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Cough

Acute Cough (<3 weeks)

Red Flag/Cue	Possible Cause	Notes
Febrile	Influenza	No signs of consolidation.
	Bacterial Pneumonia	↑HR, ↑RR, signs of consolidation. Can persist and become chronic.
Whooping cough, cough- emesis	Pertussis	Can be acute, subacute, or chronic cough.
Hx of asthma, COPD, CHF	Exacerbations of pre-existing disease	Can be acute, subacute, or chronic cough.
Allergy symptoms	Allergic rhinitis	Often associated with asthma.
New onset in young children	Foreign body	Bronchoscopy to investigate + extract.
Facial pressure/pain	Sinusitis	Differentiate between viral and bacterial.
Rhinitis, no red flags	Acute bronchitis	Causes: most commonly viral URTI.

CURB65 -Points predicts the mortality in community acquired pneumonia.

Confusion	1
BUN >7 mmol/l	1
Respiratory rate ≥30	1
SBP <90 mmHg, DBP ≤60 mmHg	1
Age ≥65	1

0-1 pts- treat as an outpatient
2-3 pts- consider a short hospital stay or watch very closely as outpatient
4-5- needs hospitalization, consider ICU

Subacute (3-8 weeks) and Chronic cough (>8 weeks)

- If a patient has a chronic cough with no obvious cause such as ACE inhibitor use, GERD, or post nasal drip, get a CXR to rule out more sinister pathology.
- Children <15 y.o. with chronic cough should undergo CXR + spirometry at min.
- Many chronic coughs are a combination of multiple etiologies.

Red Flag/Cue	Possible Cause	Notes
Cough persisting after URTI	Post-infectious	Causes: viral infection, pertussis, bacterial sinusitis. Most common cause of subacute.
ACE inhibitor use	ACE inhibitor	Non productive cough. Can start 1 wk - 6 months after therapy started.
Throat clearing, nasal discharge, tickle in throat	Post-nasal drip	Associated with rhinitis, sinusitis, GERD, disorders of swallowing, allergies. Most common cause in non-smoking adults.
Episodic wheezing, SOB	Asthma and/or Chronic bronchitis/ COPD	Asthma: 2nd most common cause in non-smoking adults. Variable airflow obstruction reversible with bronchodilators.
Smoker, sputum production		Chronic bronchitis: Most common cause in smokers. Cough for 3mo in 2 successive yrs, in absence of other causes. Most also have COPD.
Prolonged expiratory phase		COPD: has a spectrum of manifestations including chronic bronchitis and emphysema.
Heartburn, regurg	GERD	3 rd most common cause in non-smoking adults.
Large volumes of sputum	Bronchiectasis	Accumulation of excessive secretions. Cough with ≥30 mL of purulent sputum in 24 hrs.
Hemoptysis, weight loss	Bronchogenic carcinoma	Red flags: new or changed cough in long term smoker, constitutional symptoms
	TB	Fever, in area with ↑ prevalence, HIV+, health care worker, crowded housing, alcoholic.
CXR: Bilateral hilar adenopathy	Sarcoidosis	Systemic disease, can get cutaneous symptoms, fatigue, joint pain. R/o lung Ca.

Key References: 1) Benich JJ, 3rd, Carek PJ. Evaluation of the patient with chronic cough. *A Fam Physician* 2011 Oct 15; 4(8): 887-892. 2) Madison JM, Irwin RS. Cough: A worldwide problem. *Otolaryngol Clin North Am* 2010 Feb;43(1):1-13. vii. 3) Ponka D, Kirley M. Top 10 Differential Diagnoses in Family Medicine: Cough. *Can Fam Physician* 2007 Apr;53(4):690-691. 4) Ebell MH, et al. *Outpatient vs Inpatient Treatment of Community Acquired Pneumonia*. 2006 April;41-44.