

DAFTAR PUSTAKA

1. Global Initiative for Chronic Obstructive Lung Disease. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease 2019 update.
2. Mathanraj S, Kumar V, Yuvarajan S, Reddy V. Correlation of serum TNF alpha level with severity of chronic obstructive pulmonary disease. *Intern Jour of Research in Medical Sciences* 2017;5(8):3309-16
3. Barnes PJ. Inflammatory Mechanisms in Patients with Chronic Obstructive Pulmonary Disease. *Allergy clin immunology* 2016; 138: 16-27
4. Incorvala. C, Russo. A, Foresi. A, Berra D, Elia R, Passalacqua G, et al. Effect of pulmonary rehabilitation on lung function in chronic obstructive pulmonary disease : The First Study. *Eur J Phys Rehabil Med* 2014;50(4):419-26
5. Ansari K, Keaney N, Taylor I, Burns G, Farrow M. Muscle weakness, health status and frequency of exacerbation in Chronic Obstructive Pulmonary Disease. *Postgrad Med J* 2012;88(1041):372-376
6. Calikoglu M, Sahin G, Unlu A, Ozturk C, Tamer L, Ercan B, et al. Leptin and TNF-Alpha Levels in Patients with Chronic Obstructive Pulmonary Disease and Their Relationship to Nutritional Parameters. *Respiration* 2004;71:45–50
7. Amer MS, Wahba HMF, Ashmawi SS, Reda MR, E. Sharaf A, Hamza S. Proinflammatory Cytokines in Egyptian Elderly with Chronic Obstructive Pulmonary Disease. *Lung India* 2010; Vol 27, 1-6
8. Antoniu SA, Mihaltan F, Ulmeanu R. Anti-TNF- α Therapies in Chronic Obstructive Pulmonary Disease. *Expert Opinion on Investigational Drugs* 2008; 17:8; 1203-1211
9. Cielen N, Maes K, Gayan RG. Musculoskeletal Disorders in Chronic Obstructive Pulmonary Disease. *BioMed Research International* 2014; 1; 1-14
10. Sin DD, Man SFP. Skeletal muscle weakness, reduced exercise tolerance, and COPD: is systemic inflammation the missing link?. *Thorax* 2006;61:1–3
11. Vilanova EP, Liorens JM, Ausin P. et al. Quadriceps muscle weakness and atrophy are associated with a differential epigenetic profile in advanced COPD. *Clinical Science* 2015; 128, 905–921. doi: 10.1042/CS20140428
12. Barreiro E, Gea J. Molecular and biological pathways of skeletal muscle dysfunction in chronic obstructive pulmonary disease. *Chronic Resp Dis* 2016; 1; 1–15
13. Perhimpunan Dokter Paru Indonesia. Penyakit Paru Obstruktif Kronik : Pedoman Diagnosis dan Penatalaksanaan. Edisi 2016.

14. Qaseem A, Wilt TJ, Weinberger SE, Hanania NA, Criner G, van der Molen T, et al. Diagnosis and management of stable chronic obstructive pulmonary disease : a clinical practice guideline update from the American College of Physicians, American College of Chest Physicians, American Thoracic Society and European Respiratory Society. *Ann Intern Med* 2011; 155: 179-191.
15. Eagen TML, Gabazza EC, Corina G, Paloma GB, Aoki S, Hardie JA, et al. TNF- α is associated with loss of lean body mass only in already cachectic COPD patients. *Respiratory Research* 2012; 13; 1-10
16. Maranatha D. Penyakit Paru Obstruksi Kronik (PPOK) dalam Buku Ajar Paru 2019. Editor : Muhammad Amin, Winariani K, Helmia Hasan, Isnin Anang Marhana. Departemen/SMF Pulmonologi dan Ilmu Kedokteran Respirasi FK UNAIR-RSUD Dr. Soetomo Surabaya. Hal 101-109
17. Barnes PJ. Mediators of Chronic Obstructive Pulmonary Disease. *Pharmacol Rev* 2004; 56: 515–548
18. Brashier BB, Kodgule R. Risk factors and pathophysiology of chronic obstructive pulmonary disease (COPD). *Supplemental to JAPI* 2012;217-21.
19. Daheshia M. Pathogenesis of chronic obstructive pulmonary disease (COPD). *Clinical and Applied Immunology Reviews* 2005; 5; 339–351
20. Prosser TR, Bollmeier SG, reviewed by Anne L. Hume, Deborah Khachikian and Michelle Kucera. Chronic Obstructive Pulmonary Disease in Pharmacotherapy Self-Assesment Program 6th edition 2006;6:1-15
21. Oudijk EJD, Nijhuis EHJ, Zwank MD, Graaf EA, Mager HJ, Coffey P et al. Systemic inflammation in COPD visualised by gene profiling in peripheral blood neutrophils. *Thorax* 2005;60:538-44.
22. Agusti AGN, Noguera A, Sauleda J, Sala E, Pons J, Busquets X. Systemic effect of chronic obstructive pulmonary disease. *Eur Respir J* 2003;21:347-60.
23. Fesitasari M. Terapi Gizi pada Lanjut Usia dengan Penyakit Paru Obstruktif Kronik (PPOK). *Sains Medika* 2013; Volume 5; 1; 50-61.
24. Mueller DH. Medical Nutrition Therapy for Pulmonary Disease. *in: Krause's Food, Nutrition, and Diet Therapy*. Mahan LK and Escott-Stump S. Saunders Elsevier, USA. 2004; 11th ed; 945 – 948.
25. Eeden SF, Yeung A, Quinlan K, Hogg JC. Systemic response to ambient particulate matter. *Proc Am Thorac Soc* 2005;2:61-7.
26. Gea J, Pascual S, Casadevall C, Levi MO, Barreiro E. Muscle dysfunction in chronic obstructive pulmonary disease: update on causes and biological findings. *Journal Thorac Disease* 2015;7(10):418-438
27. Agusti A, Faner R. Systemic Inflammation and Comorbidities in Chronic Obstructive Pulmonary Disease. *Proc Am Thorac Soc* 2012; 9; 43–46

28. Langen RCJ, Gosker HR, Remels AHV, Schols WJ. Triggers and mechanisms of skeletal muscle wasting in chronic obstructive pulmonary disease. *The International Journal of Biochemistry & Cell Biology* 2013;1;1-18
29. Barreiro E. Skeletal Muscle Dysfunction in COPD : Novelities in the Last decade. *Arch Bronchoneumol* 2016;1;1-2
30. Gea J, Barreiro E. Update on the Mechanisms of Muscle Dysfunction in COPD. *Arch Bronconeumol* 2008;44(6):328-37
31. Rob CW, Degens H. Factors contributing to muscle wasting and dysfunction in COPD patients. *International Journal of COPD* 2007;2; 3; 289–300
32. Wouters EFM, Creutzberg EC, Schols AMWJ. Systemic effects of COPD. *CHEST* 2002;121suppl:127-30.
33. Wouters EFM. Local and systemic inflammation in COPD. *Proc Am Thorac Soc* 2005;2:26-33.
34. Wouters EFM. Chronic obstructive pulmonary disease 5: Systemic effect of COPD. *Thorax* 2002;57:1067-70.
35. Donaldson AV, Maddock M, Martolini D, Polkey M, Man WD. Muscle function in COPD : a complex interplay. *International Journal of COPD* 2012;7;523-535
36. Roig M, Darlene RW. Electrical Stimulation and Peripheral Muscle Function in COPD : A Systematic Review. *Respiratory Medicine* 2009; 103, 485-495. doi:10.1016/j.rmed.2008.11.008
37. Felipe C, Celli B, Divo M, Pinto V. Longitudinal changes in hand grip strength, hyperinflation and 6-minute walk distance in COPD patients and a control group. *Chestnet Org* 2015; 1;1-24
38. Gosselink R, Troosters T, Decramer M. Peripheral Muscle Weakness Contributes to Exercise Limitation in COPD. *AM Jour RESPIR CRIT CARE MED* 1996;1:976-80.
39. Innes E. Handgrip strength testing : a review of the literature. *Australian Occupational Therapy Journal* 1999; 46 ; 120–140.
40. Fedarko NS. The biology of aging and frailty. *Clinical Geriatric Medicine* 2011; 1;27-37
41. Li Xue Q. The Frailty Syndrome : Definition and Natural History. *Clin Geriatr Med* 2011; 27; 1–15.
42. Park SK, Richardson CR, Holleman RG, Larson JL. Frailty in People With COPD, Using The National Health and Nutrition Evaluation Survey Dataset (2003-2006). *Heart & Lung : The Journal of Acute and Critical Care*, 2013;42;163-170.
43. Tufts, Brown, Hopkins J. Hand grip strength protocol. *Center for drug abuse and AIDS research* 1986; 1; 1-2

44. Li K, Hewson DJ, Duchene J, Hogrel JY. Predicting maximal grip strength using hand circumference. *Manual Therapy* 2010; 15; 579 -585
45. NIHR Southampton Biomedical Research Centre. Procedure for measuring hand grip strength using the jamar dynamometer. *National Institute for Health Research* 2014;1;2-6
46. Hogrel JY. Grip strength measured by high precision dynamometry in healthy subjects from 5 to 80 years. *BMC Musculoskeletal Dis* 2015;16:139-141
47. O'Shea S, Taylor NF, Paratz JD. Measuring Muscle Strength for People With Chronic Obstructive Pulmonary Disease: Retest Reliability of Hand-Held Dynamometry. *Arch Phys Med Rehabil* 2007; 88;32-36
48. Butler M. Grip strength: A comparative study. *New Zealand Journal of Occupational Therapy* 1997; 48; 5-12.
49. Helen CR, Denison HJ, Helen JM, Patel HP, Syddall H, Cooper C. Et al., A review of the measurement of grip strength in clinical and epidemiological studies: towards a standardised approach. *Age and Ageing* 2011; 40;4;423-429
50. Barbosa AM, Patricia AS, Tamanini G, Marcolino AM, Rafael IB, Marisa F. Reliability and validity of a load cell device for hand grip strength assessment. *Fisioterapia Pesq* 2015;22; 4; 378-85
51. Chang HY, Il Yoo J, Jin PY, Chang HL, Ki SP. Measurement of Uncertainty Using Standardized Protocol of Hand Grip Strength Measurement in Patients with Sarcopenia. *J Bone Metab* 2018;25(4):243-249
52. Akdis M, Aab A, Altunbulakli C, Azkur K, Costa R, Cramer R, et al. Interleukins (from IL-1 to IL-38), interferons, transforming growth factor B, and TNF- α : Receptors, functions, and roles in diseases. *J ALLERGY CLIN IMMUNOL* 2016; 1;1-27
53. Mukhopadhyay S, Hoidal JR, Mukherjee TK. Role of TNF- α in pulmonary pathophysiology. *Respiratory Research* 2006; 7;1-9
54. Levin SJ. Tumor Necrosis Factor Alpha (TNF- α). *Encyclopedia of Respiratory Medicine* 2006; 307-311
55. Feng X, Wei J, Hua LY, Cheng D. Association between serum tumour necrosis Factor- α concentrations and chronic obstructive pulmonary disease. *Current Science* 2016;110;2;172-179
56. Wood R. Handgrip Strength Norms. Topend Sports Website 2012. <https://www.Topendsports.com/testing/norms/handgrip.htm>
57. Madegedara D, Oh YM, Arvind BB, Boonsawat W, Gunasekera KD, Idolor L, et al. Characteristic of stable chronic obstructive pulmonary disease patients in the pulmonology clinics of seven Asian cities. *International Journal of COPD* 2013;8:31-39

58. Diaz GE, Mannino DM. Airway obstructive disease in older adults: From detection to treatment. *J Allergy Clin Immunol* 2010; 126;4: 702-709
59. Vernooy JH, Kucukaycan M, Jacobs JA, Chavannes NH, Buurman WA, Dentener MA, et al. Local and systemic inflammation in patients with chronic obstructive pulmonary disease. *Am J Respir Crit Care Med* 2002; 166: 1218-24
60. Halbert RJ, Natoli JL, Gano A, Badamgarav E, Buist AS, Mannino DM. Global burden of COPD : systematic review and meta-analysis. *European Respiratory Journal* 2006. 28; 523-532
61. Vestbo J, Anderson W, Coxson HO. Evaluation of COPD longitudinally to indentify predictive surrogate end-points (ECLIPSE). *European Respiratory Journal* 2008. 31;869-873
62. Montes M, Talamo C, Perez-Padilla R, Jardim JR, Muino A, Lopez MV, et al. Chronic obstructive pulmonary disease and body mass index in five Latin America cities : the PLATINO study. *Respir Med.*2008;102(5):642-50
63. Tanni ES, Pelegriano NR, Angeleli AY, Correa C, Godoy I. Smoking status ad tumor necrosis factor-alpha mediated systemic inflammation in COPD patients. *J Inflamm.* 2010;7:29
64. Ferrari R, Caram LM, Faganello MM, Sanchez FF, Tanni ES, Godoy I. Relation between systemic inflammatory markers, peripheral muscle mass, and strength in limb muscles in stable COPD patients. *International Journal of COPD.* 2015;10:1553-1558.
65. Vilaro J, Ramirez AS, Juana M, Martinez L, Mendoza T, Alvarez M, et al. Global muscle dysfunction as a risk factor of readmission to hospital due to COPD exacerbations. *Respiratory medicine.* 2010;104:1896-1902
66. Yende S, Waterer GW, Tolley EA. Inflammatory markers are associated with ventilator limitation and muscle dysfunction in obstructive lung disease in well functioning elderly subject. *Thorax.* 2006;61:10-16
67. Nagat AM, Amany FM, Elgamry R, Mostafa DG, Hoda AI. Role of adiponectin and other inflammatory biomarkers in COPD patients. *Egyptian Journal of Chest Disease and Tuberculosis.* 2013;62: 45-50
68. Bernard S, Pierre L, Whittom F, Carrier G, Jobin J, Belleau R, et al. Peripheral muscle weakness in patients with chronic obstructive pulmonary disease. *Am J Respir Crit Care Med.* 1998; 158: 629-634
69. Hopkinson NS, Tennant RC, Dayer MJ, Swallow EB, Hansel TT, Moxham J. et al. A prospective study of decline in fat free mass and skeletal muscle strength in chronic obstructive pulmonary disease. *Respiratory Research* 2007;8:25-32
70. Ozala D, Solakb Za, Moqulkacb Nverale A, Sebikd F. The effect of inhaled corticosteroid on bronchoalveolar lavage cell and IL-8 level in stable COPD patient. *Respiratory medicine.* 2005;99:1494-1500

71. Kulawik JD, Warzechowska MM, Krazewska I, Chazan R. The cellular composition and macrophage phenotype in induce sputum in smoker and exsmoker with COPD. *Chest* 2003;123:1054-9