

# Rhinitis / CRS / Allergies “Post” Covid

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# Objectives

- Common rhinology topics
- Nasal “emergencies”
  
- Knowledge and skills as set out – RCGP
- Red flags
- Investigations – skin tests and RAST

# History

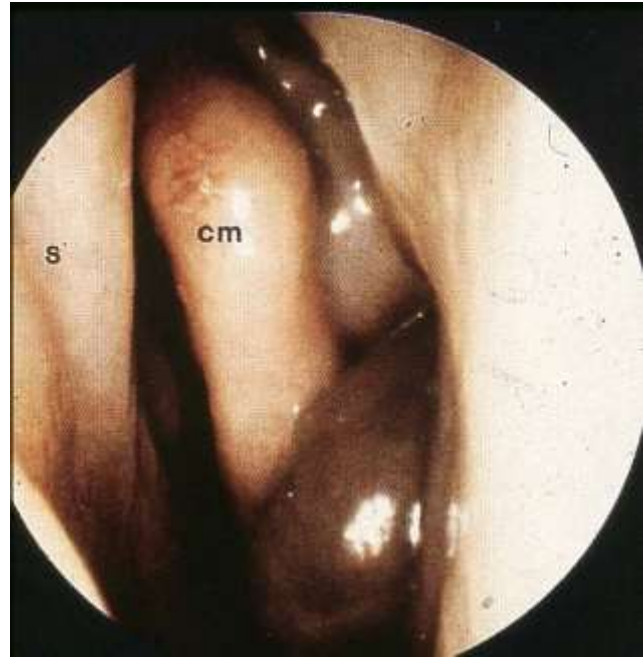
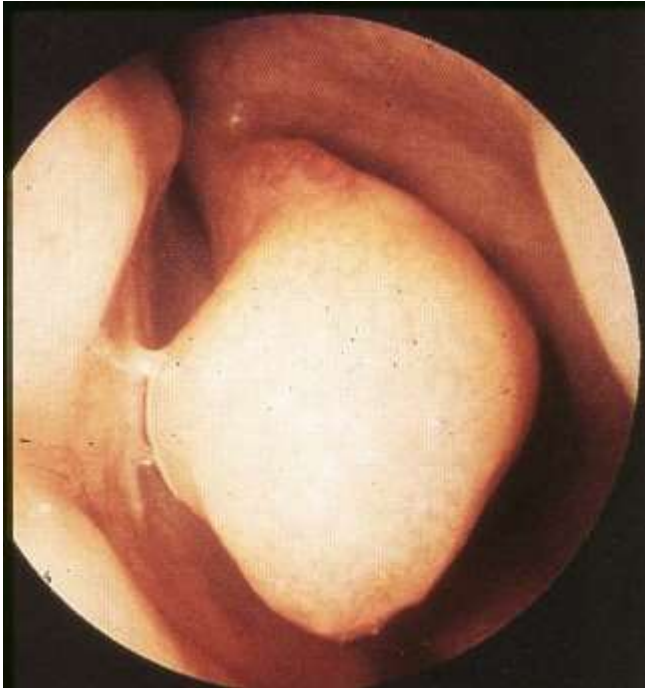
- Blockage – duration, side
- Rhinorrhoea/post nasal drip – duration, type
- Facial pain – duration, side, association
- Epistaxis – staining or frank, side
- Sneezing – triggers, seasonal or perennial
- Hyposmia – duration, taste, extent
  
- Unilateral or bilateral

*Knowledge*

# Traditional Examination

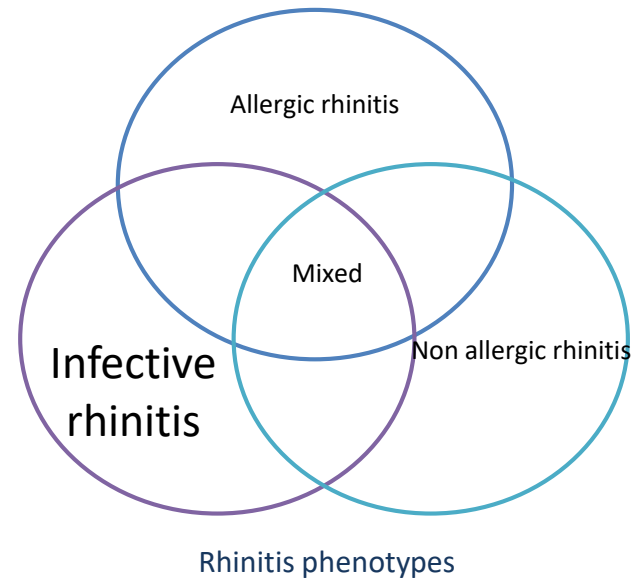


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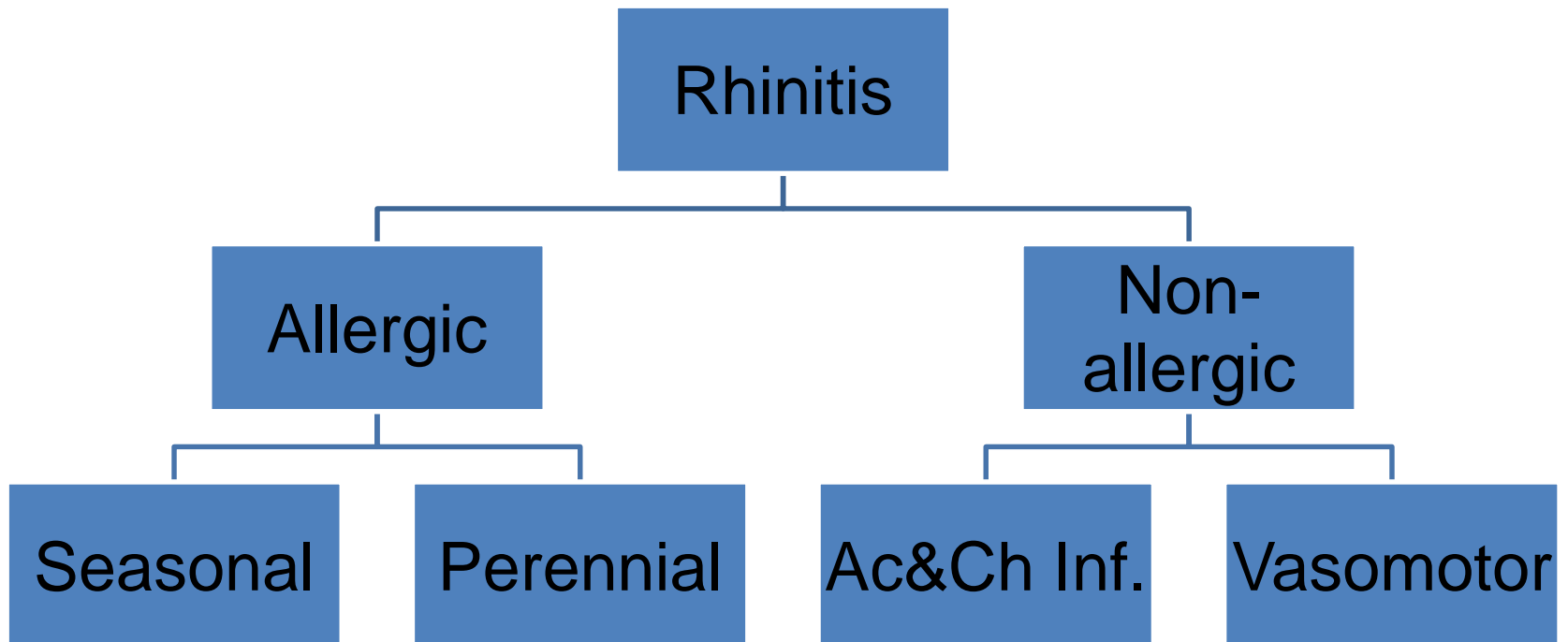
# Rhinitis definition

- Rhinitis means nasal inflammation, but is clinically defined as two or more of:
  - running nose
  - blocked nose
  - sneezing/itching
- When the conjunctivae are also involved, the term rhinoconjunctivitis is more accurate
- Allergic rhinitis is IgE-mediated
- Allergic rhinitis can be seasonal or perennial



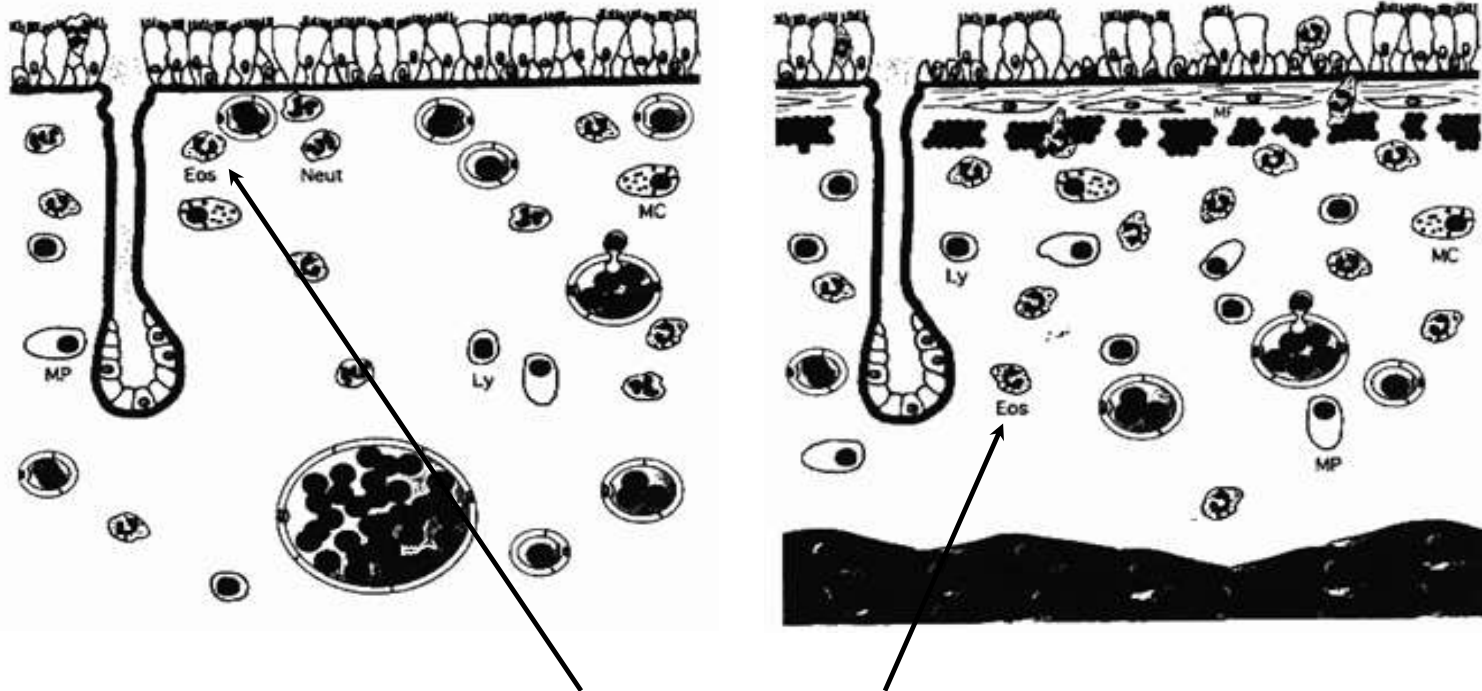
# Inflammation

- Rhinitis – Inflammatory response



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# Allergic rhinitis and asthma share many common inflammatory processes





# Both asthma and allergic rhinitis are inflammatory conditions

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- Asthma is fundamentally a disease of inflammation
  - Inflammation of the lower airways causes bronchoconstriction and airway hyperresponsiveness, resulting in asthma symptoms
- Allergic rhinitis is an IgE-mediated inflammatory disorder
  - Inflammation of the nasal membranes in response to allergen exposure results in nasal symptoms

*Monthly One Airway Clinic – Leigh Infirmary*

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## ARIA guidelines recommend a combined approach to managing asthma and allergic rhinitis

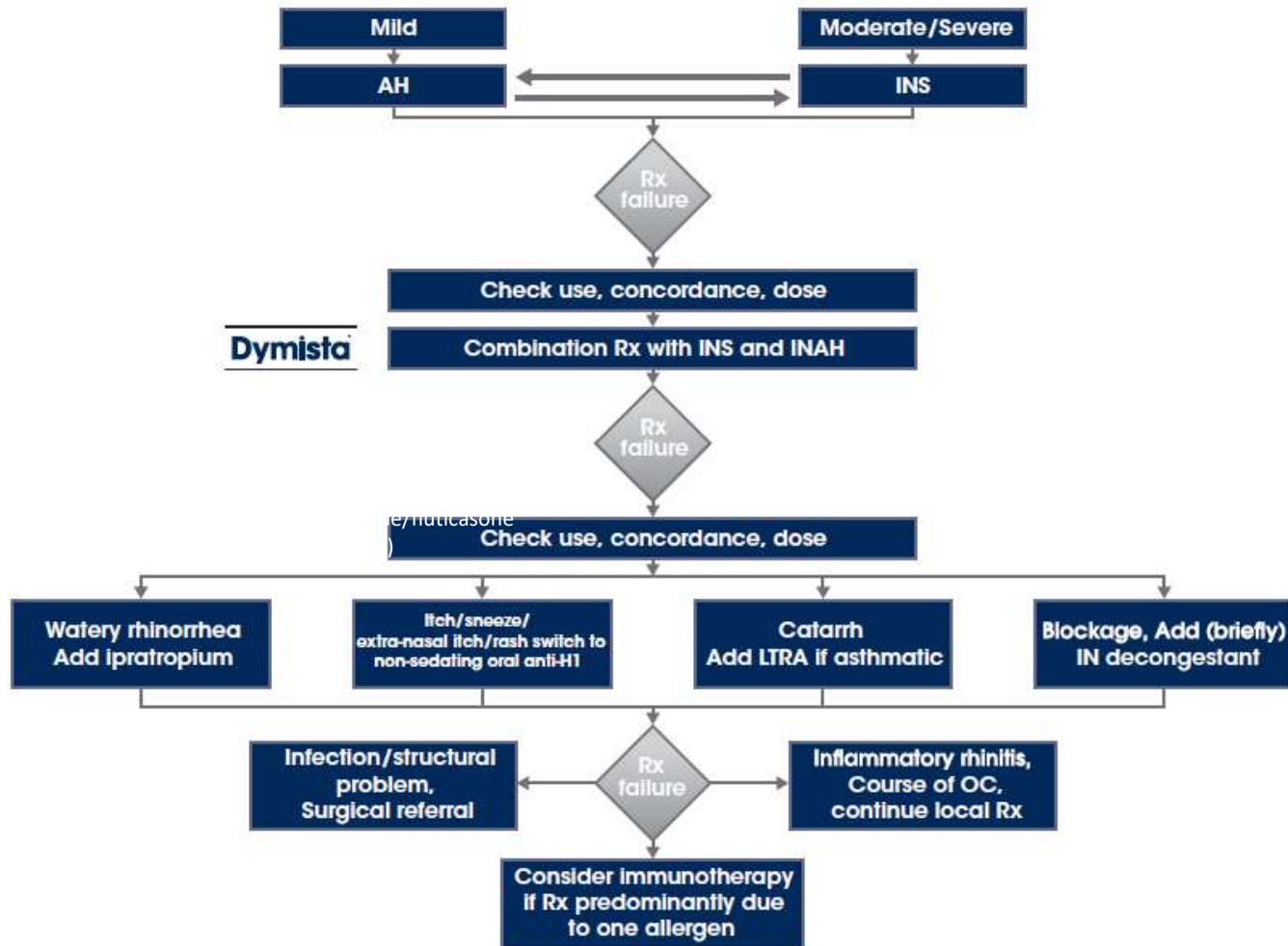
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- Patients with persistent allergic rhinitis should be evaluated for asthma (20-50%)
- Patients with asthma should be evaluated for allergic rhinitis (80%)
- A combined strategy should ideally be used to treat upper and lower airway disease in terms of efficacy and tolerability

Bethesda, MD: National Institutes of Health, 1998; Workshop Expert Panel *Management of Allergic Rhinitis and its Impact on Asthma (ARIA) Pocket Guide. A Pocket Guide for Physicians and Nurses*, 2001.

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# BSACI treatment algorithm



Adapted from (Scadding GS et al. BSACI guideline for the diagnosis and management of allergic and non-allergic rhinitis (Revised Edition 2017; First edition 2007) Clin Exp Allergy. (2017)

# Vasomotor rhinitis

- Symptoms similar to Allergic Rhinitis
- Imbalance between autonomic nerve supply
- Parasympathetic overactivity (old man's drop)
- Nasal blockage & rhinorrhoea
- Decongestants, ipratropium sprays (Rinatec)
- Turbinate surgery

# Rhinitis medicamentosa

- Reactive vasodilatation of nasal lining
- Prolonged use of topical sympathomimetic agents – ephedrine or otrivine
- Changes of rhinitis and hyp. Its
- Irreversible changes need turbinate surgery
- *Atrophic rhinitis – thinning of nasal lining with crusting*

Patients to avoid self medicating

# Acute sinusitis

- Follows viral infection
- Pathology – blockage of sinus ostia & paralysis of MC mechanism
- Symptoms – facial pain & tenderness, facial swelling, nasal blockage, rhinorrhea
- Ac. Frontal sinusitis – serious
- Treatment – Antibiotics, nasal decongestants, steam inh., rarely wash out of sinuses

# Ch. Sinusitis - Pathology

- Ventilation is impeded
- Mucociliary clearance is affected
- Leads to oedema & hypertrophy of mucosa
- Goblet cell hyperplasia & ch.cellular infiltrate
- Submucosal fibrosis and irreversible changes

# Chronic Rhino-Sinusitis

“inflammation of the nose and the paranasal sinuses characterised by two or more symptoms, one of which should be either nasal blockage/obstruction/congestion or nasal discharge (anterior/posterior nasal drip):

- $\pm$  facial pain/pressure,
- $\pm$  reduction or loss of smell;

*Knowledge*

Prim Care Respir J. 2008 Jun;17(2):79-89.

**EPOS Primary Care Guidelines: European Position Paper on the Primary Care Diagnosis and Management of Rhinosinusitis and Nasal Polyps 2007 - a summary.**

Thomas M, Yawn BP, Price D, Lund V, Mullol J, Fokkens W: European Position Paper on Rhinosinusitis and Nasal Polyps Group.

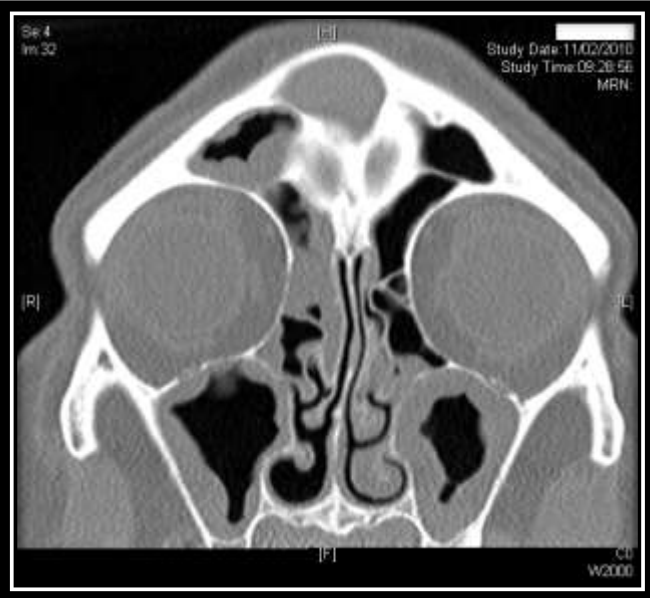


# Rhinosinusitis



## Endoscopic signs of:

- polyps and/or;
- mucopurulent discharge primarily from middle meatus and/or; oedema/mucosal obstruction primarily in middle meatus, and/or



## CT changes:

- mucosal changes within the ostiomeatal complex and/or sinuses.

[Prim Care Respir J. 2008 Jun; 17\(2\): 79-89.](#)

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# Normal middle meatus



*Skill – tip: use an otoscope or decongestant*

# MT with polyp



# Investigation

- X-ray sinuses – No role
- CT scan
  - Diagnostic role
  - Road map for surgery

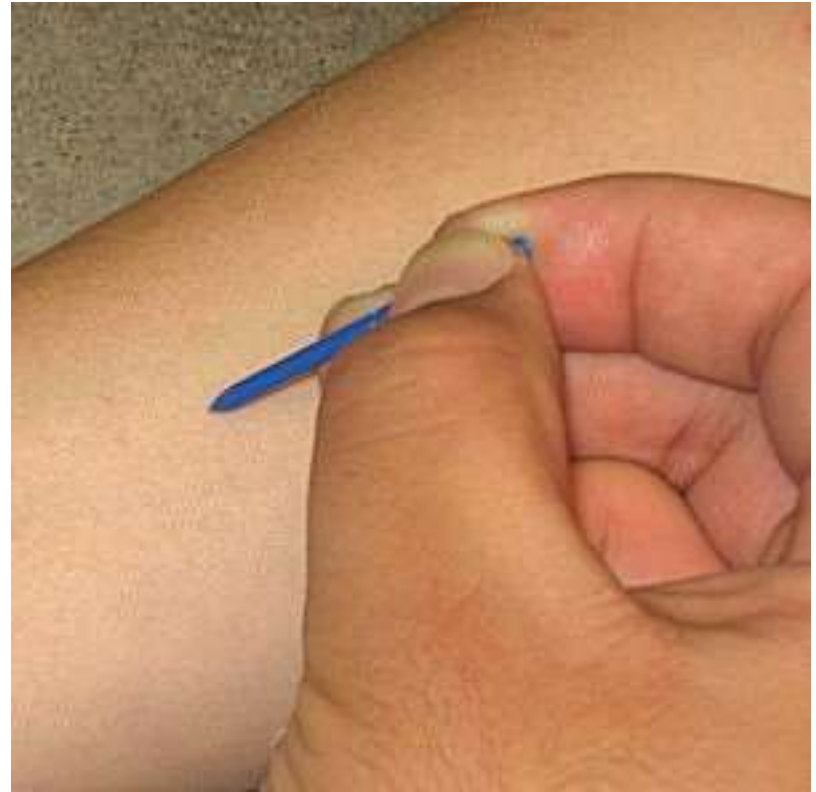


*Knowledge*

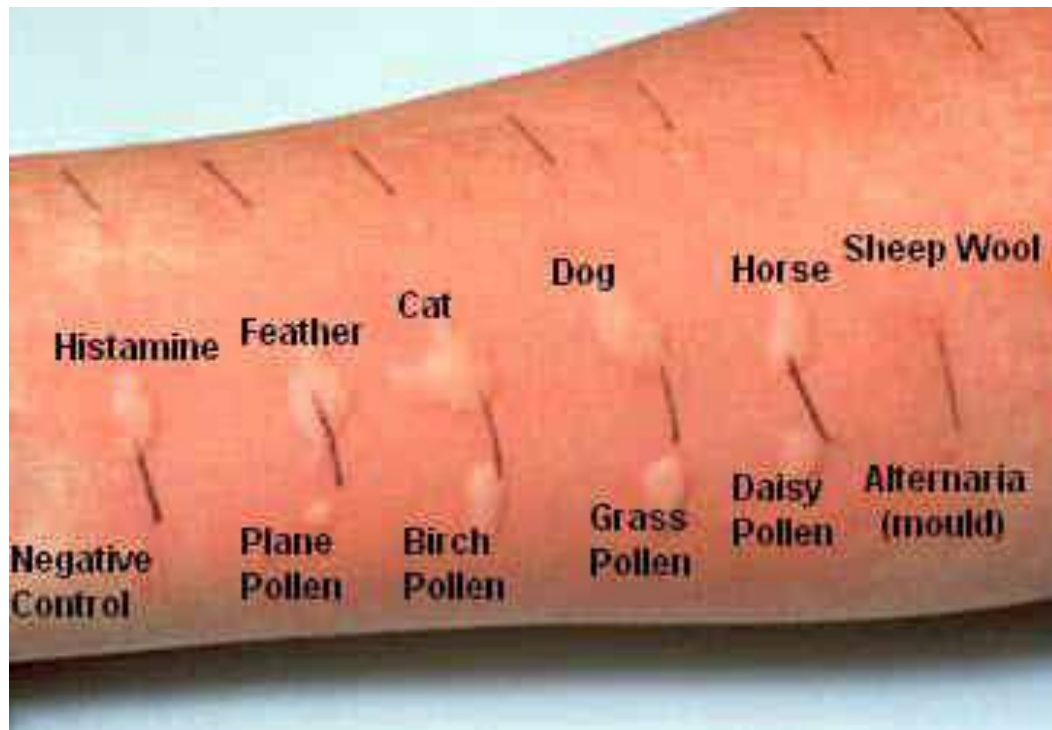
# Investigation – skin test



*Knowledge*

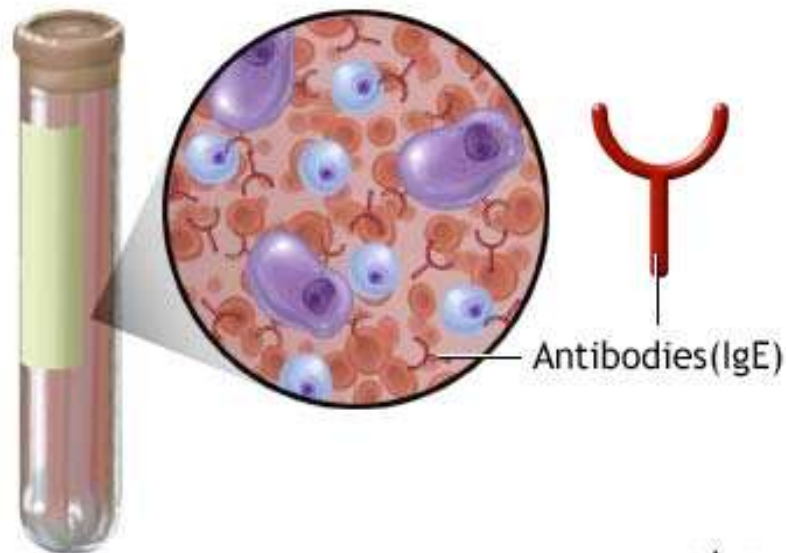


# Skin prick test



# RAST – blood test

The blood test measures the levels of allergy antibody, or IgE, produced when your blood is mixed with a series of allergens in a laboratory



ADAM.

*Knowledge*

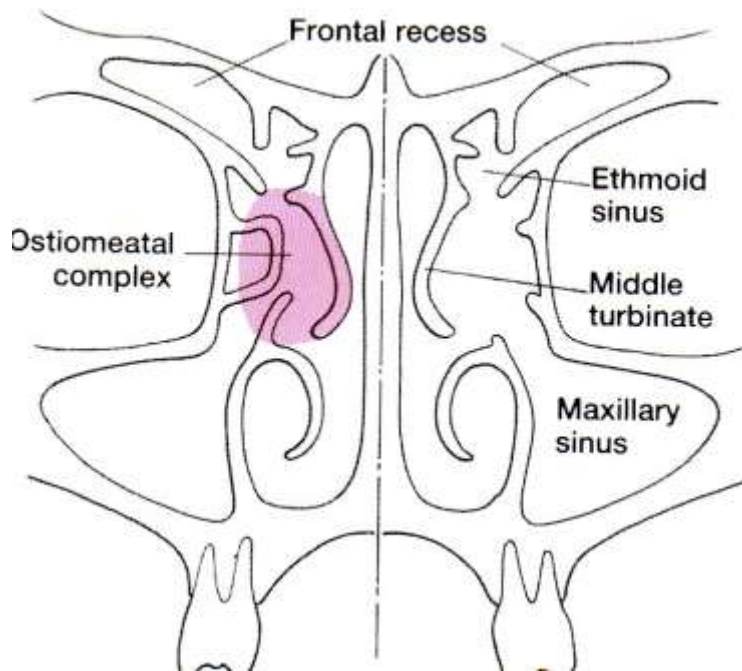
# Treatment – CRS / Nasal polyps

- Medical
- Steroid nasal sprays
- Antihistamines
- Broad spectrum Abs
- Oral steroids
- Allergy avoidance
- Montelukast
- Immunotherapy
- Surgical
- Failed medical treatment
- Aim: to improve ventilation, restore mucociliary activity
- Remove polyps
- Treat key area
- Radical surgery not done

*Knowledge*



# FESS – Principle

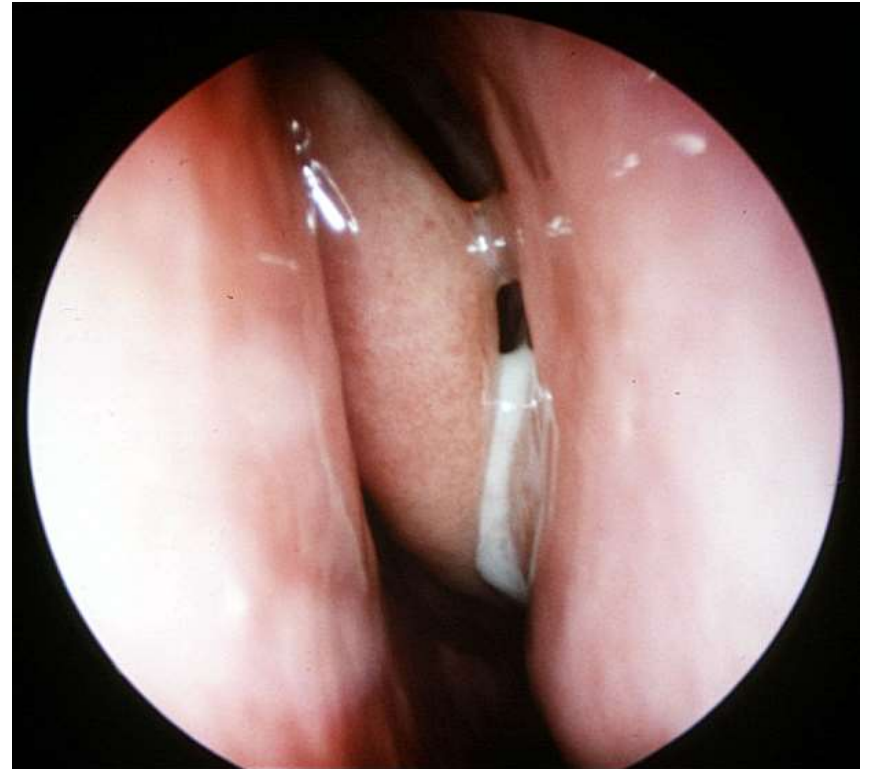




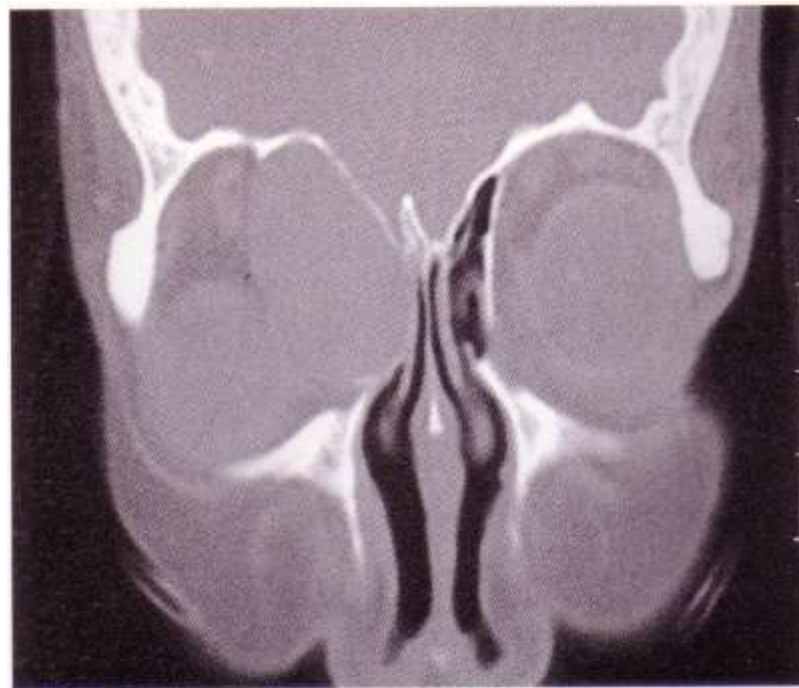
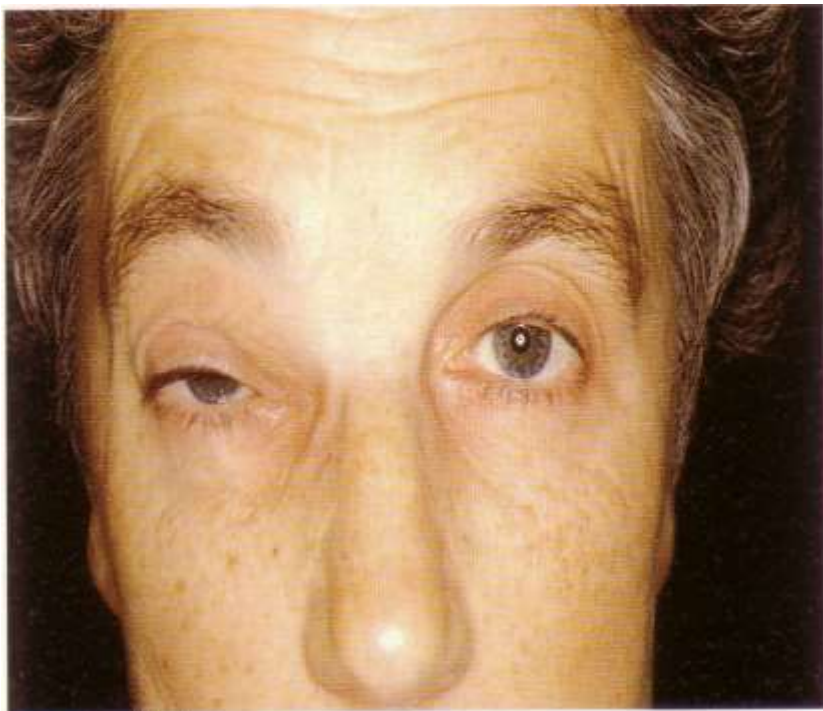
Balloon  
Sinuplasty  
video

# Case – 46 yr male

- Smoker
- Facial pain
- Nasal congestion
- Recent “cold”
- Hyposmia
- PND / runny nose
  
- Treatment



# Mucocele

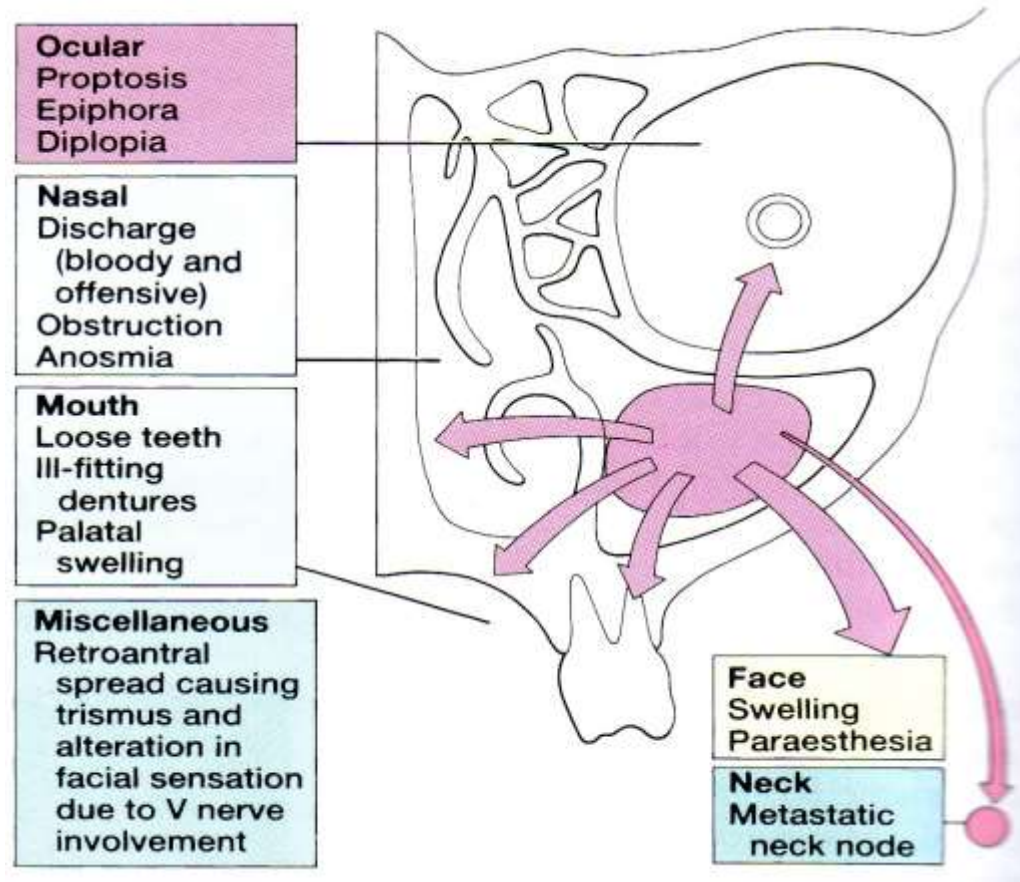


*Referral to secondary care*

# Red flags – 1 (Complications)



# Red flags – 2 (Malignancy)



*Knowledge*

# Fracture Nose

- Hair line fracture
- Bleeding
- No immediate treatment
- No X Ray
  
- Time of referral  
(5 to 20 days)
- Digital manipulation
- Later septoplasty (rare)

[www.gpnotebook.co.uk](http://www.gpnotebook.co.uk)



# Septal haematoma

- Emergency
- Why?
- How?
- Diagnose?
- When?
- Where?



[emedicine.medscape.com/article/14928](http://emedicine.medscape.com/article/14928)

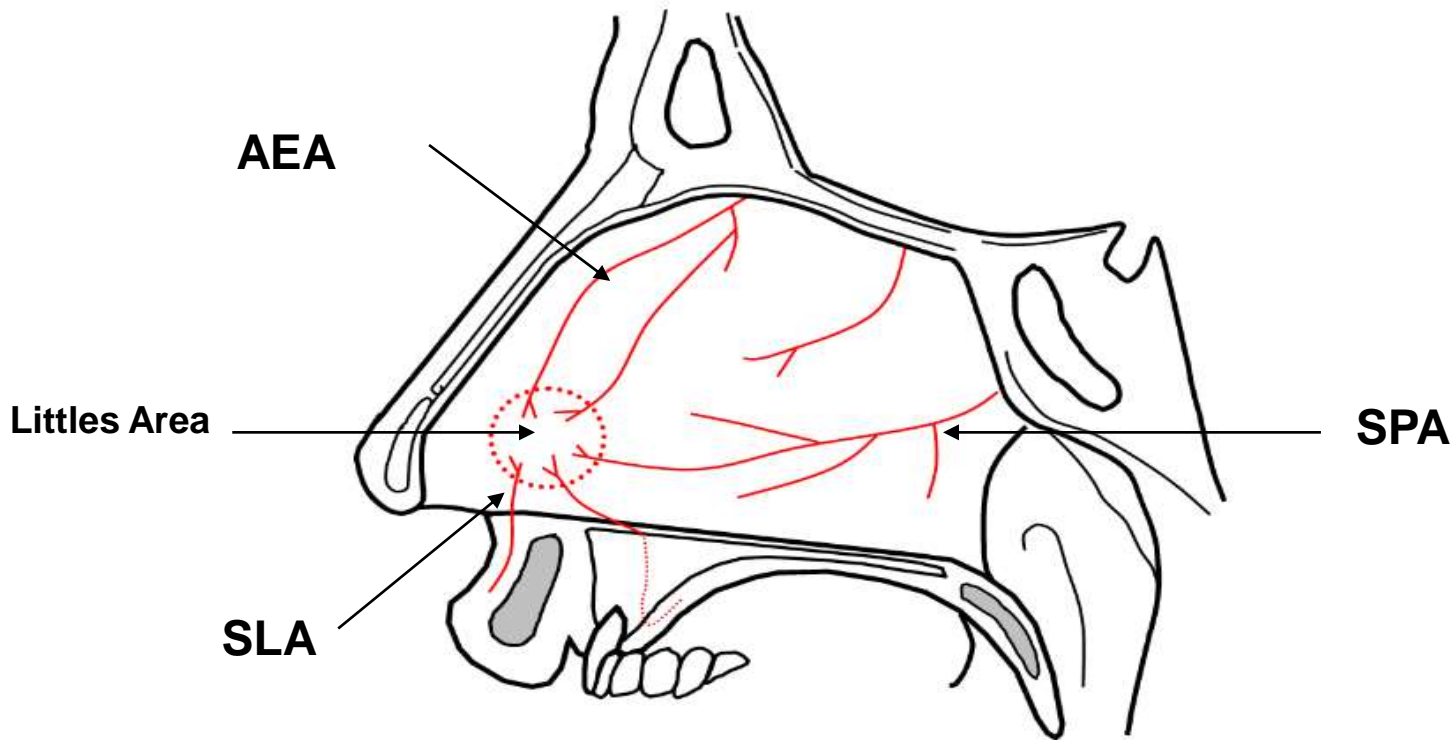


# Epistaxis

- Children
- Vestibulitis
- Nose picking
- Topical Rx
- Digital pressure
- Cautery
- Adults
- Elderly
- Trauma
- Hypertension
- General bleeding disorders
- Cautery / Packing
- A&E / Intervention

*Skill*

# Blood supply - septum



*Skill*

# Case

- 32yr. old lady
- Computer operator
- Band across the head
- Daily in the evenings
- No sinonasal symptoms



Knowledge / Skill

- 50 yr. old man
- Facial swelling
- Sudden onset
  
- Commonest cause?



# Myths

- Headache and sinusitis
- Nasal cream topical – epistaxis
- Plain sinus X rays are useful
- All topical nasal steroids equal
- Cranial / Orbital complications not seen
- Fracture nose needs X rays to diagnose
- Nasal spray technique / duration of use

# Nasal Spray Technique

- Gently shake the bottle for 5 seconds by tilting it upwards and downwards
- Remove the protective cap
- Before initial use, prime by pumping the bottle 6 times until a fine mist is released
- If the pump has not been used for more than 7 days, press down and release the pump once



## How to use



1 Blow your nose to clear the nostrils.



2 Tilt your head downwards, towards your toes. Hold this position while carefully inserting the spray tip into one nostril and use your finger to keep the other nostril closed.

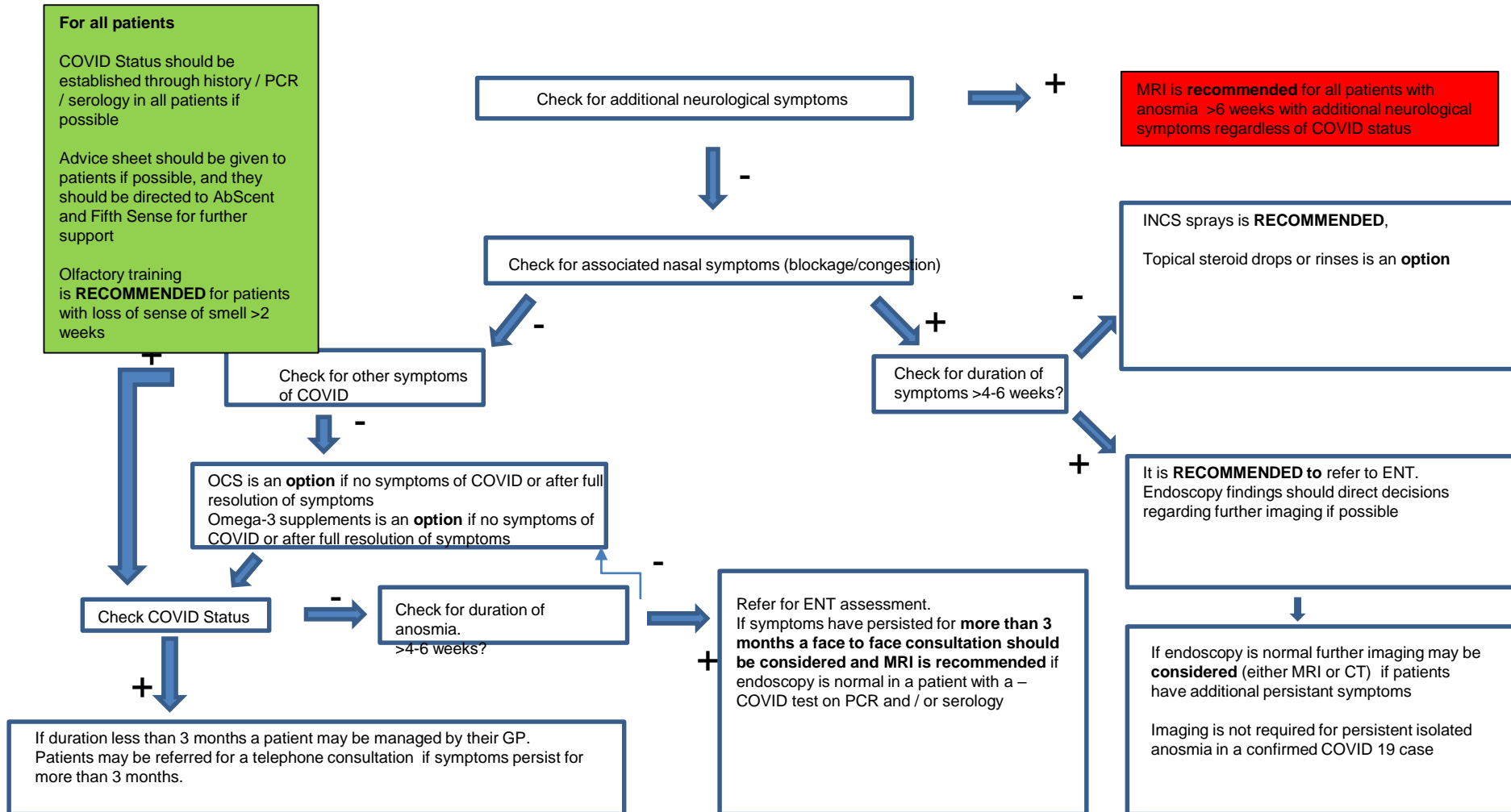


3 The spray tip should be pointed towards the outer part of your nose and not the nasal septum (the internal wall between your 2 nostrils). While keeping the bottle upright, pump once firmly while breathing in through your nose gently, do not sniff.

Repeat in the other nostril.

Finally, wipe the spray tip with a tissue and replace the cap.

# Management of patients with new onset anosmia during the COVID Pandemic



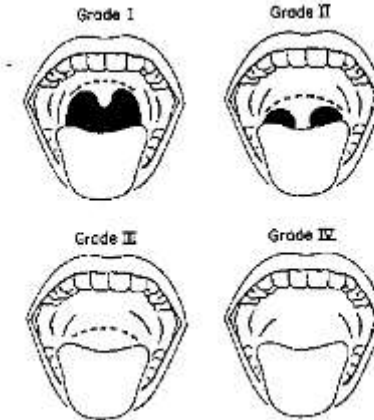
# Thank you

- Any questions?



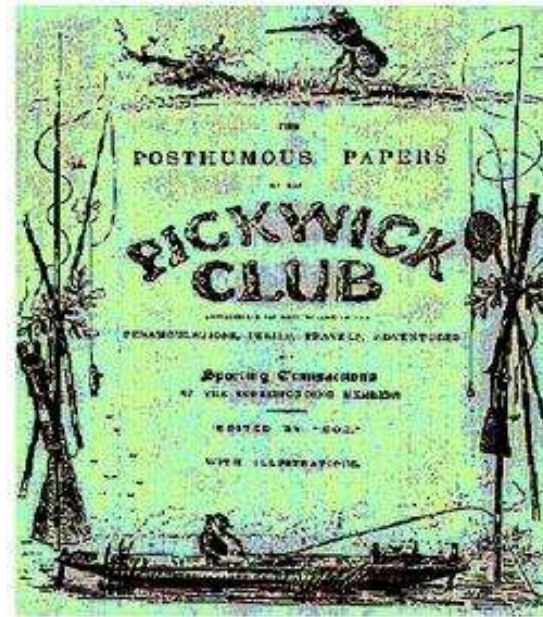
# Case 1 – 36 yr female

- Snoring – partner leaves
- No daytime sleepiness
- ESS: <12 / 24
- BMI 27
- Alcohol <10 units
- Nasal airway good
- Long palate, uvula lax
- Treatment



# Case 2 – 40 yr male

- Snorer
- Apnoeic episodes
- Daytime sleepiness
- Headaches / loss of libido / tired
- BMI : 37
- High collar size
- Alcohol ; >30 units
- Treatment



# Case 3 – 4 yr old

- Snorer
  - Mouth breathes
  - No tonsillitis
  - Normal hearing
- 
- Check for ?
  - Treatment

