

## DAFTAR PUSTAKA

1. Åberg, N. D., Wall, A., Anger, O., Jood, K., Andreasson, U., Blennow, K., Zetterberg, H., Isgaard, J., Jern, C., & Svensson, J. (2020). Circulating levels of vascular endothelial growth factor and post-stroke long-term functional outcome. *Acta Neurologica Scandinavica*, *141*(5), 405–414. <https://doi.org/10.1111/ane.13219>
2. Adams, H. P., Bendixen, B. H., Kappelle, L. J., Biller, J., Love, B. B., Gordon, D. L., & Marsh, E. E. (1993). Classification of subtype of acute ischemic stroke. Definitions for use in a multicenter clinical trial. TOAST. Trial of Org 10172 in Acute Stroke Treatment. *Stroke*, *24*(1), 35–41. <https://doi.org/10.1161/01.STR.24.1.35>
3. Barthels, D., & Das, H. (2020). Current advances in ischemic stroke research and therapies. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease*, *1866*(4), 165260. <https://doi.org/10.1016/j.bbadis.2018.09.012>
4. Bates, D. O. (2010). Vascular endothelial growth factors and vascular permeability. *Cardiovascular Research*, *87*(2), 262–271. <https://doi.org/10.1093/cvr/cvq105>
5. Bernhardt, J., Hayward, K. S., Kwakkel, G., Ward, N. S., Wolf, S. L., Borschmann, K., Krakauer, J. W., Boyd, L. A., Carmichael, S. T., Corbett, D., & Cramer, S. C. (2017). Agreed definitions and a shared vision for new standards in stroke recovery research: The Stroke Recovery and Rehabilitation Roundtable taskforce. *International Journal of Stroke*, *12*(5), 444–450. <https://doi.org/10.1177/1747493017711816>
6. Bhasin, A., Srivastava, M. P., Vivekanandhan, S., Moganty, R., Talwar, T., Sharma, S., Kuthiala, N., Kumaran, S., & Bhatia, R. (2019). Vascular Endothelial Growth Factor as Predictive Biomarker for Stroke Severity and Outcome; An Evaluation of a New Clinical Module in Acute Ischemic Stroke. *Neurology India*, *67*(5), 1280. <https://doi.org/10.4103/0028-3886.271241>
7. Butcher, K. (2009). Rapid Advanced Neuroimaging Assessment in Acute Stroke. *International Journal of Stroke*, *4*(2), 97–100. <https://doi.org/10.1111/j.1747-4949.2009.00263.x>
8. *Cardiovascular Disease and Risk Management- Standards of Care in Diabetes—2024.pdf*. (n.d.).
9. Chalos, V. (n.d.). *National Institutes of Health Stroke Scale*.
10. Chen, C., Gu, L., Chen, L., Hu, W., Feng, X., Qiu, F., Fan, Z., Chen,

- Q., Qiu, J., & Shao, B. (2021). Neutrophil-to-Lymphocyte Ratio and Platelet-to-Lymphocyte Ratio as Potential Predictors of Prognosis in Acute Ischemic Stroke. *Frontiers in Neurology*, 11. <https://doi.org/10.3389/fneur.2020.525621>
11. Chen, S., Cheng, J., Ye, Q., Ye, Z., Zhang, Y., Liu, Y., Huang, G., Chen, F., Yang, M., Wang, C., Duan, T., Liu, X., & Zhang, Z. (2022). Day 1 neutrophil-to-lymphocyte ratio (NLR) predicts stroke outcome after intravenous thrombolysis and mechanical thrombectomy. *Frontiers in Neurology*, 13, 941251. <https://doi.org/10.3389/fneur.2022.941251>
  12. Coupland, A. P., Thapar, A., Qureshi, M. I., Jenkins, H., & Davies, A. H. (2017). The definition of stroke. *Journal of the Royal Society of Medicine*, 110(1), 9–12. <https://doi.org/10.1177/0141076816680121>
  13. Dirjen P2PTM. (2019). *Buku Pedoman MANAJEMEN PENYAKIT TIDAK MENULAR*. Kementerian Kesehatan RI.
  14. Dr. dr.Trihono, M.Kes, Prof. Dr. dr. A. R. T., M. Sc. (2023). *Survei Kesehatan Indonesia 2023 Dalam Angka*. Kemenkes.
  15. Escudero, C., Acurio, J., López, E., Rodríguez, A., Benavente, A., Lara, E., & Korzeniewski, S. J. (2021). Vascular endothelial growth factor and poor prognosis after ischaemic stroke. *European Journal of Neurology*, 28(5), 1759–1764. <https://doi.org/10.1111/ene.14641>
  16. Fakhri M, F., Bahar, A., Bintang, A. K., Walenna, N. F., Tammase, J., & Muis, A. (2024). Serum Vascular Endothelial Growth Factor (Vegf) Levels and Alberta Stroke Program Early CT Score (Aspects) in Ischemic Stroke Patients. *Jurnal Ilmiah Kesehatan (JIKA)*, 6(3), 434–442. <https://doi.org/10.36590/jika.v6i3.679>
  17. Feigin, V. L., Abate, M. D., Abate, Y. H., Abd ElHafeez, S., Abd-Allah, F., Abdelalim, A., Abdelkader, A., Abdelmaseh, M., Abd-Elsalam, S., Abdi, P., Abdollahi, A., Abdoun, M., Abd-Rabu, R., Abdulah, D. M., Abdullahi, A., Abebe, M., Abeldaño Zuñiga, R. A., Abhilash, E. S., Abiodun, O. O., ... Murray, C. J. L. (2024). Global, regional, and national burden of stroke and its risk factors, 1990–2021: A systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Neurology*, 23(10), 973–1003. [https://doi.org/10.1016/S1474-4422\(24\)00369-7](https://doi.org/10.1016/S1474-4422(24)00369-7)
  18. Feigin, V. L., Stark, B. A., Johnson, C. O., Roth, G. A., Bisignano, C., Abady, G. G., Abbasifard, M., Abbasi-Kangevari, M., Abd-Allah, F., Abedi, V., Abualhasan, A., Abu-Rmeileh, N. M., Abushouk, A. I., Adebayo, O. M., Agarwal, G., Agasthi, P., Ahinkorah, B. O., Ahmad, S., Ahmadi, S., ... Murray, C. J. L. (2021). Global, regional, and

national burden of stroke and its risk factors, 1990–2019: A systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Neurology*, 20(10), 795–820. [https://doi.org/10.1016/S1474-4422\(21\)00252-0](https://doi.org/10.1016/S1474-4422(21)00252-0)

19. Felix Adrian, Anak Agung Ayu Putri Laksmidewi, Ida Bagus Kusuma Putra, I Made Oka Adnyana, I Gusti Ngurah Budiarsa, Tommy Sarongku, Clarissa Tertia, & I Putu Eka Widyadharm. (2022). High platelet to lymphocyte ratio as a risk factor for poor outcome in acute ischemic stroke patient. *Neurology Asia*, 27(2), 231–237. <https://doi.org/10.54029/2022mrs>
20. Greenberg, D. A., & Jin, K. (2013). Vascular endothelial growth factors (VEGFs) and stroke. *Cellular and Molecular Life Sciences*, 70(10), 1753–1761. <https://doi.org/10.1007/s00018-013-1282-8>
21. Guan, J., Wang, Q., & Zhao, Q. (2023). Lymphocyte to Monocyte Ratio is Independently Associated with Futile Recanalization in Acute Ischemic Stroke After Endovascular Therapy. *Neuropsychiatric Disease and Treatment*, Volume 19, 2585–2596. <https://doi.org/10.2147/ndt.s434225>
22. Hart, R. G., Diener, H.-C., Coutts, S. B., Easton, J. D., Granger, C. B., O'Donnell, M. J., Sacco, R. L., & Connolly, S. J. (2014). Embolic strokes of undetermined source: The case for a new clinical construct. *The Lancet Neurology*, 13(4), 429–438. [https://doi.org/10.1016/S1474-4422\(13\)70310-7](https://doi.org/10.1016/S1474-4422(13)70310-7)
23. Hu, X., De Silva, T. M., Chen, J., & Faraci, F. M. (2017). Cerebral Vascular Disease and Neurovascular Injury in Ischemic Stroke. *Circulation Research*, 120(3), 449–471. <https://doi.org/10.1161/circresaha.116.308427>
24. Hu, Y., Zheng, Y., Wang, T., Jiao, L., & Luo, Y. (2022). VEGF, a Key Factor for Blood Brain Barrier Injury After Cerebral Ischemic Stroke. *Aging and Disease*, 13(3), 647. <https://doi.org/10.14336/AD.2021.1121>
25. Jiang, M., Ma, C., Li, H., Shen, H., Li, X., Sun, Q., & Chen, G. (2020). Sex Dimorphisms in Ischemic Stroke: From Experimental Studies to Clinic. *Frontiers in Neurology*, 11, 504. <https://doi.org/10.3389/fneur.2020.00504>
26. Juli, C., Heryaman, H., Nazir, A., Ang, E.-T., Defi, I. R., Gamayani, U., & Atik, N. (2021). The Lymphocyte Depletion in Patients with Acute Ischemic Stroke Associated with Poor Neurologic Outcome. *International Journal of General Medicine*, Volume 14, 1843–1851. <https://doi.org/10.2147/IJGM.S308325>

27. Karam, J. G., Loney-Hutchinson, L., & McFarlane, S. I. (2008). High-Dose Atorvastatin After Stroke or Transient Ischemic Attack: The Stroke Prevention by Aggressive Reduction in Cholesterol Levels (SPARCL) Investigators. *Journal of the CardioMetabolic Syndrome*, 3(1), 68–69. <https://doi.org/10.1111/j.1559-4572.2008.07967.x>
28. Kernan, W. N., Ovbiagele, B., Black, H. R., Bravata, D. M., Chimowitz, M. I., Ezekowitz, M. D., Fang, M. C., Fisher, M., Furie, K. L., Heck, D. V., Johnston, S. C. (Clay), Kasner, S. E., Kittner, S. J., Mitchell, P. H., Rich, M. W., Richardson, D., Schwamm, L. H., & Wilson, J. A. (2014). Guidelines for the Prevention of Stroke in Patients With Stroke and Transient Ischemic Attack: A Guideline for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*, 45(7), 2160–2236. <https://doi.org/10.1161/STR.0000000000000024>
29. Kim, M.-S., Heo, M. Y., Joo, H. J., Shim, G. Y., Chon, J., Chung, S. J., Soh, Y., & Yoo, M. C. (2023). Neutrophil-to-Lymphocyte Ratio as a Predictor of Short-Term Functional Outcomes in Acute Ischemic Stroke Patients. *International Journal of Environmental Research and Public Health*, 20(2), 898. <https://doi.org/10.3390/ijerph20020898>
30. Kleindorfer, D. O., Towfighi, A., Chaturvedi, S., Cockroft, K. M., Gutierrez, J., Lombardi-Hill, D., Kamel, H., Kernan, W. N., Kittner, S. J., Leira, E. C., Lennon, O., Meschia, J. F., Nguyen, T. N., Pollak, P. M., Santangelo, P., Sharrief, A. Z., Smith, S. C., Turan, T. N., & Williams, L. S. (2021). 2021 Guideline for the Prevention of Stroke in Patients With Stroke and Transient Ischemic Attack: A Guideline From the American Heart Association/American Stroke Association. *Stroke*, 52(7). <https://doi.org/10.1161/STR.0000000000000375>
31. Kraus, R. F., & Gruber, M. A. (2021). Neutrophils—From Bone Marrow to First-Line Defense of the Innate Immune System. *Frontiers in Immunology*, 12, 767175. <https://doi.org/10.3389/fimmu.2021.767175>
32. Lee, J. S., Kim, N. Y., Na, S. H., Youn, Y. H., & Shin, C. S. (2018). Reference values of neutrophil-lymphocyte ratio, lymphocyte-monocyte ratio, platelet-lymphocyte ratio, and mean platelet volume in healthy adults in South Korea. *Medicine*, 97(26), e11138. <https://doi.org/10.1097/md.00000000000011138>
33. Lee, S.-H., Jang, M. U., Kim, Y., Park, S. Y., Kim, C., Kim, Y. J., & Sohn, J.-H. (2021). The Neutrophil-to-Lymphocyte and Platelet-to-Lymphocyte Ratios Predict Reperfusion and Prognosis after Endovascular Treatment of Acute Ischemic Stroke. *Journal of Personalized Medicine*, 11(8), 696.

<https://doi.org/10.3390/jpm11080696>

34. Liesz, A., Hu, X., Kleinschnitz, C., & Offner, H. (2015). Functional Role of Regulatory Lymphocytes in Stroke: Facts and Controversies. *Stroke*, 46(5), 1422–1430. <https://doi.org/10.1161/STROKEAHA.114.008608>
35. Lin, K., Fan, F., Cai, M., Yu, Y., Fu, C., Ding, L., Sun, Y., Sun, J., Shi, Y., Dong, Z., Yuan, M.-J., Li, S., Wang, Y., Chen, K., Zhu, J., Guo, X., Zhang, X., Zhao, Y., Li, J., & Huang, D. (2022). Systemic immune inflammation index and system inflammation response index are potential biomarkers of atrial fibrillation among the patients presenting with ischemic stroke. *European Journal of Medical Research*, 27(1), 106. <https://doi.org/10.1186/s40001-022-00733-9>
36. Liu, X., Zhang, T., Yang, L., Chen, G., Ding, P., Yu, D., Liao, H., Liu, J., & Yue, W. (2025). National Institute of Health Stroke Scale Score Mediated the Relationship between Systemic Inflammatory Response Index, High-Sensitivity C-Reactive Protein, and Functional Prognosis of Acute Ischemic Stroke: A Prospective Cross-Sectional Study. *Heart and Mind*, 9(3), 174–184. <https://doi.org/10.4103/hm.HM-D-24-00163>
37. Lyden, P. (2017). Using the National Institutes of Health Stroke Scale: A Cautionary Tale. *Stroke*, 48(2), 513–519. <https://doi.org/10.1161/STROKEAHA.116.015434>
38. Pantoni, L. (2010). Cerebral small vessel disease: From pathogenesis and clinical characteristics to therapeutic challenges. *The Lancet Neurology*, 9(7), 689–701. [https://doi.org/10.1016/S1474-4422\(10\)70104-6](https://doi.org/10.1016/S1474-4422(10)70104-6)
39. *Prognostic value of the platelet-to-lymphocyte ratio for outcomes of stroke: A systematic review and meta-analysis*. (n.d.).
40. Rehman, S., Nadeem, A., Akram, U., Sarwar, A., Quraishi, A., Siddiqui, H., Malik, M. A. J., Nabi, M., Ul Haq, I., Cho, A., Mazumdar, I., Kim, M., Chen, K., Sepehri, S., Wang, R., Balar, A. B., Lakhani, D. A., & Yedavalli, V. S. (2024). Molecular Mechanisms of Ischemic Stroke: A Review Integrating Clinical Imaging and Therapeutic Perspectives. *Biomedicines*, 12(4), 812. <https://doi.org/10.3390/biomedicines12040812>
41. Rust, R. (2020). Insights into the dual role of angiogenesis following stroke. *Journal of Cerebral Blood Flow & Metabolism*, 40(6), 1167–1171. <https://doi.org/10.1177/0271678X20906815>
42. Sacco, R. L., Kasner, S. E., Broderick, J. P., Caplan, L. R., Connors, J. J. (Buddy), Culebras, A., Elkind, M. S. V., George, M. G., Hamdan, A. D., Higashida, R. T., Hoh, B. L., Janis, L. S., Kase, C. S.,

- Kleindorfer, D. O., Lee, J.-M., Moseley, M. E., Peterson, E. D., Turan, T. N., Valderrama, A. L., & Vinters, H. V. (2013). An Updated Definition of Stroke for the 21st Century: A Statement for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*, *44*(7), 2064–2089. <https://doi.org/10.1161/STR.0b013e318296aeca>
43. Semerano, A., Strambo, D., Martino, G., Comi, G., Filippi, M., Roveri, L., & Bacigaluppi, M. (2020). Leukocyte Counts and Ratios Are Predictive of Stroke Outcome and Hemorrhagic Complications Independently of Infections. *Frontiers in Neurology*, *11*, 201. <https://doi.org/10.3389/fneur.2020.00201>
44. Shah, F. H., Nam, Y. S., Bang, J. Y., Hwang, I. S., Kim, D. H., Ki, M., & Lee, H.-W. (2025). Targeting vascular endothelial growth receptor-2 (VEGFR-2): Structural biology, functional insights, and therapeutic resistance. *Archives of Pharmacal Research*, *48*(5), 404–425. <https://doi.org/10.1007/s12272-025-01545-1>
45. Sheriff, F. G., Ahmad, A., Inam, M. E., Khatri, R., Maud, A., & Rodriguez, G. J. (2023). A systematic review on the assessment of cerebral autoregulation in patients with Large Vessel Occlusion. *Frontiers in Neurology*, *14*, 1287873. <https://doi.org/10.3389/fneur.2023.1287873>
46. Stroke: Classification and diagnosis. (2018). *Clinical Pharmacist*. <https://doi.org/10.1211/CP.2018.20204150>
47. Sun, Z., Lv, R., Zhao, Y., Cai, Z., Si, X., Zhang, Q., & Liu, X. (2024). Communications between Neutrophil–Endothelial Interaction in Immune Defense against Bacterial Infection. *Biology*, *13*(6), 374. <https://doi.org/10.3390/biology13060374>
48. The Lancet. (2016). Atrial fibrillation and stroke: Unrecognised and undertreated. *The Lancet*, *388*(10046), 731. [https://doi.org/10.1016/S0140-6736\(16\)31412-X](https://doi.org/10.1016/S0140-6736(16)31412-X)
49. Tian, C., Yang, Y., Wan, J., Wang, R., Zhou, K., Li, Y., Guo, W., Li, H., & Zhang, Y. (2025). Prognostic value of lymphocyte-to-monocyte ratio in acute ischemic stroke: A systematic review and meta-analysis. *Frontiers in Neurology*, *16*. <https://doi.org/10.3389/fneur.2025.1567112>
50. Van Den Dool, R. E. C., Sperna Weiland, N. H., Schenk, J., Kho, E., Veelo, D. P., Van Der Ster, B. J. P., & Immink, R. V. (2023). Dynamic cerebral autoregulation during step-wise increases in blood pressure during anaesthesia: A nonrandomised interventional trial. *European Journal of Anaesthesiology*, *40*(6), 407–417.

<https://doi.org/10.1097/EJA.0000000000001798>

51. Van Dongen, M. M. E., Aarnio, K., Martinez-Majander, N., Pirinen, J., Sinisalo, J., Lehto, M., Kaste, M., Tatlisumak, T., De Leeuw, F.-E., & Putaala, J. (2019). Use of Statins After Ischemic Stroke in Young Adults and Its Association With Long-Term Outcome. *Stroke*, *50*(12), 3385–3392. <https://doi.org/10.1161/STROKEAHA.119.026992>
52. Wang, C., Zhang, Q., Ji, M., Mang, J., & Xu, Z. (2021). Prognostic value of the neutrophil-to-lymphocyte ratio in acute ischemic stroke patients treated with intravenous thrombolysis: A systematic review and meta-analysis. *BMC Neurology*, *21*(1). <https://doi.org/10.1186/s12883-021-02222-8>
53. Wnuk, M., Drabik, L., Derbisz, J., & Słowik, A. (2022). Prognostic significance of age in patients with acute ischaemic stroke treated with intravenous thrombolysis. *Neurologia i Neurochirurgia Polska*, *56*(1), 81–88. <https://doi.org/10.5603/PJNNS.a2022.0010>
54. Zhang, W., Tian, T., Gong, S.-X., Huang, W.-Q., Zhou, Q.-Y., Wang, A.-P., & Tian, Y. (2021). Microglia-associated neuroinflammation is a potential therapeutic target for ischemic stroke. *Neural Regeneration Research*, *16*(1), 6. <https://doi.org/10.4103/1673-5374.286954>
55. Zhang, Z. G., Zhang, L., Jiang, Q., Zhang, R., Davies, K., Powers, C., Bruggen, N. V., & Chopp, M. (2000). VEGF enhances angiogenesis and promotes blood-brain barrier leakage in the ischemic brain. *Journal of Clinical Investigation*, *106*(7), 829–838. <https://doi.org/10.1172/JCI9369>
56. Zhou, Y., Zhu, X., Cui, H., Shi, J., Yuan, G., Shi, S., & Hu, Y. (2021). The Role of the VEGF Family in Coronary Heart Disease. *Frontiers in Cardiovascular Medicine*, *8*, 738325. <https://doi.org/10.3389/fcvm.2021.738325>