

REFERENCES

- Abdu, H. and Seyoum, G. (2022). Sex Differences in Stroke Risk Factors, Clinical Profiles, and In-Hospital Outcomes Among Stroke Patients Admitted to the Medical Ward of Dessie Comprehensive Specialized Hospital, Northeast Ethiopia. *Degenerative Neurological and Neuromuscular Disease*, Volume 12, pp.133–144. doi:<https://doi.org/10.2147/dnnd.s383564>.
- Akpınar, C.K., Gurkas, E. and Aytac, E. (2017). Moderate to Severe Anemia Is Associated with Poor Functional Outcome in Acute Stroke Patients Treated with Mechanical Thrombectomy. *Interventional Neurology*, 7(1-2), pp.12–18. doi:<https://doi.org/10.1159/000480642>.
- Al-Harbi, N., Alrasheedi, M.S. and Alshammari, S.T. (2020). Hemoglobin level is associated with severe stroke among stroke patients in Saudi Arabia. *International journal of health sciences*, [online] 14(5), pp.18–22. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7475208/#:~:text=Association%20between%20Hb%20level%20and%20stroke%20severity&text=The%20results%20revealed%20that%20the>.
- Alder, L. and Tambe, A. (2020). *Acute Anemia*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK537232/>.
- Allport, L.E., Parsons, M.W., Butcher, K.S., MacGregor, L., Desmond, P.M., Tress, B.M. and Davis, S.M. (2005). Elevated hematocrit is associated with reduced reperfusion and tissue survival in acute stroke. *Neurology*, 65(9), pp.1382–1387. doi:<https://doi.org/10.1212/01.wnl.0000183057.96792.a8>.

American Diabetes Association (2022). *Diagnosis / ADA*. [online] diabetes.org.

Available at: <https://diabetes.org/diabetes/a1c/diagnosis>.

Aulia, D., Ayu, S.F. and Nefonafratilova, N. (2017). Analisis Perbandingan Biaya Langsung (Direct Cost) dan Biaya Tidak Langsung (Indirect Cost) pada Pasien Stroke Di Rumah Sakit. *Jurnal Ekonomi Kesehatan Indonesia*, [online] 2(2). doi:<https://doi.org/10.7454/eki.v2i2.2143>.

Badireddy, M. and Baradhi, K.M. (2022). *Chronic Anemia*. [online] PubMed.

Available at:

<https://www.ncbi.nlm.nih.gov/books/NBK534803/#:~:text=Mild%3A%20Hemoglobin%2010.0%20g%20dL>.

Barlas, R.S., Honney, K., Loke, Y.K., McCall, S.J., Bettencourt-Silva, J.H., Clark, A.B., Bowles, K.M., Metcalf, A.K., Mamas, M.A., Potter, J.F. and Myint, P.K. (2016). Impact of Hemoglobin Levels and Anemia on Mortality in Acute Stroke: Analysis of UK Regional Registry Data, Systematic Review, and Meta-Analysis. *Journal of the American Heart Association*, 5(8). doi:<https://doi.org/10.1161/jaha.115.003019>.

Boehme, A.K., Esenwa, C. and Elkind, M.S.V. (2017). Stroke Risk Factors, Genetics, and Prevention. *Circulation research*, [online] 120(3), pp.472–495. doi:<https://doi.org/10.1161/CIRCRESAHA.116.308398>.

BTKLPP (2015). *BBTKLPP Yogyakarta*. [online] www.btkljogja.or.id. Available at: <https://www.btkljogja.or.id> [Accessed 25 Apr. 2023].

Chang, T., Kularathne, S.A., Fernando, S., Arambepola, C., Weeratunga, P., Vithanage, T. and Alwis Wijewickrama, P.S. (2020). Anemia as a predictor of

functional disability in the early stage of ischemic stroke in a South Asian Population. [online] 23(4), pp.515–515.
doi:https://doi.org/10.4103/aian.aian_357_19.

Chang, Y.-L., Hung, S.-H., Ling, W., Lin, H.-C., Li, H.-C. and Chung, S.-D. (2013). Association between Ischemic Stroke and Iron-Deficiency Anemia: A Population-Based Study. *PLoS ONE*, [online] 8(12).
doi:<https://doi.org/10.1371/journal.pone.0082952>.

Chaudhry, H.S. and Kasarla, M.R. (2020). *Microcytic Hypochromic Anemia*. [online] PubMed. Available at:
<https://www.ncbi.nlm.nih.gov/books/NBK470252/#:~:text=Microcytic%2C%20hypochromic%20anemia%2C%20as%20the>.

Chen, R., Ovbiagele, B. and Feng, W. (2017). Diabetes and Stroke: Epidemiology, Pathophysiology, Pharmaceuticals and Outcomes. *The American Journal of the Medical Sciences*, [online] 351(4), pp.380–386.
doi:<https://doi.org/10.1016/j.amjms.2016.01.011>.

Desai, A., Oh, D., Rao, E.M., Sahoo, S., Mahajan, U.V., Labak, C.M., Rohit Mauria, Shah, V.S., Nguyen, Q., Herring, E., Elder, T., Stout, A. and Shammassian, B.H. (2023). Impact of anemia on acute ischemic stroke outcomes: A systematic review of the literature. 18(1), pp.e0280025–e0280025.
doi:<https://doi.org/10.1371/journal.pone.0280025>.

DeSai, C. and Hays Shapshak, A. (2021). *Cerebral Ischemia*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK560510/>.

Freeman, A.M., Soman-Faulkner, K. and Morando, D.W. (2019). *Anemia Screening*.
[online] Nih.gov. Available at:
<https://www.ncbi.nlm.nih.gov/books/NBK499905/>.

Gainey, J., Blum, B., Bowie, B., Cooley, K., Madeline, L., Ervin, E.L. and Nathaniel, T.I. (2018). Stroke and dyslipidemia: clinical risk factors in the telestroke versus non-telestroke. *Lipids in Health and Disease*, 17(1).
doi:<https://doi.org/10.1186/s12944-018-0870-x>.

Hauser, S.L., Josephson, S.A. and Harrison, T.R. (2013). *Harrison's neurology in clinical medicine*. New York ; Toronto: Mcgraw-Hill Education Medical.

Heo, J., Youk, T.-M. and Seo, K.-D. (2021). Anemia Is a Risk Factor for the Development of Ischemic Stroke and Post-Stroke Mortality. *Journal of Clinical Medicine*, 10(12), p.2556. doi:<https://doi.org/10.3390/jcm10122556>.

Hiraga, A. (2017). Gender Differences and Stroke Outcomes. *Neuroepidemiology*, [online] 48(1-2), pp.61–62. doi:<https://doi.org/10.1159/000475451>.

Hui, C., Tadi, P. and Patti, L. (2022). *Ischemic Stroke*. [online] Nih.gov. Available at:
<https://www.ncbi.nlm.nih.gov/books/NBK499997/>.

Iadecola, C. and Gorelick, P.B. (2004). Hypertension, Angiotensin, and Stroke: Beyond Blood Pressure. *Stroke*, 35(2), pp.348–350.
doi:<https://doi.org/10.1161/01.str.0000115162.16321.aa>.

Isadora, E., Wreksoatmodjo, B.R. and Puspitarini Sani, T. (2021). Association Between Anemia and Stroke Severity and Clinical Course of Acute Ischemic Stroke.

Iqbal, A.M. and Jamal, S.F. (2019). *Essential Hypertension*. [online] Nih.gov.
Available at: <https://www.ncbi.nlm.nih.gov/books/NBK539859/>.

Juffrie, M., Dcn, S. and Hakimi, M. (2020). Nutritional anemia in Indonesia children and adolescents: Diagnostic reliability for appropriate management. *S18 Asia Pac J Clin Nutr*, [online] 29(1), pp.18–31.
doi:[https://doi.org/10.6133/apjcn.202012_29\(S1\).03](https://doi.org/10.6133/apjcn.202012_29(S1).03).

Kara, H., Degirmenci, S., Bayir, A., Ak, A., Akinci, M., Dogru, A., Akyurek, F. and Kayis, S.A. (2015). Red cell distribution width and neurological scoring systems in acute stroke patients. *Neuropsychiatric Disease and Treatment*, p.733. doi:<https://doi.org/10.2147/ndt.s81525>.

Khan, M.F., Shamael, I., Zaman, Q., Mahmood, A. and Siddiqui, M. (2018). Association of Anemia with Stroke Severity in Acute Ischemic Stroke Patients. *Cureus*. doi: <https://doi.org/10.7759/cureus.2870>.

Khaku, A.S. and Tadi, P. (2022). *Cerebrovascular Disease (Stroke)*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK430927/>.

Kim , K. (2012). *Risk Factors and Clinical Outcome of Ischemic Stroke in the Very Elderly*. [online] Available at: <https://www.e-jnc.org/upload/pdf/jnc-5-1-25.pdf>.

Kirana, A., Sugianto , P., Umijati, S. and Hidayati, H.B. (2021). *HUBUNGAN HIPERTENSI DENGAN DERAJAT KEPARAHAN STROKE ISKEMIK DI RSUD DR. SOETOMO BERDASARKAN NATIONAL INSTITUTE OF HEALTH STROKE SCALE*.

- Kogan, E., Twyman, K., Heap, J., Milentijevic, D., Lin, J.H. and Alberts, M. (2020). Assessing stroke severity using electronic health record data: a machine learning approach. *BMC Medical Informatics and Decision Making*, [online] 20(1). doi:<https://doi.org/10.1186/s12911-019-1010-x>.
- Kuriakose, D. and Xiao, Z. (2020). Pathophysiology and Treatment of Stroke: Present Status and Future Perspectives. *International Journal of Molecular Sciences*, 21(20), p.7609.
- Laredo, C., Zhao, Y., Rudilosso, S., Renú, A., Pariente, J.C., Chamorro, Á. and Urra, X. (2018). Prognostic Significance of Infarct Size and Location: The Case of Insular Stroke. *Scientific Reports*, [online] 8(1). doi:<https://doi.org/10.1038/s41598-018-27883-3>.
- Marsh, E.B., Lawrence, E., Gottesman, R.F. and Llinas, R.H. (2015). The NIH Stroke Scale Has Limited Utility in Accurate Daily Monitoring of Neurologic Status. *The Neurohospitalist*, 6(3), pp.97–101. doi:<https://doi.org/10.1177/1941874415619964>.
- Menet, R., Bernard, M. and ElAli, A. (2018). Hyperlipidemia in Stroke Pathobiology and Therapy: Insights and Perspectives. *Frontiers in Physiology*, [online] 9(488). doi:<https://doi.org/10.3389/fphys.2018.00488>.
- Moore, C.A. and Adil, A. (2022). *Macrocytic Anemia*. [online] PubMed. Available at:
<https://www.ncbi.nlm.nih.gov/books/NBK459295/#:~:text=Macrocytic%20anemia%20is%20a%20special>.

Musuka, T.D., Wilton, S.B., Traboulsi, M. and Hill, M.D. (2015). Diagnosis and management of acute ischemic stroke: speed is critical. *Canadian Medical Association Journal*, [online] 187(12), pp.887–893. doi:<https://doi.org/10.1503/cmaj.140355>.

Natalia Eduarda Furlan, Gustavo José Luvizutto, Gupta, D., Garcia, S., Gabriel Pinheiro Modolo, Ferreira, N., Miranda, L., Thomaz, J., Fernanda Cristina Winckler, Iglesias, E., Machado, C., Luis Cuadrado Martin and Bazan, R. (2021). The Impact of Age on Mortality and Disability in Patients With Ischemic Stroke Who Underwent Cerebral Reperfusion Therapy: A Brazilian Cohort Study. 13. doi:<https://doi.org/10.3389/fnagi.2021.649902>.

Nielsen, T.R.H., Lausten-Thomsen, U., Fonvig, C.E., Bøjsøe, C., Pedersen, L., Bratholm, P.S., Hansen, T., Pedersen, O. and Holm, J.-C. (2017). Dyslipidemia and reference values for fasting plasma lipid concentrations in Danish/North-European White children and adolescents. *BMC Pediatrics*, [online] 17. doi:<https://doi.org/10.1186/s12887-017-0868-y>.

NIH (2022). *Anemia - Diagnosis* / NHLBI, NIH. [online] www.nhlbi.nih.gov. Available at: <https://www.nhlbi.nih.gov/health/anemia/diagnosis>.

Nogles, T.E. and Galuska, M.A. (2023). *Middle Cerebral Artery Stroke*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK556132/>.

Pan, B., Jin, X., Jun, L., Qiu, S., Zheng, Q. and Pan, M. (2019). The relationship between smoking and stroke. *Medicine*, [online] 98(12), p.e14872. doi:<https://doi.org/10.1097/md.00000000000014872>.

- Poupore, N., Camron Edrissi, Sowah, M., Stanley, M., Joffe, J., Lewis, D., Cunningham, T., Carolyn Breauna Sanders, Knisely, K., Rathfoot, C. and Nathaniel, T.I. (2022). Stroke Severity among Men and Women Acute Ischemic Stroke Patients in the Telestroke Network. *Cerebrovascular Diseases Extra*, [online] 12(2), pp.93–101. doi:<https://doi.org/10.1159/000525099>.
- Raadha, A.M., Ramkumar, S., Binu, M.G.N. and Shanmugam, J. (2023). Association of Anaemia with Stroke Severity in Acute Ischemic Stroke Patients. *European Journal of Cardiovascular Medicine*, 13(3).
- Riset Kesehatan Dasar (Riskesdas), 2018. Badan Penelitian dan Pengembangan Kementerian Kesehatan RI.
- Rost, N.S., Bottle, A., Lee, J., Randall, M., Middleton, S., Shaw, L., Thijs, V., Rinkel, G.J.E. and Hemmen, T.M. (2016). Stroke Severity Is a Crucial Predictor of Outcome: An International Prospective Validation Study. *Journal of the American Heart Association*, 5(1). doi:<https://doi.org/10.1161/jaha.115.002433>.
- Roy-O'Reilly, M. and McCullough, L.D. (2018). Age and Sex Are Critical Factors in Ischemic Stroke Pathology. *Endocrinology*, [online] 159(8), pp.3120–3131. doi:<https://doi.org/10.1210/en.2018-00465>
- Sabih, A., Tadi, P. and Kumar, A. (2020). *Stroke Prevention*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK470234/>.
- Shah, R.S. and Cole, J.W. (2010). Smoking and stroke: the more you smoke the more you stroke. *Expert Review of Cardiovascular Therapy*, [online] 8(7), pp.917–932. doi:<https://doi.org/10.1586/erc.10.56>.

- Sharma, K., Johnson, D.J., Johnson, B., Frank, S.M. and Stevens, R.D. (2018). Hemoglobin concentration does not impact 3-month outcome following acute ischemic stroke. *BMC Neurology*, 18(1). doi:<https://doi.org/10.1186/s12883-018-1082-8>.
- Simmons, C.A., Poupore, N. and Nathaniel, T.I. (2023). Age Stratification and Stroke Severity in the Telestroke Network. *Journal of Clinical Medicine*, 12(4), p.1519. doi:<https://doi.org/10.3390/jcm12041519>.
- Soliman, R.H., Oraby, M.I., Fathy, M. and Essam, A.M. (2018). Risk factors of acute ischemic stroke in patients presented to Beni-Suef University Hospital: prevalence and relation to stroke severity at presentation. *The Egyptian Journal of Neurology, Psychiatry and Neurosurgery*, 54(1). doi:<https://doi.org/10.1186/s41983-018-0012-4>.
- Sucharew, H., Khoury, J., Moomaw, C.J., Alwell, K., Kissela, B.M., Belagaje, S., Adeoye, O., Khatri, P., Woo, D., Flaherty, M.L., Ferioli, S., Heitsch, L., Broderick, J.P. and Kleindorfer, D. (2013). Profiles of the National Institutes of Health Stroke Scale Items as a Predictor of Patient Outcome. *Stroke*, 44(8), pp.2182–2187. doi:<https://doi.org/10.1161/strokeaha.113.001255>.
- Tadi, P. and Lui, F. (2019). *Acute Stroke (Cerebrovascular Accident)*. [online] Nih.gov. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK535369/>.
- Talahma, M., Strbian, D. and Sundararajan, S. (2014). Sick Cell Disease and Stroke. *Stroke*, 45(6). doi:<https://doi.org/10.1161/strokeaha.114.005144>.

Tokgoz, S. (2020). Acute-Phase Stroke Outcome And Lipids. *SiSli Etfal Hastanesi Tip Bulteni / The Medical Bulletin of Sisli Hospital*. doi:<https://doi.org/10.14744/semb.2020.26817>.

Tomohisa Nezu, Naohisa Hosomi, Yoshimura, K., Daisuke Kuzume, Naito, H., Aoki, S., Morimoto, Y., Masato Kinboshi, Yoshida, T., Yuji Shiga, Kinoshita, N., Akira Furui, Tabuchi, G., Ueno, H., Tsuji, T. and Maruyama, H. (2020). Predictors of Stroke Outcome Extracted from Multivariate Linear Discriminant Analysis or Neural Network Analysis. [online] 29(1), pp.99–110. doi:<https://doi.org/10.5551/jat.59642>.

Turner, J. and Badireddy, M. (2019). *Anemia*. [online] Nih.gov. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK499994/>.

Unnithan, A.K.A., M Das, J. and Mehta, P. (2022). *Hemorrhagic Stroke*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK559173/#:~:text=Hemorrhagic%20stroke%20is%20due%20to>.

Venketasubramanian, N., Yudiarto, F. and Tugasworo, D. (2022). Stroke Spectrum Stroke Burden and Stroke Services in Indonesia. *Cerebrovasc Dis Extra*, [online] 12, pp.53–57. doi:<https://doi.org/10.1159/000524161>.

Warner, M.J. and Kamran, M.T. (2022). *Iron deficiency anemia*. [online] Nih.gov. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK448065/>.

WHO (2011). *Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity VMNIS / Vitamin and Mineral Nutrition Information System Background Description of technical consultation 2 Recommendations*

3 *Summary development Acknowledgements.* [online] Available at:
https://apps.who.int/iris/bitstream/handle/10665/85839/WHO_NMH_NHD_MNM_11.1_eng.pdf.

WHO (2021). *World Stroke Day.* [online] www.who.int. Available at:
<https://www.who.int/southeastasia/news/detail/28-10-2021-world-stroke-day>.

WHO (2022a). *Noncommunicable Diseases.* [online] World Health Organisation.
Available at: <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>.

WHO (2022b). *World Stroke Day 2022.* [online] www.who.int. Available at:
<https://www.who.int/srilanka/news/detail/29-10-2022-world-stroke-day-2022>.

WHO (2023). *Detail.* [online] www.who.int. Available at:
<https://www.who.int/news-room/fact-sheets/detail/anaemia>.

World Health Organization (2023). *Hypertension.* [online] World Health Organization. Available at: <https://www.who.int/news-room/fact-sheets/detail/hypertension>.

World Stroke Organization. (2022). *Learn about stroke.* [online] Available at:
<https://www.world-stroke.org/world-stroke-day-campaign/why-stroke-matters/learn-about-stroke>.

Xue, J., Lu, W., Xia, X. and Li, X. (2019). Correlation between anemia and stroke severity and short-term outcome in elderly patients with acute ischemic stroke. *International Journal of Cerebrovascular Diseases*, [online] pp.491–496.

Available at: <https://pesquisa.bvsalud.org/portal/resource/pt/wpr-751585>
[Accessed 8 Dec. 2023].

Xue, J., Zhang, D., Zhang, X., Zhu, X., Xu, X.-S. and Yue, Y. (2022). Red cell distribution width is associated with stroke severity and unfavorable functional outcomes in ischemic stroke. *Frontiers in Neurology*, 13. doi:<https://doi.org/10.3389/fneur.2022.938515>.

Yang, H., Chen, Y., Wang, J., Wei, H., Chen, Y. and Jin, J. (2021). Activities of daily living measurement after ischemic stroke. *Medicine*, 100(9), p.e24926. doi:<https://doi.org/10.1097/md.00000000000024926>.

Yew, K.S. and Cheng, E. (2009). Acute stroke diagnosis. *American family physician*, [online] 80(1), pp.33–40. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2722757/>.

Yilmaz, G. and Shaikh, H. (2021). *Normochromic Normocytic Anemia*. [online] PubMed. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK565880/#:~:text=Normocytic%20normochromic%20anemia%20is%20the>.

Yousufuddin, M. and Young, N. (2019). Aging and ischemic stroke. *Aging*, [online] 11(9), pp.2542–2544. doi:<https://doi.org/10.18632/aging.101931>.

Yu, J.-G., Zhou, R.-R. and Cai, G.-J. (2011). From Hypertension to Stroke: Mechanisms and Potential Prevention Strategies. *CNS Neuroscience & Therapeutics*, 17(5), pp.577–584. doi:<https://doi.org/10.1111/j.1755-5949.2011.00264.x>.