

# MedicineHx - Respiratory System

## History of “cough and its products”

### A. Overview:

- Cough is mechanical reflex that involves a deep inspiration , which increases lung volume , followed by muscle contraction against a closed glottis ; and then sudden opening of the glottis. History and physical examination are paramount in the diagnosis of cough .
- First, seek potential alarm features that could represent serious illness .second, determine the duration of the cough to narrow the differential diagnosis

### B. Differential diagnosis:

DDx	What support this diagnosis?
<b>Respiratory</b>	
<b>Asthma</b>	Risk factors: family history of asthma Typical Symptoms:thick mucous secretion related to an allergic condition,worse at night, cough associated with wheezing Complication:pneumonia, respiratory failure, status asthmaticus
<b>Bronchiectasis</b>	Typical Symptoms:Cough with excessive chronic sputum production , worse with time – when lie down
<b>COBD</b>	Risk factors:significant smoking history Typical Symptoms:shortness of breath with exertion and during sleep Complication: Lung cancer
<b>USCS</b>	Characterized by abundant secretions from the upper respiratory tract that drip into oropharynx and tracheobronchial tree ,causing cough . previously known as "postnasal drip syndrome"
<b>Bronchial cancer</b>	Risk factors:smoking Typical Symptoms:loss of appetite, weight loss, cough frank blood
<b>Gastrointestinal</b>	
<b>GERD</b>	Typical Symptoms: heartburn, eating particular food make coughing , dry cough Complication:esophagealulcer,Barrett'sesophagus,esophageal stricture
<b>Hemoptysis</b>	DDX:Bronchiectasis, Bronctitis , lung cancer, pneumonia, TB, cryptogenic , alveolar hemorrhage syndrome (ANCA- associated vacuities, SLE , Goodpastur's syndrome, crack Cocaine inhalation .

\* **COBD**=chronic obstructive pulmonary disease \* **GERD**= gastroesophagal reflex disease

\* **USCS**= upper airway cough syndrome

### C. Questions to Ask the Patient with this presentation:

Questions	What you think about ... !
<b>Time course</b>	
How long have you been coughing for?	<p><b>Acute (&lt;3 weeks duration):</b> Common cold, sinusitis Pneumonia (fever) , bronchitis, exacerbation of COBD</p> <p><b>Chronic (&gt;8 weeks duration):</b> Asthma, UACS, GERD, COBD,Bronchiectasis,Carcinoma of the lung, Interstitial lung disease, lung abscess,Drug(ACEInhibitors) Cardiac failure</p>
Is this cough worsening over time?	Bronchitis /asthma/congestive heart failure/ lungcancer/bronchiectasis
Has your cough lingered after recent cold of flu?	Post infectious cough ,UACS
Is your cough worse during a particular season?	UACS ,ashma
<b>Quality</b>	
Do you have dry cough?	ACE (angiotensinverting enzyme) inhibitors ,B- blockers
Do you need to clear your throat frequently?	Allergic rhinitis or nonallergic, UACS
Do you cough up any sputum?	<p><b>Sputum look purulent or green yellow:</b> Pneumonia,bronchitis, exacerbation of COBD,Bronchiectasis ,TB,USCS</p> <p><b>sputum look clear and whitish:</b> Asthma, UACS, bronchitis, smokers cough</p> <p><b>purulent sputum with foul odor:</b> Pneumonia, Bronchiectasis, lung abscess</p>
<b>Associated symptoms</b>	
Do you get shortness of breath with exertion?	pneumonitis,COBD, Asthma, congestive heart failure
Is your cough associated with wheezing ?	Ashma ,congestive heart failure
Do you have associated hoarseness?	GERD, chronic laryngitis, laryngeal nodules ,UACS
Do you have frequent heartburn ?	GERD
Do you have chronic badbreath?	Chronic sinusitis
Do you sleep more than one pillow ?do you weak up choking or short of breath ?	GERD, congestive heart failure,COPD ,Obstructive sleep apnea
<b>Modifying factors</b>	
Does exercise ,cold air or pollen make it worse?	Allergic rhinitis,UACS, Asthma

Does your cough worsen when you lie down?	UACS/GERD/ congestive heart failure/bronchiectasis/acute bronchitis
Does your cough worse at night?	Asthma,GERD,congestive heart failure
Is your cough precipitated by changes in position?	congestive heart failure/bronchiectasis
does your cough improve with over-the-counter antihistamines?	Allergic rhinitis/ UACS
Have you started any new medications?	ACE (angiotensin converting enzyme) inhibitors , B-blockers
<b>If hemoptysis there</b>	
Do you have scant to moderate hemoptysis with increase sputum production ?	Bronchitis
Do you have hoarseness? Do you have personal HX of cancer? Do you smoke? If so, how much?	Cancer
Have you had sever or recurrent pneumonia or TB? Do you chronically produce large amount of purulent sputum ?	Bronchiectasis
Do you have fever?	Lung abscess , pneumonia
Do you have acute chest pain with dyspnea? Do you have hx of immobilization or surgery?	Pulmonary embolism or infract
Do you have hemeturia,sinusitis,otitis or skin lesions?	ANCA- associated vacuities
Have you had TB in the past ? Have you been exposed to patient with active TB? Are you (HIV) positive?	Tuberculosis
<b>Past medical and surgical history; do you have history of</b>	
Cancer?	Primary or metastatic lung cancer
DVT or PE?	Anticoagulant- related bleeding Pulmonary embolism or infract
Cardiovascular disease (valvular or ischemic heart diseases or CHF)	Anticoagulant- related bleeding
Hemoptysis with exertion?	Mitral stenosis
Chronic liver diseases?	Couglopathy , thrombocytopenia, upper gastrointestinal bleeding
Peptic ulcer diseases?	Upper gastrointestinal bleeding
Renal diseases ?	ANCA- associated vacuities Goodpastur's syndrome ,SLE

Transplantation?	Bacterial, fungal or mycobacterial pulmonary infection
HIV?	Bacterial, fungal or mycobacterial pulmonary infection Kaposi sarcoma
Bleeding tendencies?	Coagulation disorders
COBD?	Lung cancer
<b>OTHERS</b>	
Have you recently traveled to countries where TB is endemic?	Tuberculosis
Do you use injection drug ?	Infection ( endocarditis ) Cocaine induced – alveolar hemorrhage Cocaine induced –Pulmonary infarct
Have you had recent bronchoscopy or pulmonary surgery ?	Iatrogenic
Do you any occupational exposures?	Exposure to toxic inhalants

**D. Systematic Review:** Go to Medicine – Hx – “General” topic!

**\*References:**

[https://www.us.elsevierhealth.com/media/us/samplechapters/9780702030833/9780702030833\\_3.pdf](https://www.us.elsevierhealth.com/media/us/samplechapters/9780702030833/9780702030833_3.pdf)

<http://www.healthdirect.gov.au/complications-of-asthma>

<http://www.mayoclinic.org/diseases-conditions/gerd/basics/complications/con-20025201>

<http://www.rnceus.com/resp/resphx.html> (very useful)

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