

DAFTAR PUSTAKA

1. Humbert M, Kovacs G, Hoeper MM, et al. 2022 ESC/ERS Guidelines for the diagnosis and treatment of pulmonary hypertension: Developed by the task force for the diagnosis and treatment of pulmonary hypertension of the European Society of Cardiology (ESC) and the European Respiratory Society (ERS). Endorsed by the International Society for Heart and Lung Transplantation (ISHLT) and the European Reference Network on rare respiratory diseases (ERN-LUNG). *European Heart Journal* 2022;43:3618-731.
2. Levine DJ. Pulmonary arterial hypertension: updates in epidemiology and evaluation of patients. *Am J Manag Care* 2021;27:S35-S41.
3. Emmons-Bell S, Johnson C, Boon-Dooley A, et al. Prevalence, incidence, and survival of pulmonary arterial hypertension: A systematic review for the global burden of disease 2020 study. *Pulmonary circulation* 2022;12:e12020.
4. Dinarti LK, Anggrahini DW, Lilyasari O, Siswanto BB, Hartopo AB. Pulmonary arterial hypertension in Indonesia: Current status and local application of international guidelines. *Global Heart* 2021;16.
5. Muslimah UR. Gambaran Karakteristik Pasien Hipertensi Arteri Pulmonal Di RSUP DR. M. Djamil Padang Tahun 2017-2021: Universitas Andalas; 2022.
6. Laveneziana P, Garcia G, Joureau B, et al. Dynamic respiratory mechanics and exertional dyspnoea in pulmonary arterial hypertension. *European Respiratory Journal* 2013;41:578-87.
7. Malenfant S, Potus F, Mainguy V, et al. Impaired skeletal muscle oxygenation and exercise tolerance in pulmonary hypertension. *Med Sci Sports Exerc* 2015;47:2273-82.
8. Müller-Mottet S, Hildenbrand FF, Keusch S, et al. Effects of exercise and vasodilators on cerebral tissue oxygenation in pulmonary hypertension. *Lung* 2015;193:113-20.
9. Eichstaedt CA, Benjamin N, Xanthouli P, Marra AM, Grünig E. The role of rehabilitation in patients with pulmonary arterial hypertension. *Current Opinion in Pulmonary Medicine* 2019;25:398-404.
10. Bussotti M, Gremigni P, FE Pedretti R, et al. Effects of an outpatient service

rehabilitation programme in patients affected by pulmonary arterial hypertension: an observational study. *Cardiovascular & Haematological Disorders-Drug Targets (Formerly Current Drug Targets-Cardiovascular & Hematological Disorders)* 2017;17:3-10.

11. Grünig E, MacKenzie A, Peacock AJ, et al. Standardized exercise training is feasible, safe, and effective in pulmonary arterial and chronic thromboembolic pulmonary hypertension: results from a large European multicentre randomized controlled trial. *European Heart Journal* 2021;42:2284-95.
12. Schermuly RT, Ghofrani HA, Wilkins MR, Grimminger F. Mechanisms of disease: pulmonary arterial hypertension. *Nature Reviews Cardiology* 2011;8:443-55.
13. Bourgeois A, Omura J, Habbout K, Bonnet S, Boucherat O. Pulmonary arterial hypertension: new pathophysiological insights and emerging therapeutic targets. *The international journal of biochemistry & cell biology* 2018;104:9-13.
14. Thenappan T, Ormiston ML, Ryan JJ, Archer SL. Pulmonary arterial hypertension: pathogenesis and clinical management. *Bmj* 2018;360.
15. Tobal R, Potjewijd J, van Empel VP, et al. Vascular remodeling in pulmonary arterial hypertension: the potential involvement of innate and adaptive immunity. *Frontiers in medicine* 2021;8:806899.
16. Kiely DG, Lawrie A, Humbert M. Screening strategies for pulmonary arterial hypertension. *European Heart Journal Supplements* 2019;21:K9-K20.
17. Galiè N, Channick RN, Frantz RP, et al. Risk stratification and medical therapy of pulmonary arterial hypertension. *European Respiratory Journal* 2019;53.
18. Suciadi LP, Saboe A, Rahimah AF, et al. Hipertensi Arteri Pulmonal In: *Pedoman Diagnosis dan Tatalaksana Hipertensi Pulmonal*. Jakarta: Perhimpunan Dokter Spesialis Kardiovaskular Indonesia 2021;1:20-45.
19. Malenfant S, Lebreton M, Breton-Gagnon É, et al. Exercise intolerance in pulmonary arterial hypertension: insight into central and peripheral pathophysiological mechanisms. *European Respiratory Review* 2021;30.
20. Handoko M, De Man F, Happe C, et al. Opposite effects of training in rats with stable and progressive pulmonary hypertension. *Circulation* 2009;120:42-9.
21. Mereles D, Ehlken N, Kreuzer S, et al. Exercise and respiratory training improve exercise capacity and quality of life in patients with severe chronic pulmonary

- hypertension. *Circulation* 2006;114:1482-9.
22. Ozemek C, Berry MJ, Arena R. A review of exercise interventions in pulmonary arterial hypertension and recommendations for rehabilitation programing. *Journal of Cardiopulmonary Rehabilitation and Prevention* 2019;39:138-45.
 23. Moreira-Gonçalves D, Ferreira R, Fonseca H, et al. Cardioprotective effects of early and late aerobic exercise training in experimental pulmonary arterial hypertension. *Basic research in cardiology* 2015;110:57.
 24. Colombo R, Siqueira R, Becker CU, et al. Effects of exercise on monocrotaline-induced changes in right heart function and pulmonary artery remodeling in rats. *Canadian journal of physiology and pharmacology* 2013;91:38-44.
 25. Ley S, Fink C, Risse F, et al. Magnetic resonance imaging to assess the effect of exercise training on pulmonary perfusion and blood flow in patients with pulmonary hypertension. *European radiology* 2013;23:324-31.
 26. Grünig E, Eichstaedt C, Barberà J-A, et al. ERS statement on exercise training and rehabilitation in patients with severe chronic pulmonary hypertension. *European Respiratory Journal* 2019;53.
 27. Ehlken N, Lichtblau M, Klose H, et al. Exercise training improves peak oxygen consumption and haemodynamics in patients with severe pulmonary arterial hypertension and inoperable chronic thrombo-embolic pulmonary hypertension: a prospective, randomized, controlled trial. *European heart journal* 2016;37:35-44.
 28. Radi BR, Suryaatmaja B, Kuncoro AS, Soesanto AM. Simple and Short-term Inspiration Training Accelerates Recovery from Residual Pulmonary Hypertension after Mitral Valve Surgery: A randomized control trial. *Indonesian Journal of Cardiology* 2021;42.
 29. Benjamin N, Marra AM, Eichstaedt C, Grünig E. Exercise training and rehabilitation in pulmonary hypertension. *Heart Failure Clinics* 2018;14:425-30.
 30. Chia KS, Wong PK, Faux SG, McLachlan CS, Kotlyar E. The benefit of exercise training in pulmonary hypertension: a clinical review. *Internal medicine journal* 2017;47:361-9.
 31. Talwar A, Sahni S, Verma S, Khan SZ, Dhar S, Kohn N. Exercise tolerance improves after pulmonary rehabilitation in pulmonary hypertension patients. *Journal of exercise rehabilitation* 2017;13:214.

32. De Man F, Handoko M, Groepenhoff H, et al. Effects of exercise training in patients with idiopathic pulmonary arterial hypertension. *European Respiratory Journal* 2009;34:669-75.
33. Kabitz H-J, Bremer H-C, Schwoerer A, et al. The combination of exercise and respiratory training improves respiratory muscle function in pulmonary hypertension. *Lung* 2014;192:321-8.
34. González-Saiz L, Fiuza-Luces C, Sanchis-Gomar F, et al. Benefits of skeletal-muscle exercise training in pulmonary arterial hypertension: The WHOLEi+ 12 trial. *International journal of cardiology* 2017;231:277-83.
35. PERKI. Panduan Rehabilitasi Kardiovaskular. 1 ed. Jakarta: Kelompok Kerja Pencegahan dan Rehabilitasi Kardiovaskuler Pengurus Pusat Perhimpunan Kardiovaskuler Indonesia; 2019.
36. Samoedro E, Prasenoahadi, Susanto AD, et al. Aplikasi Klinis Uji Latih Jantung Paru. Jakarta: Departemen Pulmonologi dan Ilmu Kedokteran Respirasi Fakultas Kedokteran Universitas Indonesia-RS Persahabatan; 2022.
37. Arena R, Myers J, Williams MA, et al. Assessment of functional capacity in clinical and research settings: a scientific statement from the American Heart Association Committee on Exercise, Rehabilitation, and Prevention of the Council on Clinical Cardiology and the Council on Cardiovascular Nursing. *Circulation* 2007;116:329-43.
38. Wasserman K, Hansen JE, Sue DY, Stringer WW, Whipp BJ. Principles of exercise testing and interpretation: including pathophysiology and clinical applications. *Medicine & Science in Sports & Exercise* 2005;37:1249.
39. Herdy AH, Ritt LEF, Stein R, et al. Cardiopulmonary exercise test: background, applicability and interpretation. *Arquivos brasileiros de cardiologia* 2016;107:467-81.
40. Miot HA. Sample size in clinical and experimental trials. *Jornal Vascular Brasileiro* 2011;10:275-8.
41. Vari R, Scazzocchio B, D'Amore A, Giovannini C, Gessani S, Masella R. Gender-related differences in lifestyle may affect health status. *Annali dell'Istituto superiore di sanita* 2016;52:158-66.
42. Austin ED, Lahm T, West J, et al. Gender, sex hormones and pulmonary

- hypertension. *Pulmonary circulation* 2013;3:294-314.
43. Londoño A, Conde R, Pacheco M, et al. Underweight/overweight syndrome in patients with pulmonary hypertension in Colombia: a prevalence study. *Eur Respiratory Soc*; 2022.
 44. Dinarti LK, Hartopo AB, Kusuma AD, et al. The COngenital HeARt Disease in adult and Pulmonary Hypertension (COHARD-PH) registry: a descriptive study from single-center hospital registry of adult congenital heart disease and pulmonary hypertension in Indonesia. *BMC Cardiovascular Disorders* 2020;20:1-11.
 45. Cossío-Aranda J, Zamora KDV, Nanda NC, et al. Echocardiographic correlates of severe pulmonary hypertension in adult patients with ostium secundum atrial septal defect. *Echocardiography* 2016;33:1891-6.
 46. Post M. Association between pulmonary hypertension and an atrial septal defect. *Netherlands Heart Journal* 2013;21:331-2.
 47. Oudiz RJ, Roveran G, Hansen JE, Sun XG, Wasserman K. Effect of sildenafil on ventilatory efficiency and exercise tolerance in pulmonary hypertension. *Eur J Heart Fail* 2007;9:917-21.
 48. Barnes H, Brown Z, Burns A, Williams T. Phosphodiesterase 5 inhibitors for pulmonary hypertension. *Cochrane Database of Systematic Reviews* 2019.
 49. Rubin LJ, Badesch DB, Fleming TR, et al. Long-term treatment with sildenafil citrate in pulmonary arterial hypertension: the SUPER-2 study. *Chest* 2011;140:1274-83.
 50. Chan L, Chin LM, Kennedy M, et al. Benefits of intensive treadmill exercise training on cardiorespiratory function and quality of life in patients with pulmonary hypertension. *Chest* 2013;143:333-43.
 51. Grünig E, Maier F, Ehlken N, et al. Exercise training in pulmonary arterial hypertension associated with connective tissue diseases. *Arthritis research & therapy* 2012;14:1-10.
 52. Hildenbrand FF, Fauchère I, Huber LC, Keusch S, Speich R, Ulrich S. A low resting heart rate at diagnosis predicts favourable long-term outcome in pulmonary arterial and chronic thromboembolic pulmonary hypertension. A prospective observational study. *Respiratory research* 2012;13:1-7.
 53. Rich JD, Rich S. Clinical diagnosis of pulmonary hypertension. *Circulation*

2014;130:1820-30.

54. Bersohn MM, Turner MP, Traiger GL, Frost AE, Shapiro S. Systemic BP and heart rate as prognostic indicators in pulmonary arterial hypertension. *Chest* 2013;144:959-65.
55. Fox BD, Kassirer M, Weiss I, et al. Ambulatory rehabilitation improves exercise capacity in patients with pulmonary hypertension. *Journal of cardiac failure* 2011;17:196-200.
56. Becker-Grünig T, Klose H, Ehlken N, et al. Efficacy of exercise training in pulmonary arterial hypertension associated with congenital heart disease. *International Journal of Cardiology* 2013;168:375-81.
57. Harbaum L, Renk E, Yousef S, et al. Acute effects of exercise on the inflammatory state in patients with idiopathic pulmonary arterial hypertension. *BMC Pulmonary Medicine* 2016;16:1-11.
58. Martínez-Quintana E, Miranda-Calderín G, Ugarte-Lopetegui A, Rodríguez-González F. Rehabilitation program in adult congenital heart disease patients with pulmonary hypertension. *Congenital heart disease* 2010;5:44-50.

