

DAFTAR PUSTAKA

- Abbas, A. K., Lichtman, A. H., & Pillai, S. (2022). *Cellular and Molecular Immunology* (10th ed.). Elsevier. https://books.google.co.id/books/about/Cellular_and_Molecular_Immunology.html?id=AWXzzQEACAAJ&redir_esc=y
- Abdulai, K., Alhassan, A. R., Aleboko, S. O., Ahmed, M. D., Mohammed, A. S., Adom, O. A. F., & Kumah, R. (2024). Dietary Diversity and Nutritional Status of Adults Living with HIV During the COVID-19 Era. *Plos One*, 19(7), e0307427. <https://doi.org/10.1371/journal.pone.0307427>
- Altfeld, M., & Scully, E. P. (2023). *Sex Differences in HIV Infection* (Vol. 441). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-031-35139-6_3
- Alwi, I., Setiati, S., Syam, A. F., Simadibrata, M. K., & Nasution, S. A. (2024). *Buku Ajar Ilmu Penyakit Dalam. Jilid 1* (VII). Interna Publishing (PIP Interna). https://library.fk.ui.ac.id/index.php?id=34908&keywords=%2A&p=show_detail&page=1&title=buku-ajar-ilmu-penyakit-dalam-edisi-vii-jilid-1&utm_
- Amsalu, S., Wilfong, T., Amsalu, S., Oumer, A., & Gebremichael, B. (2025). Body Mass Index Changes and Predictors Among Adults Living with HIV/AIDS Who are on Anti-Retroviral Therapy at Chiro General Hospital, Eastern Ethiopia: A Facility-Based Retrospective Cohort Study. *BMC Nutrition*, 11, 1–10. <https://doi.org/10.1186/s40795-025-01011-7>
- Ananta, N. F., & Suyanto, S. (2026). Faktor Yang Mempengaruhi Jumlah Limfosit Cd4 Sebelum Terapi Pada Pasien HIV di Klinik Vet Mekar Sari PMI Provinsi Riau. *Ibnu Sina: Jurnal Kedokteran Dan Kesehatan - Fakultas Kedokteran Universitas Islam Sumatera Utara*, 25(1), 201–209. <https://doi.org/10.30743/ibnusina.v25i1.806>
- Anggriani, Y., Rianti, A., Pontoan, J., & Juwita, Y. (2019). Analisis Efektivitas Terapi Antiretroviral Pada Pasien Hiv/Aids Rawat Jalandi Rsup Fatmawati Jakarta Tahun 2016. *Jurnal Ilmiah Ibnu Sina*, 4, 9–18. <https://doi.org/10.36387/jiis.v4i1.212>
- Arlinda, D., Yuniastuti, E., Indrati, A. R., Merati, T. P., Papot, E., Cromer, D., Diana, A., Naysilla, A. M., Dewantara, R. D., Susanto, N. H., Lukman, N., Pranata, I., Kosasih, H., Lokida, D., Karyana, M., Sarry Hartono, T., Gede Rai Kosa, I., Theresia, D., Savitri, D., Batu Ampar, K. (2026). Annual Trends And Risk Factors Of Late Presentation Of HIV At 19 Referral Hospitals In Indonesia: Findings From The INA-PROACTIVE Cohort. *The Lancet Regional Health – Southeast Asia*, 46(29), 100742. <https://doi.org/10.1016/j.lansea.2026.100742>

- Aurelina, R. (2020). Faktor-Faktor Yang Berhubungan Terhadap Kadar Cluster Of Differentiation 4 (CD4) Pada Pasien HIV/AIDS. *Jurnal Medika Utama*, 2(1), 308–313. <http://jurnalmedikahutama.com>
- Bantie, B., Gebeyehu, N. A., Adella, G. A., Kassie, G. A., Mengstie, M. A., Abebe, E. C., Seid, M. A., Gesese, M. M., Tegegne, K. D., Anley, D. T., Zemene, M. A., Dessie, A. M., Feleke, S. F., Dejenie, T. A., Kebede, Y. S., Chanie, E. S., Kerebeh, G., Bayih, W. A., & Moges, N. (2024). Trends of Body Mass Index Changes Among Adults on Antiretroviral Therapy in Northwest Ethiopia: A Longitudinal Data Analysis. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-53701-0>
- Blaauw, R. (2025). Nutritional Therapy in Human Immunodeficiency Virus (HIV) Infection. *Clinical Nutrition ESPEN*, 70, 314–319. <https://doi.org/10.1016/j.clnesp.2025.10.012>
- Bourgeois, C., Gorwood, J., Olivo, A., Pelletier, L. Le, Capeau, J., Lambotte, O., Bereziat, V., & Lagathu, C. (2021). Contribution of Adipose Tissue to the Chronic Immune Activation and Inflammation Associated With HIV Infection and Its Treatment. *Frontiers in Immunology*, 12. <https://doi.org/10.3389/fimmu.2021.670566>
- Chauvin, M., & Sauce, D. (2022). Mechanisms of Immune Aging in HIV. *Clinical Science*, 136(1), 61–80. <https://doi.org/10.1042/CS20210344>
- Cribbs, S. K., Crothers, K., & Morris, A. (2020). Pathogenesis of HIV-Related Lung Disease: Immunity, Infection, and Inflammation. *Physiological Reviews*, 100, 603–632. <https://doi.org/10.1152/physrev.00039.2018>
- Fiseha, T., Ebrahim, H., Ebrahim, E., & Gebreweld, A. (2022). CD4+ Cell Count Recovery After Initiation of Antiretroviral Therapy in HIV-Infected Ethiopian Adults. *Plos One*, 17(3). <https://doi.org/10.1371/journal.pone.0265740>
- Fitri, S. U. R., Ibrahim, K., Liani, S. S., Rahayuwati, L., & Herliani, Y. K. (2021). Nutritional Status and Health Characteristics of People Living with HIV/AIDS. *Journal of Medical Sciences*, 22(9), 153–158. <https://doi.org/10.3889/oamjms.2021.7607>
- Fitrianingsih, F., Ersah, C. B., Indriyani, D., & Wirdayanti, W. (2022). Gambaran Karakteristik Pasien HIV di Poli Rawat Jalan RSUD Raden Mattaher Jambi. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, 6(6), 2580–2259. <https://doi.org/10.22437/jiituj.v6i2.6131>
- Fuseini, H., Smith, R., Nochowicz, C. H., Simmons, J. D., Hannah, L. T., Wanjalla, C. N., Gabriel, C. L., Mashayekhi, M., Bailin, S. S., Castilho, J. L., Hasty, A. H., Koethe, J. R., & Kalams, S. A. (2022). Leptin Promotes Greater Ki67 Expression in CD4+ T Cells From Obese Compared to Lean

Persons Living With HIV. *Frontiers in Immunology*, 12. <https://doi.org/10.3389/fimmu.2021.796898>

Han, W. M., Jiamsakul, A., Jantarapakde, J., Yunihastuti, E., Choi, J. Y., Ditangco, R., Chaiwarith, R., Sun, L. P., Khusuwan, S., Merati, T. P., Do, C. D., Azwa, I., Lee, M. P., Nguyen, K. Van, Chan, Y. J., Kiertiburanakul, S., Ng, O. T., Tanuma, J., Pujari, S., ... Kumarasamy, N. (2021). Association of Body Mass Index with Immune Recovery, Virological Failure and Cardiovascular Disease Risk Among People Living with HIV. *HIV Medicine*, 22(4), 294–306. <https://doi.org/10.1111/hiv.13017>

Hingrat, Q. Le, Sereti, I., Landay, A. L., Pandrea, I., & Apetrei, C. (2021). The Hitchhiker Guide to CD4+ T-Cell Depletion in Lentiviral Infection. A Critical Review of the Dynamics of the CD4+ T Cells in SIV and HIV Infection. *Frontiers in Immunology*, 12. <https://doi.org/10.3389/fimmu.2021.695674>

Kemendes. (2024). *Laporan Kinerja Direktorat Jenderal Pencegahan dan Pengendalian Penyakit*.

Kementerian Kesehatan Republik Indonesia. (2019). *Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MENKES/90/2019 tentang Pedoman Nasional Pelayanan Kedokteran Tata Laksana HIV*. https://www.kemkes.go.id/app_asset/file_content_download/17001194686555c3ac68f806.85230770.pdf

Kementerian Kesehatan Republik Indonesia. (2022). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 23 Tahun 2022 tentang Penanggulangan Human Immunodeficiency Virus, Acquired Immunodeficiency Syndrome, dan Infeksi Menular Seksual*. Kementerian Kesehatan Republik Indonesia. https://repository.kemkes.go.id/book/1011?utm_

Kurniawati, V. V., Harioputro, D. R., & Susanto, A. J. (2022). Evaluasi Kadar Sel Cd4, Viral Load, Dan Neutrophil Lymphocyte Ratio (NLR) Terhadap Infeksi Oportunistik Pada Pasien HIV/AIDS. *Biomedika*, 14(2), 99–107. <https://doi.org/10.23917/biomedika.v14i2.17299>

Liang, Z., Dong, X., Zhang, Z., Zhang, Q., & Zhao, Y. (2022). Age-Related Thymic Involution: Mechanisms and Functional Impact. *Aging Cell*, 21(9). <https://doi.org/10.1111/accel.13671>

Makasa, M., & Michelo, C. (2021). Sexually Transmitted Infections and HIV Transmission: What Do We Know? *Journal of Preventive and Rehabilitative Medicine*, 3(1), 8–13. <https://doi.org/10.21617/jprm2021.314>

Mou, T., Gao, K. C., Chen, X., Qian, Q., Lin, J., Zhang, R., Yang, J., Qu, P., Zhou, G., & Kuang, Y. Q. (2025). Clinical Events Associated with Poor

CD4+ T-cell Recovery in People Living with HIV Following ART: A Systematic Review and Meta-Analysis. *Journal of Infection*, 90(2). <https://doi.org/10.1016/j.jinf.2025.106414>

Muller, L., & Pawelec, G. (2015). As We Age: Does Slippage of Quality Control in the Immune System Lead to Collateral Damage? *Ageing Research Reviews*, 23, 116–123. <https://doi.org/10.1016/j.arr.2015.01.005>

Muthmainnah, M. (2024). Association Between Perceptions Of Antiretroviral Drug Use And Medication Adherence In Patients With Human Immunodeficiency Virus. *Acta Biomedica*, 95(3). <https://doi.org/10.23750/abm.v95i3.15619>

Nainggolan, O., Sasmitae, L., & Widayati, R. (2023). The Effect of Antiretroviral Therapy (ART) Duration on CD4 Counts in Human Immunodeficiency Virus (HIV) Patients in dr. Doris Sylvanus Regional Hospital. *Jurnal Kedokteran Brawijaya*, 32(4), 228–232. <https://doi.org/10.21776/ub.jkb.2023.032.04.5>

Nursanti, B., Listianawati, L., & Desminingrum, T. (2023). Gambaran Penggunaan Antiretroviral Pada Pasien HIV/AIDS di Poliklinik Edelweiss Rsud Ciawi Kabupaten Bogor. *Pharmamedica Journal*, 8(2), 155–163. <https://doi.org/10.47219/ath.v8i2.253>

Nuryadi, N., Astuti, T. D., Utami, E. S., & Budiantara, M. (2017). *Dasar Dasar Statistik Penelitian*. Sibuku Media. www.sibuku.com

Obeagu, E. I. (2025). Influence of Cytokines on the Recovery Trajectory of HIV Patients on Antiretroviral Therapy: A Review. *Medicine*, 104(1), e41222. <https://doi.org/10.1097/MD.00000000000041222>

Proikaki, S., Sergeantanis, N. G. T. N., Kornarou, E., & Vassilakou, T. (2025). Nutritional Status of Adult People Living with HIV: A Narrative Review. *Diseases*, 13(2). <https://doi.org/10.3390/diseases13020056>

Rahmawati, S., Yusni, Y., Sary, N. L., Saminan, S., & Husnah, H. (2023). Hubungan Asupan Energi dan Makronutrien dengan IMT Pegawai di Kecamatan Johan Pahlawan Kabupaten Aceh Barat. *AVERROUS: Jurnal Kedokteran Dan Kesehatan Malikussaleh*, 9(1), 36–46. <https://doi.org/10.29103/averrous.v9i1.9848>

Rio, P., Caldarelli, M., Miccoli, E., Guazzarotti, G., Gasbarrini, A., Gambassi, G., & Cianci, R. (2025). Sex Differences in Immune Responses to Infectious Diseases: The Role of Genetics, Hormones, and Aging. *Diseases*, 13(6). <https://doi.org/10.3390/diseases13060179>

Rodriguez, R. C., Yanes, S. P., Sanchez, I. L., Gonzalez, R. T., Herrera, J. E., Luis, J. G., & Fernandez, A. V. (2023). HIV Infection: Shaping the Complex, Dynamic, and Interconnected Network of the Cytoskeleton.

International Journal of Molecular Sciences, 24(17).
<https://doi.org/10.3390/ijms241713104>

- Shoji, K., Shirano, M., Konishi, M., Toyoshima, Y., Matsumoto, M., Goto, T., Kasamatsu, Y., Ichida, Y., Kagawa, Y., Kawabata, T., Ogata, H., & Habu, D. (2022). The Body Fat Percentage Rather Than the BMI Is Associated with the CD4 Count Among HIV Positive Japanese Individuals. *Nutrients*, 14(3). <https://doi.org/10.3390/nu14030428>
- Srinatania, D., Sukarya, D., & Lindayani, L. (2020). Gambaran Kepatuhan Minum Obat Arv Pada Anak Dengan Hiv/Aids. *Jurnal Keperawatan Komprehensif*, 6, 1–69. <https://doi.org/10.33755/jkk.v6i1.176>
- Stannah, J., Flores Anato, J. L., Pickles, M., Larmarange, J., Mitchell, K. M., Artenie, A., Dumchev, K., Niangoran, S., Platt, L., Terris-Prestholt, F., Singh, A., Stone, J., Vickerman, P., Phillips, A., Johnson, L., Maheu-Giroux, M., & Boily, M. C. (2024). From Conceptualising To Modelling Structural Determinants and Interventions in HIV Transmission Dynamics Models: A Scoping Review and Methodological Framework for Evidence-Based Analyses. *BMC Medicine*, 22(1), 1–21. <https://doi.org/10.1186/s12916-024-03580-z>
- Sued, O., & Grosso, T. M. (2024). Pathophysiology of HIV and Strategies to Eliminate AIDS as a Public Health Threat. In *Viral Infections and Antiviral Therapies* (1st ed., pp. 381–403). Elsevier. <https://doi.org/10.1016/B978-0-323-91814-5.00023-4>
- Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*.
- Taramasso, L., Labate, L., Briano, F., Brucci, G., Mora, S., Bianchi, S., Giacomini, M., Bassetti, M., & Di Biagio, A. (2022). CD4+ T Lymphocyte Recovery in the Modern Antiretroviral Therapy Era: Toward a New Threshold for Defining Immunological Non-Responders. *Frontiers in Virology*, 2. <https://doi.org/10.3389/fviro.2022.822153>
- Teer, E., Mukonowenzou, N. C., & Essop, M. F. (2025). HIV, Inflammation, and Immunometabolism: A Model of the Inflammatory Theory of Disease. *Viruses*, 17(6), 839. <https://doi.org/10.3390/v17060839>
- Tolomeo, M., & Cascio, A. (2024). The Complex Dysregulations of CD4 T Cell Subtypes in HIV Infection. *International Journal of Molecular Sciences*, 25(14), 7512. <https://doi.org/10.3390/ijms25147512>
- Trisna, C., Aminah, A., & Wahyudi, M. R. (2022). Kadar CD4 Sebelum dan Sesudah Pemberian Obat Antiretroviral (ARV) Pada Pasien Positif HIV di RSUD Kota Tangerang Selatan. *Journal of Medical Laboratory Research*, 1(1), 1–6. <https://doi.org/10.36743/jomlr.v1i1.434>

- Viyani, R. S. A., & Kurniasari, K. (2025). Hubungan Status Imunologis dengan Stadium Klinis pada Pasien Human Immunodeficiency Virus (HIV). *Medical Scope Journal*, 7(1), 133–140. <https://doi.org/10.35790/msj.v7i1.55502>
- Widiyanti, M., Hadi, M. I., Kumalasari, M. L. F., Natalia, E. I., Purba, D., & Adiningsih, S. (2020). Body Mass Index Increases CD4+ Count in HIV/AIDS Patients on First-Line Therapy. *Universa Medicina*, 39(2), 121–127. <https://doi.org/10.18051/univmed.2020.v39.121-127>
- Widjaja, M. C. G. (2022). Rejimen KDT-ARV Terbaru dengan Dolutegravir. *Continuing Professional Development*, 49(6), 314–319. <https://doi.org/10.55175/cdk.v49i6.239>
- World Health Organization. (2020). *Gender dan Kesehatan*. https://www.who.int/health-topics/gender#tab=tab_1
- World Health Organization. (2021). *Consolidated Guidelines on HIV Prevention, Testing, Treatment, Service Delivery and Monitoring: Recommendations for A Public Health Approach*. World Health Organization.
- World Health Organization. (2024). *HIV Statistics, Globally*.
- Zhu, J., Huang, H., Wang, M., Zhang, Y., Mo, J., Tian, W., Tan, S., Jiang, L., Meng, Z., Qin, S., & Ning, C. (2022). High Baseline Body Mass Index Predicts Recovery of CD4+ T Lymphocytes for HIV/AIDS Patients Receiving Long-Term Antiviral Therapy. *Plos One*, 17(12). <https://doi.org/10.1371/journal.pone.0279731>