

DAFTAR PUSTAKA

- Albarbar, B. (2024). The Importance of IgM and IgG Antibodies Testing in Infectious Diseases. *Libyan Medical Journal*, 2024(2), 84–89. <https://doi.org/https://orcid.org/0009-0002-5163-839X>
- Aliyyu, H. (2023). Gambaran Kasus Demam Berdarah *Dengue* Pada Usia Anak Sekolah Di RSUD Dr. Drajat Prawiranegara. *Jurnal Locus Penelitian Dan Pengabdian*, 2(10), 978–986. <https://doi.org/10.58344/locus.v2i10.1813>
- Amri, I., Rahma, R., Hutasoit, G. A., Putri, A. S. D., Harun, H., & Rasyid, R. (2025). Comparison of Neutrophile-to-Lymphocyte Ratio Between *Dengue* Haemorrhagic Fever and *Dengue* Shock Syndrome in Pediatric Patients at Anutapura Hospital. *Journal of Health and Nutrition Research*, 4(1), 162–171. <https://doi.org/10.56303/jhnresearch.v4i1.360>
- Arfan, R., Irwan, A. A., Diyana Kartika, I., & Hidayati, P. H. (2024). Analisis Neutrofil dan Limfosit Pada Pasien Anak Demam Berdarah *Dengue* Di Instalasi Rawat Inap RS. Ibnu Sina Kota Makassar. *INNOVATIVE: Journal Of Social Science Research*, 4, 9240–9256. <https://j-innovative.org/index.php/Innovative/article/view/8471>
- Aynekulu Mersha, D. G., van der Sterren, I., van Leeuwen, L. P. M., Langerak, T., Hakim, M. S., Martina, B., van Lelyveld, S. F. L., & van Gorp, E. C. M. (2024). The role of antibody-dependent enhancement in *dengue* vaccination. *Tropical Diseases, Travel Medicine and Vaccines*, 10(1). <https://doi.org/10.1186/s40794-024-00231-2>
- BPS NTT. (2024). *Jumlah Kasus Penyakit Menurut Kabupaten/Kota dan Jenis Penyakit (Jiwa)*. Badan Pusat Statistik Provinsi Nusa Tenggara Timur (Statistics of Nusa Tenggara Timur Province). <https://ntt.bps.go.id/id/statistics-table/2/MTQ4NSMy/jumlah-kasus-penyakit-menurut-kabupaten-kota-dan-jenis-penyakit.html>
- Buonacera, A., Stancanelli, B., Colaci, M., & Malatino, L. (2022a). Neutrophil to Lymphocyte Ratio: An Emerging Marker of the Relationships between the Immune System and Diseases. *International Journal of Molecular Sciences*, 23(7). <https://doi.org/10.3390/ijms23073636>
- Buonacera, A., Stancanelli, B., Colaci, M., & Malatino, L. (2022b). Neutrophil to Lymphocyte Ratio: An Emerging Marker of the Relationships between the Immune System and Diseases. In *International Journal of Molecular Sciences* (Vol. 23, Number 7). MDPI. <https://doi.org/10.3390/ijms23073636>
- CDC. (2024, April 16). *Life Cycle of Aedes Mosquitoes*. Cdc.Gov. <https://www.cdc.gov/mosquitoes/about/life-cycle-of-aedes-mosquitoes.html>

- Darwin, E., Elvira, D., & Elfi, E. F. (2021). *Imunologi dan Infeksi* (I. Anwar & S. Hidayat, Eds.). Andalas University Press. <https://repo.unand.ac.id/46166/1/Buku%20Imunologi%20Prof.%20Eryati%20Darwin.pdf>
- Dash, M. K., Samal, S., Rout, S., Behera, C. K., Sahu, M. C., & Das, B. (2024). Immunomodulation in *dengue*: towards deciphering *dengue* severity markers. In *Cell Communication and Signaling* (Vol. 22, Number 1). BioMed Central Ltd. <https://doi.org/10.1186/s12964-024-01779-4>
- Djalilah, G. N., Diwangkara, A. P., Ambar, N. S., & Hartati, E. (2020). Hubungan Nuetrophil Lymphocyte Ratio (NLR) terhadap Infeksi *Dengue* Anak di Instalasi Rawat Inap Anak RSUD RA Basoeni Kabupaten Mojokerto. *Fakultas Kedokteran Universitas Muhammadiyah Surabaya*, 123–136. <https://journal.um-surabaya.ac.id/proceedingseries/article/view/18455>
- Driscoll, M. O., Buddhari, D., Huang, A. T., Waickman, A., Kaewhirun, S., Iamsirithaworn, S., Khampaen, D., Farmer, A., Fernandez, S., Rodriguez-Barraquer, I., Srikiatkachorn, A., Thomas, S., Endy, T., Rothman, A. L., Anderson, K., Cummings, D. A. T., & Salje, H. (2023). Maternally derived antibody titer dynamics and risk of hospitalized infant *dengue* disease. *Proceedings of the National Academy of Sciences of the United States of America*, 120(41). <https://doi.org/10.1073/pnas.2308221120>
- Faizal, I. A., Husen, F., Taufiqurrahman, M., Ambarwati, R., Padoli, Purwoto, A., Indriputri, C., Luthfianto, D., Wltriyani, Supriatin, T., & Rahmi, A. (2023). *Buku Ajar Imunologi*. CV. Science Techno Direct. https://www.researchgate.net/publication/369022321_BUKU_AJAR_IMUNOLOGI
- Farkas, J. (2019, May 23). *PulmCrit: Rasio Neutrofil-Limfosit (NLR)*. Emcrit.Org. <https://emcrit.org/pulmcrit/nlr/>
- Ghafori, S. S., Yousefi, Z., Bakhtiari, E., mohammadi mahdiabadi hasani, mohammad hossein, & Hassanzadeh, G. (2024). Neutrophil-to-lymphocyte ratio as a predictive biomarker for early diagnosis of depression: A narrative review. *Brain, Behavior, and Immunity - Health*, 36. <https://doi.org/https://doi.org/10.1016/j.bbih.2024.100734>
- Haider, M., Yousaf, S., Zaib, A., Sarfraz, A., Sarfraz, Z., & Cherrez-Ojeda, I. (2022). Diagnostic Accuracy of Various Immunochromatographic Tests for NS1 Antigen and IgM Antibodies Detection in Acute *Dengue* Virus Infection. *International Journal of Environmental Research and Public Health*, 19(14). <https://doi.org/10.3390/ijerph19148756>
- Hartono, R. (2019). *Buku Saku Stop Demam Berdarah*. Husada mandiri. <https://repository.kemkes.go.id/book/326>

- Ileandea, B. V., Nurhayati, D., Sunardi, A., & Hikam, M. (2025). Correlation of High Fluorescence Lymphocyte Count and Thrombocytopenia in *Dengue* Fever Infection. *Clinical Pathology and Medical Laboratory*, (3), 224–228. www.indonesianjournalofclinicalpathology.org
- Kemenkes. (2020). *Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/Menkes/9845/2020*. <https://kemkes.go.id/id/pnpk-2020---tata-laksana-infeksi-dengue-pada-dewasa>
- Kesuma, S. (2022). Uji Diagnosis NS1, IgG dan IgM *Dengue* Metode Immunokromatografi dan Elisa. *Jurnal Analis Laboratorium Medik*, 7(2), 72–85. <https://doi.org/10.51544/jalm.v7i2.3374>
- Keyt, B. A., Baliga, R., Sinclair, A. M., Carroll, S. F., & Peterson, M. S. (2020). Structure, function, and therapeutic use of IgM antibodies. *Antibodies*, 9(4), 1–35. <https://doi.org/10.3390/antib9040053>
- Kularatne, S. A., & Dalugama, C. (2022). *Dengue* infection: Global importance, immunopathology and management. *Clinical Medicine, Journal of the Royal College of Physicians of London*, 22(1), 9–13. <https://doi.org/10.7861/clinmed.2021-0791>
- Maharani, P. T., Mahariski, P. A., Izawati, E., & Anjani, I. A. W. (2023). Neutrophil-to-lymphocyte ratio (NLR) in dermatology perspective: a review. *Bali Dermatology Venereology and Aesthetic Journal*, 7–12. <https://doi.org/10.51559/qygyxk83>
- Makarim, F. R. (2025). *Tes Anti Dengue IgM dan IgG (rapid)*. Halodoc. https://www.halodoc.com/kesehatan/tes-anti-dengue-igg-dan-igm-rapid?srsltid=AfmBOop8uN4HsBdiOUX6wEAYhNEPC4EIAzp_HWsaBfG5_sNFwW-VbkzX
- Manh, D. H., Weiss, L. N., Thuong, N. Van, Mizukami, S., Dumre, S. P., Luong, Q. C., Thanh, L. C., Thang, C. M., Huu, P. T., Phuc, L. H., Nhung, C. T. H., Mai, N. T., Truong, N. Q., Ngu, V. T. T., Quoc, D. K., Ha, T. T. N., Ton, T., An, T. Van, Halhouli, O., ... Hirayama, K. (2020). Kinetics of CD4+ T Helper and CD8+ Effector T Cell Responses in Acute *Dengue* Patients. *Frontiers in Immunology*, 11. <https://doi.org/10.3389/fimmu.2020.01980>
- Marliana, N., & Widhyasih, R. M. (2018). *Imunoserologi* (A. Susilo, B. A. Darmanto, & F. H. Pohan, Eds.). Kementerian Kesehatan Republik Indonesia. https://tlm.poltekkesaceh.ac.id/wpcontent/uploads/2024/01/Imunoserologi_S C.pdf
- Marvianto, D., Oktaviani, D. R., & Wijaya, K. F. N. (2023). Infeksi *Dengue* Sekunder: Patofisiologi, Diagnosis, dan Implikasi Klinis. *Cermin Dunia Kedokteran*, 70–74. <https://cdkjournal.com/index.php/cdk/article/view/518>

- Maulani, U. N., Hanafi, M., Mashuri, Y. A., & Galuh, M. (2023). The Correlation Between IgM/IgG *Dengue* Serological Test and Thrombocyte Hematocrit Count on DHF Pediatric Patients at UNS Hospital. *PLACENTUM Jurnal Ilmiah Kesehatan Dan Aplikasinya*, 11(2), 2023. <https://doi.org/https://doi.org/10.20961/placentum.v11i2.66559>
- Meliala, A. F. S., Silaen, J. C., & Simanjuntak, N. H. (2021). Perbandingan antara Rasio Neutrofil Limfosit dan Trombosit pada Kebocoran Plasma Demam Berdarah *Dengue* Anak. *NJM*, 7(1), 1–3. <http://www.who.int/tdr/publications/documents/dengue-diagnosis.pdf>;
- Morales, I., Rosenberger, K. D., Magalhaes, T., Morais, C. N. L., Braga, C., Marques, E. T. A., Calvet, G. A., Damasceno, L., Brasil, P., de Filippis, A. M. B., Tami, A., Bethencourt, S., Alvarez, M., Martínez, P. A., Guzman, M. G., Benevides, B. S., Caprara, A., Quyen, N. T. H., Simmons, C. P., ... Jaenisch, T. (2021). Diagnostic performance of anti-zika virus igm, igam and igg elisas during co-circulation of zika, *dengue*, and chikungunya viruses in brazil and venezuela. *PLoS Neglected Tropical Diseases*, 15(4). <https://doi.org/10.1371/journal.pntd.0009336>
- Murugesan, A., & Manoharan, M. (2019). *Dengue virus*. In *Emerging and Reemerging Viral Pathogens: Volume 1: Fundamental and Basic Virology Aspects of Human, Animal and Plant Pathogens* (pp. 281–359). Elsevier. <https://doi.org/10.1016/B978-0-12-819400-3.00016-8>
- Nurwahidah, Syaiful, & Haris, A. (2024). *Buku Ajar Pendidikan Kesehatan Tentang Pencegahan Demam Berdarah* (I. F. Pratama, Ed.). <http://library.poltekkes-mataram.ac.id/index.php?p=fstream-pdf&fid=3555&bid=9049>
- Perkasa, A. S., Haidir Bima, I., Murfat, Z., Diyana, I., Kamaluddini, & Arfah, A. I. (2024). Rasio Neutrofil Limfosit pada Penderita Demam Berdarah *Dengue*. *Fakumi Medical Journal*, 04, 773–782. <https://fmj.fk.umi.ac.id/index.php/fmj/article/view/517>
- Prijanto, S. A., Wayan, I., Suryawan, B., Kadek, I., Departemen, S., Kesehatan, I., Rumah, A., Umum, S., Wangaya, D., & Suarca, K. (2023). Rasio Neutrofil-Limfosit sebagai Prediktor Kejadian Syok pada Demam Berdarah *Dengue* pada Anak di Rumah Sakit Umum Daerah Wangaya, Denpasar. *Sari Pediatri*, 24(5). <https://saripediatri.org/index.php/sari-pediatri/article/view/2241>
- Rinaldi, F. X., Lembar, S., Ridjab, D. A., Leonardo, L., Lauryn, J., Erlina, E., & Singgih, G. G. (2022). Correlation Between Neutrophil to Lymphocyte Ratio (NLR) and Patient with Heart Failure: Haematology Variables in Patient with Heart Failure. *Sriwijaya Journal of Medicine*, 5(1), 10–17. <https://doi.org/10.32539/sjm.v5i1.124>

- Roy, S. K., & Bhattacharjee, S. (2021). *Dengue virus: Epidemiology, biology, and disease aetiology. Canadian Journal of Microbiology*, 67(10), 687–702. <https://doi.org/10.1139/cjm-2020-0572>
- Ruvalcaba-Hernández, P., Thompson-Bonilla, M. del R., Casique-Aguirre, D., Vázquez-Meraz, J. E., Jiménez-Hernández, E., Mejía-Aranguré, J. M., Melchor-Doncel de la Torre, S., Rangel-López, A., Xicohtencatl-Cortes, J., Ochoa, S. A., Cruz-Córdova, A., Avila-Hernández, A. T., Peralta-Nieto, C., García-Valdez, L., Serrano Olais, L. A., & Arellano-Galindo, J. (2025). Phytochemicals in the Transmission Control of Epidemic Viruses: A Review Focused on SARS-CoV-2, Zika, and Dengue. *Natural Product Communications*, 20(9). <https://doi.org/10.1177/1934578X251333232>
- Santosa, B. (2020). Antigen Non Struktural 1 (NS1) Sebagai Marker Suspek Infeksi Dengue. *Jurnal Media Analisis Kesehatan*, 11(1), 27–33. <https://doi.org/10.32382/mak.v11i1.1476>
- Sarker, A., Dhama, N., & Gupta, R. D. (2023). Dengue virus neutralizing antibody: a review of targets, cross-reactivity, and antibody-dependent enhancement. In *Frontiers in Immunology* (Vol. 14). Frontiers Media S.A. <https://doi.org/10.3389/fimmu.2023.1200195>
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (19th ed.). Alfabeta, CV. https://digilib.stekom.ac.id/assets/dokumen/ebook/feb_35efe6a47227d6031a75569c2f3f39d44fe2db43_1652079047.pdf
- Susanti, F., Handayati, A., Permana, A., Parisihni, K., Huda, M., Suhariyadi, Zuraida, Lestarini, I. A., Woelansari, E. D., Andriani, D., Wahjuningsih, E., Yuliawuri, H., Djupri, D. R., Aini, Usman, S., Adam, D., Ardiani, R., & Khotimah, E. (2024). *Dasar-dasar Immunologi* (M. I. Yusuf & Parawansah, Eds.; 1st ed.). Eureka Media Aksara. <https://repository.penerbiteurka.com/media/publications/568902-dasar-dasar-imunologi-45d6d45a.pdf>
- Sysmex. (2021). *Routine Use Training Workbook XN Series*. <https://uk.caresphere-academy.com/explore/xn-series-routine-use-training>
- Sysmex Corporation. (2021). *XN series (XN-1000) Instructions for use*. <https://uk.caresphere-academy.com/explore/xn-series-routine-use-training>
- Tansil, M. G., Rampengan, N. H., & Wilar, R. (2021). Faktor Risiko Terjadinya Kejadian Demam Berdarah Dengue Pada Anak. *Jurnal Biomedik:JBM*, 13(1), 90. <https://doi.org/10.35790/jbm.13.1.2021.31760>
- Teo, A., Tan, H. D., Loy, T., Chia, P. Y., & Chua, C. L. L. (2023). Understanding antibody-dependent enhancement in dengue: Are afucosylated IgG1s a

concern? *PLoS Pathogens*, 19(3).
<https://doi.org/10.1371/JOURNAL.PPAT.1011223>

Wong, J. M., Adams, L. E., Durbin, A. P., Muñoz-Jordán, J. L., Poehling, K. A., Sánchez-González, L. M., Volkman, H. R., & Paz-Bailey, G. (2022). *Dengue: A Growing Problem With New Interventions. Pediatrics*, 149(6).
<https://doi.org/10.1542/peds.2021-055522>

Xu, L., Ma, Z., Li, Y., Pang, Z., & Xiao, S. (2021). Antibody dependent enhancement: Unavoidable problems in vaccine development. *Advances in Immunology*, 151, 99–133. <https://doi.org/10.1016/bs.ai.2021.08.003>

Yoo, J. S., Shporn, O. Z., & Sklan, E. H. (2025). Dysregulated immune cell responses in severe *dengue* pathogenesis. *Frontiers in Immunology*, 16. <https://doi.org/https://doi.org/10.3389/fimmu.2025.1600999>

Zahorec, R. (2021). Neutrophil-to-lymphocyte ratio, past, present and future perspectives. *National Library Medicine*, 7(122), 474–488. https://doi.org/https://doi.org/10.4149/bll_2021_078

Zebua, R., Gulo, V. E., Purba, I., & Gulo, M. J. K. (2023). Perubahan Epidemiologi Demam Berdarah *Dengue* (DBD) di Indonesia Tahun 2017-2021. *SEHATMAS: Jurnal Ilmiah Kesehatan Masyarakat*, 2(1), 129–136. <https://doi.org/10.55123/sehatmas.v2i1.1243>