Approach to the Adult with Respiratory Symptoms Suggestive of Asthma and/or COPD

Working definition of asthma: Chronic inflammatory disorder of airways causing:

- Recurrent episodes of wheezing, chest tightness, and cough
- Symptoms often worsen at night and with exercise
- Episodes are recurrent over at least 6 months
- Variable air flow obstruction is seen and often reversible, spontaneously or with treatment

Suggestive Features

- Onset in childhood
- Episodic cough, wheeze or chest tightness worsened with exercise or at night
- Largely reversible airflow obstruction
- Family history of asthma
- Personal history of:
  - -Allergic rhinitis, eczema

Working definition of COPD:
Chronic disease state with most important risk factor being cigarette smoking.

- Symptoms are cough, daily sputum production and dyspnea on exertion.
- Airflow limitation is characteristic, often follows symptoms by years and not fully reversible.

Suggestive Features:

- Onset mid-life
- Symptoms slowly progressive
- Long smoking history
- Dyspnea with exercise
- Sputum production
- Largely irreversible airflow limitation

Adult patient with respiratory symptoms
AND
current or past h/o tobacco use
(or other risk factor exposure-
e.g. occupational dusts, smoke from home cooking or fuels)

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Consider asthma and/or other chronic obstructive lung diseases

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- Obtain a chest x-ray
- Spirometry testing <u>with bronchodilator reversibility testing</u>

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Airway obstruction present
(i.e. FEV1 <80% predicted and/or FEV1/FVC <70%)

NO

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If suggestive features of asthma are present, consider a 6 week trial of inhaled anti-inflammatory therapy

<u>OR</u>

Reconsider the differential diagnosis (partial list):

- At risk COPD
- Congestive heart failure
- Bronchiectasis
- Tuberculosis
- Laryngeal or vocal cord dysfunction
- Cough secondary to drugs
- Obstruction due to tumor

<u>OR</u>

Consider referral for sub-specialist consultation

YES

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Obstruction is fully reversible?

YES
i.e. increase in FEV_1 that is both > 200ml and 12% above pre-bronchodilator FEV_1. Suggests reactive airways component. Classify and manage according to disease severity (see NHLBI guidelines[1]).

NO
Airflow limitation is only partially reversible or not at all. The non-reversible component is consistent with COPD. Stage and manage according to disease severity (see GOLD guidelines[2]).

7-13-06

[1] Expert Panel Report: Guidelines for the Diagnosis & Management of Asthma-Update on Selected Topics 2002, NHLBI, NIH Pub. No. 02-5074, June, 2003. http://www.nhlbi.nih.gov/guidelines/asthma/asthmafullrpt.pdf

[2] Global Initiative for Chronic Obstructive Lung Disease, Global Strategy for the Diagnosis, Management & Prevention of Chronic Obstructive Pulmonary Disease, NHLBI/WHO Workshop Report, NIH, Updated 2005. http://www.goldcopd.com

This algorithm is provided as a tool for clinicians and is not intended to replace individual clinician judgement. Clinical decisions for individual patients are the sole responsibility of the treating clinician.