

Asthma – who to refer?

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Aims

- Interactive discussion of 3 cases
- Referral suggestions
- Diagnosis
- Complications

Case 1

- 30 y.o. ♂ from Poland
- In UK for 5 years
- 1 year history of daily cough
- Yellow sputum
- Breathlessness
- Wheeze
- No previous diagnosis of asthma

Case 1

- Symptoms of perennial and seasonal allergic rhinitis with sneezing, itchy red eyes and coryza
 - Dust
 - Trees
 - Pollen
 - Cats/ dogs

Case 1

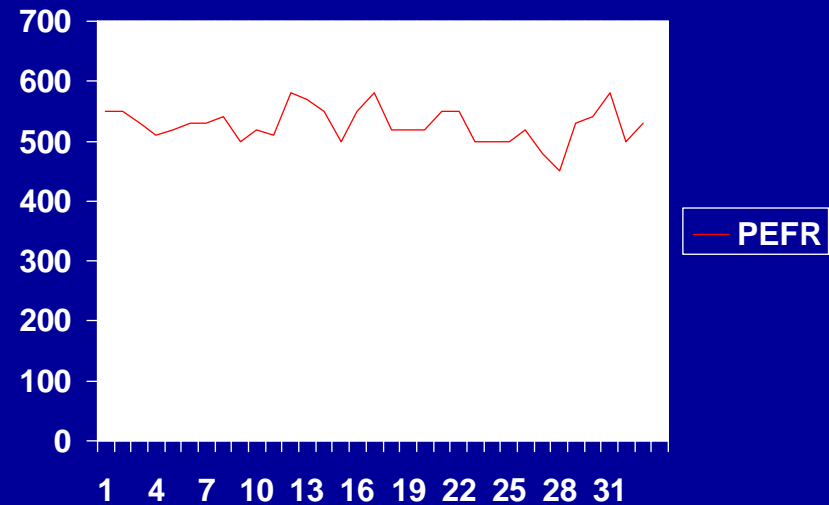
- History of oesophageal reflux
 - Better with omeprazole
- Meds
 - Symbicort 200/6 2 puffs bd
 - Omeprazole
 - Loratidine prn

Case 1

- SH
 - Worked as baker since arrival in UK
 - Slices bread
 - Symptoms better off work
 - Better when using mask at work

Case 1

- Clinical examination
 - Unremarkable
 - PEFr 665 l/min
 - At home at best 500-580 l/min
 - PEFr chart



Case 1

- What next?
- Investigations?

Case 1

- What next?
 - Skin prick tests?
 - Specific IgE
 - Wheat
 - Alpha amylase
 - HDM and other aeroallergens

Case 1

- Management
 - Mask at work
 - Mometasone nasal spray
 - Anithistamine
 - Omprazole
 - Further peak flow monitoring

Case 1

- On review
 - Asthma better. Using mask at work.
 - Nocturnal cough resolved. No wheeze.
 - Still coughs at work and feels breathless
 - PEFr 650
 - Investigations
 - IgE negative to wheat and alpha amylase
 - 30% Bakers' asthma no allergen identified
 - HDM and Birch pollen strongly positive

Case 1

- Referred to Occupational Lung Disease Unit in Birmingham

Case 2

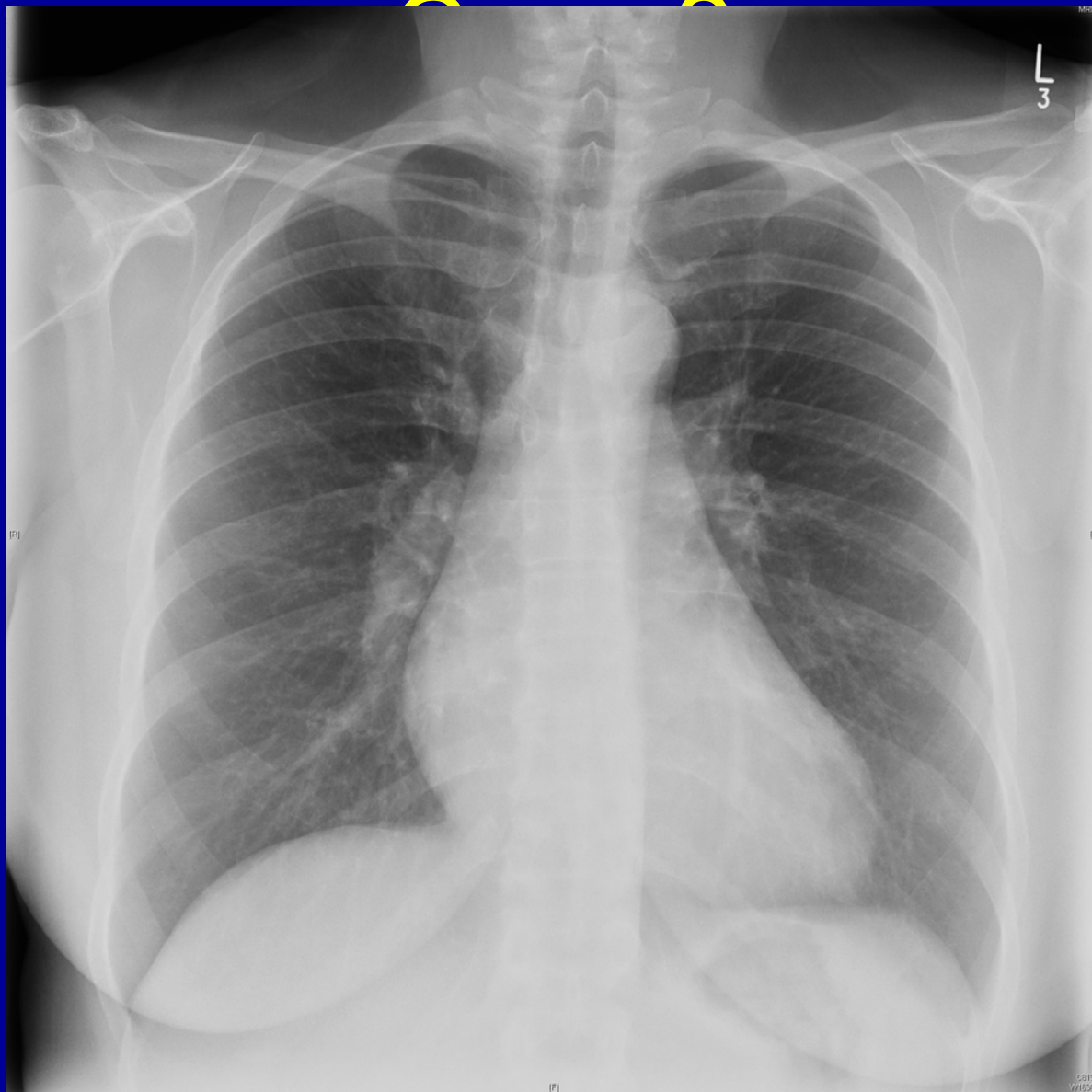
- 44 y.o. ♀
- Eczema and hay fever for years
- Breathless 2005
 - Diagnosed with asthma
 - Treated with Salbutamol MDI

Case 2

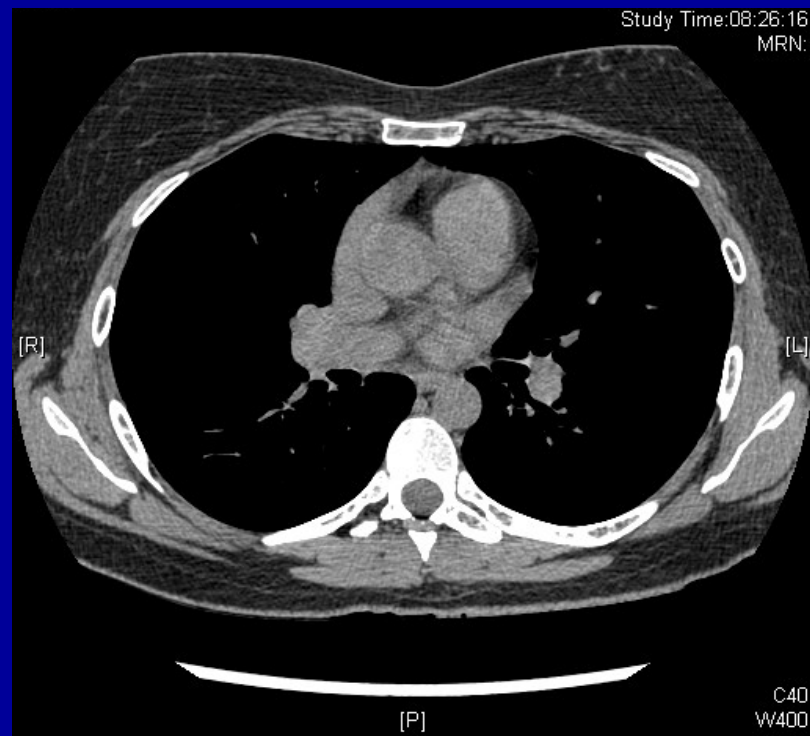
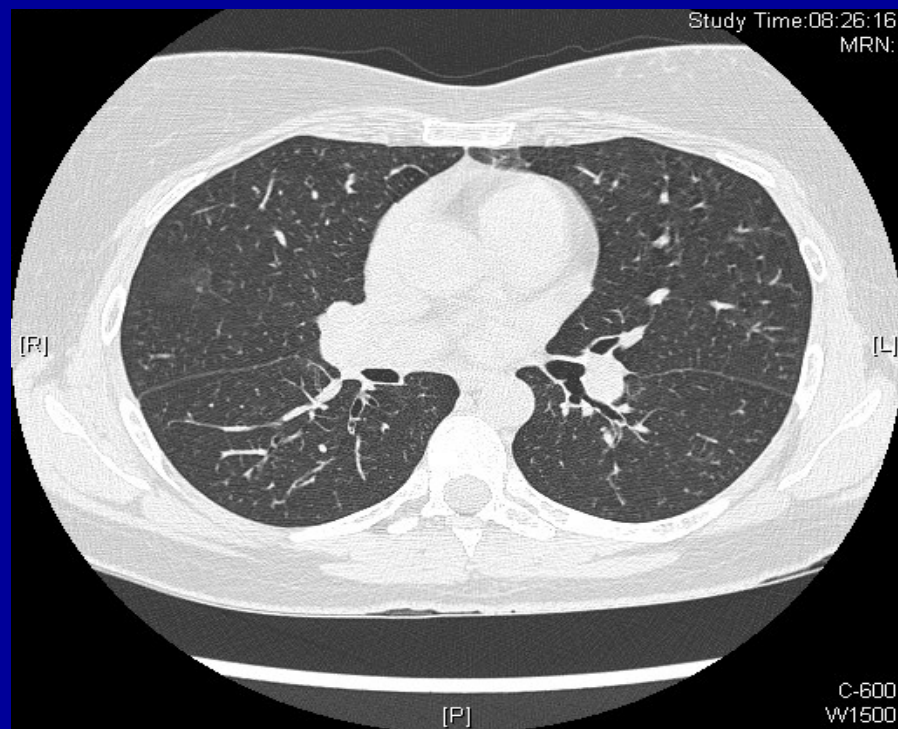
- Little improvement over several years
- Progressive breathlessness on exertion
- Cough productive of white sputum
- FEV₁ 2.1 (80%), FVC 3.4 (109%), ratio 63%, PEF_R 370 (96%)
- By referral unable to climb minimal incline
- Fainting episodes

Case 2

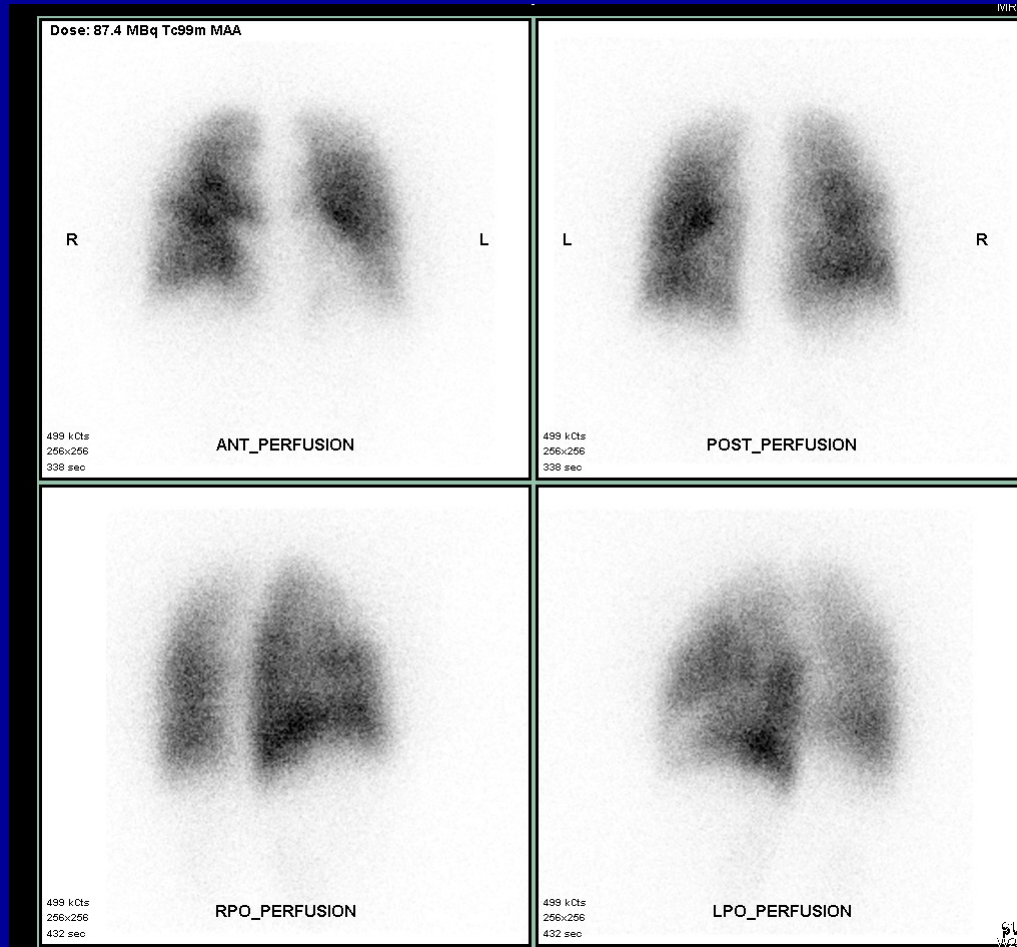
- On referral
 - No relevant exposures
 - Non-smoker
 - Previous OCP
- On examination
 - Plethoric
 - Early finger clubbing
 - Loud P2



Case 2



Case 2



Case 2

- Right heart catheter
 - Systemic pulmonary arterial pressures
- Treatment
 - Warfarin
 - Sildenafil
- Referral to Papworth

Case 3

- 37 y.o. ♀
- Asthma for 30 years
- 8-10 ICU admissions over 15 years
- 1 respiratory arrest
- Rapid recoveries – usually intubated for less than 24h
- Recurrent non-attendance at clinic
- Admitted to ICU May 10 with acute severe asthma

Case 3

- PMH
 - Panic episodes
 - Anxiety
 - Anaemia
 - Saggital sinus thrombosis
 - Factor V Leiden
 - Epilepsy

Case 3

- Treatment
 - Prednisolone rarely below 30mg od
 - Seretide 500 2 puffs bd
 - Phyllocontin 225mg od
 - Omeprazole 40mg od
 - Warfarin
 - Ferrous sulphate
 - Calcichew D3
 - Amitriptyline

Case 3

- On review in ICU
 - Managed with increased prednisolone, back to back nebulisers, IV aminophylline and magnesium
 - Rapid recovery
 - Adherence with prednisolone and phyllocontin
 - Not good at taking inhalers – worries about side-effects of prolonged inhaled steroids

Case 3

- Further management
 - Nebulisers weaned
 - Oxygen weaned
 - Self-discharge before 24h inhaled therapy
 - Failure to attend follow-up appointment

Case 3

- What we could offer (should she attend)
 - Further discussion and monitoring of concordance with therapy
 - Further trial of montelukast
 - Consideration of Omalizumab
 - Meets criteria on number of admissions
 - Eosinophils 0.67 (up)
 - Needs skin prick tests or specific IgE to determine eligibility

BTS referral guidelines

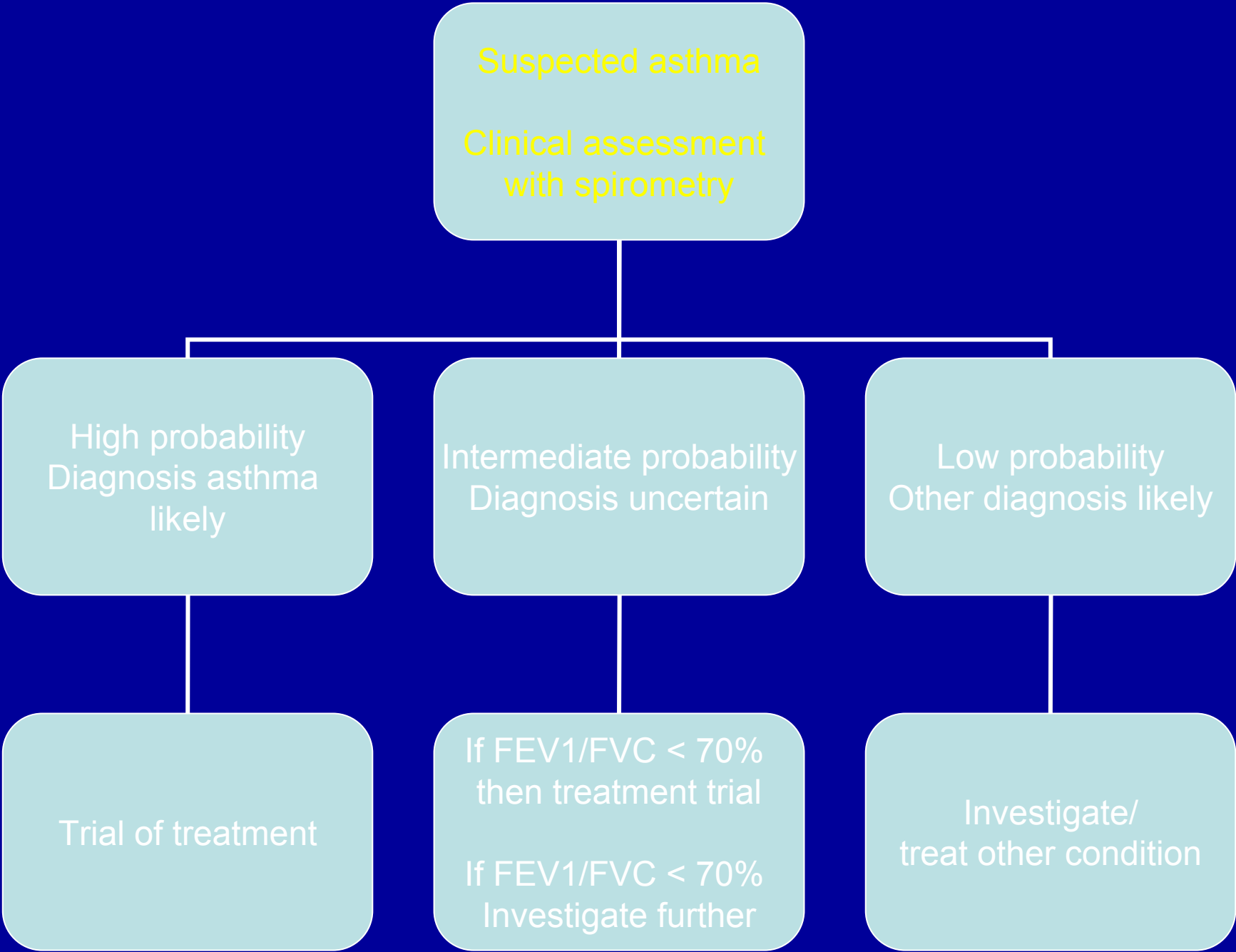
- From Thorax 2008 Vol 63 Supplement 1
 - Patients with new diagnosis of asthma and
 - Uncertainty about diagnosis
 - Uncontrolled asthma symptoms despite optimal management
 - Failing on Step 4 or above
 - Suspected co-morbidity eg heart failure
 - New diagnosis in over 65s with multiple medical problems

Diagnosis

- Airflow obstruction
- Variability
- Reversibility

Probability of asthma

- Increased by
 - Wheeze, cough, SOB, chest tightness
 - Symptoms worse at night and am
 - Symptoms worse with exercise, pet, cold and damp, aspirin or beta blocker
 - Occur apart from colds
 - Known atopy
 - Family atopy
 - Wheeze on examination
 - Low PEF/ FEV₁
 - Eosinophilia
 - Improvement with therapy
- Decreased by
 - Symptoms with colds only
 - Isolated cough
 - Moist cough
 - Prominent dizziness, light-headedness, peripheral tingling
 - Repeatedly normal physical examination of chest when symptomatic
 - Significant smoking history (> 20 pack-years)
 - Normal PEF or spirometry when symptomatic
 - No response to trial of asthma therapy
 - Cardiac disease



Differential diagnosis

Without airflow obstruction

- Chronic cough syndromes
- Hyperventilation
- Vocal cord dysfunction
- Rhinitis
- GOR
- Heart failure
- Pulmonary fibrosis

With airflow obstruction

- COPD
- Bronchiectasis
- Inhaled foreign body
- Obliterative bronchiolitis
- Large airway stenosis
- Lung cancer
- Sarcoidosis
- Pulmonary eosinophilia
- Wegener's granulomatosis
- Churg-Strauss syndrome

Asthma or COPD?

	ASTHMA	COPD
Age of onset	Usually <35 yrs	Usually >35 yrs
Smoking history	Not causal	Usually >10 p/y
Sputum	Infrequent	Often
Allergies	Often, family hx	Infrequent
Disease course	Stable with exacerbations	Progressive with exacerbations
Spirometry	Often normalises	May improve but never normalises
Symptoms	Intermittent, variable, night time	Persistent (good and bad days)

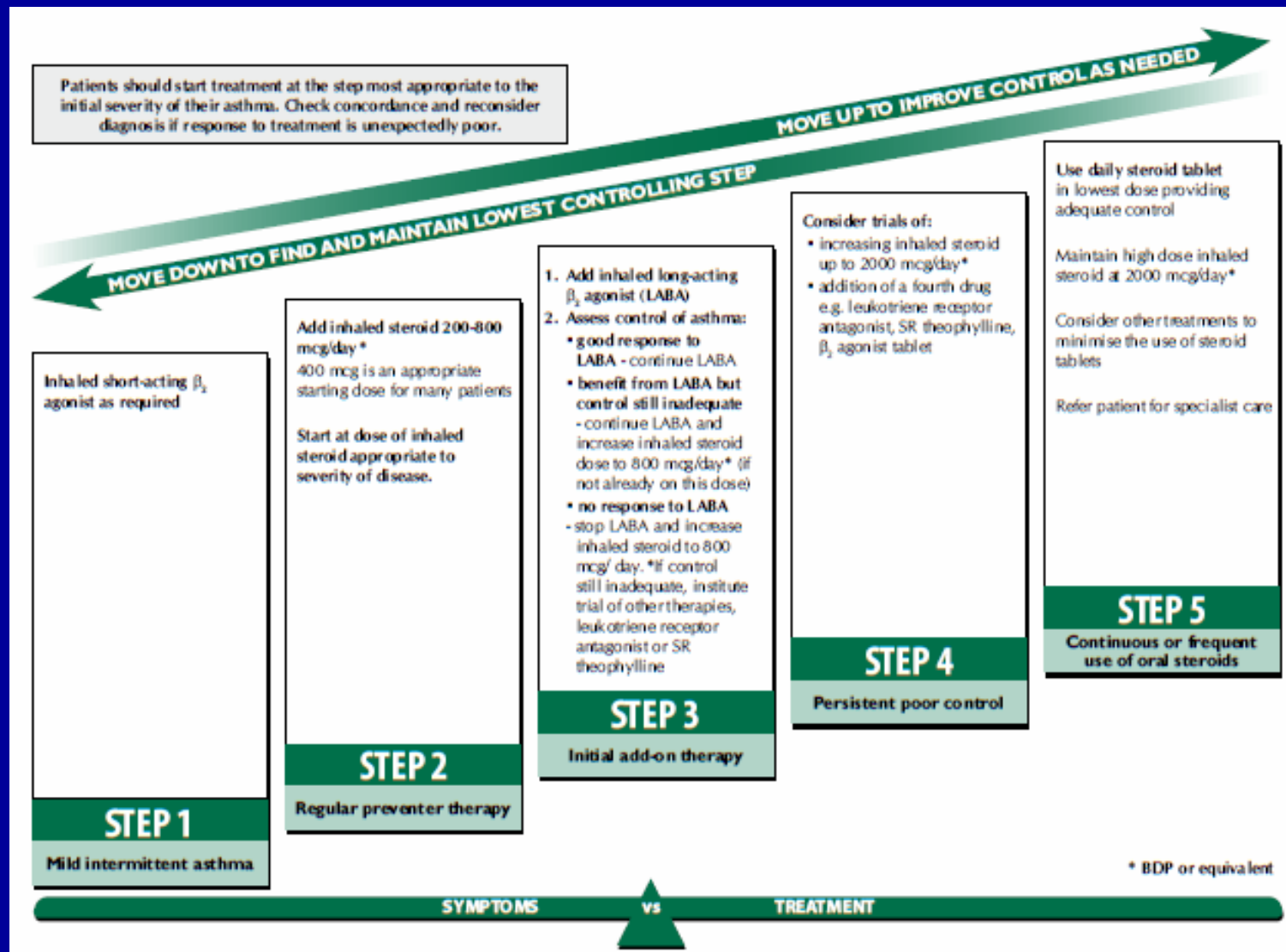
Refer if

- Unexpected clinical findings
- Unexplained restrictive spirometry
- Persistent non-variable breathlessness
- Monophonic wheeze/ stridor
- Systemic features
- Chronic sputum
- Marked eosinophilia

BTS referral guidelines

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 - Patients with new diagnosis of asthma and
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 - Failing on Step 4 or above

Pharmacological Management



BTS referral guidelines

- From Thorax 2008 Vol 63 Supplement 1
 - Patients with existing diagnosis of asthma and
 - Recurrent hospital admissions

BTS referral guidelines

- From Thorax 2008 Vol 63 Supplement 1
 - Patients with existing diagnosis of asthma and
 - Recurrent hospital admissions
 - Possible complication of asthma
 - Churg-Strauss
 - ABPA
 - Bronchocentric granulomatosis

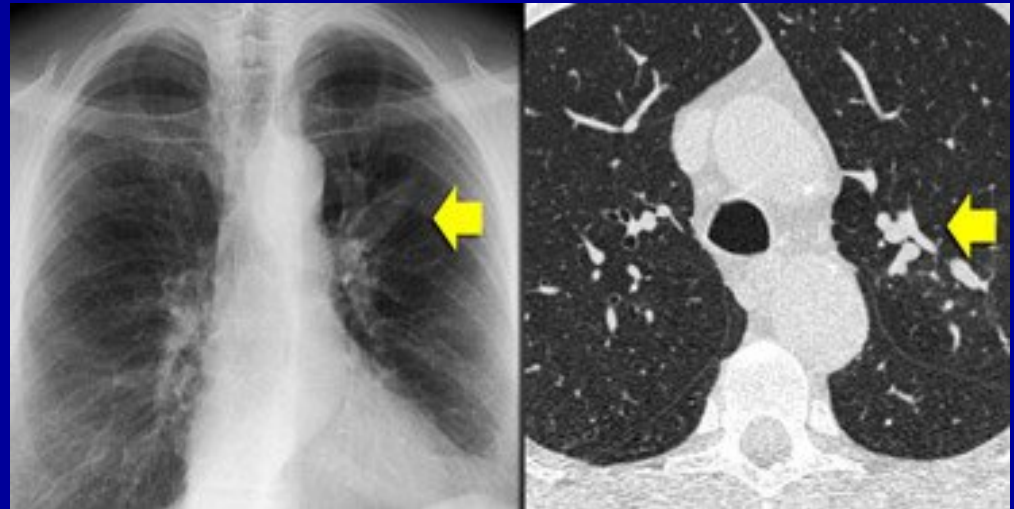
Complications

- Churg-Strauss
 - Asthma
 - Rhino-sinusitis
 - Vasculitic skin lesions
 - Purpura
 - Neuropathy
 - Migrating infiltrates and nodules



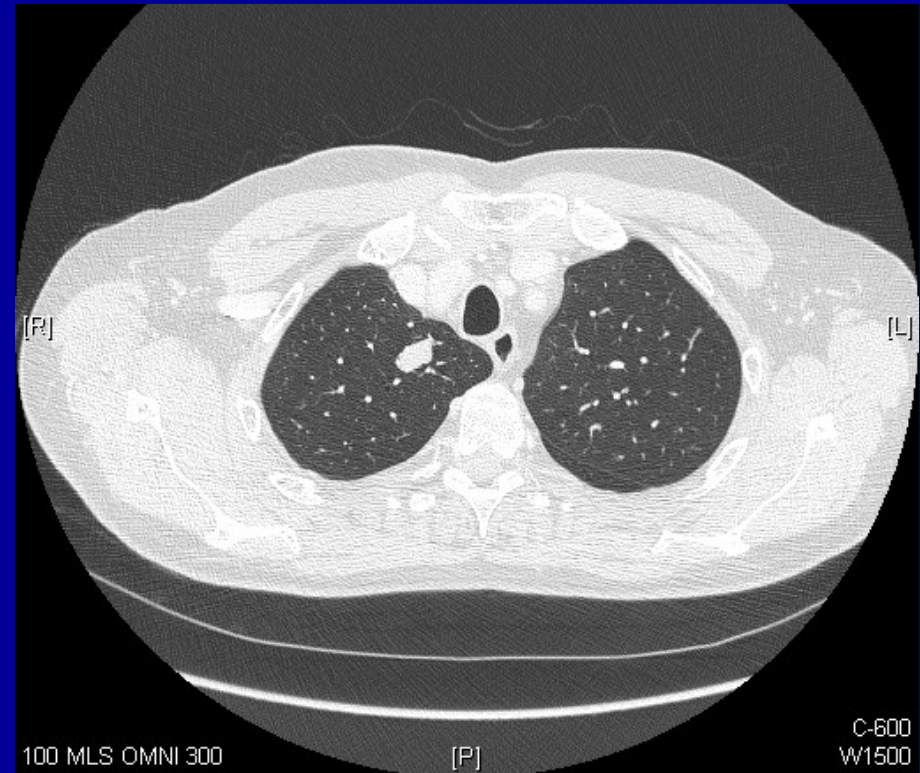
Complications

- ABPA
 - Frequent asthma attacks
 - Fever
 - Cough
 - Nodules, reticulation, cavities and bronchiectasis



Complications

- Bronchocentric granulomatosis
 - Asthma
 - Cough
 - Fever
 - Haemoptysis
 - Eosinophilia
 - Mucocoeles



BTS referral guidelines

- From Thorax 2008 Vol 63 Supplement 1
 - Patients with existing diagnosis of asthma and
 - Recurrent hospital admissions
 - Possible complication of asthma
 - Churg-Strauss
 - ABPA
 - Bronchocentric granulomatosis
 - Patients on maintenance oral steroids
 - Consideration of anti IgE therapy
 - Possible occupational asthma

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BTS follow-up guidelines

- 2-3 monthly those with
 - Repeated exacerbations
 - Polypharmacy
 - Brittle asthma
 - Near fatal attacks
- 4-6 monthly those with
 - Novel treatments
 - Stable prednisolone-dependent asthma
 - Stable asthma on immunosuppressants
 - Concomitant bronchiectasis
 - Patient and HCP preference

BTS acute referral guidelines

- Continued symptoms despite corticosteroids and inhaled/ nebulised bronchodilators
- Life-threatening asthma
 - PEFR <30% predicted
 - Silent chest
 - Cyanosis
 - Exhaustion
 - Decreased consciousness
 - Feeble respiratory effort
 - Oxygen saturations <92%

BTS acute referral guidelines

- Acute-severe asthma
 - PEFR <50% predicted
 - RR >25 min⁻¹
 - HR >110 min⁻¹
 - Unable to complete sentences
- Abnormal CXR
- Pregnancy
- Psychological instability
- Poor home circumstances

Questions?

Summary

- Illustrative cases
- Current guidelines for referral
- Diagnostic approach
- Differential diagnosis
- Complications