



Chronic rhinosinusitis: how to implement current and new treatment options, the role of precision medicine

Professor Wytske Fokkens

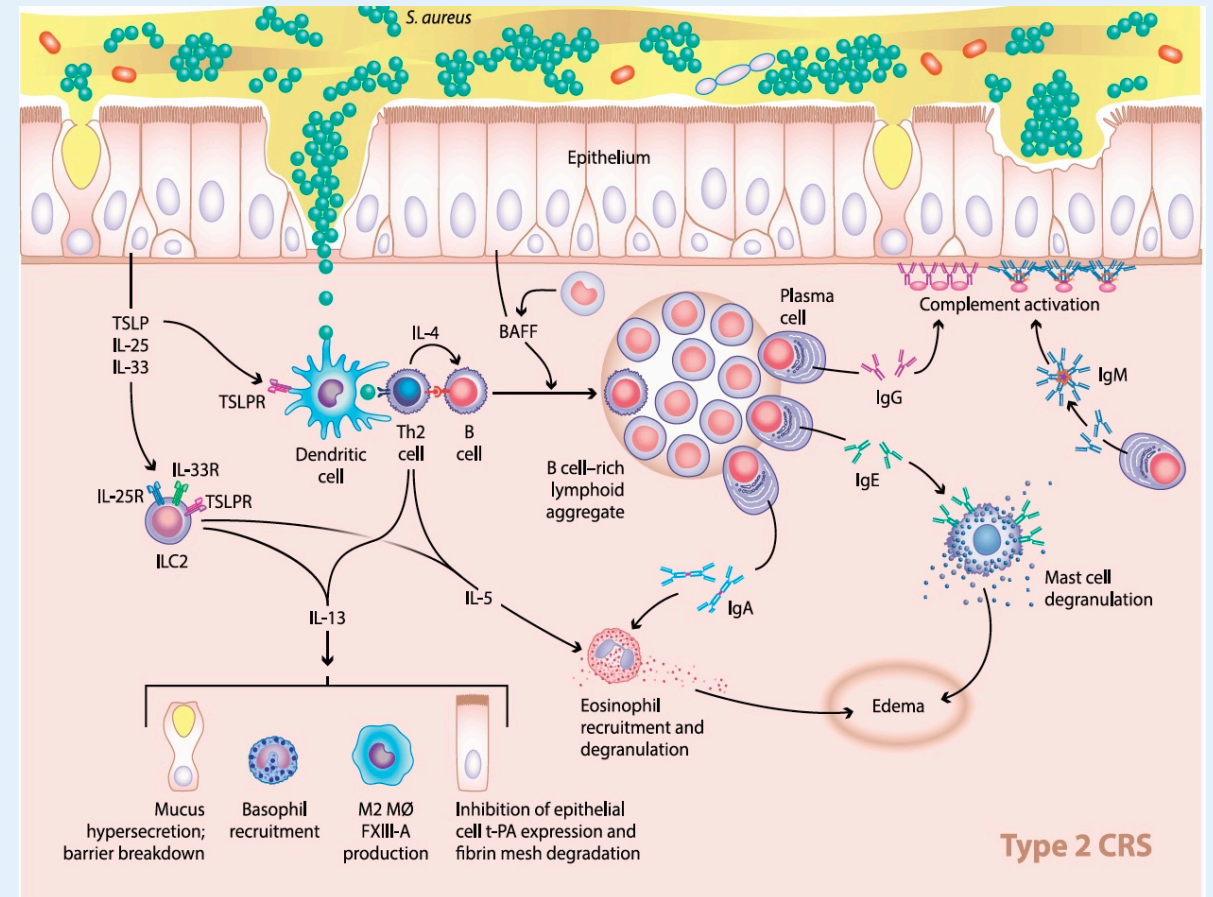
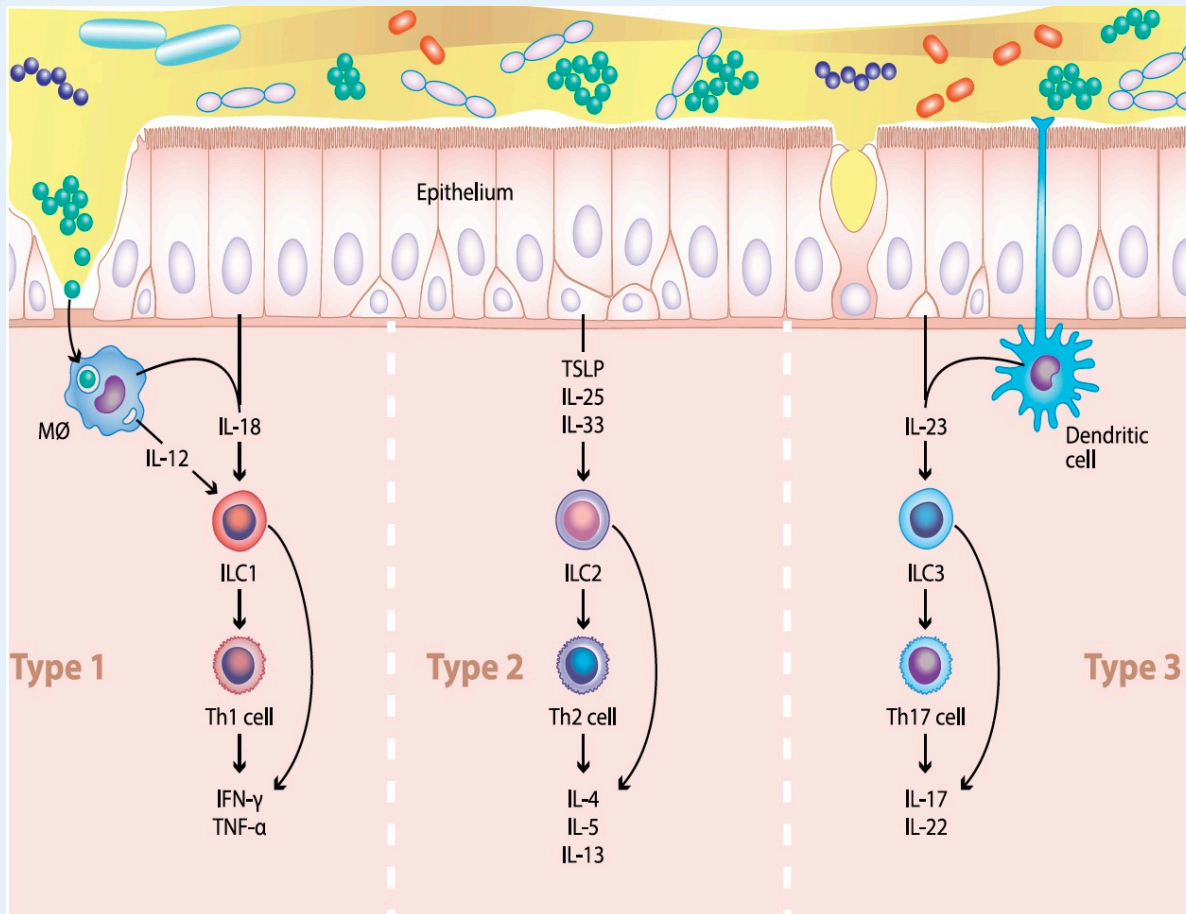
Amsterdam University Medical Centres, location AMC



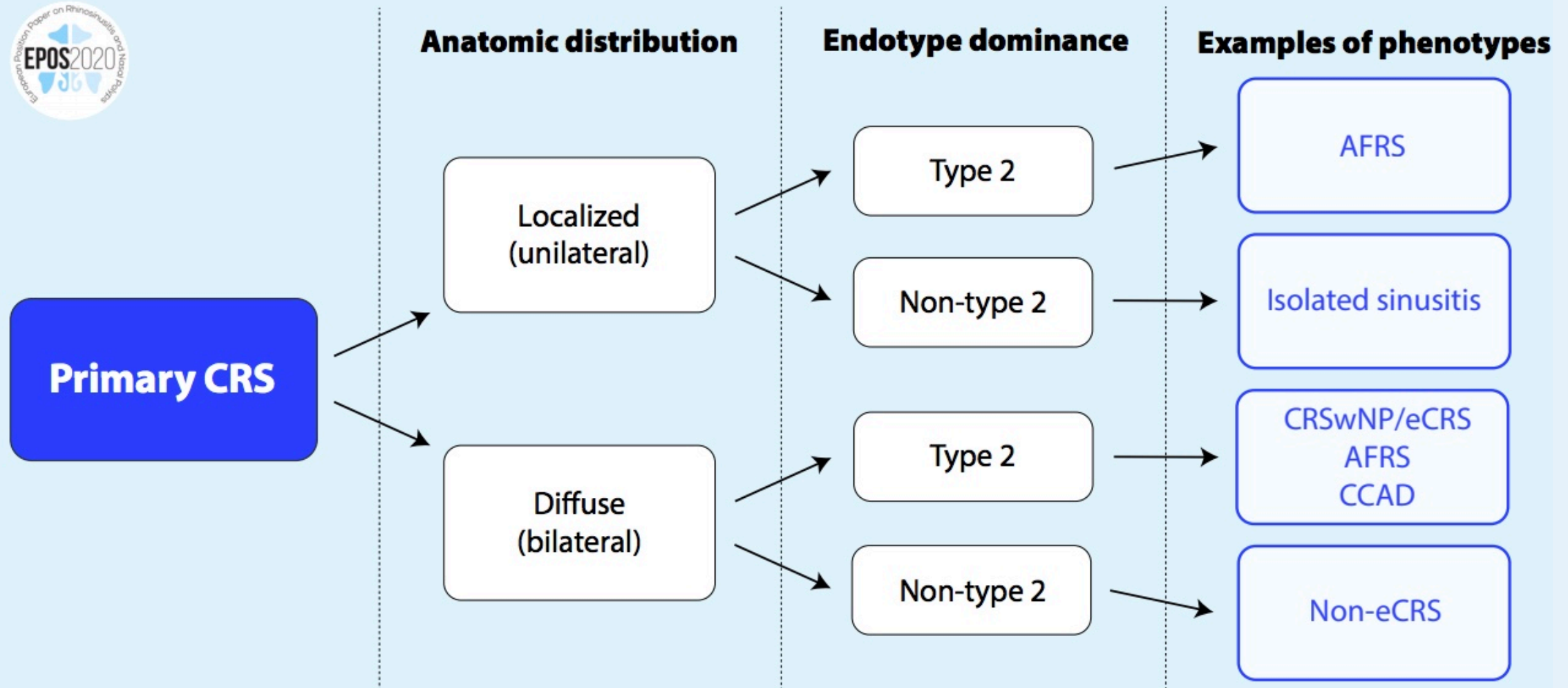
CRS: how to implement current and new treatment options, the role of precision medicine

- New classification of CRS, primary versus secondary CRS: consequences for treatment
- New integrated care pathways in CRS in the light of the new classification
- New treatment options with biologicals

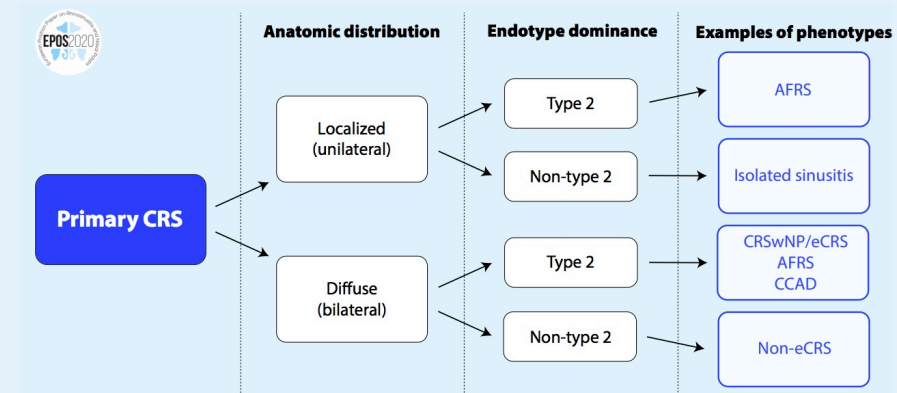
Types of inflammation in CRS



New Classification of CRS

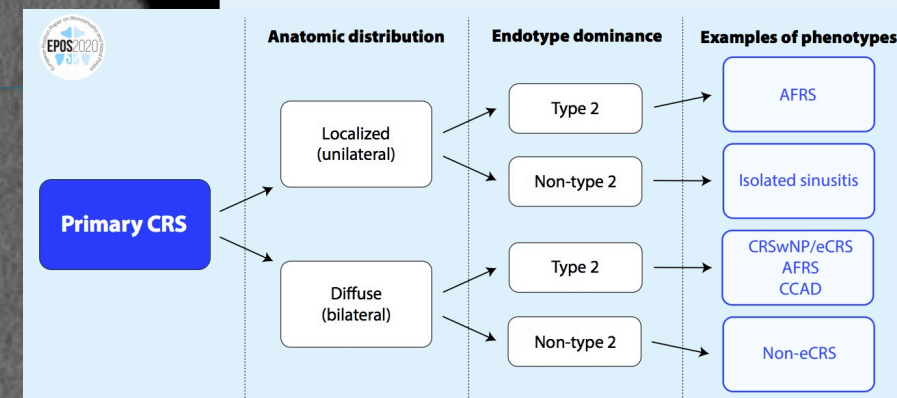
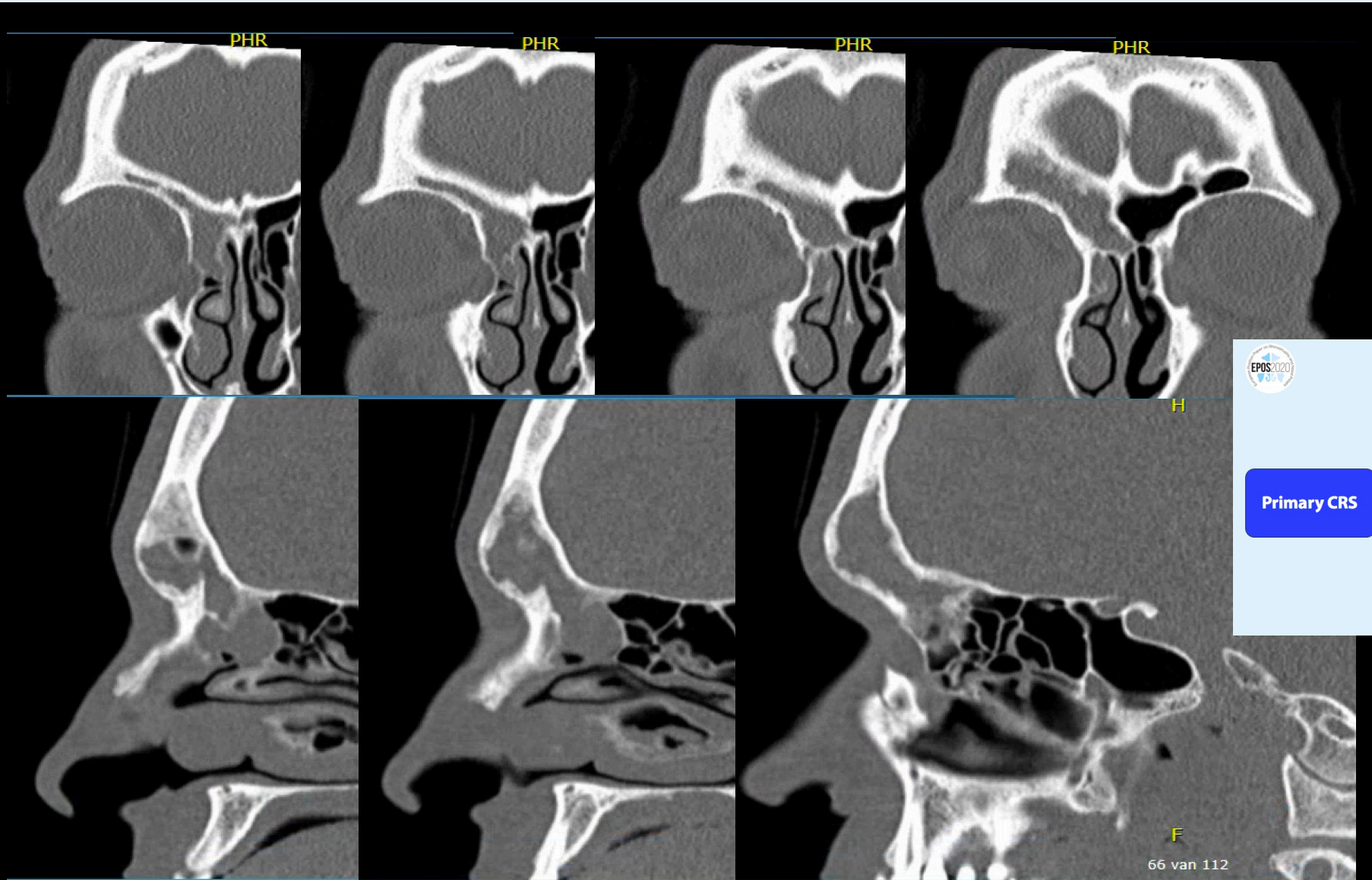


Unilateral AFRS



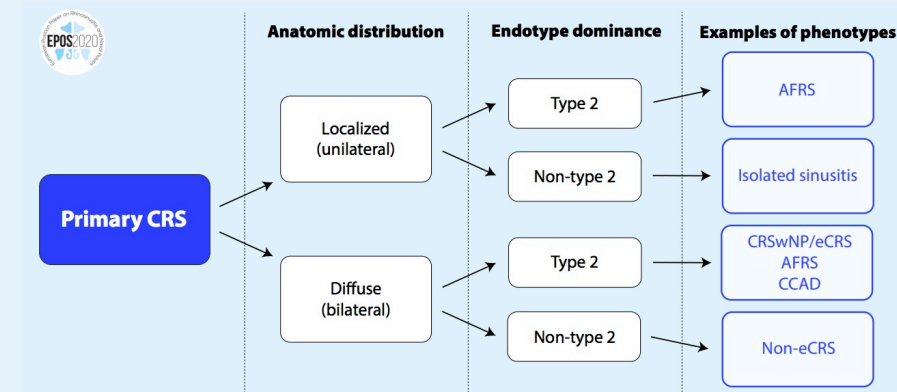
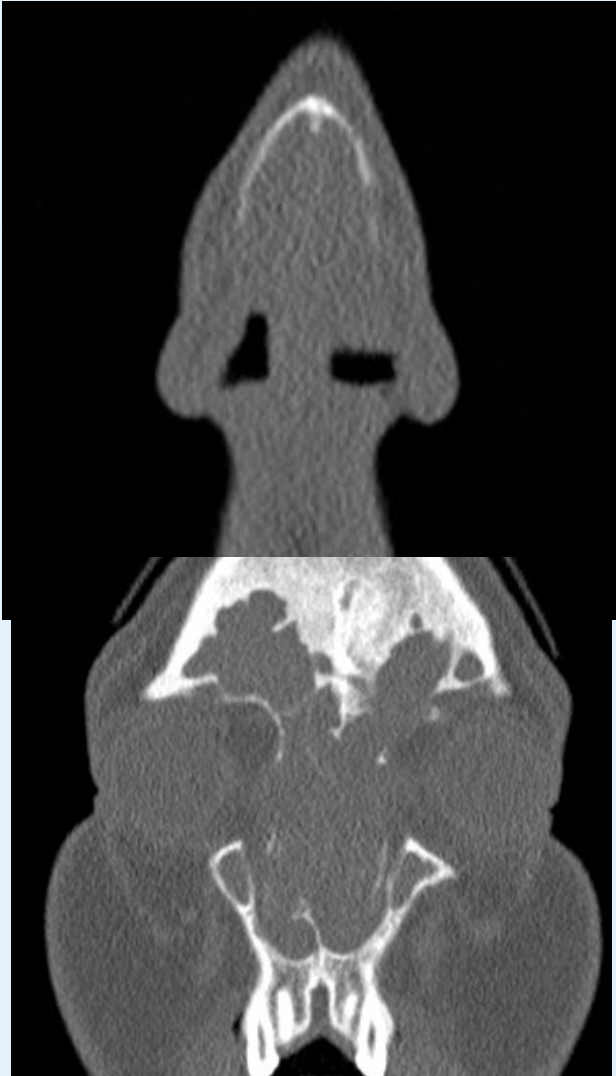
- Surgery
- Perioperative systemic corticosteroids
- Immunotherapy?

Isolated frontal chronic rhinosinusitis



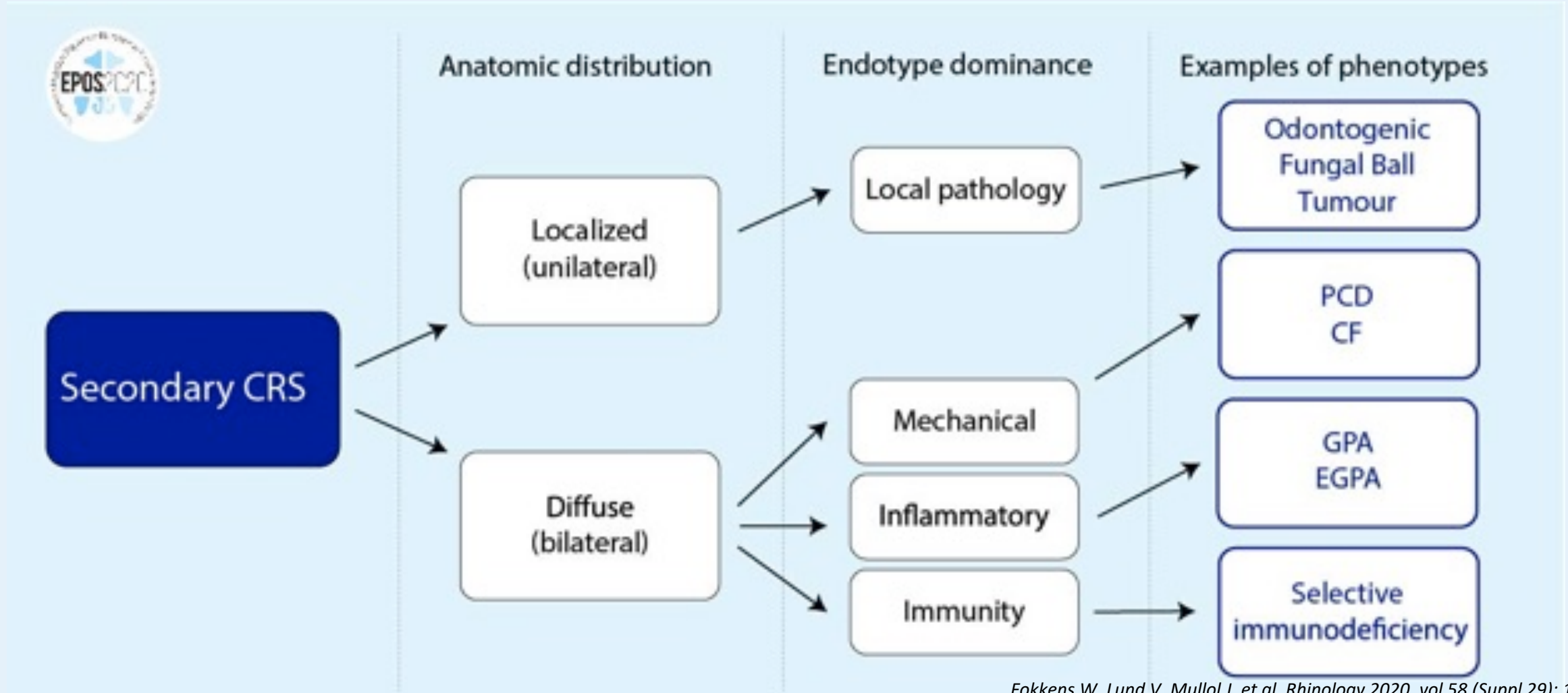
Surgery

Massive CRSwNP

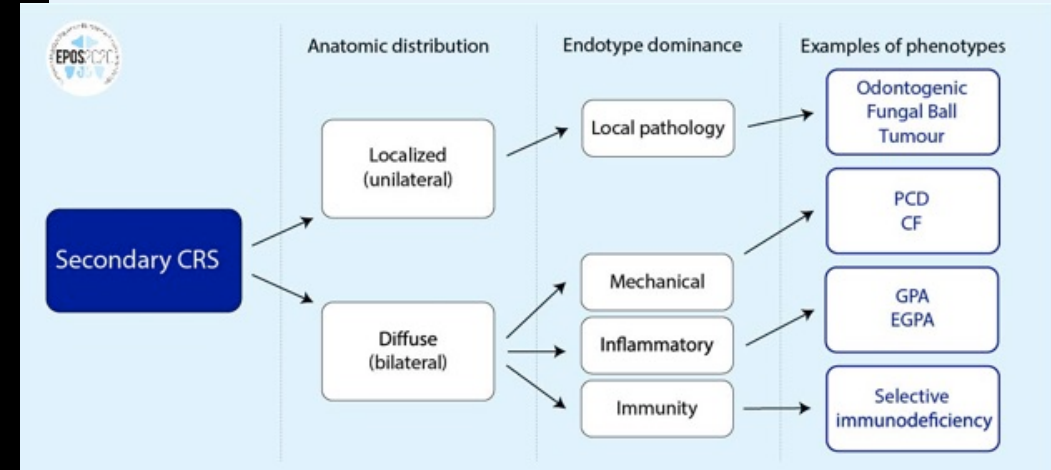


Surgery
Systemic corticosteroids
INCS
Biologicals

New Classification of CRS

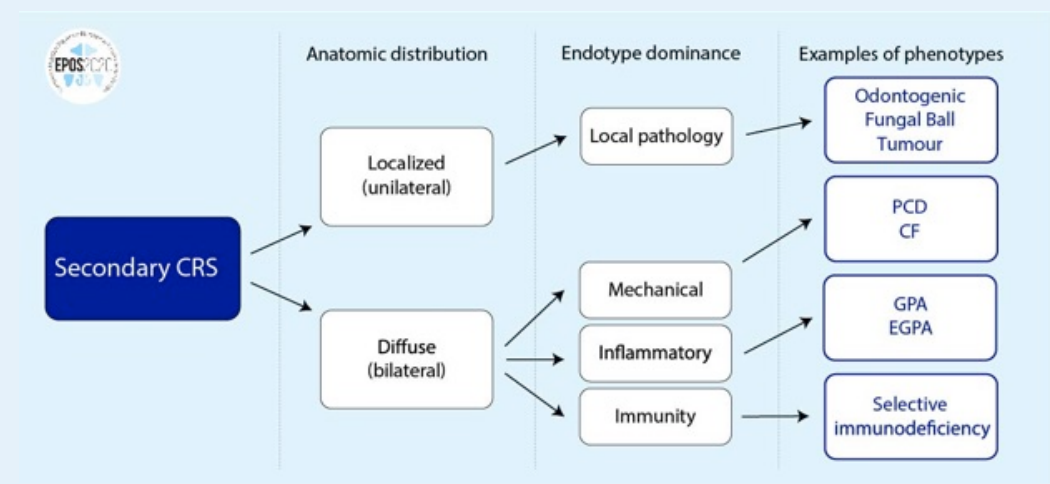


Bilateral odontogenic CRS



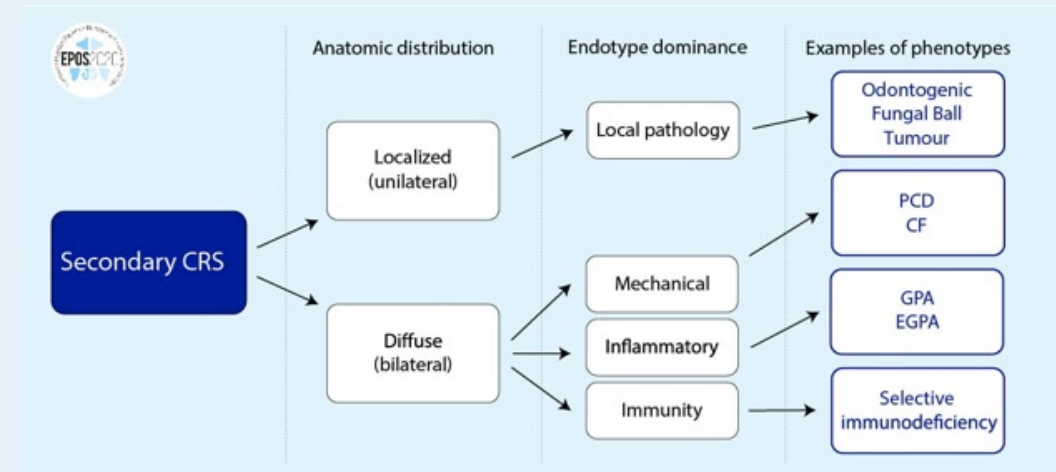
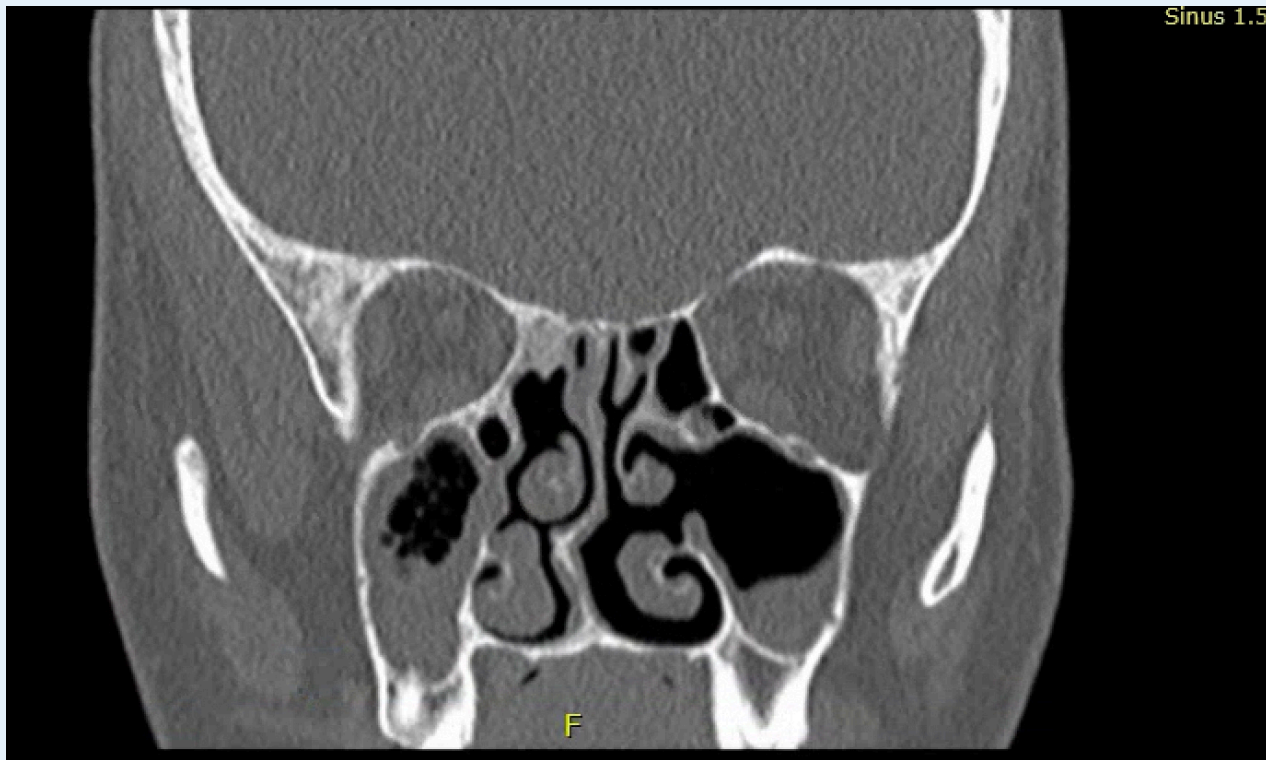
Teeth first
 CRS second

ANCA positive GPA



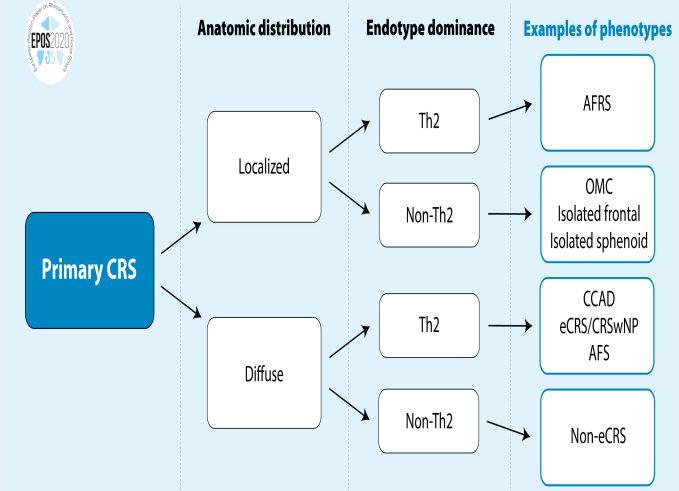
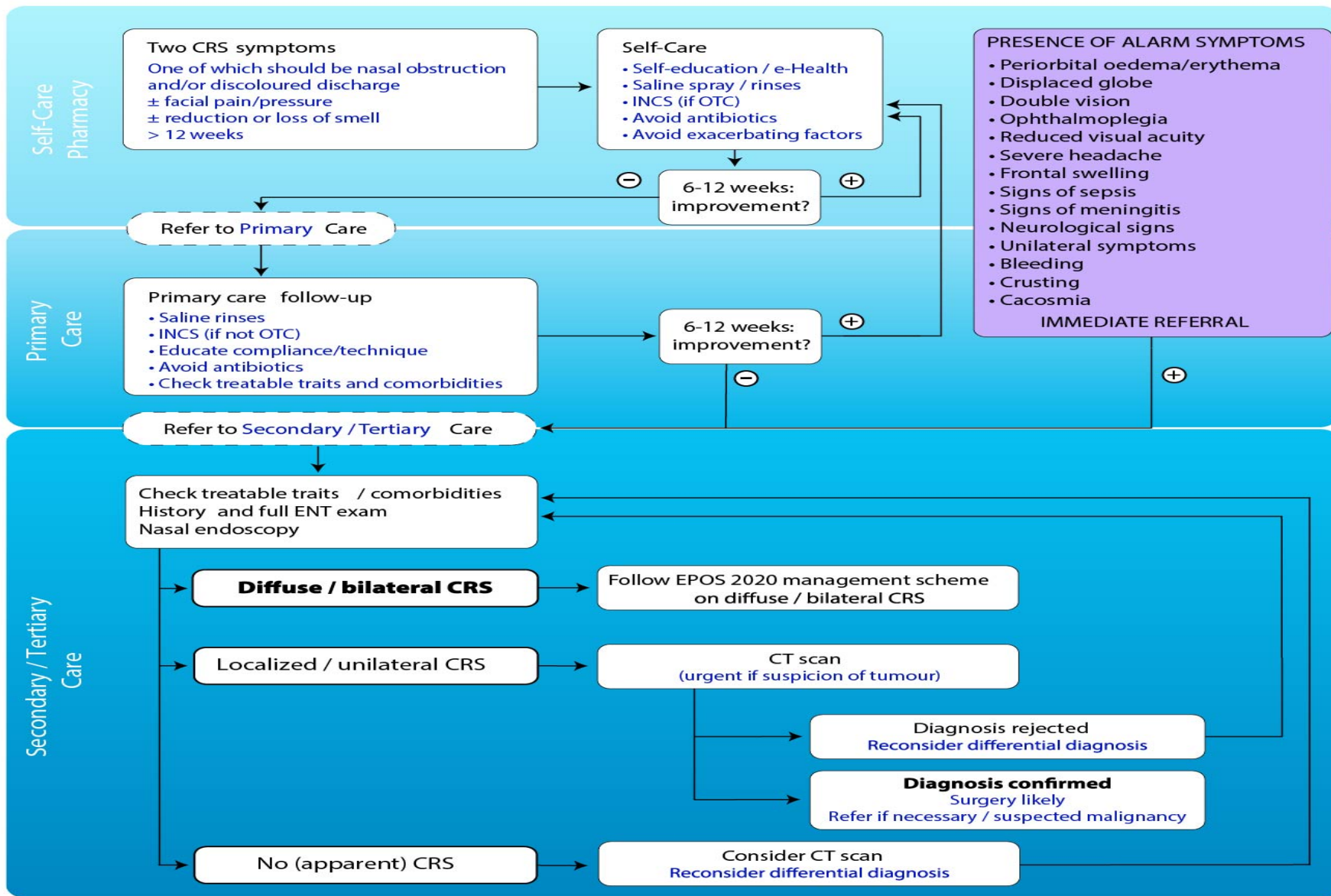
Retuximab
 local ointments

CRS in patients with IgA deficiency

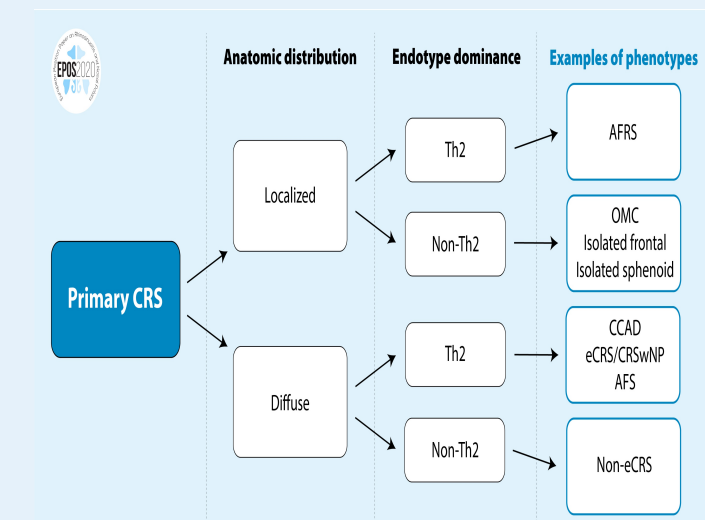
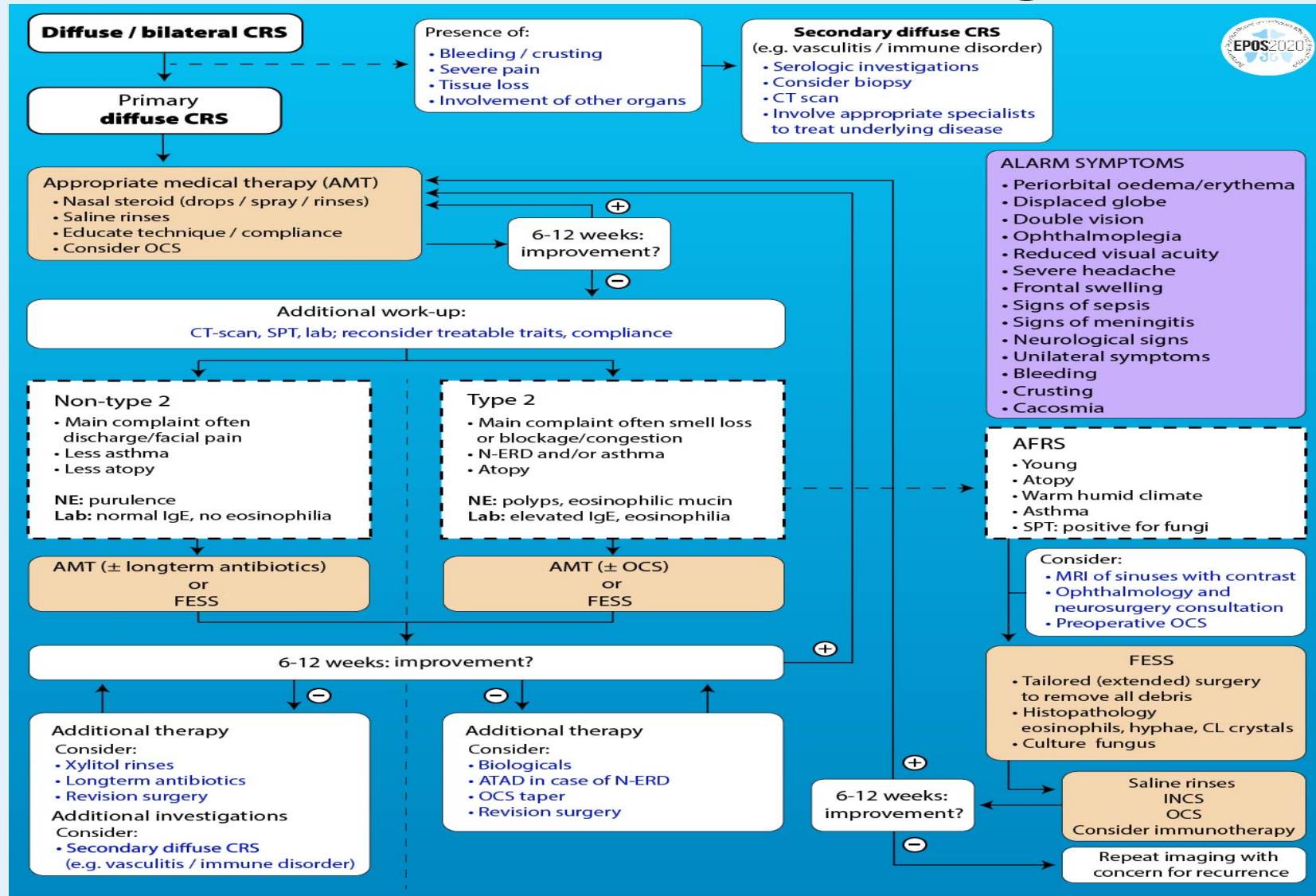


Long term antibiotics

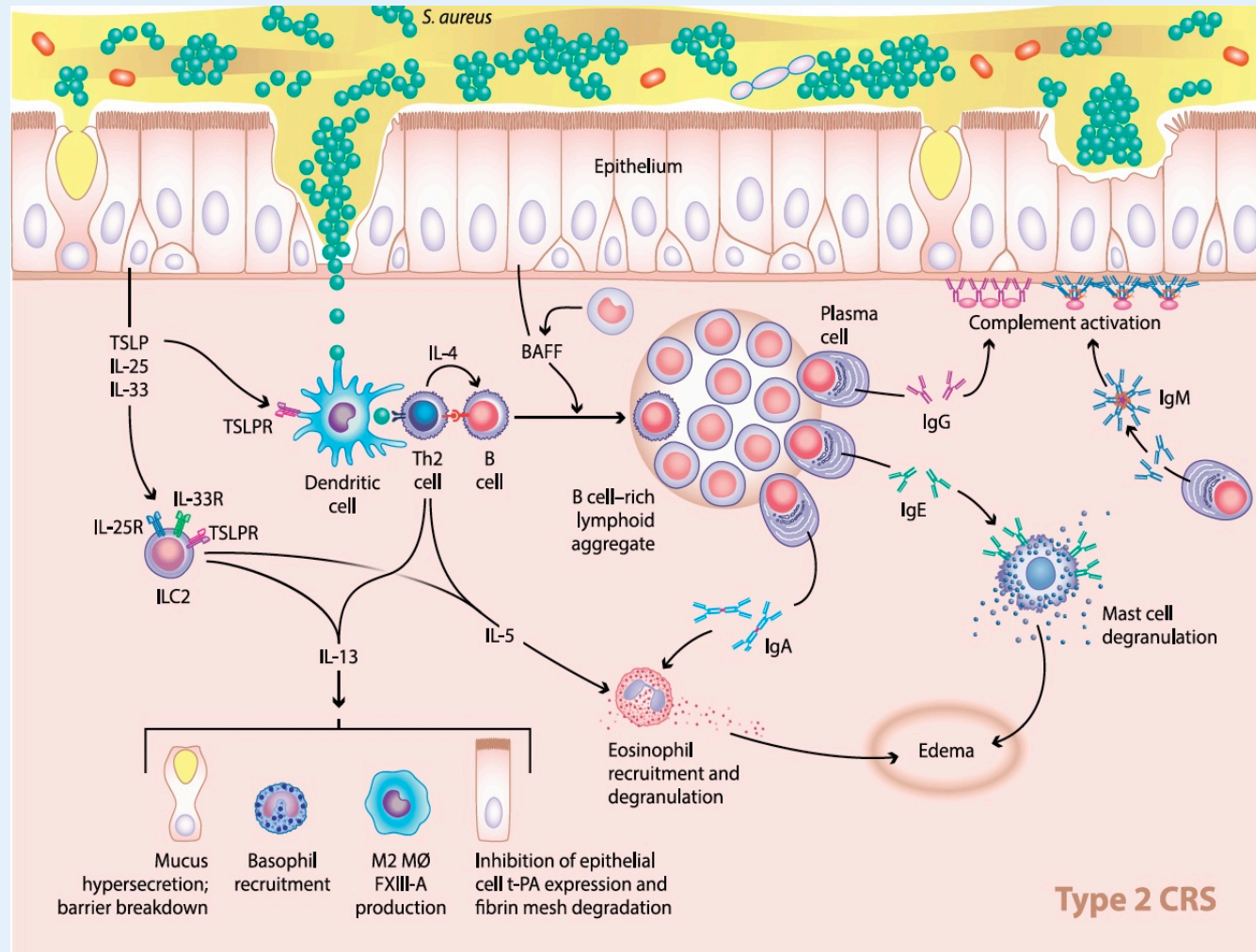
EPOS 2020: Care pathways for CRS



Diffuse bilateral CRS management scheme



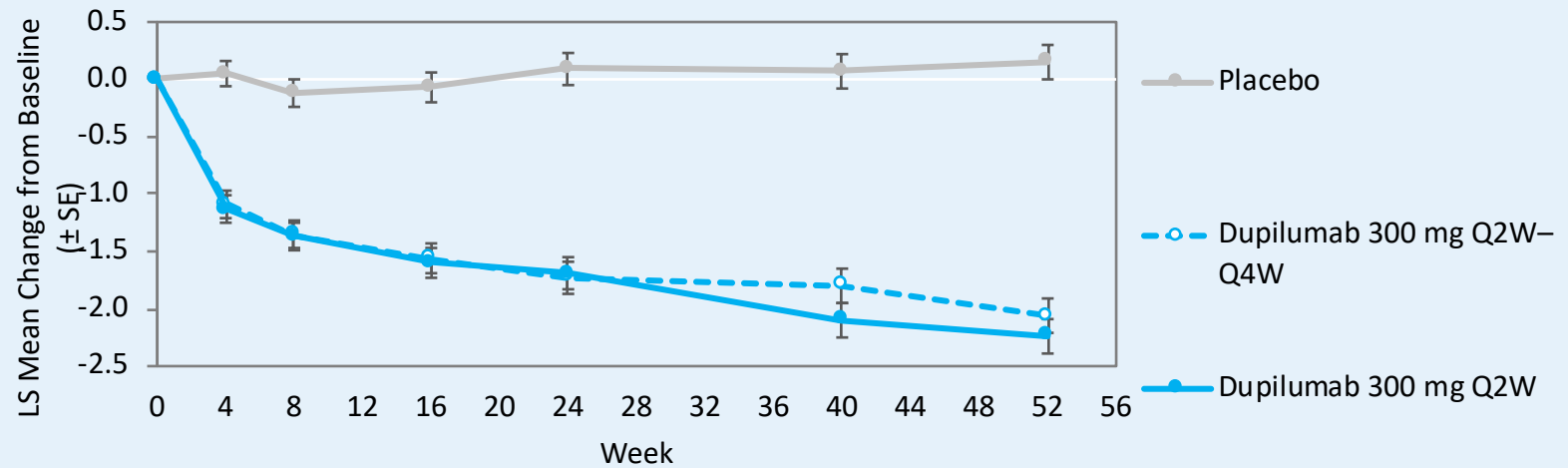
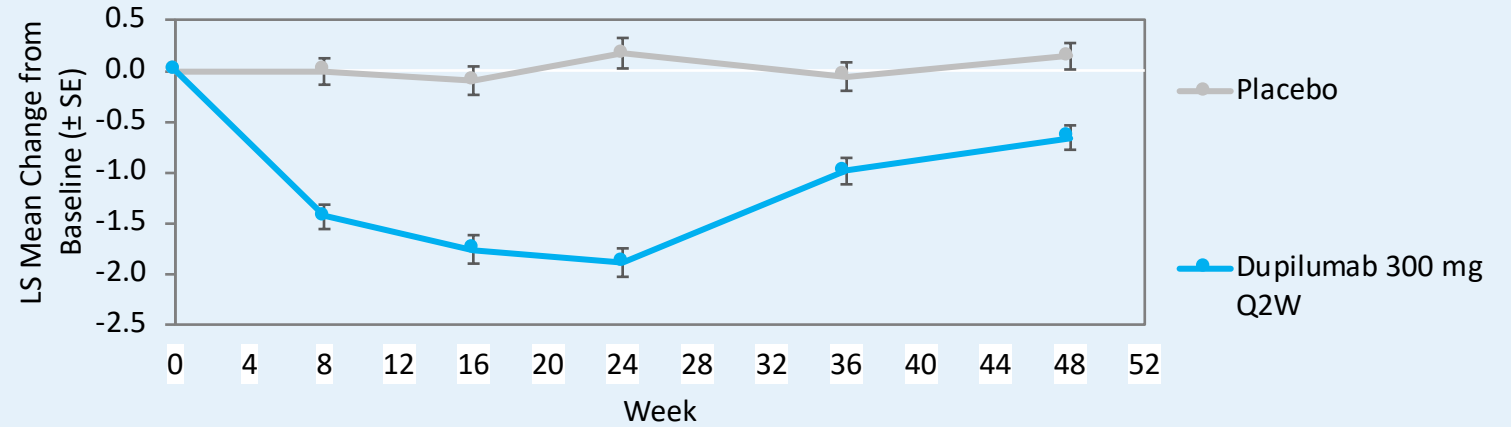
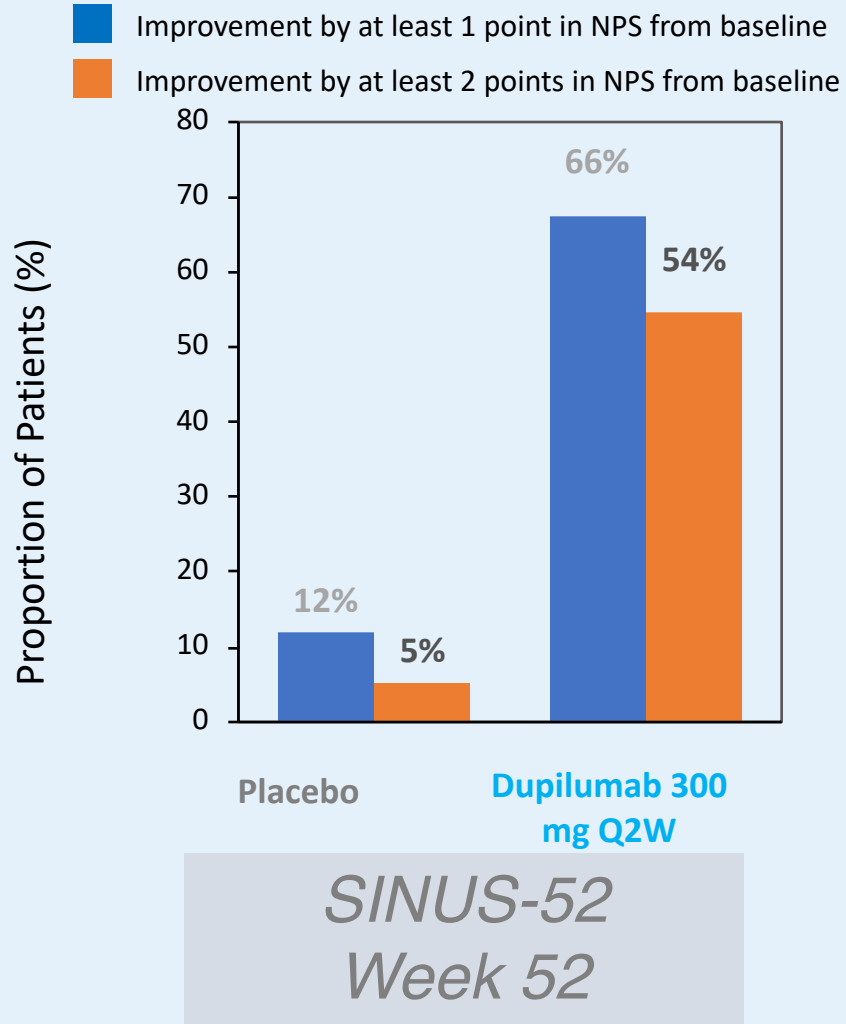
Treatment of Type 2 Inflammation in Chronic Rhinosinusitis



- anti- IL-5
- mepolizumab
- reslizumab.
- anti-IL-4/anti-IL-13
- dupilumab
- anti-IgE
- omalizumab

Dupilumab in CRSwNP

Responder Analysis: Percent of Patients With NPS Improvement from Baseline



All *P*-values <0.0001

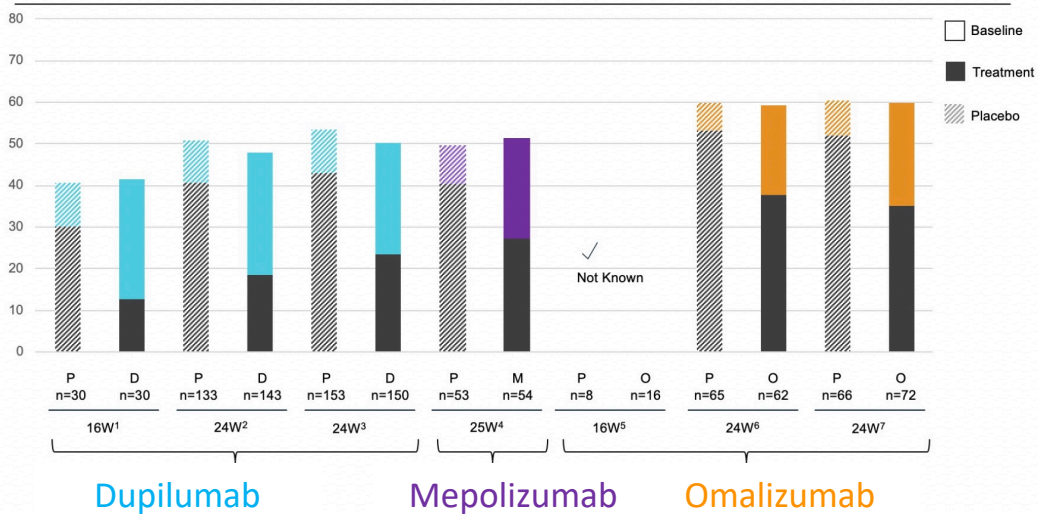
NPS, nasal polyp score; Q2W, every 2 weeks.

Data on file.

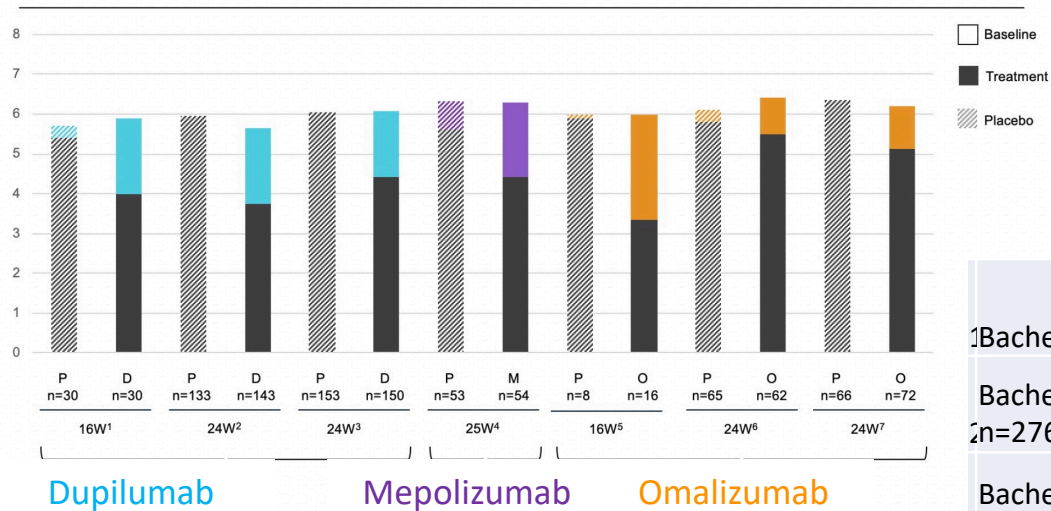
Comparison of biologicals



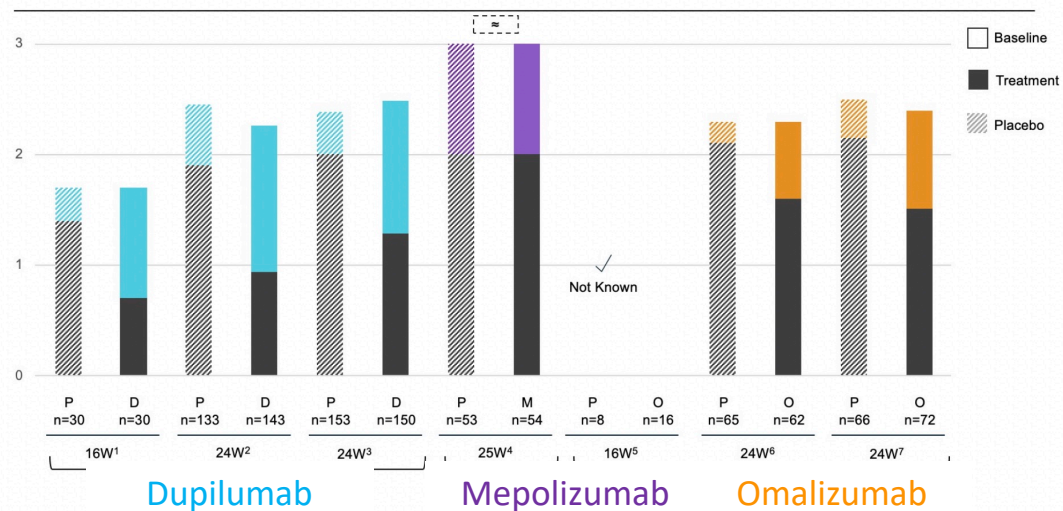
SNOT-22 (0-110)



Nasal polyp score (NPS) (0-8)



Nasal congestion score (NCS) (0-3)



1Bachert C., JAMA, 2016, n=60

Bachert C., Lancet, 2019, n=276

Bachert C., Lancet, 2019, n=448

Bachert C., J Allergy Clin Immunol, 2017, n=109

Gevaert P., J Allergy Clin Immunol, 2013, n=24

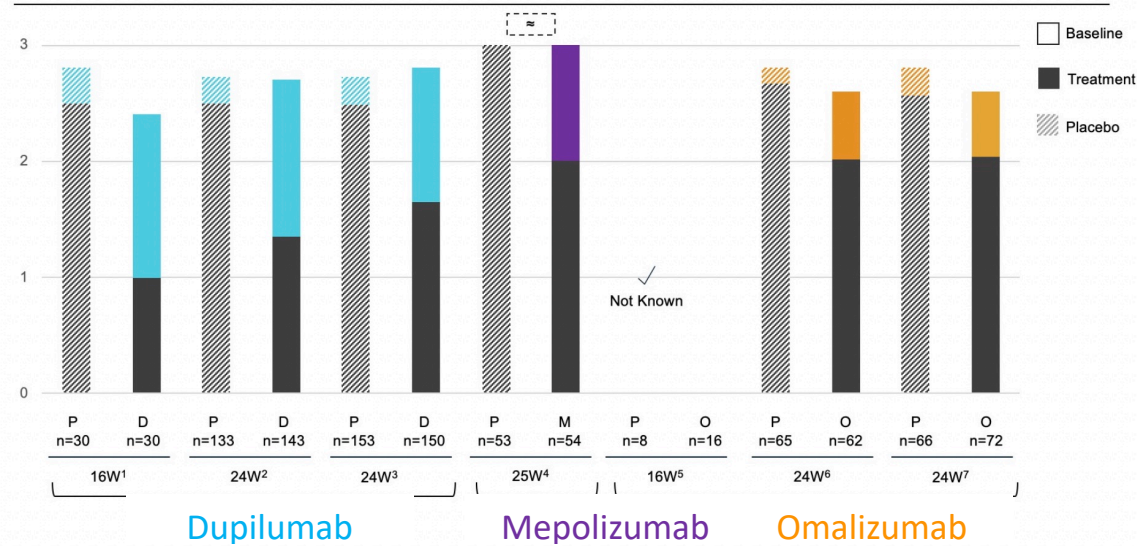
6POLYP2, 2020, n= 127

7POLYP1, 2020, n= 138

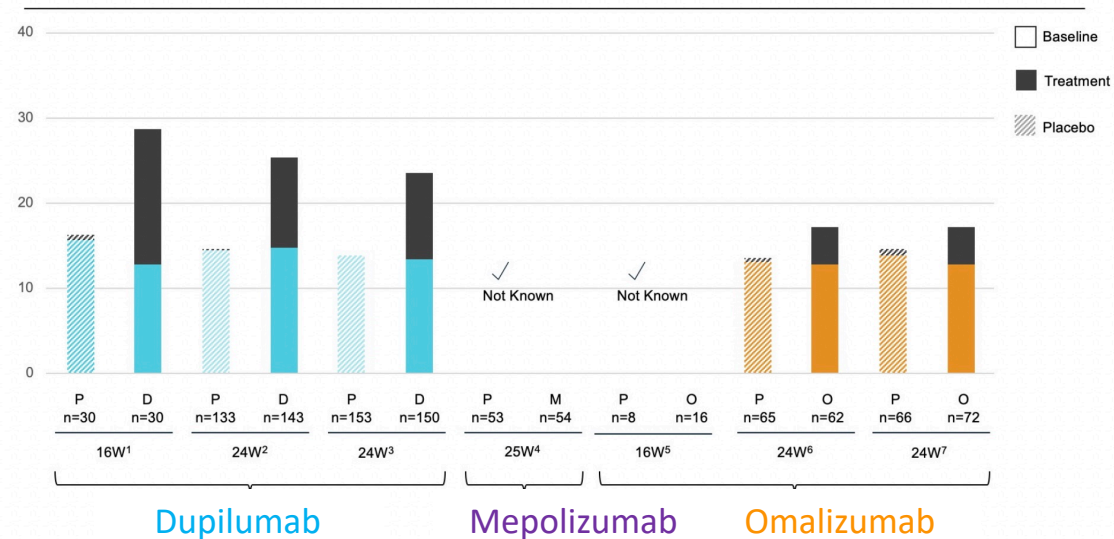
Hellings, Verhoeven, Fokkens Rhinology, in press

Comparison of biologicals

Loss of smell (LOS) (0-3)



UPSIT (0-40)



1Bachert C., JAMA, 2016, n=60

2Bachert C., Lancet, 2019, n=276

3Bachert C., Lancet, 2019, n=448

Bachert C., J Allergy Clin Immunol, 2017, 4n=109

Gevaert P., J Allergy Clin Immunol, 2013, 5n=24

6POLYP2, 2020, n= 127

7POLYP1, 2020, n= 138

Indications for biological treatment in CRSwNP



Presence of bilateral polyps in a patient who had ESS*

THREE criteria are required

Criteria

- Evidence of type 2 inflammation
- Need for systemic corticosteroids or contraindication to systemic steroids
- Significantly impaired quality of life
- Significant loss of smell
- Diagnosis of comorbid asthma

Cut-off points

- Tissue eos ≥ 10 /hpf, OR blood eos ≥ 250 , OR total IgE ≥ 100
- ≥ 2 courses per yr, OR long term (>3 months) low dose steroids
- SNOT-22 ≥ 40
- Anosmic on smell test (score depending on test)
- Asthma needing regular inhaled corticosteroids

*exceptional circumstances excluded (e.g., not fit for surgery)

Defining response to biological treatment in CRSwNP



Evaluation of 5 criteria

- Reduced nasal polyp size
- Reduced need for systemic corticosteroids
- Improved quality of life
- Improved sense of smell
- Reduced impact of co-morbidities

Excellent response
5 criteria

Moderate response
3-4 criteria

Poor response
1-2 criteria


No response
0 criteria

Evaluate treatment response after 16 weeks

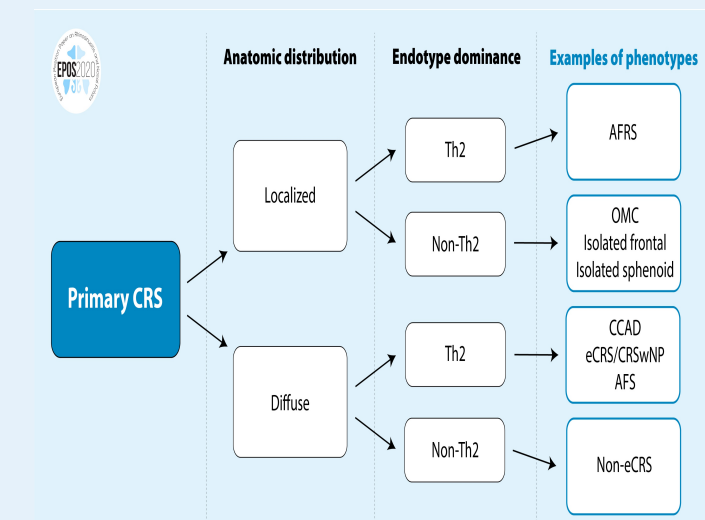
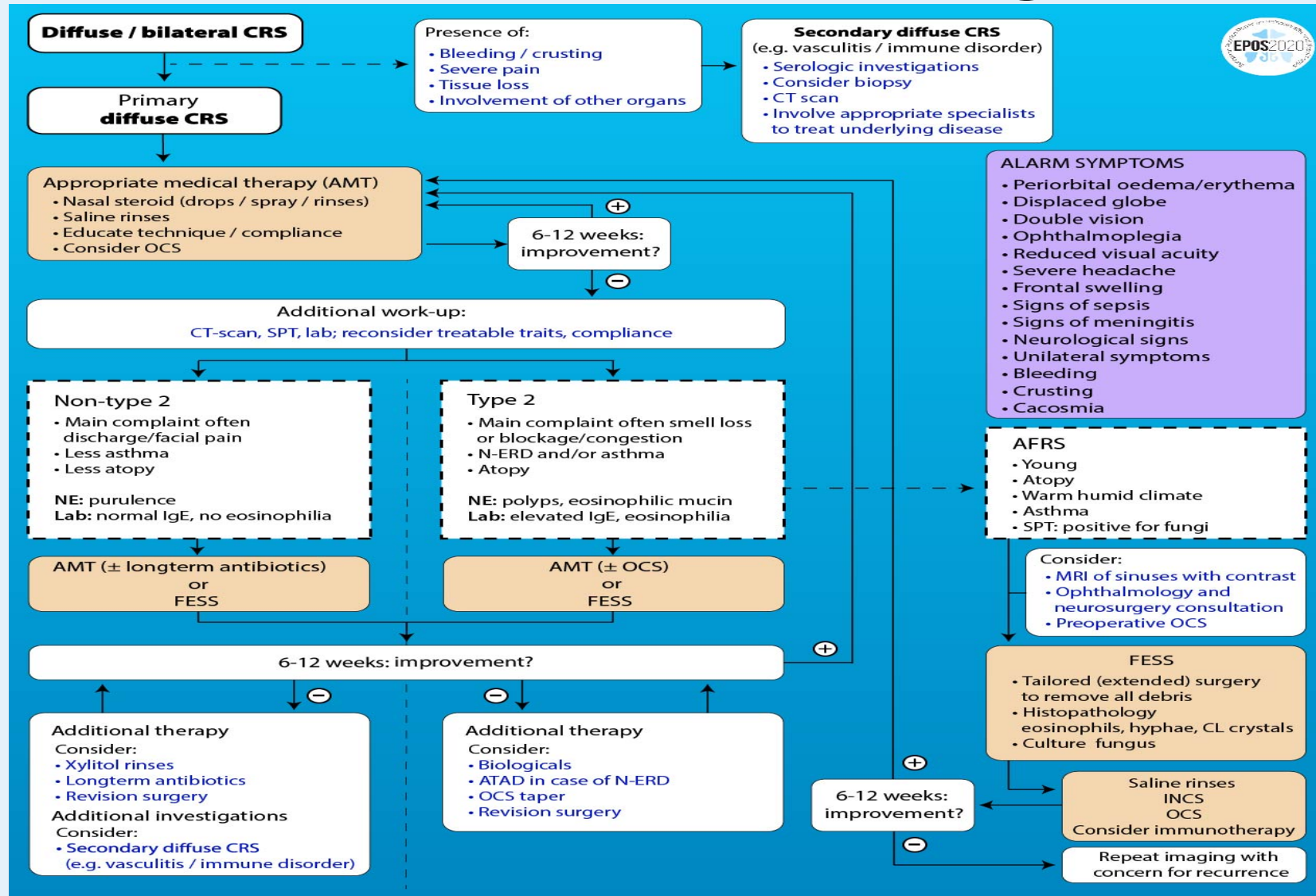


Evaluate treatment response after 1 year




Discontinue
treatment
if no response
in any
of the criteria

Diffuse bilateral CRS management scheme

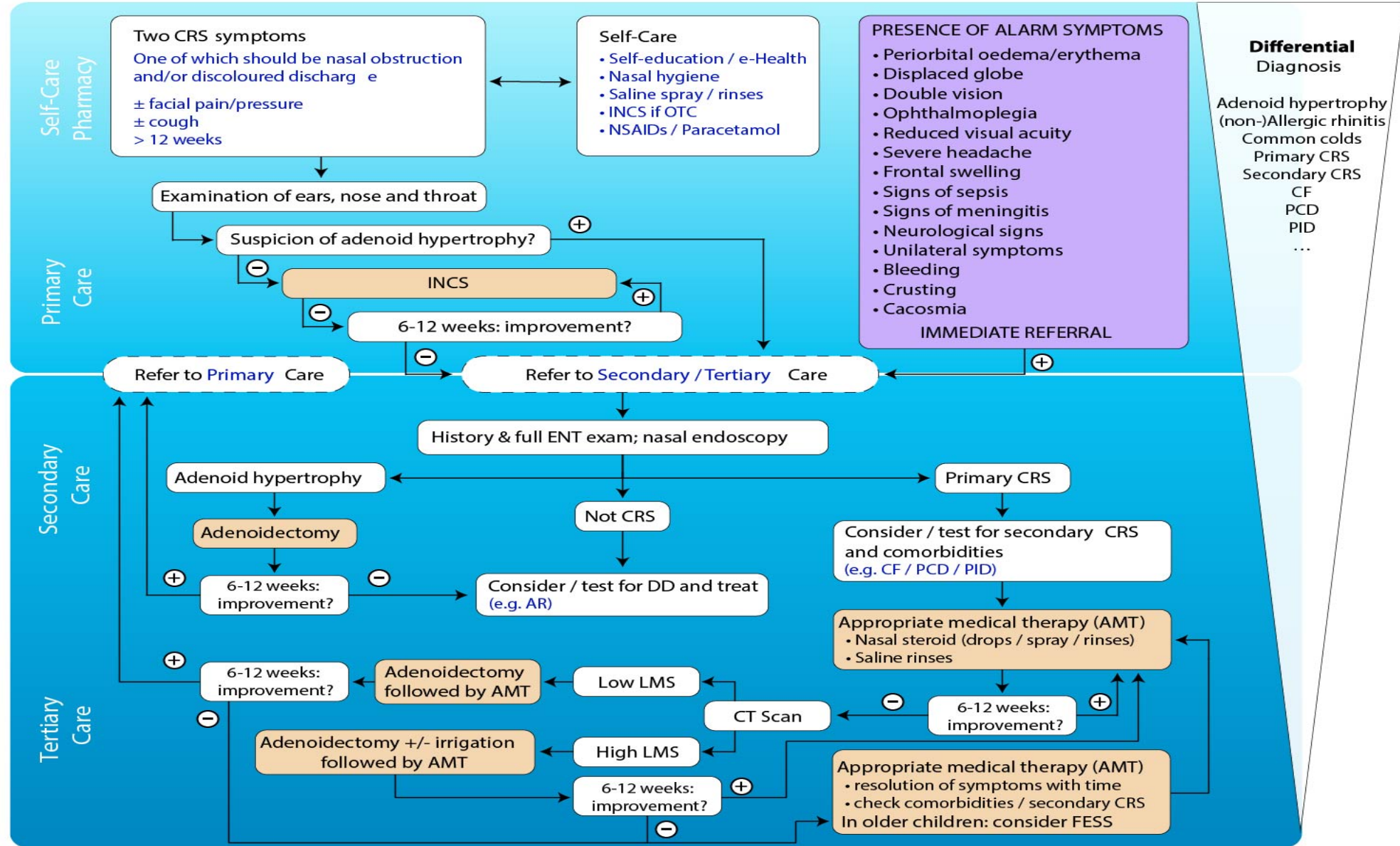


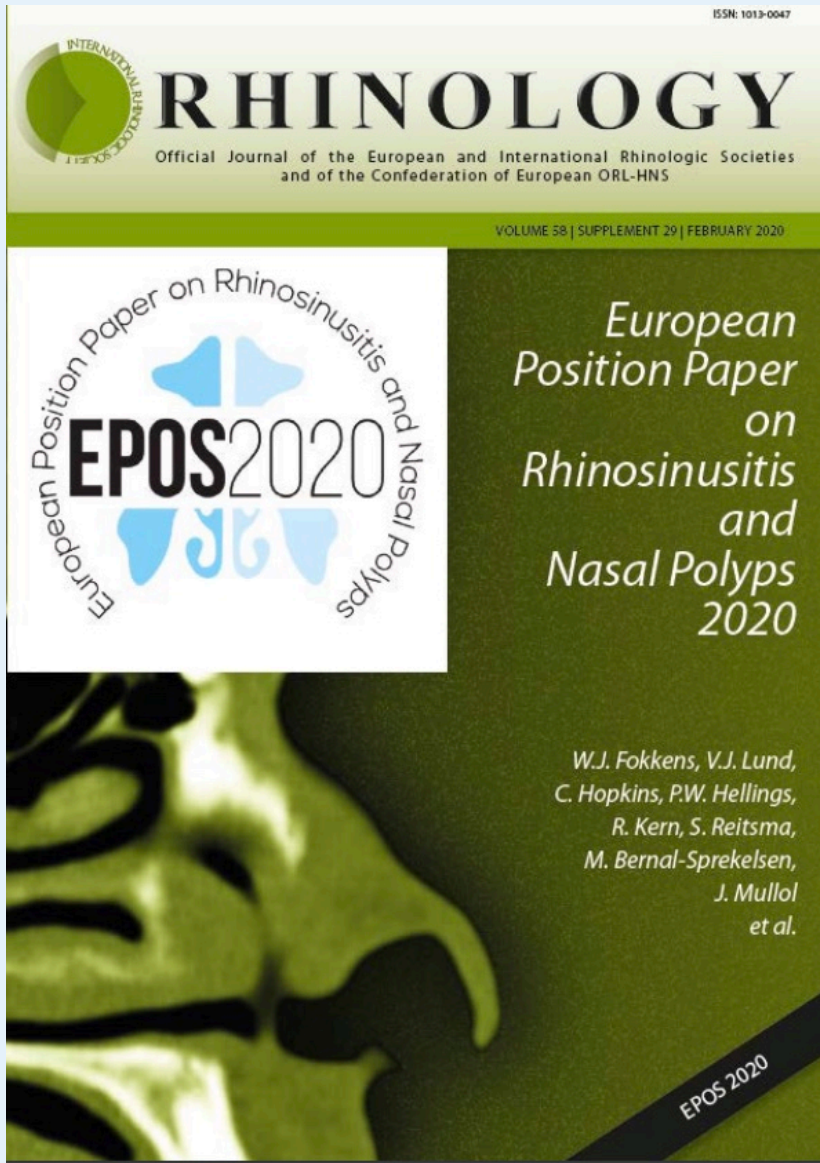
AMT, appropriate medical treatment; INCS, intranasal corticosteroids;

Fokkens W, Lund V, Mullol J, et al. *Rhinology* 2020, vol 58 (Suppl 29): 1-464.

web: www.epos2020.com, rhinologyjournal.com

EPOS 2020: Care pathways for Paediatric CRS





www.rhinology.com
www.epos2020.com