

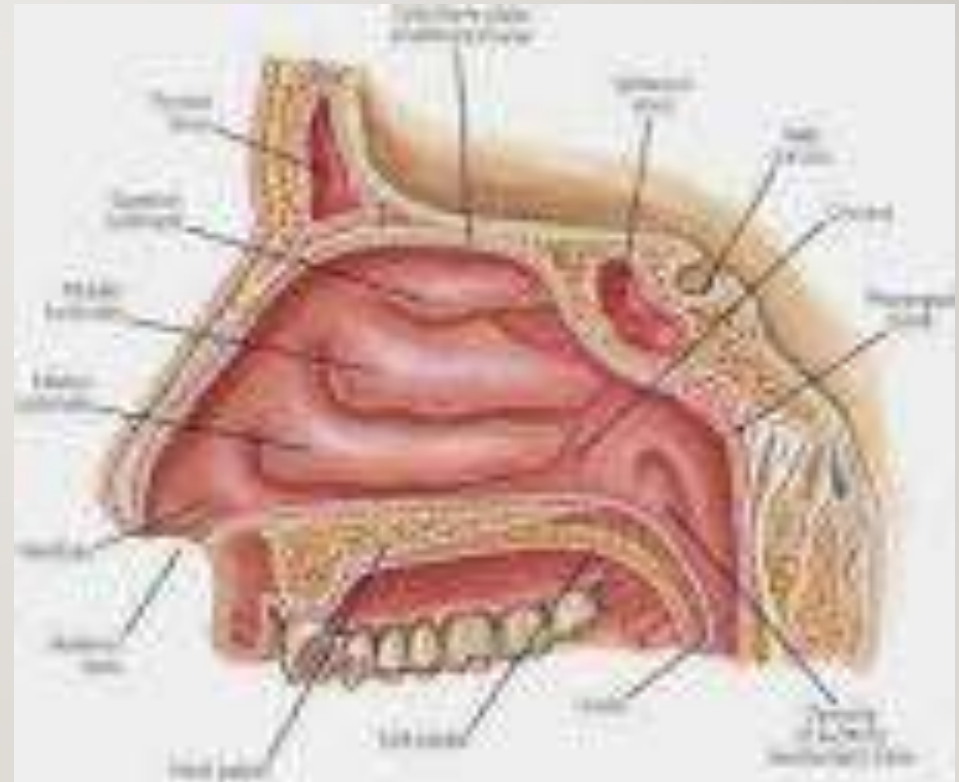
# UPDATE MANAGEMEN GANGGUAN HIDUNG & SINUS PARANASAL

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# Fungsi hidung

- Jalan napas
- Pengatur kondisi udara
- Penyaring dan pelindung
- Indra penghidu
- Resonansi suara
- Proses bicara
- Refleks nasal



# PREVALENCE OF THE UPPER AIRWAY DISEASES



**Common,  
especially in  
children**



**Common cold/Viral rhinitis<sup>2</sup>:  
Up to 7-10/yr (children)  
Up to 2-5/yr (adult)**

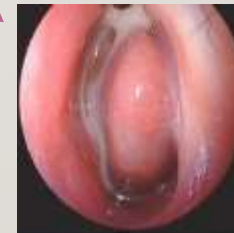
**Allergic  
rhinitis<sup>3</sup>:  
10-25%**



**Snoring/sleep apnea<sup>1</sup>  
2-26%**



**Nasal polyps<sup>2</sup>  
0.5-4.3%**



**Rhinosinusitis<sup>2</sup>  
8.4-16%**

<sup>1</sup> Abrishami et al. (2010)

<sup>2</sup> EPOS (2007)

<sup>3</sup> ARIA 1997

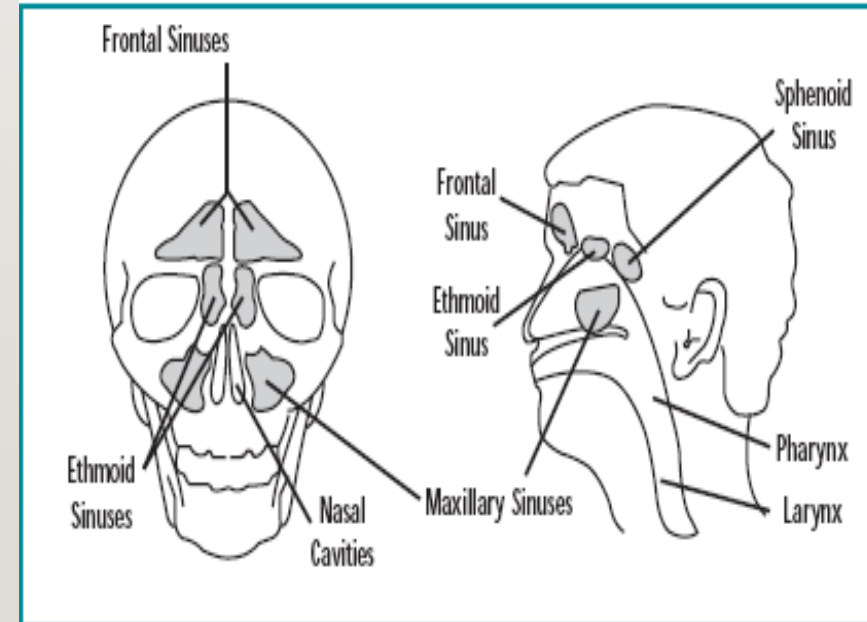
# PREFACE : CLINICAL DEFINITION

- Rhinosinusitis is defined as inflammation of the nose and the paranasal sinuses resulting in:

## ≥2 SYMPTOMS

- Blockage/congestion
- Discharge anterior/postnasal drip
- ± Loss of smell
- ± Facial pain/pressure
- ± cough (ped)

Figure 1. Anatomy of the Sinuses



# RHINOSINUSITIS: CLINICAL DEFINITION

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## ≥2 SYMPTOMS

- Blockage/congestion
- Discharge anterior/postnasal drip
- ± Loss of smell
- ± Facial pain/pressure
- ± cough (ped)

*AND either*

## ENDOSCOPIC SIGNS of

- Polyps or
- Mucopurulent discharge from middle meatus or
- Edema/mucosal obstruction primarily in middle meatus

*OR*

## CT CHANGES

- Mucosal changes within ostiomeatal complex and/or sinuses

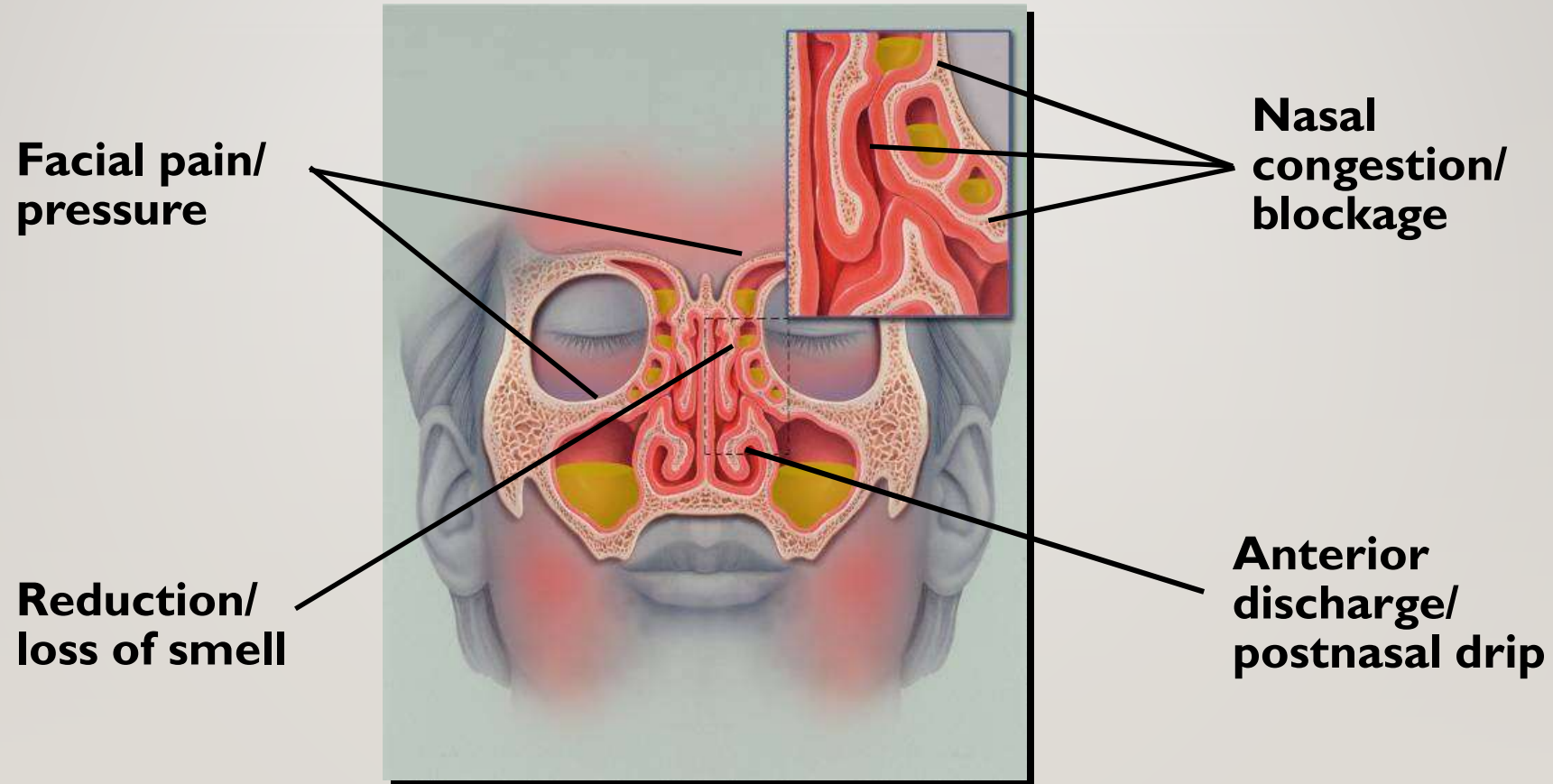
## Faktor predisposisi

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- Obstruksi mekanik: deviasi septum, hipertrofi konka, tumor, benda asing, obstruksi kompleks ostiomeatal, polip nasi, hipertrofi adenoid
- Rinitis alergika: edema mukosa dan sekret yang banyak merupakan media yang baik untuk tumbuhnya bakteri
- Polusi lingkungan: dapat terjadi perubahan mukosa dan kerusakan silia

# ACUTE RHINOSINUSITIS: DEFINITION

Sudden onset of 2 or more of the major symptoms  
( $<12$ mgg)



# RHINOSINUSITIS: CLINICAL DEFINITION

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## Duration

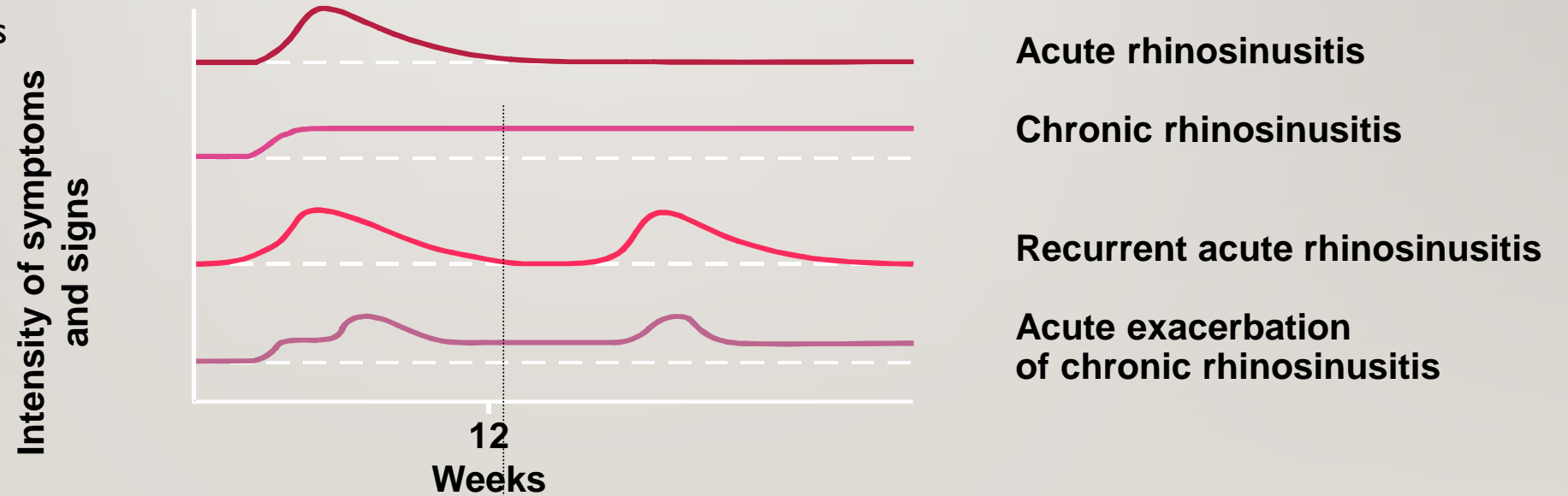
- Acute/intermittent
  - <12 weeks
  - Complete resolution of symptoms
- Persistent/chronic
  - >12 weeks
  - No complete resolution of symptoms



# RHINOSINUSITIS: INTENSITY OF SYMPTOMS AND SIGNS

- Acute rhinosinusitis
- Chronic rhinosinusitis
- Recurrent acute rhinosinusitis
- Acute exacerbations of chronic rhinosinusitis

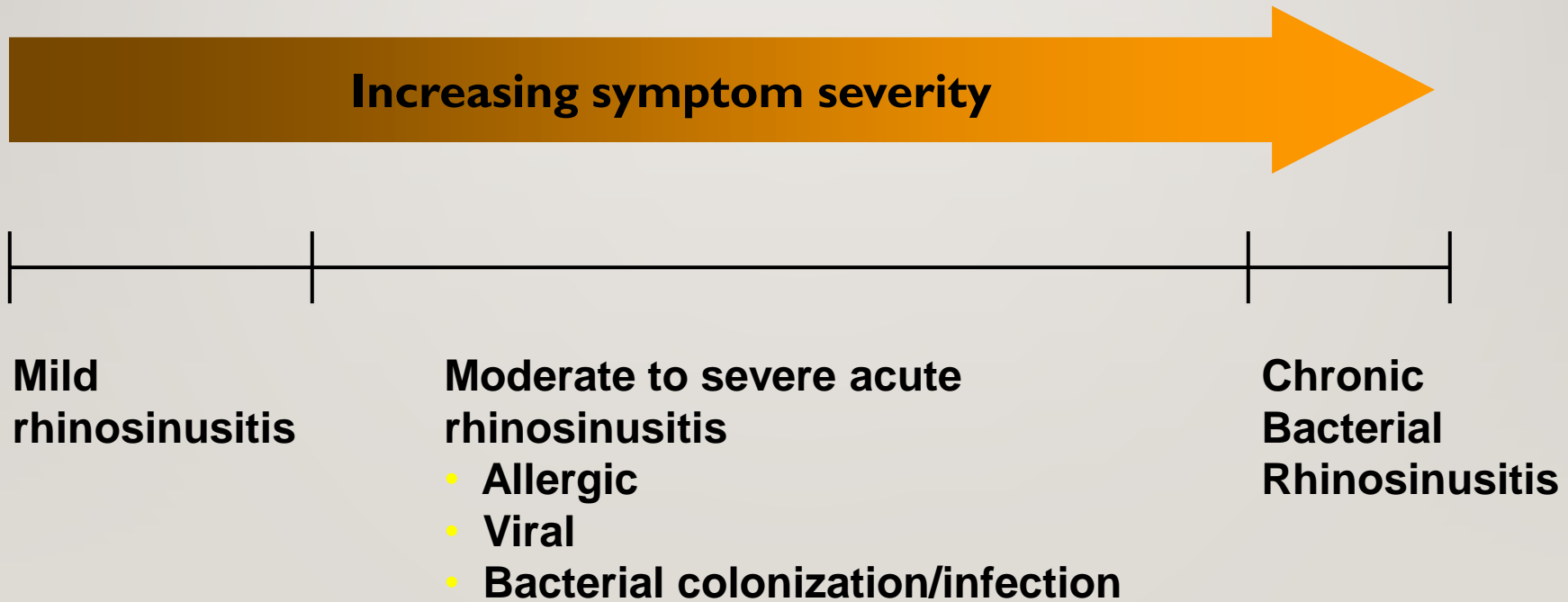
- Adults
- Children



# ACUTE RHINOSINUSITIS CONTINUUM

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## Spectrum of acute rhinosinusitis based on clinical criteria



# BACTERIAL INFECTION IN ACUTE RHINOSINUSITIS

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- Antibiotics for acute rhinosinusitis are a common prescription in primary care
  - Acute bacterial rhinosinusitis is usually a secondary infection resulting from sinus obstruction following acute viral URI
    - *Streptococcus pneumoniae*
    - *Haemophilus influenzae*
- } Most common pathogens
- Acute bacterial and viral rhinosinusitis are difficult to differentiate on clinical grounds

# Diagnosis penyebab obstruksi nasi:

1. Rinitis akut
2. Rhinitis kronis allergika
3. Sinusitis paranasalis
4. Deviasi septi
5. Rinitis vasomotor
6. Hematoma septi/abses septi
7. Fraktur hidung
8. Valvular kolaps
9. Atresia koana
10. Korpus alienum
11. Massa pd hidung & nasofaring

# ACUTE RHINOSINUSITIS = BACTERIAL INFECTION?

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- Estimated 1 billion viral URIs occur each year in US
- Only 0.2%-2% of viral URIs are estimated to be complicated by bacterial rhinosinusitis
  - ~40% of acute bacterial infections resolve spontaneously
- 85%-98% of patients with acute rhinosinusitis are needlessly prescribed an antibiotic by their primary care physicians

URI = upper respiratory infection.

Fokkens et al. EP30S Guidelines. *Rhinol Suppl.* 2005;18:1.

Meltzer et al. *J Allergy Clin Immunol.* 2004;114(suppl):155.

# SNOT-22

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- menilai kualitas hidup penderita rinosinusitis.
- modifikasi dari *Rhinosinusitis Outcome Measure* (RSOM) dan SNOT-20.
- 4 kategori utama : gejala hidung,
  - gejala telinga dan wajah,
  - kualitas tidur
  - perubahan psikologis

I.D.: \_\_\_\_\_

**SINO-NASAL OUTCOME TEST (SNOT-22)**

DATE: \_\_\_\_\_

Below you will find a list of symptoms and social/emotional consequences of your rhinosinusitis. We would like to know more about these problems and would appreciate your answering the following questions to the best of your ability. There are no right or wrong answers, and only you can provide us with this information. Please rate your problems as they have been over the past two weeks. Thank you for your participation. Do not hesitate to ask for assistance if necessary.

1. Considering how severe the problem is when you experience it and how often it happens, please rate each item below on how "bad" it is by circling the number that corresponds with how you feel using this scale: →	No Problem	Very Mild Problem	Mild or slight Problem	Moderate Problem	Severe Problem	Problem as bad as it can be		5 Most Important Items
1. Need to blow nose	0	1	2	3	4	5		<input type="radio"/>
2. Nasal Blockage	0	1	2	3	4	5		<input type="radio"/>
3. Sneezing	0	1	2	3	4	5		<input type="radio"/>
4. Runny nose	0	1	2	3	4	5		<input type="radio"/>
5. Cough	0	1	2	3	4	5		<input type="radio"/>
6. Post-nasal discharge	0	1	2	3	4	5		<input type="radio"/>
7. Thick nasal discharge	0	1	2	3	4	5		<input type="radio"/>
8. Ear fullness	0	1	2	3	4	5		<input type="radio"/>
9. Dizziness	0	1	2	3	4	5		<input type="radio"/>
10. Ear pain	0	1	2	3	4	5		<input type="radio"/>
11. Facial pain/pressure	0	1	2	3	4	5		<input type="radio"/>
12. Decreased Sense of Smell/Taste	0	1	2	3	4	5		<input type="radio"/>
13. Difficulty falling asleep	0	1	2	3	4	5		<input type="radio"/>
14. Wake up at night	0	1	2	3	4	5		<input type="radio"/>
15. Lack of a good night's sleep	0	1	2	3	4	5		<input type="radio"/>
16. Wake up tired	0	1	2	3	4	5		<input type="radio"/>
17. Fatigue	0	1	2	3	4	5		<input type="radio"/>
18. Reduced productivity	0	1	2	3	4	5		<input type="radio"/>
19. Reduced concentration	0	1	2	3	4	5		<input type="radio"/>
20. Frustrated/restless/irritable	0	1	2	3	4	5		<input type="radio"/>
21. Sad	0	1	2	3	4	5		<input type="radio"/>
22. Embarrassed	0	1	2	3	4	5		<input type="radio"/>

2. Please mark the most important items affecting your health (maximum of 5 items) \_\_\_\_\_ ↑

# Visual analogue scale

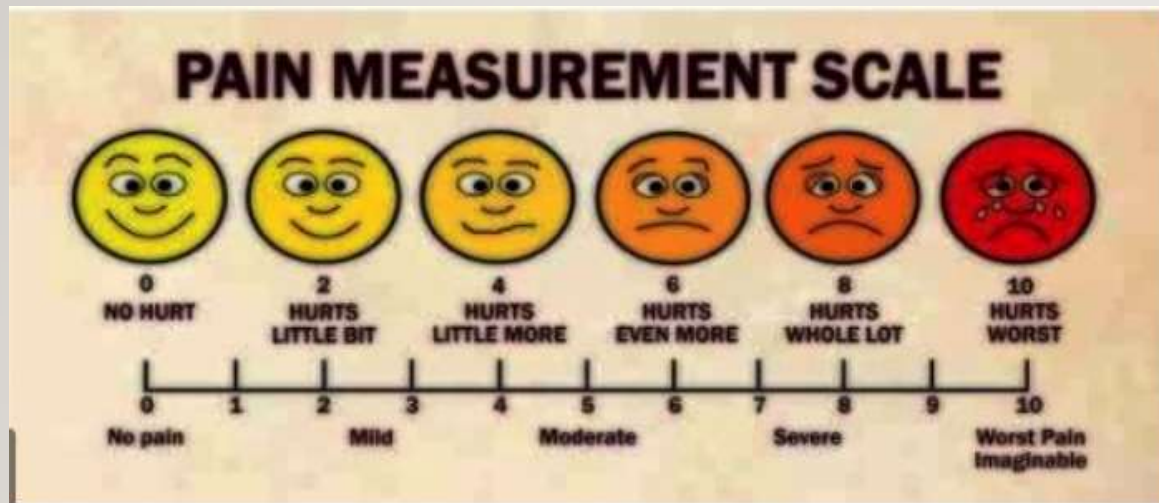
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- The Visual Analogue Scale is simple and quick to administer, and may be used before, during, and following treatment to evaluate changes in the patient's perception of pain relative to treatment.
- The scales may also be completed throughout the course of a day to assess change in pain intensity relative to activity or time of day.



# VAS / VISUAL ANALOGUE SCALE

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Ringan : 0-3  
Sedang : >3-7  
Berat : >7-10

# OBJECTIVES OF MEDICAL TREATMENT OF ACUTE RHINOSINUSITIS

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**Multifaceted  
treatment regimen**



- Eliminate infection
- Reduce inflammation
- Improve symptoms

# ACUTE RHINOSINUSITIS TREATMENT

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- Acute rhinosinusitis is usually a self-limiting disease
- Treatment can be symptomatic in mild disease
- Antibiotics should be reserved only for persistent moderate to severe disease
- Early treatment of inflammation allows sinus drainage and helps to prevent bacterial infection
- Antibiotic prescriptions should be based on local resistance patterns
- Local corticosteroids are an effective therapy

# TREATMENT OPTIONS FOR ACUTE RHINOSINUSITIS

<b>Agent</b>	<b>Primary Action</b>
Antibiotics	Eliminate (bacterial) infection
Saline lavage	Remove secretions, promote nasal mucosal healing
Oral and topical decongestants	Reduce congestion and improve drainage
Mucolytics	Thin mucus secretions, reduce mucus stasis, and promote clearing
Antihistamines	Decrease production of mucus and diminish rhinorrhea
Intranasal corticosteroids	Reduce inflammation and improve associated symptoms

# EUROPEAN GUIDELINES FOR MANAGEMENT OF ACUTE/INTERMITTENT RHINOSINUSITIS

- Recommendations for GPs

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- Mild symptoms: symptomatic relief, analgesics
- Moderate/severe symptoms: additional topical steroids

- Recommendations for ENT specialists

- Mild symptoms: symptomatic relief, analgesics
- Moderate/severe symptoms
  - Antibiotic therapy according to national recommendations
  - Topical steroids
  - +/- decongestion of the middle meatus
  - +/- microbiology culture/resistance pattern
- Persistent moderate disease: second course of antibiotics
- Persistent severe disease: hospitalization, microbiology culture, change antibiotic and route of administration, CT scan

# LEVEL OF EVIDENCE AND GRADE OF RECOMMENDATION FOR TREATMENT OF ACUTE/INTERMITTENT RHINOSINUSITIS

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Therapy	Level of Evidence	Recommendation	Relevance
Antibiotic	Ia	A	Yes: after 5 days or in severe cases
Topical steroid	Ib	B	Yes
Topical steroid + antibiotic	Ib	A	Yes

Ia: Evidence from meta-analysis of randomized, controlled trials.  
EAAACI, Rhinol. Suppl. 2005;18:1.  
Fokkens et al. Allergy. 2005;60:583.  
Ib: Evidence from at least 1 randomized, controlled trial.

A: Consistent level 1 studies.  
B: Consistent level 2 or 3 studies or extrapolations from level 1 studies.

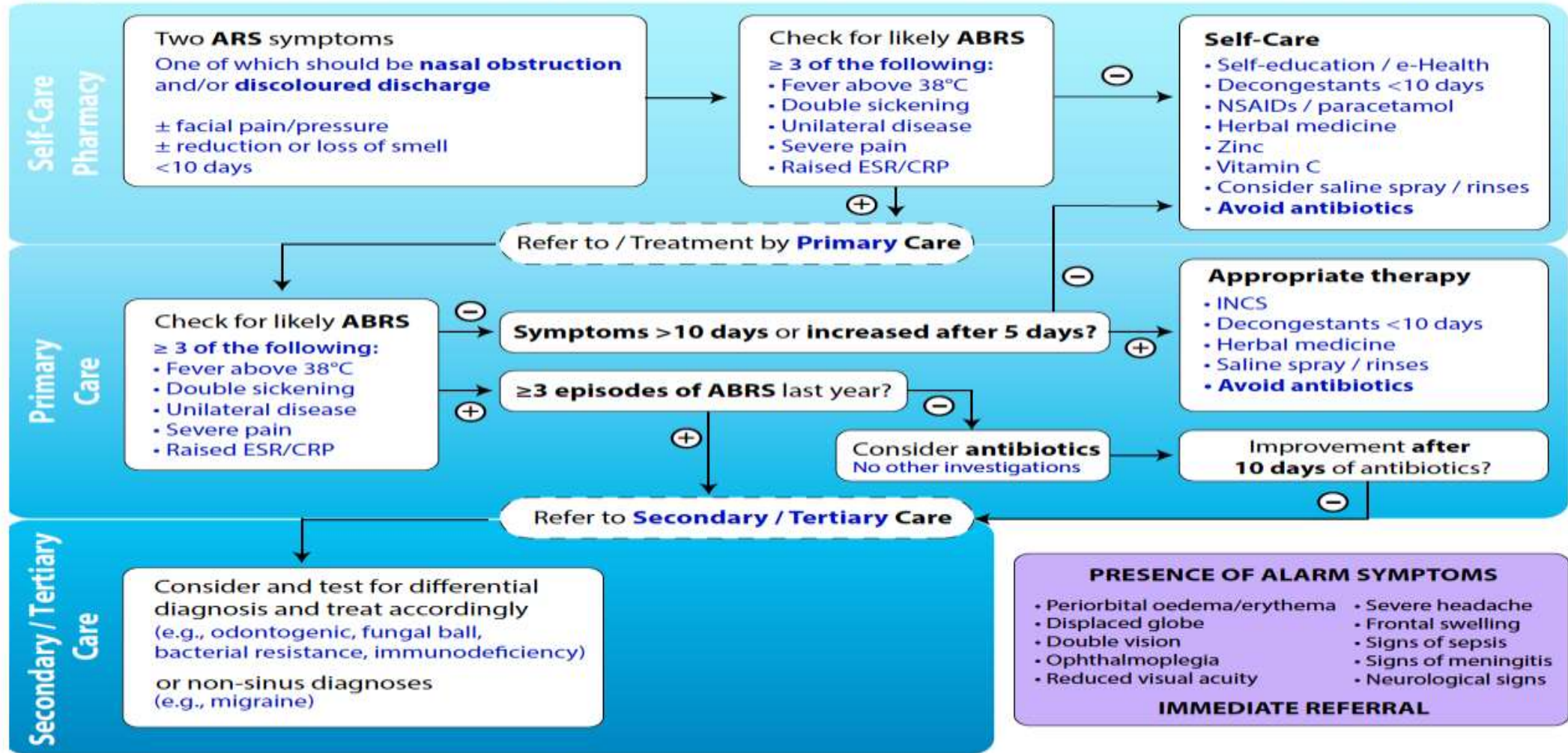
*“Isotonic or hypertonic saline solutions delivered by bottle, spray, pump or nebulizer are frequently used in the treatment of sinus disease, mainly as a supplement to other therapies.”*

*EPOS 2012 – Rhinology; 50 (Suppl 23): 214*

Treatment evidence and recommendation 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 exacerbation
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

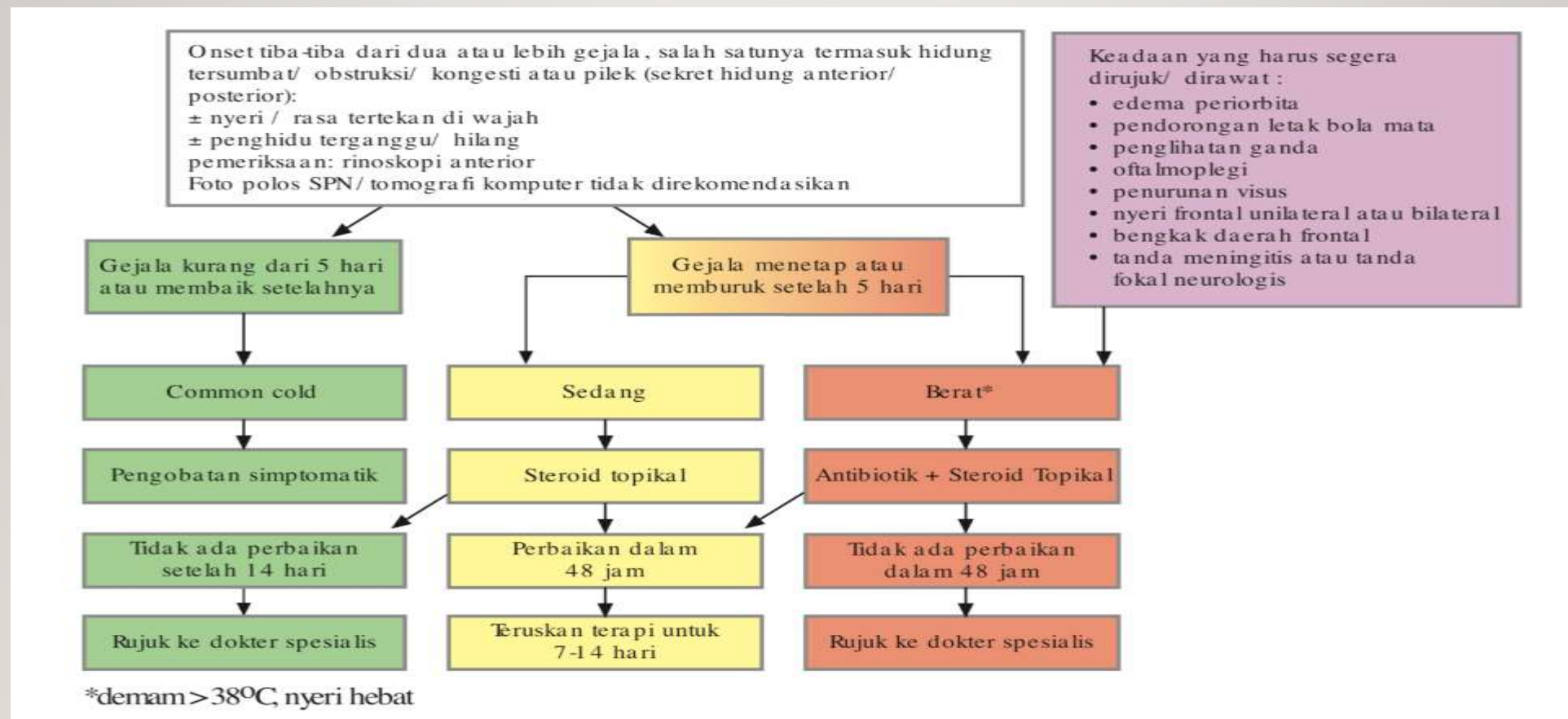
# EPOS 2020: Care pathways for acute rhinosinusitis (ARS)



ABRS, acute bacterial rhinosinusitis; INCS, intranasal corticosteroids.

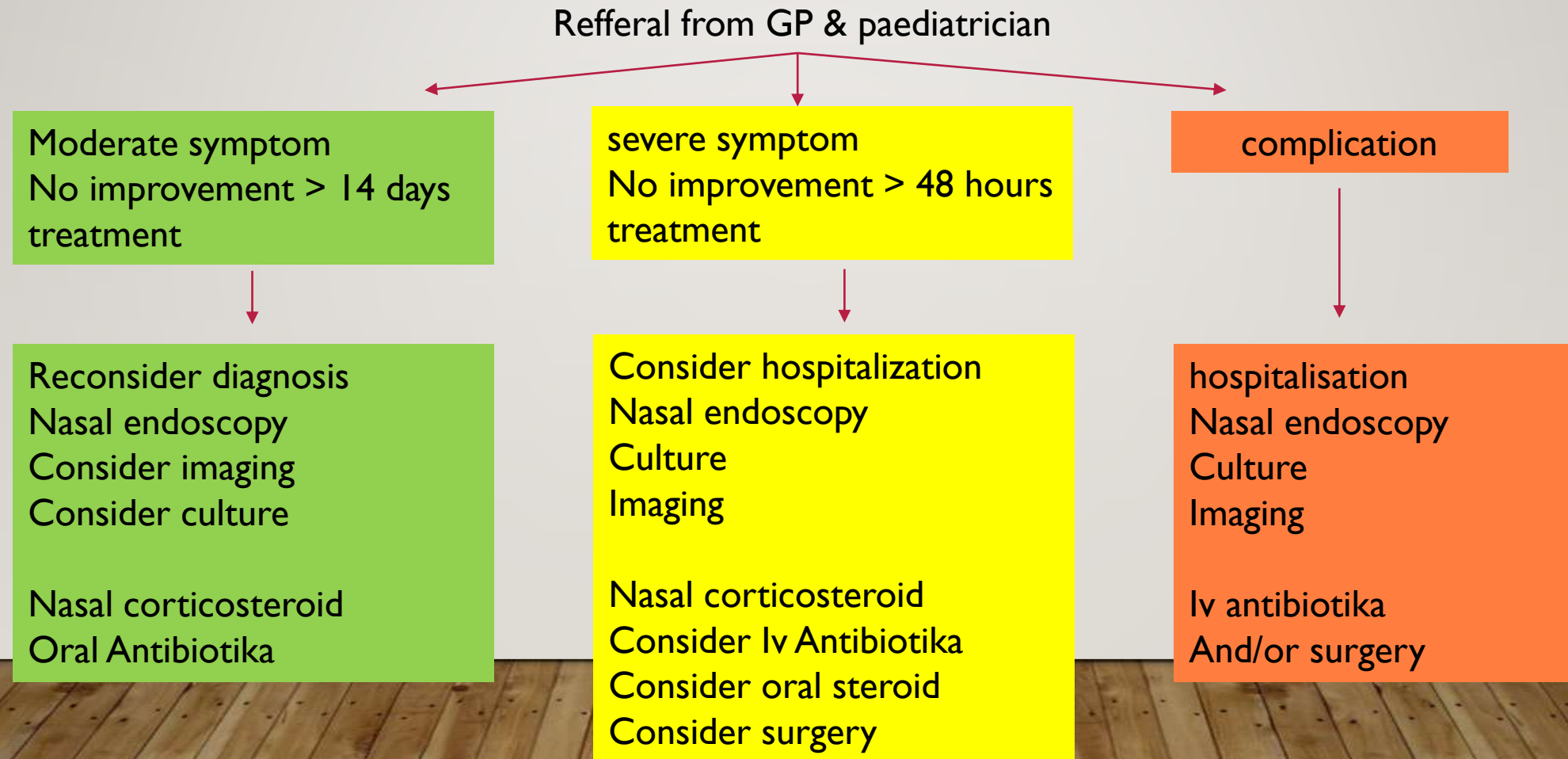


# SKEMA PENATALAKSANAAN RINOSINUSITIS AKUT PADA DEWASA UNTUK PELAYANAN KESEHATAN PRIMER



# ACUTE RHINOSINUSITIS IN ADULT & CHILDREN MANAGEMENT SCHEME FOR ENT SPECIALIST

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## EPOS 2020: Assessment of current clinical control of CRS (in the last month)

	Controlled (all of the following)	Partly controlled (at least 1 present)	Uncontrolled (3 or more present)
<b>Nasal blockage<sup>1</sup></b>	Not present or not bothersome <sup>2</sup>	Present on most days of the week <sup>3</sup>	Present on most days of the week <sup>3</sup>
<b>Rhinorrhoea / Postnasal drip<sup>1</sup></b>	Little and mucous <sup>2</sup>	Mucopurulent on most days of the week <sup>3</sup>	Mucopurulent on most days of the week <sup>3</sup>
<b>Facial pain / Pressure<sup>1</sup></b>	Not present or not bothersome <sup>2</sup>	Present on most days of the week <sup>3</sup>	Present on most days of the week <sup>3</sup>
<b>Smell<sup>1</sup></b>	Normal or only slightly impaired <sup>2</sup>	Impaired <sup>3</sup>	Impaired <sup>3</sup>
<b>Sleep disturbance or fatigue<sup>1</sup></b>	Not present <sup>2</sup>	Present <sup>3</sup>	Present <sup>3</sup>
<b>Nasal endoscopy (if available)</b>	Healthy or almost healthy mucosa	Diseased mucosa <sup>4</sup>	Diseased mucosa <sup>4</sup>
<b>Rescue treatment (in last 6 months)</b>	Not needed	Need of 1 course of rescue treatment	Symptoms (as above) persist despite rescue treatment(s)

<sup>1</sup> Symptoms of CRS; <sup>2</sup> For research VAS ≤ 5; <sup>3</sup> For research VAS > 5; <sup>4</sup> Showing nasal polyps, mucopurulent secretions or inflamed mucosa

# TAKE HOME PAGE

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RS mrp inflamasi pada mukosa hidung & sinus paranasal

Penyebabnya : multifaktor

Onset : akut → kronis, terkontrol / tak terkontrol

Tujuan penanganan : menghilangkan inflamasi / infeksi,  
mencegah komplikasi & meningkatkan QoL penderita

Semoga bermanfaat

# SUKSMA

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