Chronic cough (cough persisting ≥ 8 weeks) is very common and can sometimes be the presenting complaint in patients with serious underlying pathology. More commonly, chronic cough is not due to structural lung disease, but can still cause significant morbidity. Detailed explanatory footnotes for this pathway (including recommended treatment regimens) are provided on page 2.

Chronic cough

Offer smoking cessation support to smokers

CXR

Normal\(^1\)

Abnormal, or red flags/significant smoking history \(^2\)

Is the patient on an ACE-inhibitor?

Yes

Refer to appropriate subspecialty clinic e.g. Urgent Suspected Lung Cancer, ILD, TB

Consider routine bloods (FBC, U&E, LFTs, calcium/albumin, coag)

No

Replace with an angiotensin II receptor antagonist/alternative antihypertensive

Progress immediately to next step only if reasonably high suspicion of alternative cause \(^3\)

Consider sequential trials of treatment – with the order based on level of clinical suspicion - for eosinophilic airways disease, GORD and upper airway cough syndrome. Each trial should last A MINIMUM OF TWO MONTHS and you could also consider leaving a two-week ‘washout’ between trials.

**Eosinophilic airways disease**\(^4\)

ICS +/- PRN SABA\(^5\)

Please check inhaler technique is satisfactory/ provide a spacer if required

**GORD**\(^6\)

High-dose PPI + regular alginate\(^7\)

If a patient is already on PPI treatment, then please consider temporarily doubling the dose

Dietary/lifestyle advice can also be helpful

**Upper airway cough syndrome**\(^8\)

Potent nasal steroid +/- antihistamine\(^9\)
Footnotes:

1. A normal chest x-ray in a non-smoker with cough >8 weeks is extremely reassuring. It may be more appropriate to follow the Detect Cancer Early guideline on RefHelp in patients with more recent onset cough/change in cough.

2. Red flags/abnormal CXR – see Urgent Suspicion of Cancer guideline and see relevant guidelines on RefHelp for Asthma, Bronchiectasis, COPD, ILD and asbestos-related disease (including asymptomatic pleural plaques).

3. Please note that cough caused by ACE-inhibitors can occasionally occur many months after the onset of treatment. Likewise, although cough caused by ACE-inhibitor therapy frequently improves rapidly after stopping the culprit medication, any improvement can take considerably longer to become apparent.

4. Includes asthma, cough-variant asthma and eosinophilic bronchitis – consider this if nocturnal symptoms, variability in symptoms, previous/family history of asthma or atopy. Full blood count may show an eosinophilia. Only urgent pulmonary function testing is currently being performed due to the Covid-19 outbreak therefore we recommend proceeding directly to a trial of treatment (diurnal peak flow monitoring is unlikely to be helpful when cough is the sole symptom).

5. Clenil Modulite 100mcg 2 puffs b.d. or Beclometasone Easyhaler 200mcg 1 puff b.d. +/- Salbutamol CFC-free (MDI) 100mcg or Salbutamol Easyhaler 100mcg 1-2 puffs PRN.

6. GORD – prioritise trialling treatment for this if there are obvious reflux symptoms (although these may be absent), the cough is worse after eating, there are choking episodes at night or irritation of the throat/persistent throat clearing or intermittent hoarseness.

7. Omeprazole 40mg daily or Lansoprazole 30mg daily plus either Peptac (suspension) or Gaviscon Advance (tablets) to be taken regularly with meals and at bed-time. If a patient has persistent symptoms to suggest uncontrolled GORD despite this, then you may wish to consider obtaining further advice from Gastroenterology.

8. Consider this if the patient describes a post-nasal drip (mucus dripping down the back of their nose/throat), rhinitis, nasal congestion, prominent sneezing, anosmia/reduced sense of smell or frequent throat-clearing.

9. Fluticasone furoate (Avamys) 27.5mcg 2 sprays into each nostril o.d. or Mometasone Furoate 50mcg 2 sprays into each nostril o.d., plus Cetirizine 10mg daily. An alternative is to trial Montelukast 10mg nocte (which may also be beneficial in eosinophilic airways disease).

Other potential causes of chronic cough:

COPD – persistent (often productive) cough in the context of a significant smoking history may indicate COPD. Smoking cessation is the first step. Can then consider 2-3 month trial of LAMA/LABA (Spiolto Respimat 2.5/2.5mcg 2 puffs o.d. or Anoro Ellipta 55/22mcg 1 puff o.d.) +/- SABA. Confirmatory spirometry/reversibility can be performed at a later date.

Bronchiectasis – consider if there is persistent sputum production and/or recurrent infective exacerbations in a non-smoker. Send sputum for culture and sensitivity and consider treating with a 2-week course of an antibiotic directed at the organism that is cultured (or try empirical treatment with Amoxicillin 500mg t.d.s. for 2 weeks if no organism is cultured, assuming the patient is not allergic to penicillin).

Post-infective cough (e.g. after RSV/adenovirus/Pertussis/Mycoplasma) – this can persist for months.

It is also worth asking about occupational/recreational exposures, history of choking/food going down the wrong way (inhaled foreign bodies may not be visible on CXR) and symptoms suggestive of obstructive sleep apnoea.

If the patient’s cough persists despite the measures outlined, then please contact us for advice and consideration of further investigation.