

Introduction to Asthma

Lynda Oakley



Objectives

- Look at Asthma Statistics
- Discuss NRAD report that influenced the change in asthma management. Also the recent report 'Reality of asthma care in the UK' 2018
- Look at how asthma is diagnosed and treatment options.
- Uncontrolled asthma.
- Risks to asthma within the region
- Asthma/Copd Overlap.

Definition

- Asthma is a heterogeneous disease, usually characterised by chronic airway inflammation. It is defined by the history of respiratory symptoms such as wheeze, shortness of breath, chest tightness and cough that vary overtime and in intensity, together with variable expiratory airflow limitation.

UK Asthma Statistics and Findings

- 5.4 million people in the UK are on asthma treatment.
- UK has the highest death rate in Europe
- There are 3 deaths daily due to asthma
- NRAD Report 2014 found that :- 90% of deaths were preventable
- 75% admissions avoidable
- Key Findings:
 - Complacency on part of healthcare professionals and patients
 - Lack of basic asthma care was to blame.

UK Asthma Statistics and Findings

- Following NRAD report recommendations were put forward, but recent findings following the Asthma Annual Survey 2018 found:-
- 2/3 people with asthma still not receiving basic level of care.
- 2/3 were still not receiving follow up appointments following hospital admission
- Also there remains a wide variation in the quality of services across the country

Diagnosing Asthma

- Good history including when symptoms started, either childhood or adult, Occupation, hayfever or eczema, rhinitis or nasal polyps. Pets at home, any dust, damp or mould in the home. Smoking history, comorbidities.
- Physical examination, chest auscultation. Examination of the nose may reveal rhinitis or nasal polyps.
- Lung function spirometry with reversibility, peak flow monitoring
- Assessment tools e.g AQLQ, ACT, ACQ7
- Feno (Nitric Oxide test)
- Bloods:- IGE RAST FBC
- Breath hold time

Asthma Phenotype

- Eosinophilic Asthma
- Atopic Asthma
- Non eosinophilic
- Non-Atopic
- Other phenotypes are being discussed

Treatment for Asthma

- Patients with respiratory symptoms of asthma should be commenced on low dose ICS with LABA prn, record peak flows pre-post inhaler, review response 3/12. Improvements in peak flow and diurnal variability to decrease.
- Review inhaler technique and adherence at every opportunity.
- Asthma action plans should be given once stability has been assessed.
- Asthma severity can be assessed when a patient has been on regular preventor treatment for several months.
- MILD ASTHMA:- controlled at step 1-2
- MODERATE ASTHMA:- controlled at step 3

Treatment for Asthma

- SEVERE ASTHMA:- step 4 or 5 high dose ICS-LABA + add on therapy > Biologic treatment
- Stepping down treatment once stability has been established should always be considered, finding the patients lowest treatment level to control symptoms.
- Patient choice of inhaler must always be considered.
- Non-Pharmacological Treatment should always be offered:-
- Obese patients should be offered weight loss programmes to reduce the likelihood of respiratory symptoms suggestive of asthma.
- Patients with asthma should be advised about the dangers of smoking and referred to smoking cessation.
- Breathing exercise programmes should be offered as an add on to treatment to improve quality of life and reduce symptoms.

Difference between severe asthma and uncontrolled asthma

- Uncontrolled asthma is more common and reason for persistent symptoms and problems need to be excluded before a diagnosis of severe asthma is made:-
- Poor inhaler technique
- Poor adherence remember - only 50% of patients take their treatment and only 30% of those patients take treatment as directed. These are main two reasons for uncontrolled asthma. (MDOT) Mobile device of direct observation of technique
- Incorrect diagnosis:- alternative conditions Reflux, vocal cord dysfunction, dysfunctional breathing, cardiac failure or lack of fitness.
- Comorbidities:- Rhinitis (airways start with the nose), OSA, Obesity, smoking
- Ongoing exposure to irritant agent at work or home.

Additional Risks to Asthma

- Co-Morbidities
- Obesity
- Mental Health
- Social Deprivation
- Lack of understanding/education
- Drinking culture/ drugs
- Smoking

How does Barnsley compare

- Historically higher than national average of adult smoker, this is being addressed.
- 60% of adults are deemed overweight.
- Above national average accessing adult mental health services
- Areas of social deprivation

What is Being Done Now

Barnsley's Health and Wellbeing Strategy 2016-2020 are trying to address the problem.

Quit Programme

Creating healthier lifestyle centres- more weight management programmes

More Community Teamwork

Creating better communication between health care teams

Taking more of a holistic review of patients.

Creating better asthma service for hospital inpatients.

Improving Peoples Health and Wellbeing

- Barnsley are trying to improve people's lifestyles
- But while ever people are living an unhealthy lifestyle e.g drinking heavily, taking drugs, smoking and obesity
- We are always going to have a problem with uncontrolled asthma but
- increasing medication is not the answer.
- Questions?

Asthma/COPD overlap

- Distinguishing asthma from COPD is problematic particularly in smokers and older adults, some have clinical features of both.
- Remember most guidelines and clinical trials are about asthma alone or COPD alone.
- Asthma/COPD overlap is not a single term for a single disease, includes patients with several different forms of airways disease (Phenotypes). Reason stopped using Asthma/COPD overlap syndrome.
- Investigations into each disease should be carried out to determine a patient has Asthma or COPD first.

Asthma/Copd Overlap

- Approved indication for ICS in COPD is the treatment of patients with impaired lung function FEV1 <60% and frequent exacerbations. But recent GOLD document indicates even in these cases, dual bronchodilation should be preferred to the use of combination containing ICS.
- ICS/LABA is first choice of treatment in patients with a history or findings suggestive of asthma Eg Raised eosinophils, allergies
- Difficult if ICS not recommended for COPD due to increase pneumonia risk but is for ACO can make clinical decision making difficult.

Asthma/Copd Overlap

- Diagnosis of ACO has no significant therapeutic indications for asthma as initial treatment is not different to pure asthmatics.
- We should be reviewing each patient:-
- Smoking is a feature favoring COPD and should be a necessary factor for the diagnosis of ACO.
- Asthmatics who have never smoked or been around passive smoking with persistent airflow obstruction cannot be diagnosed with ACO, diagnosis should be obstructive asthma.
- Asthmatics who smoke have a greater risk of developing chronic airflow limitation, bronchial hyper-responsiveness, wheezing, allergic rhinitis are more frequent, plus higher levels of plasma IGE compared to COPD patients with no asthma components.
- Asthmatic smokers fulfil the ACO profile.

Asthma/Copd Overlap

- The differences reflect the impact of cigarette smoking with adult asthmatics with the change in inflammatory characteristics.
- ACO can also be diagnosed in patients with no asthma diagnosed but who have airflow limitation but have a background of raised eosinophilia.

Asthma/COPD Overlap continued ACO

- For patients with a definite ACO Treat with low ICS/LABA not above moderate dose. Add on treatment with LAMA.
- Treat other problems smoking, obesity, physical activity and treatment of co morbidities.
- Identify patients with chronic airflow obstruction Spirometry/reversibility to find degree of obstruction.
- Identify asthma components eosinophils IGE Allergens
- Identify whether the COPD component or asthma component is most prominent. If similar numbers of features of both asthma and COPD, then the diagnosis of ACO should be considered.

Any Questions

- Contact details
- Lynda Oakley
- Asthma Specialist Nurse
- Barnsley Hospital
- 01226 432831