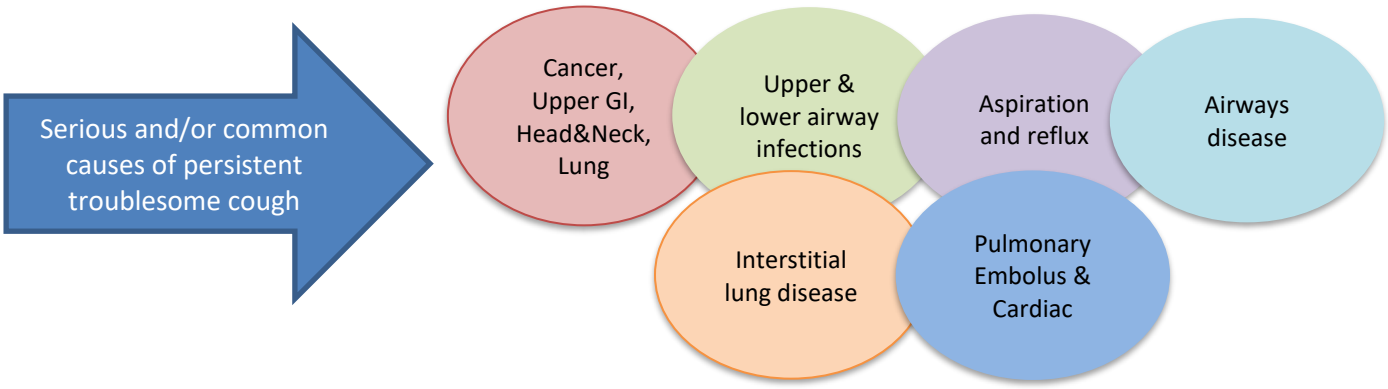
Persistent & chronic cough in adults: a systematic out of hospital approach to diagnosis



STEP 1: Ask and check the basics in the history and exam considering immediately life threatening or serious acute illness and probability of cancer. Most patients can be advised that the majority of coughs persisting after 3 weeks and before 6-8 weeks will settle without any further necessary treatment or tests.

History and risk factors

- Breathlessness and chest pain
- In the elderly consider the possibility of pneumonia, which may present with minimal signs and symptoms
- Night sweats/weight loss
- Acid reflux and epigastric pain. New onset in older patients requires 2ww
- Smoking history – tobacco, cannabis, other smoked drugs
- Heavy and/or older smoker recently stopped with minimal support or out of the blue (could be a red flag)
- Alcohol history
- Environmental and occupational risk factors
- Productive or dry – colour, amount, viscosity, blood stained
- Is this an upper or lower airways cough? Chronicity more often an upper airways problem
- Current medication (e.g. ACE inhibitors)
- Multi-morbidity – Stroke, neuromuscular disorder, COPD, Obesity, cancer – consider new causes of cough if a change is reported.
- Urinary incontinence a common secondary problem

Exam and desktop testing

- Vital signs: BP, Pulse rate and rhythm, Respiratory Rate, temperature, Peripheral Pulse Oximetry
- BMI
- Clubbing, cyanosis, lymphadenopathy, JVP
- Look up nose for polyps and back of throat for mucus
- Check neck nodes and gag reflex
- Chest Auscultation and heart Sounds
- Predicted and actual Peak Flow

Same week Investigations

- Chest X-ray, FBC, CRP, U&E (in case patient needs CT scan with contrast)

STEP 2: Start by coding cough as a problem. Most patients can be advised that the majority of coughs persisting after 3 weeks and before 6-8 weeks will settle without any further necessary treatment or tests. However, consider during this grey period and certainly if symptoms persist beyond 6 – 8 weeks the following tests and trials of therapy

Objective assessment of response: *at each step reassess the cough severity with a simple visual analogue score (VAS) – How bad is the cough on a scale of 0-10 where 0 is no cough and 10 is the worst cough imaginable? This will introduce some objectivity when deciding on response to trials of therapy. Clinically significant response is ≥2 unit change.*

Persistent and chronic cough is unpleasant, has secondary effects such as urinary incontinence and a final diagnosis can take a while to achieve. So during the investigation process or if watchful waiting you can recommend simple linctus and dextromethorphan (OTC) containing cough medicine as this may provide some relief until resolution or cause is found.

Complete the Non Urgent Assessment

Chest X-ray – if abnormal treat problem or refer to respiratory service or 2 week wait

Use your local spirometry service for pre and post bronchodilator testing
Start therapy according to the COPD Guideline if obstructive lung disease diagnosed

FBC – if eosinophilia then asthma probability increased

Cough variant Asthma

-Wheeze
-Breathlessness
-Variability in PF monitoring
-Spirometry with reversibility
-Diagnosis may involve bronchial challenge testing
Seek Specialist Advice

See RCCG Asthma Guidelines.

Reflux test of Rx

Acid and/or pepsin reflux can cause cough with or without heartburn and is diagnosed with a trial of treatment:
Acidex advance after meals and at bedtime **+ Omeprazole** 40mg BD for 6 weeks **ONLY**.

If no improvement - Refer and continue therapy as another 6 weeks may be required for full effects

If improvement – reduce to the lowest effective dose with the aim to stop PPI:
Acidex advance PRN after meals and at bedtime **+ Omeprazole** 20mg OD **(PRN)**

Refer to gastroenterology if recurrent

Nasal Disease

Patients presenting with nasal polyps should initially be reviewed by an ear, nose and throat specialist.

Nasal polyps may be treated with topical nasal corticosteroids (drops or spray). There may be a higher risk of side-effects with use of nasal drops compared to nasal spray due to greater systemic absorption and incorrect administration of drops. To reduce the risk, the drops must be administered with the patient in the 'head down' position

Steaming and washing with sterile saline is a useful adjunct to steroid nasal therapy Guidance is available on NHS choices and CCG website: https://www.nhs.uk/conditions/non-allergic-rhinitis/treatment/

Nasal Irrigation

Onward referral options

Respiratory referral for persistent cough or diagnostic uncertainty

Upper GI service (Hernia)

ENT (nasal polyps)

Other respiratory

STEP 3: Referral, more specialist tests, getting Advice and Guidance and other non respiratory interventions and help available

Top Cough Tips

Problem	Evidence/Tip
Anxiety and Depression	PHQ4 – consider how anxious or depressed the patient is and aim to find out whether a physical problem is exacerbated by this or is the primary cause.
Patient on ACE inhibitors	Stop ACEi and start ARB – do not try an alternative ACEi
Patient is a smoker	One of the commonest causes of persistent cough is smoking and appears to be dose related. Smoking cessation should be encouraged as it is accompanied by significant remission in cough symptoms. Follow NICE Guidance and refer to smoking cessation services. Recent quitters can have increased cough
Rhinosinusitis	Ensure nasal steroid spray technique is demonstrated and a long enough trial is given. Consider co-prescribing antihistamines. Chlorpheniramine if tolerated or before bed. Sedating types work better if possible but use others if drowsiness is an issue. Always discuss home and work environments e.g. mould and damp conditions, building dust and poor ventilation.
Acid or pepsin reflux	This can be acid reflux and non-acid reflux. Whilst H2 blocker and PPI will deal with the acid element a raft therapy is required for non-acid pepsin component. Treatment for 6 months is required.
Ear Wax	A small proportion of people with chronic couch have a sensitive ear canal (Arnold's reflex) so clear excessive ear wax.
Urinary Incontinence	Refer to specialist physiotherapy and/or urogynaecology