Comparison of Treatment of Chronic Obstructive Pulmonary Disease (COPD) by Family Physician and Consultants

I U HAQUE S ZAFAR T U SALAM *M A KASHIF A R BUTT N U ARFEEN G U N TAYYAB.*
Department of Medicine, LMDC, Lahore
Correspondence Dr. Israr-ul-Haque

The goal of the study is to determine whether care for COPD patients is more consistent with guidelines when a Consultant rather than a Family Physician treat the patients. We use the Global Initiative for Obstructive Lung Disease Guidelines as a standard [1]. We studied seven parameters, offering Pulmonary Function Test, Smoking cassation guidance, vaccination, use of oral steroid, inhaled steroids, inhaled Impratropium bromide, and symptom documentation. We concluded that both Family Physicians and Consultants are not fully following the guidelines. In compression Consultants are better than Family Physicians.
Key words: COPD, Family physician

COPD is treated by both Family Physicians and Consultants. COPD is a major cause of chronic morbidity and mortality and is currently the forth leading cause of death in the world[2]. The increasing incidence of COPD has led to the publication of COPD guidelines in 1995 and again recently in 2001 and 2003.

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) was a collaborative project of the U.S. National Heart, Lung, and Blood Institute (NHLBI) and the World Health Organization (WHO). Its goals are to improving prevention and management of COPD[1].

The diagnosis of COPD is based on a history of exposure to risk factors and presence of airflow limitation that is not fully reversible, with or without the presence of symptoms. Patients who have chronic cough and sputum production with a history of exposure to risk factors should be tested for airflow limitation, even if they do not have dyspnea[3].

For the diagnosis and assessment of COPD, spirometry is the gold standard as it is the most reproducible, standardized, and objective way of measuring airflow limitation. Inhaled bronchodilators are the recommended drugs for the management of COPD. The 2001 GOLD guidelines did not recommend the long term use of inhaled corticosteroids (ICS); a recent update of these guidelines in 2003 suggests that ICS could be beneficial for COPD patients[4].

Differences in quality of care and management between Family Physicians and Consultants have been described for patients with coronary artery disease and with asthma[5-6]; few studies have been reported for patients with COPD[7].

The objective of the study is to determine whether care for COPD patients is more consistent with the GOLD guidelines when a Consultant rather than Family Physician treat the patients.

Methods: (Study Design):

Retrospective study: We included 100 patients (50 in each group) of COPD who persecuted in and out patients of Jinah Hospital and in our private clinics. We reviewed the old records, and interviewed the patients to the assess the quality of care.

In order to be included in the study patients had to have a minimum of two consecution visits to a Family Physicians and Consultant in a year. The age of the patient should be blow 20–70 years with no active comorbid conditions such as unstable IHD, uncontrolled Hyperteusim, or heart failure.

Focusing on specific recommendations by GOLD guidelines, we identified the indicators to compare. Documentation of symptoms, spirometry, tobacco use and counseling for smoking cessation and use of medications were reviewed. Prescription of influenza and pneumococcal vaccine were assessed. Varibles are statistically analyzed by SPSS-10.

Results:

We reviewed 100 patients. Fifty in each group. The mean group age was 52 years in Family Physician and 56% in Consultant group

Pulmonary function test were offered in 10% cases by Family Physician; 05% by Consultants. Symptom documentation is seen in 16% cases by Family Physicians and 28% by consultants. Guidance for Smoking cessation is offered by 90% Family Physician and in 74% cases by Consultants. Vaccination (Pneumococal Vaccine OR H. influenza Vaccine) offered to only 4% of patients by Family Physician and 30% Patients by Consultants. Family Physician are more liberal in using oral steroids than Consultants (40% and 20% respectively) Inhaled steroid were more used by Consultants 80%, than Family Physician 30%. Ipratropiem is offered in 80% by Consultants and 28% in Family Physicians.

Table 1

Variables	Family physician (n=50)	Consultant (n=50)
Mean age	52	56
Male	46	45
Female	04	05
Smokers	47	46

Table 2

Variables	Family Physician	Consultant	P-Value
PFT	10%	05%	0.02
Symptom documentation	16%	28%	0.04
Smoking	90%	74%	0.01
Vaccination	04%	30%	0.02
Oral Steroids	40%	20%	0.02
Inhaled Steroids	30%	80%	0.03
Ipratropiem Bromide Inhaler	28%	80%	0.01

Discussion:

Our results are in agreement with previous studies that have shown inconsistency of care with guidelines for COPD by both the Family Physicians and Consultants[8].

Spirometry is considered to be the gold standard for COPD diagnosis[9]. Impaired lung function, as measured by FEV1, has important prognostic implications. Dyspnea and airway obstruction as measured by FEV1 predicts survival. GOLD recommends spirometry in any patient over age 45 with a history of exposure to risk factors such as tobacco smoke, even in the absence of symptoms. In our study only 10% Family Physician advised PFT as compared to 05% by Consultants. In our setup poor referralby Consultants for spirometry perhaps due to fear of losing the patient if they reffered to sub-specialty Consultants for lung function test. A recent study evaluating the diagnostic methods used by primary care and pulmonary physicians for the diagnosis of COPD showed that in 898 subjects, spirometry was available in 49% of patients evaluated by the primary care physicians compared with 98% for the pulmonary group[7]. In another study, decramer conducted a survey among general practitioners and pulmonologists regarding management of COPD and adherence to the GOLD guidelines. Again, fewer general practitioner performed spirometry[3].

Symptoms documentation, especially dyspnea, are important because it has been shown to preduct 5 – year survival in COPD patients. Documentation of symptoms in our study was sub-optimal for both the groups (28% Consultants and 16% Family Physicians).

The GOLD guidelines promote prevention of COPD in at-risk patients through smoking cessation efforts and by avoiding risk factors. Use of Psycho-therapeutic modalities e.g. drug to stop smoking is lacking in our study; In our study, smoking cessation guidance is reasonably offered by both Family Physician and Consultants, 90% and 74% respectively vaccination especially influenza, and pneumococcal vaccines are recommended in order to reduce serious illness in patients with COPD. But it is poorly advised by Family Physician and Consultants 4% and 30% respectively, in our study. Adult vaccination is a rare entity in our society even in urban and educated people because of poor guidance by doctor. Recommendation to routinely use oral steroid is lacking but 40% Family Physician and 20% consultants are still prescribing oral steroids to the patients. It shows total lack of awareness of Gold guidelines by both groups. Various international studies showed variable percentage of oral steroid up to 5%[10]. Our study reflects the indiscriminate use of steroids in our daily practice of medicine[11]. Inhaled Ipratrapiom Promide use is limited in Family Physicians practice (28%) but fairly good percentage of consultants use it 78%.

There are certain limitations to our study. First, we did not attempt to evaluate the level of education of the patients in each group; second, we recognize the limitations of retrospective study and the inclusion of patients with no spirometry, some of the patients being treated for COPD could have been misdiagnosed. Availability of spiromelry is also limited in our Family Practioners clinics and consultants.

Based on the GOLD guidelines as a standard for the care of COPD patients, this study suggests that there is room for improvement in the quality of COPD care in our Family Physician and Consultant level. If the burden of this disease is to be reduced over the coming years, it will be essential to develop strategies to increase the awareness and education, not only of the primary care physicians, but of the patients, and consultants regarding guidelines for the diagnosis and management of COPD. Patients with COPD will greatly benefit from an integrated approach, whereas the Consultant will complement or reinforce what the Family Physicians has initiated.

Conclusions:

Care of COPD patients was more likely to be consistent with guidelines when Consultants were the usual source of care. Both Consultants and Family Physician are not very strict in following the guidelines. Strategies should be developed to increase the awareness and education of Family Physicians, Consultants, and patients, regarding new guidelines for the diagnosis and management of COPD.

References

1. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. Updated 2003.
2. Ayanian J, landru M, Guadagnoli E., Gaccione P. Specialty of ambulatory care physicians and mortality among elderly patients after myocardial infarction .NEJM 2002, 347: 1678-1686
3. Decramer M, Bartsch P, Pauwels R, Yernault JC. Management of COPD according to guidelines.A national suevey among Belgian physicians. Monaldi Arch Chest Dis. 2003 Jan - Mar;59(1):62-80.
4. American Thoracic Society. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease Global Initiative for Chronic Obstructive Lung Disease (GOLD) Workshop Summary.

National Institutes of Health, National Heart, Lung, and Blood Institute; April 2001.
5. Chen J, Radford MJ, Wang Y, Krumholz HM. Care and outcomes of elderly patients with acute myocardial infarction by physicians. Am J Med 2000; 108:460-469.
6. Diette G, Skinner EA, Nguyen TTH, Markson L, Clark BD, Wu AW. Comparison of quality of care by specialist and generalist physicians as usual source of asthma care for children. Pediatrics 2001; 108:432-437.
7. Zia Ullah Yousaf Khan, Anila Basit, Zafar Iqbal et al. Survey of Awareness and management attitudes of chest specialist and trainees towards asthma. Pak. J. Chest Med. Sep-2005; 11(3): 16-22.
8. Center for Disease Control and Prevention, US Dept of Health and Human Services; October 12, 2001.
9. Buffels J, Degryse J, Heyrman J, Decramer M. Office Spirometry Significantly Improves Early Detection of COPO in General Practice. The DIDASCO Study. Chest (2004; 125:1394-1399).
10. Celli B.R., MacNeeWand. Standards for the diagnosis and treatment of patients with COPD: a summary of the ATS/ERS position paper. Eur Respir J 2004 23: 932-946.
11. Zia Ullah Yousaf Khan, Anila Basit, Samad Wazir et al. Survey of Chest Specialist and trainees Knowledge and practice of TB guidelines. Pak. J. Chest Med- Sep – 2005; 11(3): 9-15.