

Stable COPD and COPD Exacerbations

ACP Clinical Guidelines for Diagnosis and Clinical Guidelines in November 2007
Annals of Internal Medicine also article about COPD screening in April 08 Annals from
the US Preventive Services Task Force. Articles concerning exacerbations from Up-To-
Date.

B. Steinhauer

A 56 year old African American female has been followed at the Medplex for COPD. She stopped smoking in 2005 and she has used 2 liters of nasal oxygen since approximately that time. Her COPD program includes inhaled fluticasone (Flovent) 220mcg/spray 2 puffs, bid, inhaled albuteral 2 puffs approximately four times a day, and tiotropium inhaled (Spriva) 18 mcg/cap once a day. Other medications include benazepril 20mg po each day and felodipine for her hypertension and Protonix 40 mg each day for her GERD. She takes Actonel for osteoporosis and Zocor 40 mg for hyperlipidemia. She has had no recent hospitalizations and is able to walk with her oxygen approximately a quarter of a block. There are no stairs at home. A physical examination revealed somewhat distant breath sounds and an increased duration of expiration. There was no use of accessory muscles in the neck to assist respiration. Her SaO₂ was 86%.

A pulmonary function study done several years ago revealed a FEV1 at 40 percent of predicted and a PaO₂ of 55 mm and a PCO₂ of 40. FEV1 was improved to 50%.with bronchodilators.

Question 1: In what stage of COPD does this patient fall?

1. mild
2. moderate
3. severe
4. very severe

Question 2: Additional spirometry tests would be useful in therapeutic planning for this patient True or False

Question 3: This patient is on “triple therapy” (inhaled steroids, beta agonists and anticholinergics). Is there clear evidence that anything beyond monotherapy benefits this type of patient? If monotherapy is chosen, which of the three modalities is most useful?

Question 4: Does this patient meet the criteria for oxygen therapy at least 15 hours a day.

Question 5: To what level should the PaO₂ be raised?

Question 6: What are the criteria for prescribing pulmonary rehabilitation and does this patient meet them?

Question 7: Careful disease management and patient education has value for all COPD patients. True or false

Question 8: Of all interventions that a physician can undertake, what is the single most important in improving mortality rates and complication rates in COPD patients?

Question 9: What is the likelihood that this exacerbation is due to an infection?

Question 10: A sputum culture should promptly be secured so that therapy can be correctly directed.

Question 11: What are the most likely organisms requiring treatment?

Answer: *H. influenzae*, *M. catarrhalis*, and *S pneumoniae*. Incidentally even purulent sputum does not entirely clarify whether the exacerbation is due to an infection. Also, over half of the infections that cause exacerbations are viral.

Question 12: Do the observations concerning monotherapy vs. triple therapy apply during management of an exacerbation?

Future chapters: choice of antibiotics and criteria for admission to the hospital.

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