COUGH / HEMOPTYSIS / SPUTUM

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status, address)

Chief complaint + duration (acute < 3 weeks , chronic > 8 weeks)

HOPI: Analysis of the Chief Complaint (FCBCA + OPERATS)

Frequency
Content (dry or productive)
Bloody (hematemesis ?!!)
Color/Consistency of sputum
Amount (in cups)
Onset (sudden or gradual)
Previous Episodes (first time)
Exacerbating, Relieving:

a) Rest over night
b) Exercise/ Cold air
c) Swallowing
d) Pollens, Dust, fumes.

Associated symptoms (finish the CC analysis then ask about them ↓)
Timing (course, pattern):
Get worse or better with time?
Constant/ Episodic with free interval (asthma)
Severity

Associated symptoms

I. Constitutional
Fever, weight loss, night sweat, loss of appetite.
II. CVS: Chest pain, Orthopnea, PND, Ankle swelling, SOB, Palpitation, intermittent claudication.
III. RS:

A) Nasal congestion/ Sore throat.
B) Change in voice/ swallowing.
C) Cyanosis → PE.
D) Wheeze → asthma or Foreign body aspiration.

IV. GI
Nausea, vomiting, Heart burn, regurgitation, Abdominal pain → (GERD).

Past medical and surgical: Hx of respiratory and cardiac disease or other diseases, history of previous admission, history of blood transfusion, previous surgeries and trauma.

Drug Hx (what he is taking (ACEI, Aspirin , B blocker, inhaler), any recent change , adherence to medications)

Family Hx asthma , atopy , hay fever , eczema ,TB, Lung cancer , CHF

Social Hx: Smoking history (# of pack years), Pets, ventilated house, alcohol, travel history, contact with sick people nor elderly people/ prisoners , Sexual history.

Review of systems

(DDX: All respiratory (OLD, RLD) and cardiac diseases, GERD, Side effect of drug)

****Investigations:**
1. CXR → Pneumonia, Pulmonary edema, Asthma, COPD
2. Spirometry → Asthma, COPD, RLD
3. CT-angiography And D-dimer → PE
4. CBC → Pneumonia
5. 24 Hour esophageal PH monitoring → GERD**.**

DONE BY : Dr.Mahmoud Alali & Dr.Abdullah Alwikhyan

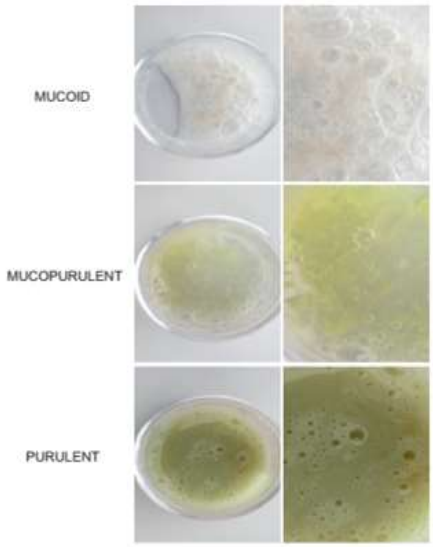
	Normal chest X-ray	Abnormal chest X-ray
Acute cough (<3 weeks)	Viral respiratory tract infection Bacterial infection (acute bronchitis) Inhaled foreign body Inhalation of irritant dusts/fumes	Pneumonia Inhaled foreign body Acute hypersensitivity pneumonitis
Chronic cough (>8 weeks)	Gastro-oesophageal reflux disease Asthma Postviral bronchial hyperreactivity Rhinitis/sinusitis Cigarette smoking Drugs, especially angiotensin-converting enzyme inhibitors Irritant dusts/fumes	Lung tumour Tuberculosis Interstitial lung disease Bronchiectasis

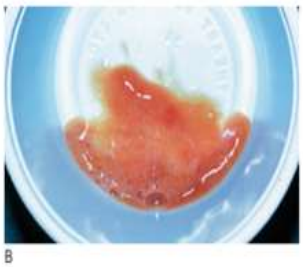
1-Acute cough:
URTIs, Allergic Rhinitis, Pneumonia
2- Chronic cough:
Chronic bronchitis, Asthma, Postnasal drip

Color

- Clear (mucoid): COPD/bronchiectasis without current infection/rhinitis.
- Yellow (mucopurulent): acute lower respiratory tract infection/asthma.
- Green (purulent): current infection – acute disease or exacerbation of chronic disease, such as COPD.
- Red/brown (rusty): pneumococcal pneumonia.
  Try to distinguish between rusty and frank red blood.
- Pink (serous/frothy): acute pulmonary edema.

In bronchiectasis, the color of sputum may be used to guide the need for antibiotic treatment.

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Color of sputum :
1-Rusty → S.pneumonia
2 – Red Current jelly → Klebsiella
3- frothy pink → P.edema
4- Greenish → Pneumonia

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7.4 Causes of haemoptysis

Tumour	
Malignant	**Benign**
• Lung cancer • Endobronchial metastases	• Bronchial carcinoid
Infection	
• Bronchiectasis • Tuberculosis • Lung abscess	• Mycetoma • Cystic fibrosis
Vascular	
• Pulmonary infarction • Vasculitis • Polyangiitis • Trauma • Inhaled foreign body • Chest trauma • Cardiac • Mitral valve disease • Haematological • Blood dyscrasias	• Arteriovenous malformation • Goodpasture's syndrome • Iatrogenic • Bronchoscopic biopsy • Transthoracic lung biopsy • Bronchoscopic diathermy • Acute left ventricular failure • Anticoagulation

Massive Haemoptysis:

more than 20ml/one time, OR more than 200ml/24hrs.

hemoptysis (Frank blood / blood stained) → Pneumonia/ CA/ TB / PE

Larger volumes of hemoptysis suggest:

- lung cancer eroding a pulmonary vessel
- bronchiectasis (such as in cystic fibrosis)
- Cavitatory disease (such as bleeding into an aspergilloma).
- Pulmonary vasculitis
- Pulmonary arteriovenous malformation.