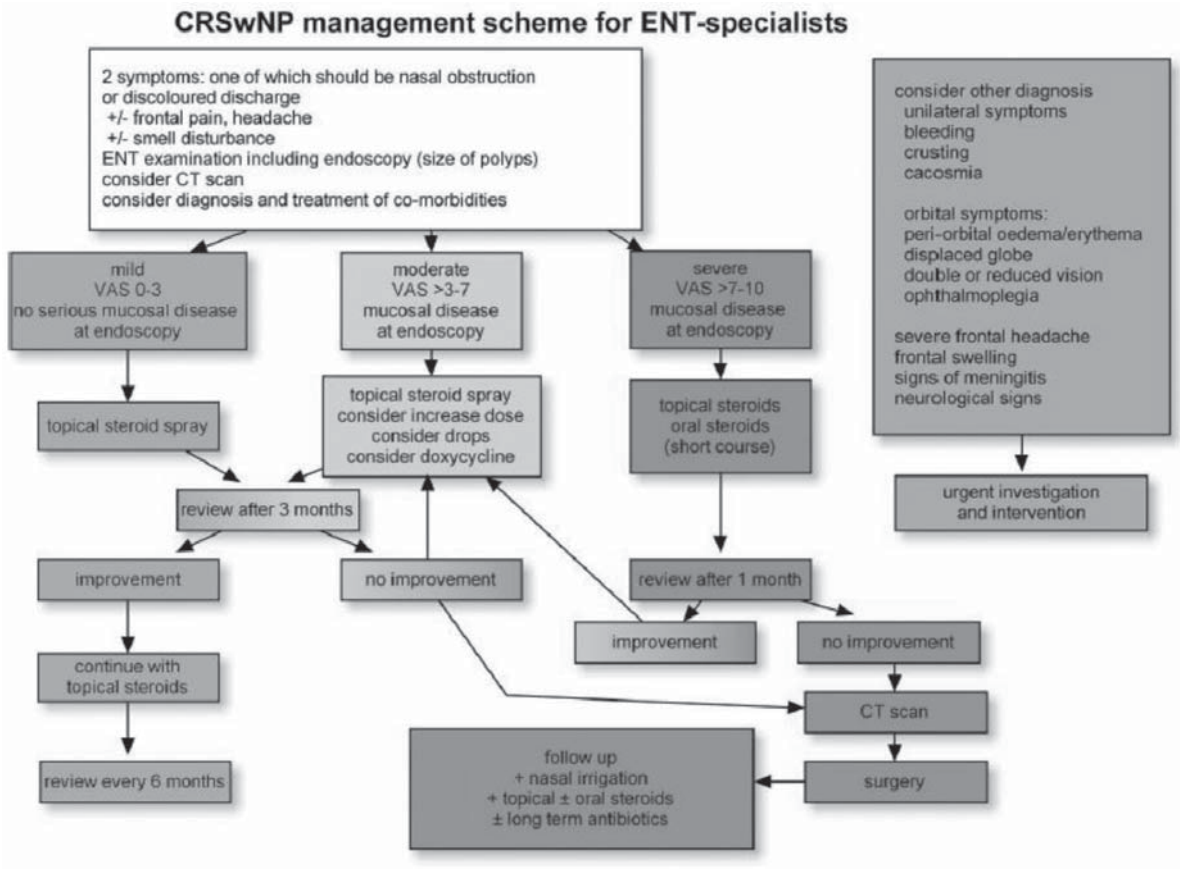


2) Flowchart for chronic rhinosinusitis with nasal polyp (CRSwNP)

Chronic Rhinosinusitis with nasal polyps (CRSwNP) is defined as above and bilateral, endoscopically visualised polyps in middle meatus

Table 8.5. Treatment evidence and recommendations for adults with chronic rhinosinusitis with nasal polyps *.

Therapy	Level	Grade of recommendation	Relevance
topical steroids	Ia	A	yes
oral steroids	Ia	A	yes
oral antibiotics short term <4 weeks	1b and 1b(-)	C[%]	yes, small effect
oral antibiotic long term ≥ 12 weeks	III	C	yes, especially if IgE is not elevated, small effect
capsaicin	II	C	no
proton pump inhibitors	II	C	no
aspirin desensitisation	II	C	unclear
furosemide	III	D	no
immunosuppressants	IV	D	no
nasal saline irrigation	Ib, no data in single use	D	yes for symptomatic relief
topical antibiotics	no data	D	no
anti-Il5	no data	D	unclear
phytotherapy	no data	D	no
decongestant topical / oral	no data in single use	D	no
mucolytics	no data	D	no
oral antihistamine in allergic patients	no data	D	no
antimycotics – topical	Ia (-) **	A(-)	no
antimycotics – systemic	Ib (-)#	A(-) [$]	no
anti leukotrienes	Ib (-)	A(-)	no
anti-IgE	Ib (-)	A(-)	no



Saline nasal irrigation

✓ Effective long term therapy for both CRSwNP and CRSwNP.

1) Low cost and high safety
2) Improve overall Sx of CRS and QOL
3) Effective especially after endoscopic sinus surgery
4) High-volume (240ml) is superior to low volume irrigation

✓ So far, the evidence of comparison between isotonic and hypertonic saline is lacking

✓ Long term Isotonic normal saline with high-volume is recommended for all CRS patients.

Topical intranasal corticosteroid

1) Very effective for all CRS patients to improve Sx and QOL

2) Less side effect, very safe
3) Can reduce the size of nasal polyp
4) Long term use (8～12 week) is recommended.
5) It helps to reduce the formation of biofilm

Statement	Grade of Recommendation	Level of evidence
Local		
INCS improve symptoms and patient reported outcomes in CRSwNP	A	1a
Delivery of INCS post surgery brings about a greater effect	A	1a
Objective measures of nasal breathing improve with INCS use in CRSwNP	A	1a
INCS is associated with only minor side-effects	B	2b
Modern INCS do not have greater clinical efficacy (although potentially fewer sider-effects) compared to first-generation INCS	A	1a
Systemic		
Systemic corticosteroids benefit CRSwNP but the effects are time limited post therapy	A	1a

References

1. Clinical practice guideline (update): adult sinusitis (Otolaryngol Head Neck Surg, 2015)
2. European Position Paper on Rhinosinusitis and Nasal Polyps 2012