



Enhancing Quality of Life Through Palliative Care in the Elderly with Severe Chronic Obstructive Pulmonary Disease and Multimorbidity: A Case Study

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Abstract

Background: Chronic obstructive pulmonary disease (COPD) patients experience significant problems arising from dyspnea, ultimately affecting their quality of life (QOL). Knowledge of palliative care for chronic or terminal diseases has developed, but its application in severe COPD is limited. This case presents an elderly patient with a COPD exacerbation and analyzes palliative care studies related to QOL in COPD.

Case: A 65-year-old man presented to the emergency ward with severe dyspnea for 7 days, followed by a productive cough with greenish-yellow sputum. The QOL assessment using the EQ-5D-5L questionnaire showed severe discomfort and problems with daily activities. After pharmacologic interventions for the acute exacerbation, the medical team provided palliative care consisting of symptom management and a multidimensional assessment to address the patient's symptoms and offer spiritual support. After 7 days of treatment, spirometry showed an FEV₁/FVC of 39% and 36% for pre- and post-bronchodilator, respectively. Post-hospitalization QOL showed only slight problems in the discomfort/pain component.

Discussion: Based on five studies about the role of palliative care in the HRQOL of COPD patients from a systematic literature search, all studies showed no statistically significant differences between COPD patients receiving palliative care and standard care. The outcomes of this case differ from previous studies, possibly because this patient had psychosocial needs during his treatment that the medical team could help fulfil, thus improving his HRQOL.

Conclusion: The literature review on the role of palliative care in hospitalized COPD patients found limited evidence of its benefits. While recommendations from respiratory societies support palliative care, this case highlights improvements in QOL following palliative care during hospitalization.

Keywords: COPD, elderly, health-related quality of life, palliative care



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INTRODUCTION

Chronic obstructive airway disease or chronic obstructive pulmonary disease (COPD) is a chronic respiratory disease that occurs in nearly 10% of the world's population and causes significant mortality and morbidity. The underlying cause of COPD is chronic airway obstruction and progressive lung parenchymal damage. Common symptoms experienced by COPD patients are worsening shortness of breath, decreased physical activity ability and increased risk of lung infection.¹ Most COPD patients face problems arising from shortness of breath, dependence on others or even social isolation.²

Most COPD patients who receive optimal treatment still experience shortness of breath, which results in mental health problems (depression, insomnia and panic disorder) and will ultimately reduce the quality of life.^{2,3} Palliative care focuses on the patient and family or caregiver to optimize their quality of life and overcome the suffering they face as a result of a terminal or advanced illness.²⁻⁴ Assessment of quality of life (QOL) in patients with chronic diseases, including COPD, generally uses a standardized EQ-5D-5L questionnaire and has been translated into Indonesian.⁵

Palliative care focuses on the patient's physical, emotional and spiritual needs. Although often used interchangeably, palliative care differs from "end-of-life care", which provides care to patients at the end of their lives.²⁻⁴ It is important to note that palliative care is often provided too late in severe and

terminal cases, leading to the emergence of the term early palliative care, which refers to the proactive provision of palliative care early in the COPD trajectory. Proactive palliative care provided in the early or acute phase of COPD focuses on rapid symptom management, identification of supportive needs, and advance care planning.⁶

In the case of patients with advanced COPD or patients who die with COPD, the end of the patient's life is marked by an increase in symptom severity or frequency of exacerbations, a decrease in health status and an increase in dependence on family or caregivers to carry out daily activities such as eating and wearing clothes. Palliative care also helps to manage the expectations of patients and people close to them, including determining their views on future care.^{2,4}

In this article, outline the unique case of an elderly male patient undergoing hospital care for an exacerbation of COPD and heart failure. Besides the patient's multimorbidity, the patient and his wife face social, spiritual, and economic challenges. The medical team adopted a palliative care approach tailored to the guidelines for adult palliative therapy published by the Ministry of Health of the Republic of Indonesia for assessing the clinical conditions and the patient's quality of life before and after hospital care.³

CASE

A 65-year-old man came to the emergency ward complaining of severe

dyspnea for 7 days, followed by coughing up phlegm of greenish-yellow colour without fever. Review of significant medical history revealed only a history of smoking approximately one pack of cigarettes per day since the age of 15 and uncontrolled hypertension. Before the onset of these symptoms, the patient had never sought treatment at a health facility for respiratory complaints and admitted to having only coughed frequently for >5 years without interfering with daily activities.



Figure 1. Patient's Clinical Condition - Chest Radiograph of Patient at Emergency

Physical examination showed a respiratory rate of 28x/min, a barrel chest and wheezing in all lung fields. Laboratory examination showed normal haemoglobin and a slight increase in leukocytes to 11000/ μ L. Radiological examination revealed lung emphysema with widening costae and cardiomegaly (Figure 1). The patient was diagnosed with moderate

exacerbation of COPD (Brinkman index 1000 pack-years), secondary infection, and hypertensive heart disease (HHD). After emergency pharmacologic interventions for his acute exacerbations, he underwent treatment in the hospital for 5 days.

Following initial management in the emergency department, the patient assisted by his wife was requested to complete the EQ-5D questionnaire to assess the patient's quality of life after the acute phase of the illness. Descriptively, the patient reported difficulty walking, slight difficulty bathing without assistance, limitation in conducting daily activities, feeling very uncomfortable with his condition, and sensing anxiety about the future. Upon arrival at the emergency ward, the patient rated his health condition at 30 out of 100 on the visual analogue scale (VAS).

During treatment in the pulmonary ward, the patient received intravenous injections of dexamethasone, cefotaxime, aminophylline, and nebulization with salbutamol. Meanwhile, as an additional therapy, the patient received early modified palliative care that was tailored to the patient's needs as well as the resources available at the hospital during admission.

The palliative care services consisted of multidisciplinary care, including social worker involvement and spiritual support, as well as symptom management (pain and dyspnea).⁷ It should be emphasized that the purpose of providing palliative care in this case was not end-of-life care, but rather to maintain or improve the patient's QOL, and it was not initiated due to a

terminal condition (defined by the Indonesian Ministry of Health as a life expectancy of less than 12 months).

A multidisciplinary approach was implemented by collaborating with cardiologists and internal medicine specialists to address the patient's heart-related issues. A trained pharmacist was employed to assess the potential drug interactions prescribed by the medical team, while the team also provided palliative care to manage symptoms and offered spiritual support. The interprofessional team, which consisted of specialists and nurses, assessed patient needs, monitored patient conditions, and offered counselling. Additionally, an Islamic religious expert (Ustadz) provided spiritual support, recited prayers and offered emotional encouragement every morning.

to understand his concerns during treatment better. Economic constraints were evident as, despite retirement age, the patient continued working in rice fields to support himself and his wife. The recurring complaint of shortness of breath added stress, hindering work and requiring frequent hospital visits. Although socio-economic factors are beyond the healthcare team's scope, providing a platform for the patient to express his feelings contributed to a sense of relief for both the patient and his wife.

After 6 days of treatment, the patient's clinical condition improved and spirometry was performed. Post-bronchodilator spirometry showed an FEV₁/FVC ratio of 36%, confirming persistent airflow limitation consistent with COPD. The FEV₁ was 32%, indicating severe airflow obstruction (Table 1). Echocardiography showed dilatation of the left atrium and left ventricle, regurgitation of the mitral and tricuspid valves, and a left ventricular ejection fraction (LVEF) of 21%.

Before being discharged from the hospital, QOL assessment with the EQ-5D questionnaire was repeated. The questionnaire results indicated overall improvement in the aspects of walking ability, self-care, and usual activities, as well as positive changes in the aspects of discomfort and anxiety or depression. The patient still experienced some shortness of breath, but it was significantly better than at initial hospitalization. The patient rated his health at 90 on the VAS compared to his condition upon admission.

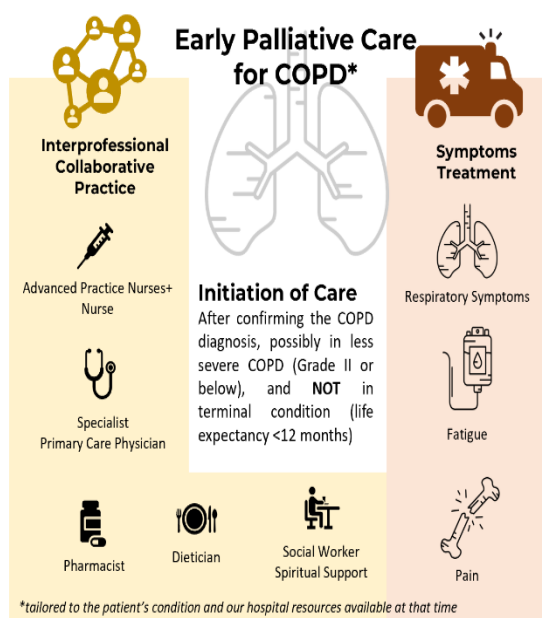


Figure 2. Schematic diagram illustrating the components of early palliative care received by the patient

At the same time, the patient's social and economic aspects were also explored

Table 1. Patient's Clinical Condition - Spirometry Result

Parameter	Pred	Pre-Bronchodilator		Post-Bronchodilator	
		Best	%Pred	Best	%Pred
FVC	2.87	1.53	53	1.86	65
FEV ₁	2.09	0.60	29	0.66	32
FEV ₁ /FVC	73		39		36

DISCUSSION

Chronic obstructive pulmonary disease is a clinical syndrome involving a spectrum of chronic, progressive, and debilitating airway disorders, including emphysema and chronic bronchitis. Airflow limitation is associated with chronic inflammation of the lungs and is primarily caused by prolonged exposure to airborne irritants such as cigarette smoke. Symptoms of COPD can lead to severe QOL impairments such as shortness of breath, anxiety, and physical limitations, leading to days off work.⁸

According to demographic surveys in the Asia-Pacific region, the prevalence of COPD is 6.2%, with nearly 20% classified as severe or very severe. Of the total COPD cases, approximately 19% required hospitalization due to exacerbation, 26% required an emergency room visit, and 32% required a doctor's or clinic visit with or without prior appointment. Data from Indonesia show that 40% of people with COPD feel that their illness limits their professional/social activities and makes them less productive at work.¹ This indicates that COPD affects health and has a holistic impact on life (economic, social, and psychological).^{1,8}

Chronic obstructive pulmonary disease patients and families can get help from palliative care to deal with declining

function and health status continuously worsened by exacerbations.^{2,4,9} A review of articles by Choudhuri describes palliative care components in COPD patients, namely breathlessness and oxygenation management, nutritional and psychological therapy and advanced care planning. It also emphasizes the active approach of health workers to patients and families through effective communication to identify concerns and unmet needs. Although many studies have addressed these components, there is still limited evidence regarding their role in COPD management (except dyspnea management).⁴

To enhance the evidence strength of this case report and assess the role of palliative care in patients with COPD experiencing exacerbations necessitating hospitalization, a literature search was conducted across three journal databases (PubMed, Cochrane, EBSCO). Two authors (MID and AGP) independently searched following the PRISMA guidelines.¹⁰

The inclusion criteria were clinical studies comparing palliative care with standard care in COPD patients requiring hospitalization, and did not include non-English publications and studies using outpatient or home care patients. Obtained 5 clinical studies that compared palliative care with standard care in COPD patients who had an exacerbation and required hospitalization.

All these studies from the literature search recruited participants from hospitalized COPD exacerbations, with a mean age of 67–72 years. These studies compared the quality of life of hospitalized COPD patients between those treated with palliative care and standard care, with a follow-up period ranging from 4 weeks to 6 months. The QOL of patients in each intervention group was compared at baseline and at the end of the follow-up period. The results were not significantly different either at baseline or at the end of follow-up, although the instruments for assessing QOL were different for each study.^{11–15}

The tools or questionnaires are available to evaluate quality of life, including the St George Respiratory Questionnaire/SGRQ (COPD Quality of Life Questionnaire), the McGill (Palliative Quality of Life Questionnaire), the EQ-5D, the Short-Form 36 Health Survey (SF-36), and the 46-item Functional Assessment of Chronic Illness Therapy-Palliative Care (FACIT-Pal) scale. These questionnaires use standardized methods for evaluating subjective experiences related to health and well-being, encompassing physical, psychological, social, and functional domains.^{11–15}

Some questionnaires are specific to certain conditions or settings (e.g., COPD for SGRQ, palliative care for McGill and FACIT-Pal). In contrast, others are generic and can be used across different populations (e.g., SF-36, EQ-5D). These questionnaires vary in the number of items and complexity.^{11–15}

Evidence of the benefits of palliative care for COPD patients is still very limited. Five clinical studies from the literature search showed nonsignificant results on QOL between patients who received palliative care and those who did not, as seen in Table 2.^{11–15}

However, the American Thoracic Society (ATS) and European Respiratory Society (ERS) still recommend palliative care in patients with advanced respiratory disease or critical illness, including COPD. The ATS recommends palliative care in patients with advanced respiratory disease when symptomatic. In contrast, ERS recommends palliative care when there are unmet physical, psychological, social, or spiritual needs of the patient and/or family or caregiver (low-quality of evidence).^{16,17}

The palliative care team needs to prioritize COPD patients' access to information regarding the disease and treatment options. In addition, the palliative care team should assess the patient's ability to cope with psychosocial problems and ensure that the patient feels valued as a person and not as an object of disease.¹⁷

Palliative care is provided by multidisciplinary teams consisting of professionals from respiratory medicine, palliative care, nursing, social work, general practice, family medicine, pharmacy, psychology, physiotherapy, medicine, occupational therapy, and religious care, across various settings, including hospitals (outpatient clinics, inpatient palliative care units, intensive care units, and other hospital wards), hospices, long-term care facilities, and home-based palliative care settings.^{3,16,17}

Table 2. Research Discussing the Role of Palliative Care in Non-Malignant Airway Diseases

Author	Number of Subjects	Baseline Diagnosis	Intervention	Control	Instrument	Result	Conclusion
Higginson, et al. (2014) ¹⁴	Intervention=42; Control=40	Advanced non-malignant and malignant disease	Standard Care + Palliative Care	Standard care	EQ-5D	EQ-5D Index - Intervention Group: 0.44 - Control Group: 0.35 EQ-5D VAS - Intervention Group: 56 - Control Group: 55	No significant difference between intervention and control group
Farquhar, et al. (2016) ¹²	Intervention=36; Control=36	Advanced non-malignant respiratory and cardiac conditions	Palliative care immediately	Delayed palliative care (after 4 weeks)	EQ-5D	EQ-5D Utility Score - Intervention Group: 0.59 - Control Group: 0.54 QALY Gain - Intervention Group: 0.0431 - Control Group: 0.0430	No significant difference between the intervention and control group
Duenk, et al. (2017) ¹¹	Intervention=67; Control=96	Acute exacerbation of COPD	Standard Care + Palliative Care	Standard care	St George Respiratory Questionnaire (SGRQ)	SGRQ Total Change (3 months follow-up) - Intervention Group: -1.84 - Control Group: 0.20 SGRQ Total Change (6 months follow-up) - Intervention Group: -4.66 - Control Group: -1.64 SGRQ Total Change (9 months follow-up) - Intervention Group: -3.94 - Control Group: 0.29 SGRQ Total Change (12 months follow-up) - Intervention Group: -2.88 - Control Group: -0.50	No significant difference between intervention and control group

(Continue) Table 2. Research Discussing the Role of Palliative Care in Non-Malignant Airway Diseases

Author	Number of Subjects	Baseline Diagnosis	Intervention	Control	Instrument	Result	Conclusion
Janssen, et al. (2019) ¹⁷	Intervention=26; Control=23	COPD Stage III or IV	Standard Care + Palliative Care	Standard care	Short-Form 36 HRQL subscores (SF-36)	SF-36 Vitality - Intervention Group: 36.2±19.9 - Control Group: 35.2±20.0 SF-36 Mental Health - Intervention Group: 60.9±27.7 - Control Group: 60.0±24.1 SF-36 General Health - Intervention Group: 31.5±22.4 - Control Group: 38.1±18.7 SF-36 Physical functioning - Intervention Group: 29.0±19.1 - Control Group: 27.8±22.1 SF-36 Role physical - Intervention Group: 49.0±45.0 - Control Group: 46.7±45.4 SF-36 Role emotional - Intervention Group: 50.0±46.4 - Control Group: 51.5±43.3 SF-36 Bodily Pain - Intervention Group: 48.2±24.6 - Control Group: 42.9±23.2 SF-36 Social functioning - Intervention Group: 58.7±32.7 - Control Group: 50.5±31.4 SF-36 Health transition - Intervention Group: 60.6±23.6 - Control Group: 63.0±23.7	No significant difference between intervention and control group
Broese, et al. (2023) ¹³	Intervention=98; Control=124	Acute exacerbation of COPD	Standard Care + Palliative Care	Standard care	46-item Functional Assessment of Chronic Illness Therapy- Palliative care (FACIT-Pal) scale	FACIT PAL Score (3 months follow-up) - Intervention Group: 108.4 - Control Group: 111.0 FACIT PAL Score (6 months follow-up) - Intervention Group: 113.3 - Control Group: 111.7	No significant difference between the intervention and control group

The scope of palliative care encompasses a comprehensive range of tailored interventions designed to address individual needs, including symptom management, lifestyle adjustments, personalized diet and exercise plans, and advanced care planning.^{3,16,17} Palliative care integrates the assessment and treatment of physical, emotional, psychological, and spiritual concerns, as well as addressing end-of-life considerations and family matters while respecting personal and cultural values and beliefs.^{3,4,9}

In addition to providing information to patients and caregivers through education and self-support programs, palliative care involves home assessments or visits by physiotherapists and/or occupational therapists to evaluate the need for walking aids and home adaptations. The palliative care team also conducts pharmacological reviews, consultations, and referrals to various specialists for pulmonary rehabilitation, specialized dietetics, psychological support, cardiac rehabilitation programs, and hospice day services.^{3,16,17}

Palliative care for COPD, as studied in the five studies, encompasses a wide range of interventions, including both non-pharmacological and pharmacological methods. Palliative care represents a holistic, multidisciplinary, person-centered approach aimed at symptom control and enhancing the quality of life for individuals experiencing profound health-related suffering due to the disease. It also provides support for their informal caregivers.^{11–15}

This case illustrates the implementation of palliative care for exacerbated COPD patients requiring hospitalization. The medical team offered counselling and spiritual support to the patient and his family throughout the hospital treatment, ensuring they could express concerns and unmet needs. The team ensured that the patient and his family could access information about COPD and the support services.

The medical team optimized treatments to reduce physical symptoms, helped him cope with psychosocial challenges, offered empathy, and provided spiritual and religious support. The team's focus extended to evaluating the patient's quality of life post-hospitalization, revealing an improvement in his QOL after treatment. Interestingly, these findings differ from those of previous clinical studies. This discrepancy may arise from potential confounding biases (socio-cultural) in this case, presenting a primary limitation.⁹

Additionally, resource constraints, particularly the absence of a specialized palliative care unit/team, contribute to the challenge of providing palliative services to all eligible COPD patients. These limitations align with common barriers faced by palliative care providers for COPD patients.⁹ Although evidence linking QOL with COPD is still limited, both the GOLD and the ERS continue to advocate for palliative care services for COPD patients.^{17,18} Consequently, it emphasized the necessity for additional studies focusing on the

discussion of QOL in acute exacerbation of COPD patients receiving palliative care.

CONCLUSION

Palliative care for COPD aims to address declining function and health status during exacerbations. These findings from the literature review on the role of palliative care in hospitalized COPD patients found limited evidence of its benefits. While recommendations from respiratory societies support palliative care, this case highlights improvements in QOL following palliative care during hospitalization.

Ethical Consideration

The patient, their family, and the attending physician consented to the publication of clinical data while maintaining confidentiality of the patient's identity.

REFERENCES

1. Lim S, Lam DCL, Muttalif AR, Yunus F, Wongtim S, Lan LTT, et al. Impact of chronic obstructive pulmonary disease (COPD) in the Asia-Pacific region: the EPIC Asia population-based survey. *Asia Pac Fam Med*. 2015;14(1):4.
2. Halpin DMG. Palliative care for people with COPD: effective but underused. *European Respiratory Journal*. 2018;51(2):1702645.
3. Direktorat Jenderal Pencegahan dan Pengendalian Penyakit Direktorat Pencegahan Penyakit Tidak Menular. *Petunjuk Teknis Paliatif Kanker Pada Dewasa*. Jakarta: Kementerian Kesehatan RI ; 2017.
4. Choudhuri A. Palliative care for patients with chronic obstructive pulmonary disease: Current perspectives. *Indian J Palliat Care*. 2012;18(1):6–11.
5. Fitriana TS, Roudijk B, Purba FD, Busschbach JJ V., Stolk E. Estimating an EQ-5D-Y-3L Value Set for Indonesia by Mapping the DCE onto TTO Values. *Pharmacoeconomics*. 2022;40(S2):157–67.
6. Iyer AS, Dionne-Odom JN, Ford SM, Crump Tims SL, Sockwell ED, Ivankova N V., et al. A Formative Evaluation of Patient and Family Caregiver Perspectives on Early Palliative Care in Chronic Obstructive Pulmonary Disease across Disease Severity. *Ann Am Thorac Soc*. 2019;16(8):1024–33.
7. Rakasiwi MID, Prasetya W, Riyatno I, Faisal HKP. Starting Early Palliative Care for Suspected Lung Cancer Patient: a Case Series from Resource-limited Setting in Indonesia. *Rwanda Medical Journal*. 2024;81(2):5–8.
8. Miravittles M, Ribera A. Understanding the impact of symptoms on the burden of COPD. *Respir Res*. 2017;18(1):67.
9. Iyer AS, Sullivan DR, Lindell KO, Reinke LF. The Role of Palliative Care in COPD. *Chest*. 2022;161(5):1250–62.
10. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD,

- et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71.
11. Duenk R, Verhagen C, Bronkhorst E, van Mierlo P, Broeders M, Collard S, et al. Proactive palliative care for patients with COPD (PROLONG): a pragmatic cluster controlled trial. *Int J Chron Obstruct Pulmon Dis*. 2017;12:2795–806.
12. Farquhar MC, Prevost AT, McCrone P, Brafman-Price B, Bentley A, Higginson IJ, et al. The clinical and cost effectiveness of a Breathlessness Intervention Service for patients with advanced non-malignant disease and their informal carers: mixed findings of a mixed method randomised controlled trial. *Trials*. 2016;17:185.
13. Broese J, van der Kleij RM, Verschuur EM, Kerstjens HA, Bronkhorst EM, Engels Y, et al. The effect of an integrated palliative care intervention on quality of life and acute healthcare use in patients with COPD: Results of the COMPASSION cluster randomized controlled trial. *Palliat Med*. 2023;37(6):844–55.
14. Higginson IJ, Bausewein C, Reilly CC, Gao W, Gysels M, Dzingina M, et al. An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial. *Lancet Respir Med*. 2014;2(12):979–87.
15. Weber C, Stirnemann J, Herrmann FR, Pautex S, Janssens JP. Can early introduction of specialized palliative care limit intensive care, emergency and hospital admissions in patients with severe and very severe COPD? a randomized study. *BMC Palliat Care*. 2014;13:47.
16. Lanken PN, Terry PB, DeLisser HM, Fahy BF, Hansen-Flaschen J, Heffner JE, et al. An Official American Thoracic Society Clinical Policy Statement: Palliative Care for Patients with Respiratory Diseases and Critical Illnesses. *Am J Respir Crit Care Med*. 2008;177(8):912–27.
17. Janssen DJA, Bajwah S, Boon MH, Coleman C, Currow DC, Devillers A, et al. European Respiratory Society clinical practice guideline: palliative care for people with COPD or interstitial lung disease. *European Respiratory Journal*. 2023;62(2):2202014.