

DAFTAR PUSTAKA

- Agrawal, S., Kumar, S., & Talwar, D. (2022). Significance of Neutrophil-lymphocyte Ratio, Neutrophil-platelet Ratio, and Neutrophil-to lymphocyte and Platelet Ratio in Predicting Outcomes in Dengue Patients on Admission in Wardha, Maharashtra, India: A Retrospective Cohort Study. *JCDR - Journal of Clinical and Diagnostic Research for doctors*. [https://www.jcdr.net/articles/PDF/18658/65292_CE\[Ra1\]_F\(I_S\)_QC&Ref\(KK_IS\)_PF1\(HB_DK_KM\)_PFA\(HB_KM\)_PN\(KM\).pdf](https://www.jcdr.net/articles/PDF/18658/65292_CE[Ra1]_F(I_S)_QC&Ref(KK_IS)_PF1(HB_DK_KM)_PFA(HB_KM)_PN(KM).pdf)
- Ahmad Fahrudi Setiawan, Yuyun Yueniwati Prabowowati Wajib, Kusworini Handono, Setyawan Purnomo Sakti, Role of Lymphocytes and Atypical Lymphocytes in Dengue Hemorrhagic Fever: A Literature Review. *J. Med. Chem. Sci.*, 2024, 7(1) 53-58. DOI: <https://doi.org/10.26655/JMCHEMSCI.2024.1.6>
- Akhil M, Dasari D, Ashok S, Manjula BSV, Vinaya S. Neutrophil To Lymphocyte Ratio as Prognostic and Predictor Factor for Severity of Dengue Fever A Retrospective Observational Study In A Tertiary Care Centre. *IAIM*. 2021; 8(12): 46-52
- Ananda Rao, A., U, R. R., Gosavi, S., & Menon, S. (2020). Dengue Fever: Prognostic Insights From a Complete Blood Count. *Cureus*, 12(11), e11594. <https://doi.org/10.7759/cureus.11594>
- Andrade, S. M., Herkert, C. M., & Cunha, R. V. (2014). A New Approach to Reducing Mortality from Dengue. World Health Organization (1997) *Dengue: Guidelines for Diagnosis, Treatment, Prevention and Control*. WHO, Geneva. who.int/publications/item.
- Ashma, A. N., Susilo, S. B., Marwanta, S., & Harioputro, D. R. (2023). Neutrophil-lymphocyte Ratio and Platelet-lymphocyte Ratio as Early Sign Plasma Leakage Process in Dengue Infection. *JURNAL INFO KESEHATAN*, 21(4), 749–757. <https://doi.org/10.31965/infokes.Vol21.Iss4.1382>

- Basir, A. (2019). Hubungan Nilai Trombosit dan Hematokrit dengan Derajat Klinis Infeksi Dengue Pada Pasien Dewasa di RSUP DR. Wahidin Sudirohusodo tahun 2018
- BÖER, L.M., et al. Monocyte-lymphocyte, neutrophil-lymphocyte, and platelet-lymphocyte ratios as inflammatory biomarkers of clinical dengue severity. *Bioscience Journal*. 2024, 40, e40038. <https://doi.org/10.14393/BJ-v40n0a2024-67413>
- Boes, K. M., & Durham, A. C. (2017). Bone Marrow, Blood Cells, and the Lymphoid/Lymphatic System. *Pathologic Basis of Veterinary Disease*, 724– 804.e2. <https://doi.org/10.1016/B978-0-323-35775-3.00013-8>
- Castillo, J. A., Giraldo, D. M., Hernandez, J. C., Smit, J. M., Rodenhuis-Zybert, I. A., & Urcuqui-Inchima, S. (2021). Regulation of innate immune responses in macrophages differentiated in the presence of vitamin D and infected with dengue virus 2. *PLoS neglected tropical diseases*, 15(10), e0009873. <https://doi.org/10.1371/journal.pntd.0009873>
- Caraballo E, Poole-Smith BK, Tomashek KM, Torres-Velasquez B, Alvarado LI, Lorenzi OD, Ramos C, Carrión J, Hunsperger E (2020). The detection of anti-dengue virus IgM in urine in participants enrolled in an acute febrile illness study in Puerto Rico. *PLoS Neglected Tropical Diseases* 14: e0007971. DOI 10.1371/journal.pntd.0007971.
- Chia, P.Y. et al. (2022) Association of neutrophil mediators with dengue disease severity and cardiac impairment in adults. *J. Infect. Dis.* 226, 1974–1984 51.
- Clarice, C. S. H., Abeysuriya, V., de Mel, S., Uvindu Thilakawardana, B., de Mel, P., de Mel, C., Chandrasena, L., Seneviratne, S. L., Yip, C., & Yap, E. S. (2019). Atypical lymphocyte count correlates with the severity of dengue infection. *PloS one*, 14(5), e0215061. <https://doi.org/10.1371/journal.pone.0215061>
- Cologne, Germany: Institute for Quality and Efficiency in Health Care (IQWiG). 2023.

- Costa, V.V., et al. Inflammatory and Innate Immune Responses in Dengue Infection. *The American Journal of Pathology*. 2013, 182(6), 1950-1961. <http://dx.doi.org/Doi:10.1016/j.ajpath.2013.02.027>
- Dewi, T. F., Wiyono, J., & Ahmad, Z. S. (2019). Hubungan pengetahuan orang tua tentang penyakit DBD dengan perilaku pencegahan DBD di Kelurahan Tlogomas Kota Malang, 4(1), 348–358. <https://doi.org/10.1021/BC049898Y>
- Dinas Kesehatan Sulawesi Selatan. (2024). Data Penderita Demam Berdarah 2019-2022 <https://kendakab.bps.go.id/indicator/30/46/1/banyaknya-penderita-demam-berdarah.html>
- Djalilah, G. N., & Diwangkara, A. P. (2023, May). Hubungan neutrophil lymphocyte ratio (NLR) Terhadap Infeksi dengue Anak di Instalasi Rawat Inap Anak RSUD Ra Basoeni Kabupaten Mojokerto. | Proceeding series Universitas Muhammadiyah Surabaya. *Jurnal Online Universitas Muhammadiyah Surabaya*. <https://journal.um-surabaya.ac.id/proceedingseries/article/view/18455>
- Duggal, S. et al. (2024) Dengue virus infection in mice induces bone marrow myeloid cell differentiation and generates Ly6g^{low} immature neutrophils with modulated functions. *J. Leukoc. Biol.* 115, 130–148
- Ermawati, N., Aprilia, M., & Purnadianty, M. (2024, April). Gambaran Jumlah Monosit pada Pasien Demam Berdarah dengue Di Rumah Sakit Bhayangkara Kota Kediri. *Jurnal Ilmiah Ilmu Kesehatan dan Kedokteran*. <https://ejurnal.politeknikpratama.ac.id/index.php/Termometer/article/view/3659/3384>
- Espinoza VE, Emmady PD. Histology, Monocytes. [Updated 2023 Apr 24]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan- <https://www.ncbi.nlm.nih.gov/books/NBK557618/>
- Eun-Ha H, Gyeung H, Bon-Sang K, Hanseul. (2022). Monocytes as suitable carriers for dissemination of dengue viral infection, *Heliyon*, Volume 8, Issue 10, 2022, e11212, ISSN 2405-8440, <https://doi.org/10.1016/j.heliyon.2022.e11212>.

- Fahrudi A, Yueniwati Y, Handono, K., & Sakti, S. P. (2023). Role of Lymphocytes and Atypical Lymphocytes in Dengue Hemorrhagic Fever: A Literature Review. *Journal of Medicinal and Chemical Sciences*, 7(1), 53-58. doi: 10.26655/JMCHEMSCI.2024.1.6
- Fatmawati, Fatmawati & Wijaya, Chandra. (2017). Hubungan Respon Imun Humoral dengan Derajat Trombositopenia pada Pasien Demam Berdarah Dengue. *Jurnal Ilmu Kedokteran*. 4. 36. 10.26891/JIK.v4i1.2010.36-41.
- Garishah FM, Rother N, Riswari SF, Alisjahbana B, Overheul GJ, van Rij RP, van der Ven A, van der Vlag J, de Mast Q. Neutrophil Extracellular Traps in Dengue Are Mainly Generated NOX-Independently. *Front Immunol*. 2021 May 26;12:629167. doi: 10.3389/fimmu.2021.629167. PMID: 34122402; PMCID: PMC8187769.
- Gupta, N., Boodman, C., Jouego, C. G., & Van Den Broucke, S. (2024). Duration of Fever in Patients with Dengue: A Systematic Review and Meta-Analysis. *The American journal of tropical medicine and hygiene*, 111(1), 5–10. <https://doi.org/10.4269/ajtmh.23-0542>
- Guyton, A. C., Hall, J. E., 2021. *Buku Ajar Fisiologi Kedokteran*. Edisi 12. Jakarta : EGC, 1022
- Halstead SB (1988) Pathogenesis of dengue: challenges to molecular biology. *Science*-239(4839):476–481
https://iris.who.int/bitstream/handle/10665/41988/9241545003_eng.pdf?sequence=1
- Hussain, Mubashir. (2021). Dengue virus infection: A review of advances in the emerging rapid detection methods. *BIOCELL*. 46. 10.32604/biocell.2022.016392.
- Idris et al. (2017). Hubungan antara Hasil Pemeriksaan Leukosit, Trombosit dan Hematokrit dengan Derajat Klinik DBD pada Pasien Anak Di RSUD Abdul Wahab Sjahranie Samarinda. *Sari Pediatri*. 19. 41. 10.14238/sp19.1.2017.41-5.
- Intansari, U. S., Bahiyuddin, A., & Laksanawati, I. (2007). The Kinetic of Activated Monocytes in Acute Phase Dengue Infection. *Jurnal*

- Irianti, D. M., Reniarti, L., & Azhali, M. S. (2009). Hubungan Jumlah Limfosit Plasma Biru dengan Spektrum Klinis dan Perannya dalam Memprediksi Perubahan Spektrum Klinis Infeksi Dengue pada Anak. *Sari Pediatri*. <https://saripediatri.org/index.php/saripediatri/article/view/643>
- Irmayanti, I., Nurulita, A. and Sennang, N. 2018. Neutrophil/Lymphocyte Count Ratio on Dengue Hemorrhagic Fever. *Indonesian Journal of Clinical Pathology and Medical Laboratory*.. 23, 3 (Apr. 2018,–239. DOI:<https://doi.org/10.24293/ijcpml.v23i3.1200>.
- Ishaque, N., Siddique, M. U., & Imran, A. (2021, November). Utilization of Neutrophil to Lymphocyte Ratio to Assess Recovery in Patients with Dengue. *Chughtai Institute of Pathology, Lahore*. <https://jhscr.org/index.php/JHSCR/article/view/52>
- Joshi A, Gayathri BR, Kulkarni S. (2017) Correlation of thrombocytopenia with degree of atypical lymphocytosis. *International Journal of Research in Medical Sciences* 5: 4041–4046.
- Kalayanarooj S, Vaughn DW, Nimmannitya S, et al. (1997). Early clinical and laboratory indicators of acute dengue illness. *The Journal of infectious diseases*, 176(2), 313–321. <https://doi.org/10.1086/514047>
- Kasman, K., & Ishak, N. (2018). Analisis penyebaran penyakit demam berdarah dengue di Kota Banjarmasin tahun 2012-2016. *Media Publikasi Promosi Kesehatan Indonesia*, 1(2), 32–39.
- Kamsom, C., Edwards, S.W., Thaosing, J. *et al.* (2024). Altered neutrophil responses to dengue virus serotype three: delayed apoptosis is regulated by stabilisation of Mcl-1. *Sci Rep* **14**, 18414. <https://doi.org/10.1038/s41598-024-68642-x>
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2011). *Pedoman Interpretasi Data Klinik*. P. 10-30
- Kementerian Kesehatan Republik Indonesia (Kemenkes RI). (2022). *Laporan Tahunan 2022 Demam Berdarah Dengue di Indonesia*.

http://p2p.kemkes.go.id/wp-content/uploads/2023/06/FINAL_6072023_Layout_DBD-1.pdf

- Keputusan Menteri Kesehatan Republik Indonesia (Kepmenkes RI). (2020). Nomor HK.01.07/MENKES/9845/2020. Pedoman Nasional Pelayanan Kedokteran Tatalaksana Infeksi Dengue Pada Dewasa.
- Malini P, Sumathi M, Ravikumar T. Kategorisasi Demam Berdarah berdasarkan durasi demam dan penanda serologis di rumah sakit perawatan tersier. *Jurnal Penelitian Medis Dasar dan Terapan India*; Juni 2017: Vol. 8, Edisi-3, 409-413.
- Maharani DR. (2017). Perbedaan Hitung Jumlah Trombosit dengan Metode Impedansi, Langsung dan Barbara Brown. Thesis Universitas Muhammadiyah Semarang <http://repository.unimus.ac.id/id/eprint/1257>
- Mahayanti, k., & Suardamana, K. (2024). The Relation Between The Neutrophil Lymphocyte Ration (NLR) and The Degree of Dengue Hemorrhagic Fever in The Inpatient Installation of Ari Canti Hospital for The Period of April 2022-May 2023. *E-Jurnal Medika Udayana*, 13(1), 7-11. doi:10.24843/MU.2024.V13.i01.P02
- Meyrita, M., Suwarno, S., & Saidi, N. (2023). Tren Kejadian dengue (Incidence rate) Dan Kematian Akibat dengue (Case fatality rate) Di Indonesia | Meyrita | Bioscientist : Jurnal Ilmiah Biologi. *Open Journal Systems*. <https://e-journal.undikma.ac.id/index.php/bioscientist/article/view/9500>
- Mondal H, Lotfollahzadeh S. Hematocrit. (2022). In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 PMID: 31194416.
- Murugesan A, Manoharan M. (2020). Dengue Virus. *Emerging and Reemerging Viral Pathogens*. ;281-359. doi:10.1016/B978-0-12-819400-3.00016-8
- Nainggolan, Leonard, et al. "Peran Hitung Jenis Limfosit dan Monosit sebagai Prediktor Kebocoran Plasma pada Fase Awal Infeksi Dengue." *eJournal Kedokteran Indonesia*, vol. 8, no. 3, Dec. 2020, doi:[10.23886/ejki.8.12468](https://doi.org/10.23886/ejki.8.12468).
- Nurrohawati, I. (2020). Perbedaan Jumlah Neutrofil dan Trombosit pada Demam Berdarah Dengue dan Sindrom Syok Dengue di RS

- Muhammadiyah Palembang Periode Juni 2016-Juni 2019. Repository Universitas Muhammaditah Palembang. <http://repository.um-palembang.ac.id/id/eprint/9299/>
- Nusa, K. C., Mantik, M. F. J., & Rampengan, N. (2015). Hubungan Ratio Neutrofil dan Limfosit pada Penderita Penyakit Infeksi Virus Dengue. *E-CliniC*, 3(1). <https://doi.org/10.35790/ecl.v3i1.6764>
- Opasawatchai A, Amornsupawat P, Jiravejchakul N et al. (2019). Neutrophil Activation and Early Features of NET Formation Are Associated With Dengue Virus Infection in Human. *Frontiers in Immunology*, 9, pp.3007. [ff10.3389/fimmu.2018.03007](https://doi.org/10.3389/fimmu.2018.03007)ff. [ffpasteur-02048214f](https://doi.org/10.3389/fimmu.2018.03007)
- Patil, S.T., L, V.K. and G, K.N. (2019) A study of clinical manifestations and complications of dengue fever in medical college hospital, *International Journal of Medical Research and Review*. Available at: <https://doi.org/10.17511/ijmrr.2019.i03.13>
- Pereira TN et al. (2020) Vector competence of *Aedes aegypti*, *Aedes albopictus*, and *Culex quinquefasciatus* mosquitoes for Mayaro virus. *PLoS Negl Trop Dis*. 2020 Apr 14;14(4):e0007518. doi: 10.1371/journal.pntd.0007518. PMID: 32287269; PMCID: PMC7182273.
- Potts, J. A. and Rothman, A. L., 2008, 'Clinical and laboratory features that distinguish dengue from other febrile illnesses in endemic populations', *Tropical Medicine and International Health*, vol13(11), pp. 1328–1340. doi: 10.1111/j.1365-3156.2008.02151.x.
- Prijanto, S. A., Suryawan, I. W., & Suarca, I. (2023). Rasio Neutrofil-Limfosit sebagai Prediktor Kejadian Syok pada Demam Berdarah Dengue pada Anak di Rumah Sakit Umum Daerah Wangaya, Denpasar. *Sari Pediatri*. <https://saripediatri.org/index.php/sari-pediatri/article/view/2241>
- Rachim, W., Subronto, Y. W., & Laksanawati, I. S. (2019). Faktor-faktor Yang berpengaruh terhadap lama rawat inap pasien demam berdarah dengue. *Theses and Dissertations Repository | ETD UGM*. <https://etd.repository.ugm.ac.id/penelitian/detail/174153#:~:tex>

[t=Rerata%20lama%20rawat%20inap%20pasien,rawat%20inap%20%2D13%20hari](#)

- Rao, S. V., Jacob, G. G., Raju, N. A., & Ancheri, S. A. (2016). Spontaneous arterial hemorrhage as a complication of dengue. *Indian journal of critical care medicine : peer-reviewed, official publication of Indian Society of Critical Care Medicine*, 20(5), 302–304. <https://doi.org/10.4103/0972-5229.182201>
- Reinhold J et al. (2018). Effects of the Environmental Temperature on *Aedes aegypti* and *Aedes albopictus* Mosquitoes: A Review. *Insects*, 9(4), 158. <https://doi.org/10.3390/insects9040158>
- Retnoningrum, D., & Purwanto, A. P. (2017, March). Monocyte Lymphocyte Ratio in Dengue Hemorrhagic Fever. *Indonesian journal of Clinical Pathologi and Medical Laboratory*. <https://indonesianjournalofclinicalpathology.org/index.php/patologi/article/view/1130/851>
- Ria, NM. 2019. Potensi Daya Tolak Daun Kersen (*Muntingia calabura*) terhadap Nyamuk *Aedes aegypti*. Karya Tulis Ilmiah Universitas Muhammadiyah Surabaya. Repository Universitas Muhammadiyah Surabaya.
- Shah D, Talwar D, Kumar S, Acharya S. Platelet indices: Is it a reliable biomarker in viral infections? *J Datta Meghe Inst Med Sci Univ*. 2023;18(2):322-26.
- Sugianto NA. Pathophysiology of dengue haemorrhagic fever. *World Journal of Pharmaceutical Research*. 2021;10(14): 218-23.
- Suhendro, N et al. (2017). *Buku Ajar Ilmu Penyakit Dalam, Demam Berdarah Dengue*, Ed.6. Jakarta : Interna Publishing, pp 539 – 541
- Suryani. 2018. The Overview of Dengue Hemorrhagic Fever Cases in Blitar City from 2015 to 2017. Surabaya : Indonesia.
- Tarigan. 2022. Karakteristik demam berdarah dengue pada anak Di rumah sakit umum royal prima Medan. (n.d.). *Jurnal Universitas Prima Indonesia*. <https://jurnal.unprimdn.ac.id/index.php/JKPI/article/view/1783>

- Thein, T. L., Lye, D. C., Leo, Y. S., Wong, J. G., Hao, Y., & Wilder-Smith, A. (2014). Severe neutropenia in dengue patients: prevalence and significance. *The American journal of tropical medicine and hygiene*, 90(6), 984–987. <https://doi.org/10.4269/ajtmh.14-0004>
- Tigner A, Ibrahim SA, Murray I. Histology, White Blood Cell. [Updated 2021 Nov19]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan. <https://www.ncbi.nlm.nih.gov/books/NBK563148/>
- Verma, J., Kumar, A., & Upadhyay, A. (2024, February). A Study on Differential Alteration Trend of Monocyte Count and Other Blood Parameters Among Dengue Patients During Hospitalisation in a Tertiary Care Centre of North India - A Prospective Cohort Study. *International Journal of Health Sciences and Research*. https://www.ijhsr.org/IJHSR_Vol.14_Issue.2_Feb2024/IJHSR11.pdf
- Wan SW, Wu-Hsieh BA, Lin YS, Chen WY, Huang Y, Anderson R. The monocyte- macrophage-mast cell axis in dengue pathogenesis. *J Biomed Sci*. 2018 Nov 8;25(1):77. doi: 10.1186/s12929-018-0482-9. PMID: 30409217; PMCID: PMC6225659.
- Wan, SW., Wu-Hsieh, B.A., Lin, YS. et al. The monocyte-macrophage-mast cell axis in dengue pathogenesis. *J Biomed Sci* 25, 77 (2018). <https://doi.org/10.1186/s12929-018-0482-9>
- Williams O, Sergent SR. Histology, Platelets. (2021). In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; Jan. <https://www.ncbi.nlm.nih.gov/books/NBK557800/>
- World Health Organization – South East Asia Regional Office (2011). *Comprehensive Guidelines for Prevention and Control of Dengue and Dengue Hemorrhagic Fever*, pp. 20 – 22 <https://iris.who.int/handle/10665/204894?show=full>
- World Health Organization – South East Asia Regional Office. (2022). *Comprehensive Overview of Dengue and Severe Dengue*.

<https://www.who.int/southeastasia/health-topics/dengue-and-severe-dengue>

World Health Organization. (2023). Dengue Global Situation.

<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON498>

Ye G, Xu 1, Yang M. (2023). Clinical features and transmission risk analysis of dengue virus infections in Shenzhen, During 2014–2019, Computational and Structural Biotechnology Journal, Volume 21, 2023, Pages 3728-3735, ISSN 2001-0370, <https://doi.org/10.1016/j.csbj.2023.07.001>.

Yuditya, D. C., & Sudirgo, I. (2020, May). The Relation between Neutrophil Lymphocyte Count Ratio (NLCR) and Dengue Infection Grade of Severity in Adult Patients in RS Muhammadiyah Ahmad Dahlan Kediri in January 2019. STRADA Jurnal Ilmiah Kesehatan. <https://sjik.org/index.php/sjik/article/download/265/185/805>

Yuntoharjo, P.J., Arkhaesi, N., & Hardian, H. (2018). Perbandingan antara Nilai Rasio Neutrofil/Limfosit pada Anak dengan Demam Dengue dan Demam berdarah Dengue. http://eprints.undip.ac.id/62413/1/BAB_0.pdf

LAMPIRAN

Statistics

		Umur	Jenis_Kelamin	Derajat_Klinis_I_IV	Lama_Sakit	Lama_Inap
N	Valid	63	63	63	63	63
	Missing	0	0	0	0	0
Mean		1.75	1.46	1.51	7.11	4.02
Median		1.00	1.00	1.00	7.00	4.00
Std. Deviation		.983	.502	.878	2.208	1.782
Variance		.967	.252	.770	4.875	3.177
Range		3	1	3	10	10
Minimum		1	1	1	3	1
Maximum		4	2	4	13	11

Umur

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Usia 18-30 Tahun	36	57.1	57.1	57.1
	Usia 31-40 Tahun	11	17.5	17.5	74.6
	Usia 41-50 Tahun	12	19.0	19.0	93.7
	>50 Tahun	4	6.3	6.3	100.0
	Total	63	100.0	100.0	

Jenis_Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-Laki	34	54.0	54.0	54.0
	Perempuan	29	46.0	46.0	100.0
	Total	63	100.0	100.0	

Derajat_Klinis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Derajat_Klinis I	44	69.8	69.8	69.8
	Derajat_Klinis II	10	15.9	15.9	85.7
	Derajat_Klinis III	8	12.7	12.7	98.4
	Derajat_Klinis IV	1	1.6	1.6	100.0
	Total	63	100.0	100.0	

Lama_Sakit

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	3	4.8	4.8	4.8
	4	4	6.3	6.3	11.1
	5	8	12.7	12.7	23.8
	6	8	12.7	12.7	36.5
	7	15	23.8	23.8	60.3
	8	12	19.0	19.0	79.4
	9	6	9.5	9.5	88.9
	10	1	1.6	1.6	90.5
	11	3	4.8	4.8	95.2
	12	2	3.2	3.2	98.4
	13	1	1.6	1.6	100.0
	Total	63	100.0	100.0	

Lama_Inap

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	1.6	1.6	1.6
	2	11	17.5	17.5	19.0
	3	12	19.0	19.0	38.1
	4	20	31.7	31.7	69.8
	5	12	19.0	19.0	88.9
	6	3	4.8	4.8	93.7
	7	1	1.6	1.6	95.2
	9	2	3.2	3.2	98.4
	11	1	1.6	1.6	100.0
	Total	63	100.0	100.0	

Alamat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Biringkanaya	1	1.6	1.6	1.6
	Bontoala	2	3.2	3.2	4.8
	Luar Makassar	16	25.4	25.4	30.2
	Makassar	6	9.5	9.5	39.7
	Mamajang	5	7.9	7.9	47.6
	Manggala	1	1.6	1.6	49.2
	Mariso	5	7.9	7.9	57.1

Panakukang	1	1.6	1.6	58.7
Rappocini	8	12.7	12.7	71.4
Sinjai Barat	1	1.6	1.6	73.0
Tallo	2	3.2	3.2	76.2
Tamalanrea	3	4.8	4.8	81.0
Tamalate	12	19.0	19.0	100.0
Total	63	100.0	100.0	

Hubungan Neutrofil, Limfosit, dan Monosit dengan Derajat Klinisi

Derajat_Klinis		Neutrofil	Limfosit	Monosit	Neutrofil_Limfosit	Neutrofil_Monosit
Derajat Klinis I	Mean	3.1207	1.3470	.4880	3.4873	9.4952
	N	44	44	44	44	44
	Std. Deviation	2.19904	1.26889	.41968	2.78908	11.20316
	Median	2.5150	.9500	.4050	3.0450	5.7100
	Minimum	.49	.35	.03	.09	1.33
	Maximum	8.91	6.24	2.24	12.85	65.66
Derajat Klinis II	Mean	2.9240	1.2400	.4390	4.3190	9.3020
	N	10	10	10	10	10
	Std. Deviation	2.00077	1.37891	.24897	4.60987	8.88433
	Median	2.2750	.7150	.4450	3.7450	8.0000
	Minimum	.93	.24	.04	.64	2.36
	Maximum	7.00	4.11	.82	16.70	33.00
Derajat Klinis III	Mean	3.4957	1.6629	.4829	2.3400	8.7600
	N	7	7	7	7	7
	Std. Deviation	1.63620	.84221	.33099	1.63729	5.60570
	Median	3.9500	1.4400	.4200	1.5500	5.1900
	Minimum	.42	.53	.11	.79	3.81
	Maximum	5.31	2.77	1.06	5.31	18.60
Total	Mean	3.1315	1.3657	.4793	3.4920	9.3792
	N	61	61	61	61	61
	Std. Deviation	2.08724	1.23419	.38315	3.04950	10.24632
	Median	2.5900	.9500	.4200	2.9400	5.8000
	Minimum	.42	.24	.03	.09	1.33
	Maximum	8.91	6.24	2.24	16.70	65.66

Persetujuan Etik



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.



Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK Telp. 081241850858, 0411 5780103, Fax : 0411-581431

REKOMENDASI PERSETUJUAN ETIK

Nomor : 400/UN4.6.4.5.31/ PP36/ 2024

Tanggal: 30 Mei 2024

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH24050380	No Sponsor	
Peneliti Utama	Nathalia Syarena Putri	Sponsor	
Judul Peneliti	Hubungan Profil Leukosit : Fokus pada Neutrofil, Limfosit, dan Monosit dengan Derajat Klinis DBD pada Pasien Dewasa di Rumah Sakit Umum Daerah (RSUD) Labuang Baji Tahun 2023		
No Versi Protokol	1	Tanggal Versi	30 Mei 2024
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Rumah Sakit Umum Daerah (RSUD) Labuang Baji Makassar		
Jenis Review	<input checked="" type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku 30 Mei 2024 sampai 30 Mei 2025	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Prof. dr. Muh Nasrum Massi, PhD, SpMK, Subsp Bakt(K)	 	
Sekretaris KEP Universitas Hasanuddin	dr. Firdaus Hamid, PhD, SpMK(K)	 	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari protokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

DATA DIRI PENELITI

Nama : Nathalia Syarena Putri
NIM : C011211057
Tempat, Tanggal lahir : Makassar, 27 Desember 2003
Jenis Kelamin : Perempuan
Agama : Kristen Protestan
Alamat : Komp. Griya Sudiang Permai A5/4
Telepon : 0821969987057
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Riwayat Pendidikan

Jenjang Pendidikan	Asal Institusi	Tahun
SD	SD Inpres PAI II	2009-2015
SMP	SMPN 12 Makassar	2015-2018
SMA	SMAN 17 Makassar	2018-2021
Universitas	Fakultas Kedokteran Universitas Hasanuddin	2021-sekarang