



DAFTAR PUSTAKA

- ACS. 2020. Ovarian Cancer Early Detection, Diagnosis, and Staging. *Am. Cancer Soc.* 1–40 dalam <https://www.cancer.org/cancer/types/ovarian-cancer/detection-diagnosis-staging.html>
- Almasaudi, A., Dolan, R., Edwards, C., & McMillan, D. 2020. Hypoalbuminemia reflects nutritional risk, body composition and systemic inflammation and is independently associated with survival in patients with colorectal cancer. *Cancers (Basel)*. 12(7): 1-14.
- Almasaudi, A.S., Dolan, R.D., Edwards, C.A., McMillan, D.C., 2020. Hypoalbuminemia reflects nutritional risk, body composition and systemic inflammation and is independently associated with survival in patients with colorectal cancer. *Cancers (Basel)*. 12, 1–14.
- Asher, V., J, L., Bali, A., 2012. Preoperative serum albumin is an independent prognostic predictor of survival in ovarian cancer. *Med Oncol* 29, 2005–2009.
- Ataseven, B., Du Bois, A., Reinthaller, A., Traut, A., Heitz, F., Aust, S., Prader, S., Polterauer, S., Harter, P., Grimm, C., 2015. Pre-operative serum albumin is associated with post-operative complication rate and overall survival in patients with epithelial ovarian cancer undergoing cytoreductive surgery. *Gynecol. Oncol.* 138, 560–565.
- Aydin, M., Barut, S., Handan Akbulut, H., Ucar, S., Orman, A., 2017. Application of flow cytometry in the early diagnosis of neonatal sepsis. *Ann. Clin. Lab. Sci.* 47, 184–190.
- Ayhan, A., Günakan, E., Alyazıcı, İ., Haberal, N., Altundağ, Ö., Dursun, P., 2017. The preoperative albumin level is an independent prognostic factor for optimally debulked epithelial ovarian cancer. *Arch. Gynecol. Obstet.* 296, 989–995.
- Banna, G.L., Quattro, R. Di, Fornarini, L.M.G., Maruzzo, A.A.M., Rundo, V.U.F., 2020. Neutrophil - to - lymphocyte ratio and lactate dehydrogenase as biomarkers for urothelial cancer treated with immunotherapy. *Clin. Transl. Oncol.* 22, 2130–2135.
- Bizon, M., Olszewski, M., Krason, B., Kochanowicz, E., Safiejko, K., Borowka, A., Sekita-krzak, J., Pruc, M., Drozd, A., Feduniw, S., Cander, B., Szarpak, L., 2025. The Diagnostic Role of the Platelet-to-Lymphocyte Ratio in Ovarian Cancer : A Systematic Review and Meta-Analysis. *Int. J. Mol. Sci.* 26, 1841.
- Browning, L., Patel, M.R., Horvath, E.B., Tawara, K., Jorcyk, C.L., 2018. IL-6 and ovarian cancer: Inflammatory cytokines in promotion of metastasis. *Cancer Manag. Res.* 10, 6685–6693.
- Buonacera, A., Stancanelli, B., Colaci, M., 2022. Neutrophil to Lymphocyte Ratio: An Emerging Marker of the Relationships between the Immune System and Diseases. *Int. J. Mol. Sci.* 23, 1–10.
- Chan, W.Y., Cheung, K.K., Schorge, J.O., Huang, L.W., Welch, W.R., Bell, D.A., Berkowitz, R.S., Mok, S.C., 2000. Bcl-2 and p53 protein expression, apoptosis, and p53 mutation in human epithelial ovarian cancers. *Am. J. Pathol.* 156, 409–417.



- Chen, S., Zhang, L., Yan, G., Cheng, S., Fathy, A.H., Yan, N., Zhao, Y., 2017. Neutrophil-to-Lymphocyte Ratio Is a Potential Prognostic Biomarker in Patients with Ovarian Cancer: A Meta-Analysis. *Biomed Res. Int.* 2017, 1–7.
- Chien, S., Chen, C., Leu, H., Su, C., Yin, W., Tseng, W., Wu, Y., Lin, T., Chang, K., Wang, J., Wu, C., Yeh, H., Chen, J., 2017. Association of low serum albumin concentration and adverse cardiovascular events in stable coronary heart disease. *Int. J. Cardiol.* 241, 1–5.
- Cho, H., Hur, H.W., Kim, S.W., Kim, S.H., Kim, J.H., Kim, Y.T., Lee, K., 2009. Pre-treatment neutrophil to lymphocyte ratio is elevated in epithelial ovarian cancer and predicts survival after treatment. *Cancer Immunol. Immunother.* 58, 15–23.
- Corriere, T., Marca, S. Di, Cataudella, E., Pulvirenti, A., Alaimo, S., Stancanelli, B., 2017. Nutrition , Metabolism & Cardiovascular Diseases Neutrophil-to-Lymphocyte Ratio is a strong predictor of atherosclerotic carotid plaques in older adults. *Nutr. Metab. Cardiovasc. Dis.* 1–5.
- Ding, Y., Dulau-Florea, A.E., Groarke, E.M., Patel, B.A., Beck, D.B., Grayson, P.C., Ferrada, M.A., Young, N.S., Calvo, K.R., Braylan, R.C., 2023. Use of flow cytometric light scattering to recognize the characteristic vacuolated marrow cells in VEXAS syndrome. *Blood Adv.* 7, 6152–6155.
- Farolfi, A., Scarpi, E., Greco, F., Bergamini, A., Longo, L., Pignata, S., Casanova, C., Cormio, G., Bologna, A., Orditura, M., Zavallone, L., Attademo, L., Gallà, V., Franzese, E., Pigozzi, E., Loizzi, V., Giorda, G., Giardina, D., Cioffi, R., De Giorgi, U., 2020. Inflammatory indexes as predictive factors for platinum sensitivity and as prognostic factors in recurrent epithelial ovarian cancer patients: a MITO24 retrospective study. *Sci. Rep.* 10, 1–8.
- Fois, A.G., Paliogiannis, P., Scano, V., Cau, S., Babudieri, S., Perra, R., Ruzzittu, G., Zinellu, E., Pirina, P., Carru, C., Arru, L.B., Fancellu, A., Mondoni, M., Mangoni, A.A., Zinellu, A., 2020. The Systemic Inflammation Index on Admission Predicts In-Hospital Mortality in COVID-19 Patients 1–13.
- Forget, P., Khalifa, C., Defour, J.P., Latinne, D., Van Pel, M.C., De Kock, M., 2017. What is the normal value of the neutrophil-to-lymphocyte ratio? *BMC Res. Notes* 10, 1–4.
- Gangadharan, A., Choi, S.E., Hassan, A., Ayoub, N.M., Balwani, S., Kim, Y.H., Pecora, A., Goy, A., Suh, S., 2017. Protein calorie malnutrition, nutritional intervention and personalized cancer care. *Oncotarget* 8, 24009–24030.
- Gariballa, S., D, M., Forster, S., Sc, M., 2006. Effects of acute-phase response on nutritional status and clinical outcome of hospitalized patients. *Nutr. J.* 22, 750–757.
- Ge, L.N., Wang, F., 2018. Prognostic significance of preoperative serum albumin in epithelial ovarian cancer patients: A systematic review and dose-response meta-analysis of observational studies. *Cancer Manag. Res.* 10, 815–825.
- Gomez, R., Tejada, M.Á., Burgu, O., Santos-llamas, A.I., Mart, A., Mar, A., Tar, J.J., Cano, A., 2022. Histological Grade and Tumor Stage Are Correlated with Expression of Receptor Activator of Nuclear Factor Kappa b (Rank) in Epithelial Ovarian Cancers. *Int. J. Mol. Sci.* 23, 1–15.
- Gregory, A.D., Houghton, A.M.G., 2011. Tumor-associated neutrophils: New targets

- for cancer therapy. *Cancer Res.* 71, 2411–2416.
- Gulhar, R., Ashraf, M.A., Jialal, I., 2023. Physiology, Acute Phase Reactants. *StatPearls Publ. Treasure Isl.*
- Hoffer, L.J., 2001. Clinical nutrition: 1. Protein–energy malnutrition in the inpatient. *Can. Med. Assoc. J.* 165, 1345–1349.
- Hosseini, M.S., Amiri, F., Rezapour, M., Ganjoei, T.A., Farzaneh, F., Arab, M., Talayeh, M., Rooy, R.B., Hadi, F., 2024. Evaluation of the Cutoff Point and Diagnostic Value of the Neutrophil-to-Lymphocyte Ratio in Predicting Ovarian Cancer Compared to Pathological Findings. *Asian Pacific J. Cancer Prev.* 25, 971–976.
- Huang, Q.T., Zhou, L., Zeng, W.J., Ma, Q.Q., Wang, W., Zhong, M., Yu, Y.H., 2017. Prognostic significance of neutrophil-to-lymphocyte ratio in ovarian cancer: A systematic review and meta-analysis of observational studies. *Cell. Physiol. Biochem.* 41, 2411–2418.
- Huang, Z., Fu, Z., Huang, W., Huang, K., 2020. American Journal of Emergency Medicine Prognostic value of neutrophil-to-lymphocyte ratio in sepsis : A meta-analysis. *Am. J. Emerg. Med.* 38, 641–647.
- Jayson, G.C., Kohn, E.C., Kitchener, H.C., Ledermann, J.A., Manchester, G.J., 2014. Ovarian cancer. *Lancet* 384, 1376–1388.
- Karaaslan, E., Demir, O., 2015. Simple Markers for Subclinical Inflammation in Patients with Familial Mediterranean Fever. *Med Sci Monit* 21, 298–303.
- Kellie A. Mouchemore, Anderson, R.L., Hamilton, J.A., 2018. Neutrophils G-CSF and their contribution to breast cancer metastasis. *FEBS J.* 285, 665–679.
- Kokcu, A., Kurtoglu, E., Celik, H., Tosun, M., Malatyalioglu, E., 2014. May the Platelet to Lymphocyte Ratio be a Prognostic Factor for Epithelial Ovarian Cancer ? *Asian Pacific J. Cancer Prev.* 15, 9781–9784.
- Kunutsor, S.K., Khan, H., Laukkanen, J.A., 2015. Serum albumin concentration and incident type 2 diabetes risk: new findings from a population-based cohort study. *Diabetologia* 58, 961–967.
- Kuzma, T., Glaze, S., Duan, Q., Duttchen, K., 2023. Preoperative Hypoalbuminemia Is Associated with Increased Mortality in Patients Undergoing Surgery for Gynaecologic Malignancy – A Retrospective Cohort Study. *Gynaecol. Oncol.* 45, 395–401.
- LaRosa, D.F., Orange, J.S., 2008. Lymphocytes. *J. Allergy Clin. Immunol.* 121, 364–369.
- Li, Yang, Wang, W., Yang, F., Xu, Y., Feng, C., Zhao, Y., Tan, N., Tan, N., 2019. The regulatory roles of neutrophils in adaptive immunity. *Cell Commun. Signal.* 17, 1–11.
- Li, Yuan, Yang, J.N., Cheng, S.S., Wang, Y., 2019. Prognostic significance of FA score based on plasma fibrinogen and serum albumin in patients with epithelial ovarian cancer. *Cancer Manag. Res.* 11, 7697–7705.
- Lou, C., Jin, F., Zhao, Q., Qi, H., 2022. Correlation of serum NLR, PLR and HALP with efficacy of neoadjuvant chemotherapy and prognosis of triple-negative breast cancer. *Am. J. Transl. Res.* 14, 3240–3246.
- Louis, N.A., Parkos, C.A., 2015. The Neutrophil. *Mucosal Immunol.* 4, 915–928.



- Macciò, A., Madeddu, C., 2012. Cytokine Inflammation and ovarian cancer. *Cytokine* 58, 133–147.
- Mao, H., Yang, F., 2023. Prognostic significance of systemic immune-inflammation index in patients with ovarian cancer: a meta-analysis. *Front. Oncol.* 13, 1–9.
- Matulonis, U.A., Sood, A.K., Fallowfield, L., Howitt, B.E., Sehouli, J., 2020. Ovarian Cancer. *Nat Rev Dis Prim.* 2, 1–17.
- Mei, S., Chen, X., Wang, K., Chen, Y., 2023. Tumor microenvironment in ovarian cancer peritoneal metastasis. *Cancer Cell Int.* 23, 1–13.
- Moman, R., Gupta, N., Varacallo, M., 2022. Physiology, Albumin. *StatPearls Publ. Treasure Isl.*
- Moman, R.N., Gupta, N., Varacallo, M., 2022. Physiology, Albumin. *Treasure Isl. StatPearls Publ.*
- Mortaz, E., Alipoor, S.D., Adcock, I.M., Mumby, S., 2018. Update on Neutrophil Function in Severe Inflammation. *Front. Immunol.* 9, 1–14.
- Moses, K., Brandau, S., 2016. Human neutrophils: Their role in cancer and relation to myeloid-derived suppressor cells. *Semin. Immunol.* 28, 187–196.
- Nishida, A., 2025. The Role of Inflammation in Cancer: Mechanisms of Tumor Initiation, Progression, and Metastasis. *Cells* 14, 1–29.
- Nøst, T.H., Alcalá, K., Urbarova, I., Byrne, K.S., Guida, F., Sandanger, T.M., Johansson, M., 2021. Systemic inflammation markers and cancer incidence in the UK Biobank. *Eur. J. Epidemiol.* 36, 841–848.
- Nugroho, A., Suwarman, Nawawi, A.M., 2013. Hubungan antara Rasio Neutrofil-Limfosit dan Skor Sequential Organ Failure Assesment pada Pasien yang Dirawat di Ruang Intensive Care Unit. *J. Anestesi Perioper.* 1, 189–196.
- Parkin, J., Cohen, B., 2001. An overview of the immune system. *Immunology* 357, 1777–1789.
- Perry, B., Wang, Y., 2012. Appetite regulation and weight control : the role of gut hormones. *Nutr. Diabetes* 2, 1–7.
- Pourhassan, M., Sieske, L., Janssen, G., Babel, N., Westhoff, T.H., Wirth, R., 2020. The impact of acute changes of inflammation on appetite and food intake among older hospitalised patients. *Br. J. Nutr.* 124, 1069–1075.
- Prakoeswa, F.R., 2020. Peranan Sel Limfosit Dalam Imunologi: Artikel Review. *J. Sains dan Kesehatan.* 2, 525–537.
- Quinlan, G.J., Martin, G.S., Evans, T.W., 2005. Albumin: Biochemical properties and therapeutic potential. *Hepatology* 41, 1211–1219.
- Rosales, C., 2018. Neutrophil: A cell with many roles in inflammation or several cell types? *Front. Physiol.* 9, 1–17.
- Sanchez-Prieto, M., Sanchez-Borrego, R., Lubian-Lopez, D.M., Perez-Lopez, F.R., 2022. Etiopathogenesis of ovarian cancer . An inflamm-aging entity ? *Gynecol. Oncol. Reports* 42, 1–5.
- Savant, S.S., Sriramkumar, S., O’hagan, H.M., 2018. The role of inflammation and inflammatory mediators in the development, progression, metastasis, and chemoresistance of epithelial ovarian cancer. *Cancers (Basel).* 10, 1–30.
- Shen, J., Zhu, Yuan, Wu, W., Zhang, L., Ju, H., Fan, Y., Zhu, Yuping, Luo, J., Liu, P., Zhou, N., Lu, K., Zhang, N., Li, D., Liu, L., 2017. Prognostic role of



- neutrophil-to-lymphocyte ratio in locally advanced rectal cancer treated with neoadjuvant chemoradiotherapy. *Med. Sci. Monit.* 23, 315–324.
- Soeters, P.B., Wolfe, R.R., Shenkin, A., 2019. Hypoalbuminemia: Pathogenesis and Clinical Significance. *J. Parenter. Enter. Nutr.* 43, 181–193.
- Song, L., Wu, Q., Bai, S., Zhao, J., Qi, J., Zhang, J., 2024. Comparison of the diagnostic efficacy of systemic inflammatory indicators in the early diagnosis of ovarian cancer. *Front. Oncol.* 14, 1–11.
- Song, M., Graubard, B.I., Rabkin, C.S., Engels, E.A., 2021. Neutrophil-to-lymphocyte ratio and mortality in the United States general population. *Sci. Rep.* 11, 1–9.
- Sopiyudin, D., 2009. *Seri Evidence Based Medicine Ed.2.* Salemba Medika, Jakarta.
- Sugiyono, 2012. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D,* Cetakan ke. ed. Alfabeta, Bandung.
- Turell, L., Botti, H., Bonilla, L., Torres, M.J., Schopfer, F., Freeman, B.A., Armas, L., Ricciardi, A., Alvarez, B., Radi, R., 2014. HPLC separation of human serum albumin isoforms based on their isoelectric points. *J Chromatogr B Anal. Technol Biomed Life Sci* 1, 144–151.
- Verdoia, M., Schaffer, A., Barbieri, L., Aimaretti, G., Marino, P., Sinigaglia, F., 2015. Impact of diabetes on neutrophil-to-lymphocyte ratio and its relationship to coronary artery disease. *Diabetes Metab.* 41, 304–311.
- Wang, Y.Q., Jin, C., Zheng, H.M., Zhou, K., Shi, B.B., Zhang, Q., Zheng, F.Y., Lin, F., 2016. A novel prognostic inflammation score predicts outcomes in patients with ovarian cancer. *Clin. Chim. Acta* 456, 163–169.
- Wiedermann, C.J., 2021. Hypoalbuminemia as surrogate and culprit of infections. *Int. J. Mol. Sci.* 22, 1–25.
- Wiguna, I.G.W.W., Sadeva, I.G.K.A., Remitha, N.P.S.I., Sadvika, N.G.A.S., Supadmanaba, I.G.P., Wihandani, D.M., 2024. Neutrophil-to-Lymphocyte Ratio and Platelet-to-Lymphocyte Ratio as Prognostic Biomarkers in Ovarian Cancer Among the Asian Population: A Systematic Review and Meta-Analysis. *Asian Pacific J. Cancer Prev.* 25, 1921.
- Wilkerson, M.J., 2012. Principles and Applications of Flow Cytometry and Cell Sorting in Companion. *VSP* 42, 53–71.
- Winata, J., Laihada, B.J., Wagey, F.M.M., 2023. Preoperative Platelet-Lymphocyte Ratio as a Prognostic Factor of Epithelial Ovarian Cancer. *Indones J Obs. Gynecol* 11, 36–41.
- Yuan, S., Li, L., Pu, T., Fan, X., Wang, Z., Xie, P., Id, P.L., 2024. The relationship between NLR, LDL-C/HDL-C, NHR and coronary artery disease. *PLoS One* 19, 1–12.
- Zhang, Z., Lang, J., 2024. The Prognostic and Clinical Value of Neutrophil-To-Lymphocyte Ratio (Nlr) in Ovarian Cancer: a Systematic Review and Meta-Analysis. *J. Med. Biochem.* 43, 323–333.