Better Lives Together
East Kent
Health and Care Partnership

East Kent Respiratory Newsletter

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COPD is permanent damage to the lung airways and lung tissue caused usually by many years of smoking; leading to symptoms of chronic cough, sputum, and breathlessness. COPD not only affects the lungs but also affects the whole body by releasing toxic chemical cytokines into the bloodstream. This leads to multiple co-morbidities, including damage to the heart/circulation, bones, muscles, kidneys, and metabolic imbalance, raising blood sugar levels.

10 top tips for COPD: clinical pearls***:***

1. Diagnosing COPD: Early detection is key. Spirometry is essential for diagnosis, with a reduced FEV1/FVC ratio below the lower limit of normal (LLN) and matching symptoms of COPD. The FEV1, on its own, can help with prognosis and CAT symptom scores.
2. Children with weak lungs can go on to develop COPD even if they never smoke. This may be due to poor lung growth from premature birth, childhood pneumonia, maternal smoking, or exposure to second-hand smoke. Lack of alpha1 anti-trypsin enzyme, which usually protects our lungs from airway damage, can lead to COPD before age 35. A simple blood test can detect this genetic condition in young COPD patients.
3. CT scans may show emphysema and thickened airways, but this is not COPD without spirometry proof of airway obstruction and symptoms of cough, breathlessness, or sputum. Mild emphysema with normal spirometry can be regarded as pre-COPD, i.e., a high risk of future COPD, and it requires smoking cessation, aerobic exercise, and heart-healthy diets. This is often picked up by low-dose CT scans in national lung cancer screening centres, which are known as Total Lung Health Projects.
4. Three leading causes of death in COPD are in equal proportion chest problems, heart problems and lung cancer. Heart problems include angina, heart failure, atrial fibrillation and other arrhythmias. Long-standing COPD can also lead to pulmonary hypertension and right heart failure. https://thorax.bmj.com/content/79/3/202
5. Educating patients by signposting them to the BLF/Asthma UK website at every review helps reinforce the key messages of lifestyle, correct inhaler use videos, and breathing exercises. The MY-COPD app is free in Kent/Medway and helps with day-to-day management and patients who do pulmonary rehabilitation. Contact Us | my mhealth
6. Lung cancer is linked to just having COPD and is independent of smoking history. If patients need repeated antibiotic courses, e.g. 2 courses in 4 weeks, always do a chest x-ray. If the chest x-ray is normal but symptoms continue, do a CT chest.
7. Mental Health problems are common, and depression is linked to poor health, loss of work and social isolation. Anxiety is also often present and worsens feelings of breathlessness, especially during COPD exacerbations/attacks.
8. Pulmonary rehabilitation is a proven way of improving breathlessness, mental health, and bone-muscle strength. It also reduces COPD attacks, hospitalisation, and mortality by 30-40%. Pulmonary rehabilitation reduces exacerbations, risk of death
9. Newer classes of COPD: Those patients who have two or more chest infections a year or one admission with severe COPD exacerbation are at high risk of accelerated lung damage and future recurrent COPD attacks. This group is now called GOLD class E, replacing the older GOLD C & D classes. Inhaler choice is usually LAMA/LABA for COPD without recurrent flare-ups, while the GOLD class E need triple therapy with ICS/LABA/LAMA

10. Rescue packs of oral steroids and antibiotics should be given to frequent exacerbators with a written self-management plan to avoid overuse. Five days of oral steroids at 30mg/day prednisolone for breathlessness only flare-ups, while 5-7 days of antibiotics help the most with green sticky phlegm attacks. If both are present, give both steroids and antibiotics.

Optimising COPD Management at annual Reviews*:*

Some patients seem to respond poorly to medical treatment and continue to have high CAT scores or recurrent chest infections and significant breathlessness. The following approach can often help:

1. Check the diagnosis with spirometry and see if the report and graph indicate obstructive airway disease. If the spirometry is restrictive, HRCT thorax scan is best. Most areas have GP access to this scan, or A&G chest specialist's advice can help if it is unavailable.

2. Exclude cardiac disease and perform ECG/BNP and chest x-ray tests. Long-standing COPD can lead to pulmonary hypertension and right heart failure.

3. If the patient is using dual LABA/LAMA inhalers for symptom control and demonstrates good compliance and inspiratory effort with the device, consider triple therapy with ICS + LABA + LAMA. Frail, dementia and nursing home patients may do better with MDI plus a spacer with a mask to guarantee good lung deposition of the medicine with normal tidal breathing.

4. Do they have a COPD self-management plan and understand what to do when COPD attacks occur? For milder flares, 10-14 days of mucolytics like carbocisteine 750mg TDS or erdosteine, 300mg twice a day; along with qds salbutamol, can be effective.

5. Have they stopped smoking, and are they vaping? Vaping can lead to COPD-like lung inflammation. For smokers, Varenicline and NRT are both effective. Nicorette Quick-Mist is licensed to help both smokers and vapers quit.

6. Breathing exercises such as BOX breathing or 3-4-5 breathing several times a day can help with breathlessness and minimise the use of salbutamol inhalers. These SABA quick-acting bronchodilators are only for COPD attacks, as regular use renders them ineffective and can lead to tachycardia and arrhythmias.

7. Is anxiety or depression contributing to the patient's discomfort? Treat mental health in conjunction with physical health for optimal outcomes.

8. Is acid reflux causing the cough and lung instability? Both asthma and COPD patients exhibit an unusually high prevalence of acid reflux, as high as 33-50%. This is often silent reflux. Gastroesophageal reflux disease in chronic obstructive pulmonary disease - ScienceDirect. Omeprazole 20mg BD for 8 weeks can be used as a trial of treatment in unstable COPD.

9. Encourage attendance at pulmonary rehabilitation and refer to the community respiratory nursing team for LTOT/oxygen assessments if persistently hypoxic and breathless.

10. Refer to secondary care or seek advice and guidance regarding three-day-a-week azithromycin 250mg or low-dose theophylline 400mg/day. Also, lung volume reduction surgery eligibility if CT scan evidence of emphysema and exertional breathlessness despite full primary care treatment.

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New ideas for COPD: Carbon dioxide breathalysers

CT lung scans may show COPD changes like emphysema, but on their own, are not sufficient to diagnose COPD. They are best coded as suspected/high-risk for COPD, but to confirm COPD diagnosis, we need matching clinical symptoms AND proof of airway obstruction. While spirometry remains the gold standard for diagnosis, newer airflow obstruction tests like Tidal Breathing carbon dioxide N-Tidal™ Diagnose | TidalSense have shown over 90% accuracy in diagnosis. The AI software reviews carbon dioxide graphs in expired air with COPD patients having a typical delayed airflow with a poor plateau phase. Trials in Oxford and other UK centres have allowed a wider NHS rollout as the test needs minimal training, no ARTP accreditation and just normal breathing effort by patients.

See PCRS website on Cormorant program for more details: Conference Abstracts | Primary Care Respiratory Society

Respiratory Training and education updates for East Kent:

https://kmpctraininghub.nhs.uk/?s=respiratory&Send=Send