

## DAFTAR PUSTAKA

- Abbas AK, 2015. Innate Immunity. In: Abbas AK, Lichtman AH & Pillai S, Eds. *Cellular and Molecular Immunology, Eight Edition. California: Elevier Saunders* 4: 51-86.
- Acchra AC, Zhou J, Dabis, F, Pujari S, Thiebaut R, Law MG & Bonnet F, 2010. Difference in Absolute CD4<sup>+</sup> Count According to CD4 percentage between Asian and Caucasian HIV-Infected Patients. *Journal of AIDS and Clinical Research* 1(1): 1-4.
- AIDSinfo, 2018. Glossary of HIV/AIDS-Related Terms. *HIV/AIDS Glossary, 9th Edition*. Available in <https://aidsinfo.nih.gov> > glossary.[Accessed on 29 Juli 2018].
- Al-Nimer M & Dezayee Z, 2018. Assessment of Serum Neopterin as an Inflammatory and Cardiovascular Marker in Type 1 and 2 Diabetes Complicated by Diabetic Foot Syndrome: A Comparative Study. *Clinical Diabetology* 7(2): 91-96.
- Alonso A, Barnes E, Guest JL, Shah A, Shao IY & Marconi V, 2019. HIV Infection and Incidence of Cardiovascular Diseases: An Analysis of a Large Healthcare Database. *Journal of the American Heart Association* 8:1-16.
- American Diabetes Association (ADA), 2004. Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care* 27:S5-S10.
- Arfijanto MV, 2015. Sepsis. In: Tjokroprawiro A, Setiawan PB, Effendi C, Santoso D, Soegiarto G, 2015. *Buku Ajar Ilmu Penyakit Dalam Fakultas Kedokteran Universitas Airlangga Rumah Sakit Pendidikan Dr. Soetomo Surabaya, Edisi-2. Surabaya: Airlangga University Press* hal. 701-707.
- Aunilah H, Raras M & Kusuma C, 2013. Potensi Kadar Neopterin sebagai Biomarker untuk Monitoring Kemajuan Terapi TB Paru pada Anak. *Jurnal Kedokteran Brawijaya* 27(4):217-221.
- Aydin MF, Namli S, Akbulut S & Oguz D, 2018. Neopterin as an indicator of inflammation in chronic viral hepatitis, liver cirrhosis, and hepatocellular carcinoma. *The Turkish Journal of Academic Gastroenterology* 17(3):142-147.
- Bartlett JG, 2011. Techniques and Interpretation of Measurement of the CD4 cell count in HIV-infected patients. Available in <https://www.uptodate.cpm/contents/techniques-and-interpretation-of-measurement-of-the-CD4-cell-count-in-hiv-infected-patients>. [Accessed on 29 Juli 2018].
- Berdowska A & Korczala Z, 2001. Neopterin measurement in clinical diagnosis. *Journal of Clinical Pharmacy and Therapeutics* 26(5):319-329.
- Bhardwaj N, Hladik F & Moir S, 2012. The Immune Response to HIV. *Nature's Review Immunology*: 1-2.

- Biadgilign S, Reda AA & Digaffe T, 2012. Predictors of mortality among HIV infected patients taking antiretroviral treatment in Ethiopia: a retrospective cohort study. *AIDS Research and Therapy* 9(15): 1-1-7.
- Bipath P, Viljoen M, & Levay P, 2012. Levels of Procalcitonin, C-reactive protein and Neopterin in patients with advanced HIV-1 infection. *South African Journal Medicine* 13(2): 78-82
- Bipath P, Levay P, Olorunju S & Viljoen M, 2015. A non-spesific of disease activity in HIV/AIDS patients from resource-limited environments. *South African Journal Medicine* 15(2): 334-343.
- Burgener A, McGowan I & Klatt NR, 2015. HIV and mucosal barrier interactions: consequences for transmission and pathogenesis. *Current Opinion in Immunology* 36:22-30.
- Capuron L, Geisler S, Kurz K, Leblhuber F, Unterweger BS & Fuchs D, 2014. Activated Immune System and Inflammationin Healthy Ageing: Relevance for Tryptophan and Neopterin Metabolism. *Current Pharmaceutical Design* 20(38): 6048-6057.
- Carugati M, Franzetti M, Torre A, Giorgi R, Genderini A, Strambio CF, Gervasoni C & Riva A, 2013. Systemic lupus erythematosus and HIV infection: a whimsical relationship. Report of two cases and review of the literature. *Clinical of Rheumatology* 32:1399-1405.
- Centers for Disease Control (CDC), 1993. HIV classification: CDC and WHO staging system. [Online] Available from: <http://aidsect.org/guide/hiv-classification-cdc-and-who-staging-systems>. [Accessed on 29 Juli 2018].
- Centers for Disease Control (CDC) and Prevention, 2013. National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. [Online] Available from: <http://www.cdc.gov> [Accessed on 13 Agustus 2019].
- Centers for Medicare & Medicaid Services (CMS), 2007. CMS 30-Day Hospital Mortality Measures. [Online] Available from <https://www.cms.gov> [Accessed on 15 Juli 2018].
- Cesur S. 2005. Neopterin: a marker used for monitoring infections. *Microbiyoloji Bulteni* 39(2):251-260.
- Dahlan MS, 2016. Besar sampel dalam penelitian kedokteran dan kesehatan. Seri 2, edisi ke-4, Jakarta. Epidemiologi Indonesia: 109 – 147.
- Davis CP, 2019. Hemoglobin (Low and high range causes). [Online] Available from <https://www.medicinenet.com> [Accessed on 23 Juli 2019].
- Deeks SG, Lewin SR & Havlir DV, 2013. The End of AIDS: HIV Infection as a Chronic Disease. *Lancet* 382(9903): 1525-1533.
- Defiaroza, 2018. Analisis kasar hemoglobin (Hb) pasien HIV/AIDS di yayasan Lantera Minangkabau Padang Tahun 2017. *Jurnal Penelitian dan Kajian Ilmiah Universitas Muhammadiyah Sumatera Barat* 12(6):57-63.
- Denz H, Fuchs A, Hausen H, Huber D, Nachbaur D, Reibnegger G, Thaler J, Werner ER & Wachter H, 1990. Value of urinary neopterin in the

- differential diagnosis of bacterial and viral infections. *Klinische Wochenschrift* 68(4):218-222.
- Devaraj S, 2015. Albumin: Reference range, Interpretation, Collection and Panels. [Online] Available from <https://emedicine.medscape.com> [Accessed on 15 Juni 2019].
- Domingo P, Martinez E, Martinez C, Barrio J & Cadafalch J, 1993. Neopterin and Opportunistic Infections in HIV-infected Patients. *The Clinical Investigator* 71(65).
- Dube B, Benton T, Cruess DG & Evans DL, 2005. Neuropsychiatric manifestation of HIV infection and AIDS. *Journal of Psychiatry and Neuroscience* 30:237-246.
- Duggal S, Chugh TD & Duggal AK, 2011. HIV and malnutrition: Effects on immune system. *Journal of Immunology Research* 2012: 1-8.
- Eisenhut M, 2013. Neopterin in Diagnosis and Monitoring of Infectious Diseases. *Hindawi Journal of Biomarker* 1-10.
- Fauci A, 2008. 25 years of HIV. *International Journal of Science,Nature* 453:289-290.
- Flynn J & Gorry P, 2015. Role of macrophage in the immunopathogenesis of HIV-1 infection. In: Shapshak P, Sinnott JT, Somboonwit C & Kuhn JH, Eds. *Global Virology I-Identifying and Investigating Viral Diseases*. United States: Springer:723-744.
- Fradinger EE, Rodriguez G, Bogado C & Zanchetta JR, 1998. Association between Chronic Hepatitis C Virus Infection and Increased Neopterin Concentrations in Blood Donations. *Clinical Chemistry* 44(10)2225-2226.
- Franco Di MJ, Zaknun D, Zaknun J, Vuja E, Oswald HP, Mayersbach P, Hunter D, Tosteson TD, Trichopoulos D & Schmitzberger R, 1994. A prospective study of the association of serum neopterin, beta 2-microglobulin, and hepatitis B surface antigenemia with death in infants and children with HIV-1 disease
- Fuchs D, Hausen A, Reibnegger G, Reissgl H, Spira T & Wachter H, 1984. Urinary Neopterin in the diagnosis of acquired immune deficiency syndrome. *European Journal of Clinical Microbiology* 3:70-71.
- Fuchs D, Weiss G, Reibnegger G & Wachter H, 1992. The Role of Neopterin as a monitor of cellular immune activation in transplantation, inflammatory, infectious, and malignant diseases. *Critical Reviews in Clinical Laboratory Sciences* 29(3-4):307-341.
- Gallant JE, Parish MA, Keruly JC & Moore RD, 2005. Changes in Renal Function Associated with Tenofovir Disoproxil Fumarate Treatment, Compared with Nucleosida Reverse-Transcriptase Inhibitor Treatment. *Clinical Infectious Disease* 40(8): 1194-1198.
- Geng EH, Odony TA, Lyamuya RE, Nakiwogga-Muwanga A, Diero L, Bwana M, Muyindike W, Braitstein P, Somi GR, Kambugu A, Bukusi EA, Wenger M, Wools-Kaloustian K, Glidden DV, Yiannoutsos CT & Martin J, 2015.

- Estimation of Mortality Among HIV infected people on antiretroviral therapy treatment in east Africa: a sampling based approach in an observational, multisite, cohort study. *Lancet HIV* 2(3):e107-e116.
- Harianah, Retnowati E, Astha E, 2016. Neopterin and CD4<sup>+</sup> T-lymphocytes in Stage I HIV Infection. *Indonesian Journal of Clinical Pathology and Medical Laboratory* 22(3): 279-283.
- Haupt W, Hohenberger W, Klein P & Christou NV, 1995. Detection of Neopterin, Interleukin-6 and Acute-Phase Protein as Parameters of Potential Monocyte Activation in Preoperative Patients. *Infectoin* 23(5): 263-266.
- Hernandez AC, Garg S, Rosenberg ES, Thompson AM & Skarbinski J, 2017. Is diabetes prevalence higher among HIV-infected individuals compared with the general population? Evidence from MMP and NHANES 2009-2010. *BMJ Open Diabetes Research and Care* 5:1-10.
- Hosp M, Quigley M, Mwinga AM, Godfrey FP, Porter JDH, McAdam KPWJ & Fuchs D, 2000. Neopterin and Other Indicators of HIV Progression in Zambian Adults. *Pteridines* 11(2): 37-42.
- Huang YS, Chan CK, Tsai MS, Lee KY, Lin SW, Chang SY, Hung CC & Chang SC, 2015. Kidney Dysfunction Associated with Tenofovir Exposure in Human Immunodeficiency Virus-1-Infected Taiwanese Patients. *Journal of Microbiology Immunology Infection* 50(5): 595-603.
- Hunt K, Mondal P, Konrad S, Skinner S, Gartner K & Lim HJ, 2015. Identifying Factors Associated with Changes in CD4<sup>+</sup> Count in HIV-Infected Adults in Saskatoon, Saskatchewan. *Canadian Journal of Infectious Disease Medical Microbiology* 26(4): 207-211.
- International Biological Laboratory (IBL), 2012. Neopterin ELISA: Instruction for use. *IBL International*. [Online] Available from:www.IBL-international.com [Accessed on 15 Juli 2018].
- Idries AM, 1997. *Pedoman Ilmu Kedokteran Forensik. Edisi I*. Jakarta: Binaputra Aksara.
- Iwagaki H, Hizuta A, Tanaka N & Orita K, 1995. Plasma Neopterin/C-Reactive Protein Ratio as an Adjunct to the Assessment of Infection and Cancer Cachexia. *Immunological Investigations* 24(3): 479-487.
- Japiassu AM, Amancio RT, Mesquita E, Medeiros DM, Bernal HB, Nunes EP, Luz PM, Grinsztejn B & Bozza FA, 2010. Sepsis is a major determinat of outcome in critically ill HIV/AIDS patients. *Critical Care* 14(R152):1-8.
- Kaleli I, Demir M, Cevahir N, Yilmaz M & Demir S, 2006. Serum neopterin levels in patients with replicative and nonreplicative HBV carriers. *BMC Infectious Diseases* 6(157):1-6.
- Kementerian Kesehatan Republik Indonesia, 2015. Pedoman Pengobatan Antiretroviral. *Buku Peraturan Menteri Kesehatan Republik Indonesia Nomor 87 Tahun 2014 Tentang Pedoman Pengobatan Antiretroviral*. Jakarta: Bakti Husada. Hal 51-55.

- Kementerian Kesehatan Republik Indonesia, 2017. Situasi Masalah HIV-AIDS, Laporan Perkembangan HIV-AIDS. Direktorat Jenderal Pencegahan dan Pengendalian Penyakit. [Online] Available from: <http://www.siha.depkes.go.id>. [Accessed on 29 Juli 2018].
- Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group, 2013. *KDIGO clinical practice guideline for the evaluation and management of chronic kidney disease. Kidney International Supplements. 3:1-150.*
- King J, Perkal M, Rosenthal R, Gordon A & Justice A, 2015. Thirty day Postoperative Mortality Among Individuals with HIV infection Receiving Antiretroviral Therapy and Procedure-Matched, uninfected comparation. *Journal of American Medical Association:343-341.*
- Kopelman RG & Zolla PS, 1988. Association of human immunodeficiency virus infection and autoimun phenomena. *American Journal of Medicine 84: 82-88.*
- Koss CA, Jarisberg LG, DenBoon A, Cattamanchi A, Davis, L, Huang L & Sanyu I, 2015. A clinical Predictor Score for 30-Day Mortality among HIV-infected Adults Hospitalized with Pneumonia in Uganda. *Journal PLOS ONE:1-12.*
- Kumar A, Sharma V & Jha V, 2012. Association beween Serum Neopterin and Inflammatory Activation in Chronic Kidney Disease. *Hindawi Publishing orporation 1-6.*
- Kumar N, Aithal S, Unnikrishnan B, Ramapuram J, Thapar R, Mithra P & Holla R, 2017. Predictors of Mortality among a cohort of HIV/AIDS patients on anti-retroviral therapy in coastal south India. *HIV&AIDS Review 16:18-23*
- Kushner I, Samols D & Magrey M, 2010. A Unifying Biologic Explanation for “High-Sensitifity” C-Reactive Protein and “Low-Grade” Inflammation. *Arthritis Care & Research 62(4): 442-446.*
- Laher A, Ariefdien N & Etlouba Y, 2017. HIV Prevalence among First-presentation Psychotic Patients. *HIV Medicine 19(6):1-9.*
- Larrosa PF, Croci DO, Riva DO, Bibini M, Luzzi R, Saracco M & Mersich SE, 2008. Apoptosis Resistance in HIV-1 Persistently-infected cells is Independent of Active Viral Replication and Involves Modulation of the Apoptotic Mitochondrial Pathway. *Retrovirology 5(19): 1-12.*
- Larsen M, Bayard C, Bittan J, Appay V, Boddaert J & Sauce D, 2017. Elevated Neopterin Levels Predict Early Death in Older Hip-Fracture Patients. *Ebiomedicine 26: 157-164.*
- Lartey M, Asante A, Essel A, Kenu E, Ganu V & Neequaye A, 2015. Causes of Death in Hospitalized HIV Patients in the Early Anti-Retroviral Therapy Era. *Ghana Medical Journal 49(1):7-11.*
- Lieberman J, 2002. Defying death-HIV mutations to evade cytotoxic T lymphocytes. *England Journal of Medicine 347: 1203-1204.*

- Low M & Geffen N, 2017. When to start antiretroviral treatment? A history and analysis of a scientific controversy. *Southern African Journal of HIV Medicine* 18(1).
- Lussier XD, Mouna A, Routy JP, Tremblay C, Sekaly RP, Far ME & Grevenynghe JV, 2015. Current topics in HIV-1 pathogenesis: The emergence of deregulated immuno-metabolism in HIV-infected subjects. *Cytokine & Growth Factor Reviews*: 26:603-613.
- Macchia E, Manoli K, Holzer B, Di Franco C, Picca RA, Cioffi, Scamarcio G, Palazzo G & Torsi L, 2019. Selective single-molecule analytical detection of C-Reactive protein in saliva with an organic transistor. *Analytical and Bioanalytical Chemistry* 411(19):4899-4908.
- Mageda K, Leyna GH & Mmbaga EJ, 2012. High initial HIV/AIDS-related mortality and its predictors among patients on antiretroviral therapy in the Kagera region of Tanzania: A five year retrospective cohort study. *AIDS Research and Treatment*: 1-7.
- Mama M, Manilal A, Tesfa H, Mohammed H & Erbo E, 2018. Prevalence of Pulmonary Tuberculosis and Associated Factors Among HIV Positive Patients Attending Antiretroviral Therapy Clinic at Arba Minch General Hospital, Southern Ethiopia. *The Open Microbiology Journal* 12:163-171.
- Martens G, Celum C & Lewin SR, 2014. HIV Infection: Epidemiology, pathogenesis, treatment and prevention. *Lancet Journal* 384:258-271.
- Medrano J, Alvaro A, Boyer A, Sousa M & Resino S, 2014. Mortality of Patients Infected with HIV in the Intensive Care Unit (2005 through 2010): Significant Role of Chronic Hepatitis C and Severe Sepsis. *Critical Care* 18 (475) 1-9.
- Mildvan D, Spritzler J, Grossberg S, Fahey JL, Johnston, Schock B & Kagan J, 2005. Serum Neopterin, an Immune Activation Marker, Independently Predicts Disease Progression in Advanced HIV-1 Infection. *Clinical Infectious Diseases* 40:853-858.
- Munker R, 2007. Lymphocytosis, Lymphocytopenia, Lymphadenopathy, and Splenomegaly. In: Munker R, Hiller E, Glass J, Paquette R, Eds. *Modern Hematology: Biology and Clinical Management, Second Edition*. New Jersey: Humana Press. 217-224.
- Murr C, Widner B, Wirleitner B, Fuchs D, 2002. Neopterin as a Marker for Immune System Activation. *Current Drug Metabolism* 3:175-187
- Murr C, Winklhofer-Roob BM, Schroeksnael K, Maritschnegg M, Mangge H, Bohm BO, Winkelmann BR, Marz W & Fuchs D, 2009. Inverse association between serum concentrations of neopterin and antioxidants in patients with or without angiographic coronary artery disease. *Atherosclerosis* 202(2):543-549.
- Nasronudin, 2014. HIV & AIDS. Eradikasi HIV dan Strategi Terapi Antiretroviral. *Pendekatan biologi molekuler, klinis, dan sosial*. Edisi 2 Surabaya: Airlangga University Press, 583 – 600

- Nazar KP & Jankowska A, 2011. Clinical Usefulness of Determining the Concentration of Neopterin. *Pteridines* 22(3)77-89
- Neopterin, 2018. Neopterin. [Online] Available from: <http://www.Neopterin.net>. [Accessed on 15 Juli 2018].
- Nsagha DS, Assob JCN, Njunda AL, Tanue EA, Kibu OD, Ayima CW & Ngowe MN, 2015. Risk Factors of Cardiovascular Diseases in HIV/AIDS Patients on HAART. *The Open AIDS Journal* 9:51-59.
- Onifade AA, Emeka GJ, Olaniyi JA, Adeyanju AS, Ojerinde AO & Aiku AO, 2016. Non-reliability of Beta-2 Microglobulin and Neopterin as short term immunological markers of HIV progression. *African Journal of Biomedical Research* 19:205-212.
- Patil R & Raghuwanshi U, 2009. Serum protein, albumin, globulin levels, and A/G ratio in HIV positive patients. *Biomedical & Pharmacology Journal* 2(2):321-325.
- Pusat Data dan Informasi (PUSDATIN), 2016. Situasi Penyakit HIV AIDS di Indonesia. Pusat Data dan Informasi Kementerian Kesehatan RI. [Online] Available from: <http://www.Pusdatin.Kemkes.go.id>. [Accessed on 29 Juli 2018].
- Pendse R, Gupta S, Yu D & Sarkar S, 2016. HIV/AIDS in the South-East Asia region: progress and challenges. *Journal of Virus Eradication* 2(4):1-6.
- PERKENI, 2015. Konsensus Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia 2015. *Jakarta: PB Perkeni*.
- Poorolajal J, Molaeipoor, Mohraz M, Mahjub H, Ardekani MT, Mirzapour P & Golchehregan H, 2015. AIDS care: Predictors of progression to AIDS and mortality post-HIV infection: a long-term retrospective cohort study. *AIDS Care*:1-8.
- Pralhadrao HS, Kant C, Phepale K, Mali MK & Raghunath, 2016. Role of serum albumin level compared to CD4<sup>+</sup> cell count as a marker of immunosuppression in HIV infection. *Indian Journal of Basic and Applied Medical Research* 5(3): 495-502.
- Rainer TH, Chan CPY, Leung MF, Leung W, Ip M, Lee N, Cautherley G, Graham CA, Fuchs D & Renneberg R, 2009. Diagnostic utility of CRP to Neopterin ratio in patients with acute respiratory tract infections. *Journal of Infection* 58:123-130.
- Ray KK, Morrow DA, Sabatine MS, Shui A, Rifai N, Cannon CP & Braunwald E, 2007. Long-Term Prognostic Value of Neopterin, A novel marker of monocyte activation in patients with acute coronary syndrome. *Circulation* 115: 3071-3078.
- Ruokonen E, Ilkka L, Niskanen M & Takala J, 2002. Procalcitonin and neopterin as indicators of infection in critically ill patients. *Acta Anaesthesiologica Scandinavia* 46: 398-404.
- Sandler NG, Wand H, Roque A, Law M, Nason MC, Nixon DE, Pederson C, Ruxrungtham K & Douek DC, 2011. Plasma Levels of Soluble CD14

- Independently Predict Mortality in HIV Infection. *The Journal of Infectious Diseases* 203: 780-790.
- Sacktor N, Liu X, Popescu M, Marder K, Stern Y & Mayeux R, 1995. Serum Neopterin Level Predict HIV-Related Mortality but Not Progression to AIDS or Development of Neurological Disease in Gay Men and Parenteral Drug Users. *Archives of Neurology* 52: 676-679.
- Saavedra A, Campinha N, Hajjar M, Kenu E, Syeda F, Obo-Akwa A, Lartey M & Kwara A, 2017. Causes of death and factors associated with early mortality of HIV-infected adults admitted to Korle-Bu Teaching Hospital. *The Pan African Medical Journal*:1-7.
- Seymour CW, Liu VX, Iwashyna TJ, Brunkhorst FM, Rea TD, Scherag A, Rubenfield G, Kahn JM, Hari MS, Singer M, Deutschman CS, Escobar GJ & Angus DC, 2016. Assessment of Clinical Criteria for Sepsis for the Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3). *The Journal of the American Medical Association* 315(8): 762-774.
- Shah S, Smith CJ, Lampe F, Youle M, Johnson MA, Phillips AN & Sabin CA, 2007. Haemoglobin and albumin as markers of HIV disease progression in the highly active antiretroviral therapy era: relationships with gender. *HIV Medicine* 8:38-45.
- Shaw A, 1991. Serum C-reactive protein and Neopterin Concentrations in Patients with Viral or Bacterial Infection. *Journal of Clinical Pathology* 44: 596-599.
- Shiels MS & Engels EA, 2017. Evolving epidemiology of HIV-associated malignancies. *Current Opinion of HIV AIDS* 12(1):6-11.
- Shmagel KV, Saidakova EV, Shmagel NG, Korolevskaya LB, Chereshnev VA, Robinson J, Grivel JC, Douek DC, Margolis L, Anthony DD & Lederman MM, 2016. Systemic inflammation and liver damage in HIV/hepatitis C virus coinfection. *HIV Medicine* 17(8):581-589.
- Silva JM & Sigrid DS, 2013. Sepsis in AIDS Patients: clinical, etiological and inflammatory characteristics. *Journal of the International AIDS society* 16:1-8.
- Silvin A & Manel N, 2015. Innate immune sensing of HIV infection. *Current Opinion in Immunology* 32:54-60.
- Simon V, Ho D & Karim A, 2006. HIV/AIDS epidemiology, pathogenesis, prevention, and treatment. *Lancet Journal* 368(9534):489-504.
- Singer M, Deutschman CS & Angus DC, 2016. The Third International Consensus Definitions for sepsis and Septic Shock. *Journal of the American Medical Association* 315(8):801-810.
- Sudfeld CR, Isanaka S, Aboud S, Mugusi FM, Wang M, Chalamilla GE & Fawzi WW, 2013. Association of serum albumin concentration with mortality, morbidity, CD4 T-cell reconstitution among Tanzanians initiating antiretroviral therapy. *Journal of Infectious Disease* 207(9):1370-1378.

- Takuva S, Maskew M, Brennan AT, Sanne I, MacPhail AP & Fox MP, 2013. Anemia among HIV-infected patients initiating antiretroviral therapy in South Africa: improvement in hemoglobin regardless of degree of Immunosuppression and the initiating ART regimen. *Journal of Tropical Medicine* 1-6.
- Taylor LE, Swan T & Mayer KH, 2012. HIV Coinfection With Hepatitis C Virus: Evolving Epidemiology and Treatment Paradigms. *Clinical Infectious Diseases* 55(S1): S33-42.
- UNAIDS, 2004. UNAIDS/WHO policy statement on HIV testing. *UNAIDS Global Reference Group on HIV/AIDS and Human Rights*. Available in <https://data.unaids.org>. [Accessed on 9 Juni 2019].
- Ünuvar S, Aslanhan H, Tanrıverdi Z & Karakus F, 2017. The relationship between neopterin and hepatitis B surface antigen positivity. *Pteridines* 29:1-5.
- Ünuvar S, Tanrıverdi Z & Aslanhan H, 2018. Potential Prognostic Role of Immune System Activation Marker Neopterin in Patients with Type 2 Diabetes. *Journal of Medical Biochemistry* 37(4):465-469.
- Ünuvar S & Aslanhan H, 2018. Clinical Significance of Increased Serum Neopterin in Chronic Kidney Failure as a Biomarker of Cell Mediated Immunity. *Journal of Medical Biochemistry* 38(1):1-5.
- Utami S, Sawitri AAS, Wulandari LPL, Putra IW, Astuti PAS, Wirawan DY, Causer Louise & Mathers B, 2017. Mortality Among People Living with HIV on Antiretroviral Treatment in Bali, Indonesia: Incidence and Predictors. *International Journal of STD & AIDS* 0(0): 1-9.
- Uysal HK, Sohrabi P, Habip Z, Saribas S, Seyhan F, Kocazeybek E, Caliskan R, Bonabi E, Yuksel P, Birici I, Uysal O & Kocazeybek B, 2016. Neopterin and Soluble CD14 Levels as Indicators of Immune Activation in Cases with Indeterminate Pattern and True Positive HIV-1 Infection. *Plos ONE* 11(3): 1-14.
- Venzke S & Keppler OT, 2014. Role of Macrophages in HIV Infection and Persistence. *Journal of Expert Review of Clinical Immunology* 2(4): 613-626.
- Vincent JL, Moreno R, Takala J, Willatts S, De Mendon A, Bruining H, Reinhart CK, Suter PM & Thijs LG, 1996. Working Group on Sepsis-Related Problems of the European Society of Intensive Care Medicine. The SOFA (Sepsis-related Organ Failure Assessment) score to describe organ dysfunction/failure. *Intensive Care Medicine* 22(7): 707-710.
- Wachter H, Fuchs D, Hausen A, Huber C, Knosp O, Reibnegger G & Spira T, 1983. Elevated urinary Neopterin levels in patients with the acquired immunodeficiency syndrome (AIDS). *Hoppe Seyler's Physiology Chemical* 364:1345-1346.
- Wachter H, Fuchs D, Hausen A, Reibnegger G, Weiss G, Werner ER & Felmeyer GW, 1991. Neopterin. In: Butenandt A & Rembold H, Eds. *Neopterin:*

- Biochemistry, Methods, Clinical Application.* Berlin: Walter de Gruyter & Co 1-74.
- Wandeler G, Gsponer T, Bihl F, Bernasconi E, Cavassini M, Kovari H, Schmid P, Battegay M, Calmy A, Egger M, Furrer H & Rauch A, 2013. Hepatitis B virus infection is associated with impaired immunological recovery during antiretroviral therapy in the Swiss HIV cohort study. *Journal of Infectious Disease* 208(9):1454-1458.
- Wiewel MA, Huson MA, Vugt LA, Hoogendoijk AJ, Klein PM, Horn J, Lutter R, Cremer OL, Schultz MJ, Bonten MJ & Poll T, 2016. Impact of HIV infection on the presentation, outcome and host response in patients admitted to the intensive care unit with sepsis; a case control study. *Critical Care* 20 (322):1-10.
- Wirleitner B, Schroeksnadel K, Winkler C & Fuchs D, 2004. Neopterin in HIV-1 infection. *Molecular Immunology* 42:183-194.
- Witaningrum AM, Khairunnisa SQ, Yunifiar MQ, Bramantri R, Rachman BE, & Nasronudin, 2018. Opportunistic infection of HIV/AIDS patients in West Papua. *IOP Conference Series: Earth and Environmental Science*; 25 (2018) 012062: 1-5.
- World Health Organization, 2007. WHO case definitions of HIV for surveillance and revised clinical staging and immunological classification of HIV-related disease in adults and children. [Online] Available from <http://www.who.int.pdf>. [Accessed on 29 Juli 2018].
- World Health Organization, 2010. Technical Brief on CD4 Technologies. [Online] Available from <http://www.who.int/treatment/topics.pdf>. [Accessed on 27 Juni 2019].
- Yang JJ, Tsai MS, Sun HY, Hsieh SM, Chen MY, Sheng WH & Chang SC, 2013. Autoimmun diseases-related arthritis in HIV-infected patients in the era of highly active antiretroviral therapy. *Journal of Microbiology, Immunology and Infection* 48:130-136.
- Young H, Kim H, Joong K, Suk S & Bek K, 2006. The Clinical Significance of Serum and Urinary Neopterin Levels in Several Renal Diseases. *Journal of Korean Medical Science* 21:678-682.
- Zheng H, Wang L, Huang P, Norris J, Wang Q, Guo W, Peng Z, Yu R & Wang N, 2014. Incidence and risk factors for AIDS-related mortality in HIV patients in China: a cross sectional study. *Biomed Central Public Health* 14(831).