

**DAFTAR PUSTAKA**

Andreucci M, Faga T, Riccio E, Sabbatini M, Pisani A, Michael A. The potential use of biomarkers in predicting contrast-induced acute kidney injury. *Int J Nephrol Renovasc Dis.* 2016;9:205–21.

Arif A, Niazi AK, Muneeb M, Umer KS, Ali A, Shahbaz A. Correlation of prolonged Cardiopulmonary Bypass time with Postoperative Complications - A prospective review. *Pakistan J Med Heal Sci.* 2022;16(4):23–4.

Axtell AL, Fiedler AG, Melnitchouk S, D'Alessandro DA, Villavicencio MA, Jassar AS, et al. Correlation of cardiopulmonary bypass duration with acute renal failure after cardiac surgery. *J Thorac Cardiovasc Surg [Internet].* 2020 Jan;159(1):170-178.e2. Available from: <https://doi.org/10.1016/j.jtcvs.2019.01.072>

Bellomo R, Ronco C, Kellum JA, Mehta RL, Palevsky P. Acute renal failure - definition, outcome measures, animal models, fluid therapy and information technology needs: the Second International Consensus Conference of the Acute Dialysis Quality Initiative (ADQI) Group. *Crit Care.* 2004;8(4).

Bennett M, Dent CL, Ma Q, Dastrala S, Grenier F, Workman R, et al. Urine NGAL predicts severity of acute kidney injury after cardiac surgery: A prospective study. *Clin J Am Soc Nephrol.* 2008;3(3):665–73.

Boldt J, Brenner T, Lehmann A, Suttner SW, Kumle B, Isgró F. Is kidney function altered by the duration of cardiopulmonary bypass? *Ann Thorac Surg.* 2003;75(3):906–12.

Brown WR, Moody DM, Challa VR, Stump DA, Hammon JW. Longer duration of cardiopulmonary bypass is associated with greater numbers of cerebral microemboli. *Stroke.* 2000;31(3):707–13.

Bulluck H, Maiti R, Chakraborty B, Candilio L, Clayton T, Evans R, et al. Neutrophil gelatinase-associated lipocalin prior to cardiac surgery predicts acute kidney injury and mortality. *Heart.* 2018;104(4):313–7.



Car L, Rubin J, Han W, Venge P, Xu S. The origin of multiple molecular forms in urine of HNL/NGAL. Clin J Am Soc Nephrol. 2010;5(12):2229–35.

Dahlan MS. Besar sampel aksis komparatif. In : Dahlan MS, editor. Besar sampel dalam penelitian kedokteran dan kesehatan. Jakarta: Epidemiologi Indonesia; 2019. p.158-163.

Dahlan MS. Besar sampel aksis multivariat. In : Dahlan MS, editor. Besar sampel dalam penelitian kedokteran dan kesehatan. Jakarta: Epidemiologi Indonesia; 2019. p.235-241.

Devarajan P. Neutrophil gelatinase-associated lipocalin: A promising biomarker for human acute kidney injury. Biomark Med. 2010;4(2):265–80.

De Vaus DA. Bivariate analysis: nominal and ordinal variables. In : De Vaus DA, editor. Surveys in social research. Australia: Allen & Unwin; 2002. p.257-262.

De Vaus DA. Bivariate analysis for interval-level variables. In : De Vaus DA, editor. Surveys in social research. Australia: Allen & Unwin; 2002. p.289-290.

Gibbs NM, Matzelle SJ, Larach DR. Management of cardiopulmonary bypass. In : Gravlee GP, Shaw AD, Bartels K, editors. Hensley's practical approach to cardiothoracic anesthesia. Philadelphia: Wolters Kluwer; 2019. p.239-261.

Gumbert SD, Kork F, Jackson ML, Vanga N, Ghebremichael SJ, Wang CY, et al. Perioperative Acute Kidney Injury. Anesthesiology. 2020;132(1):180–204.

Han WK, Wagener G, Zhu Y, Wang S, Lee HT. Urinary biomarkers in the early detection of acute kidney injury after cardiac surgery. Clin J Am Soc Nephrol. 2009;4(5):873–82.

Hanindita MH, Prasetyo RV, Soemyarso NA, Utamayasa IKA, Tahalele P. Neutrophil gelatinase-associated lipocalin as a biomarker for acute kidney injury in children after cardiac surgery. Paediatr Indones. 2016;56(4):230.

Hessel EA. Cardiopulmonary bypass: equipment, circuits, and pathophysiology. In : Gravlee GP, Shaw AD, Bartels K, editors. Hensley's practical approach to cardiothoracic anesthesia. Philadelphia: Wolters Kluwer; 2019. p.618-650.



Ho J, Tangri N, Komenda P, Kaushal A, Sood M, Brar R, et al. Urinary, plasma, and serum biomarkers' utility for predicting acute kidney injury associated with cardiac surgery in adults: A meta-analysis. *Am J Kidney Dis [Internet]*. 2015;66(6):993–1005. Available from: <http://dx.doi.org/10.1053/j.ajkd.2015.06.018>

Hong SW, Lee D-K, Lee J-Y, Shin SH, Chon JY, Kim T-Y. Does acute normovolemic hemodilution affect intraoperative value of serum-creatinine concentration in patients undergoing cardiac surgery. *Anesth Pain Med*. 2017;12(1):15–22.

Hoste EA, Vandenberghe W. Plasma neutrophil gelatinase-associated lipocalin (NGAL) for timing of initiation of renal replacement therapy for acute kidney injury? *J Thorac Dis*. 2018;10(Suppl 33):S3989–93.

Johannes T, Mik EG, Nohé B, Unertl KE, Ince C. Acute decrease in renal microvascular PO₂ during acute normovolemic hemodilution. *Am J Physiol - Ren Physiol*. 2007;292(2):796–803.

Karkouti K, Beattie WS, Wijeysundera DN, Rao V, Chan C, Dattilo KM, et al. Hemodilution during cardiopulmonary bypass is an independent risk factor for acute renal failure in adult cardiac surgery. *J Thorac Cardiovasc Surg*. 2005;129(2):391–400.

Kaya K, Cavalli R, Telli A, Soyal MFT, Aslan A, Gokaslan G, et al. Off-pump versus on-pump coronary artery bypass grafting in acute coronary syndrome: A clinical analysis. *J Cardiothorac Surg*. 2010;5(1):1–8.

Kidney Disease: Improving Global Outcomes (KDIGO) Acute Kidney Injury Work Group. KDIGO Clinical Practice Guideline for Acute Kidney Injury. *Kidney inter., Suppl*. 2012; 2: 1–138.

Lannemyr L, Bragadottir G, Krumbholz V, Redfors B, Sellgren J, Ricksten SE. Effects of Cardiopulmonary Bypass on Renal Perfusion, Filtration, and Oxygenation in Patients Undergoing Cardiac Surgery. *Anesthesiology*. 2017;126(2):205–13.

Liu D, Liu B, Liang Z, Yang Z, Ma F, Yang Y, et al. Acute Kidney Injury following Cardiopulmonary Bypass: A Challenging Picture. *Oxid Med Cell Longev*. 2021;2021.



Every minute counts. *J Cardiovasc Surg (Torino)*. 2018;59(2):274–81.

McIlroy DR, Wagener G, Lee HT. Neutrophil gelatinase-associated lipocalin and acute kidney injury after cardiac surgery: The effect of baseline renal function on diagnostic performance. *Clin J Am Soc Nephrol*. 2010;5(2):211–9.

Mehta RL. From acute renal failure to acute kidney injury: Emerging concepts. *Crit Care Med*. 2008;36(5):1641–2.

NHSN. Urinary Tract Infection (Catheter-Associated Urinary Tract Infection [CAUTI] and Non-Catheter-Associated Urinary Tract Infection [UTI]) Events Definitions : Centers Dis Control Prev. 2022;(January):1–18.

Oshita T, Hiraoka A, Nakajima K, Muraki R, Arimichi M, Chikazawa G, et al. A better predictor of acute kidney injury after cardiac surgery: The largest area under the curve below the oxygen delivery threshold during cardiopulmonary bypass. *J Am Heart Assoc*. 2020;9(15):1–9.

Paarmann H, Charitos EI, Beilharz A, Heinze H, Schön J, Berggreen A, et al. Duration of cardiopulmonary bypass is an important confounder when using biomarkers for early diagnosis of acute kidney injury in cardiac surgical patients. *Appl Cardiopulm Pathophysiol*. 2013;17(3):284–97.

Palomba H, De Castro I, Neto ALC, Lage S, Yu L. Acute kidney injury prediction following elective cardiac surgery: AKICS Score. *Kidney Int*. 2007;72(5):624–31.

Parikh CR, Devarajan P, Zappitelli M, Sint K, Thiessen-philbrook H, Li S, et al. Postoperative biomarkers predict acute kidney injury and poor outcomes after pediatric cardiac surgery. *J Am Soc Nephrol*. 2011;22(9):1737–47.

Passov A, Petäjä L, Pihlajoki M, Salminen US, Suojaranta R, Vento A, et al. The origin of plasma neutrophil gelatinase-associated lipocalin in cardiac surgery. *BMC Nephrol*. 2019;20(1):1–10.



Quintavalle C, Anselmi CV, De Micco F, Roscigno G, Visconti G, Golia B, et al. Neutrophil gelatinase-associated lipocalin and contrast-induced acute kidney injury. *Circ Cardiovasc Interv.* 2015;8(9):1–11.

Ranucci M, Aloisio T, Carboni G, Ballotta A, Pistuddi V, Menicanti L, et al. Acute Kidney Injury and Hemodilution During Cardiopulmonary Bypass: A Changing Scenario. *Ann Thorac Surg [Internet].* 2015;100(1):95–100. Available from: <http://dx.doi.org/10.1016/j.athoracsur.2015.02.034>

Ranucci M, Johnson I, Willcox T, Baker RA, Boer C, Baumann A, et al. Goal-directed perfusion to reduce acute kidney injury: A randomized trial. *J Thorac Cardiovasc Surg [Internet].* 2018;156(5):1918–1927.e2. Available from: <https://doi.org/10.1016/j.jtcvs.2018.04.045>

Riou B, Ph D, Kumar AB, Suneja M. AND Cardiopulmonary Bypass – associated Acute Kidney Injury. 2018;(4).

Ronco C, Legrand M, Goldstein SL, Hur M, Tran N, Howell EC, et al. Neutrophil gelatinase-associated lipocalin: Ready for routine clinical use? An international perspective. *Blood Purif.* 2014;37(4):271–85.

Rustum S, Fleissner F, Beckmann E, Ius F, Wilhelmi M. Is There an Upper Limit to Cardiopulmonary Bypass Times? *Ann Circ.* 2017;2(1):003–7.

Salsano A, Giacobbe DR, Sportelli E, Olivieri GM, Natali R, Prevosto M, et al. Aortic cross-clamp time and cardiopulmonary bypass time: Prognostic implications in patients operated on for infective endocarditis. *Interact Cardiovasc Thorac Surg.* 2018;27(3):328–35.

Sarraf N, Thalib L, Hughes A, Houlihan M, Tolan M, Young V, et al. Cross-clamp time is an independent predictor of mortality and morbidity in low- and high-risk cardiac patients. *Int J Surg [Internet].* 2011;9(1):104–9. Available from: <http://dx.doi.org/10.1016/j.ijsu.2010.10.007>



In : Sastroasmoro S, Ismael S, editors. Dasar-dasar metodologi penelitian klinis. Jakarta:

CV Sagung Seto; 2014. p.301-327.

Setiari TD, Sudjud RW, Redjeki IS. Korelasi antara Lama Pintas Jantung Paru dan Lama Bantuan Ventilasi Mekanis pada Pasien Pascabedah Pintas Arteri Koroner di Unit Perawatan Intensif Jantung Rumah Sakit Dr. Hasan Sadikin Bandung. *J Anestesi Perioper.* 2017;5(2):73.

Sirvinskas E, Andrejaitiene J, Raliene L, Nasvytis L, Karbonskiene A, Pilvinis V, et al. Cardiopulmonary bypass management and acute renal failure: Risk factors and prognosis. *Perfusion.* 2008;23(6):323–7.

Soni SS, Cruz D, Bobek I, Chionh CY, Nalessio F, Lentini P, et al. NGAL: A biomarker of acute kidney injury and other systemic conditions. *Int Urol Nephrol.* 2010;42(1):141–50.

Sucipto CD. Variabel dan hipotesis penelitian. In : Sucipto DS, editor. Metodologi penelitian kesehatan. Yogyakarta: Gosyen Publishing; 2020. p.55-68.

Sucipto CD. Desain penelitian. In : Sucipto DS, editor. Metodologi penelitian kesehatan. Yogyakarta: Gosyen Publishing; 2020. p.83-106.

Sucipto CD. Metode pengambilan sampel. In : Sucipto DS, editor. Metodologi penelitian kesehatan. Yogyakarta: Gosyen Publishing; 2020. p.125-140.

Tambunan T, Soetomenggolo TS, Passat J, Agusman IS. Studi kohort. In : Sastroasmoro S, Ismael S, editors. Dasar-dasar metodologi penelitian klinis. Jakarta: CV Sagung Seto; 2014. p.167-186.

Taniguchi FP, Souza AR De, Martins AS. Cardiopulmonary bypass time as a risk factor for acute renal failure. *Rev Bras Cir Cardiovasc [Internet].* 2007;22(2):201–5. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/17992325>



Tornblom S, Nisula S, Petäjä L, Vaara ST, Haapio M, Pesonen E, et al. Urine NGAL as a biomarker for septic AKI: a critical appraisal of clinical utility—data from the observational FINNAKI study. *Ann Intensive Care.* 2020;10(1).

Tumbelaka AR, Abdoerrachman MH, Latief A, Abdulsalam M, Darwis D. Pengukuran. In : Sastroasmoro S, Ismael S, editors. Dasar-dasar metodologi penelitian klinis. Jakarta: CV Sagung Seto; 2014. p.66-87.

Tumbelaka AR, Riono P, Sastroasmoro S, Wirjodiarjo M, Pudjiastuti P, Firman K. Pemilihan uji hipotesis. In : Sastroasmoro S, Ismael S, editors. Dasar-dasar metodologi penelitian klinis. Jakarta: CV Sagung Seto; 2014. p.328-351.

Vermeer H, Teerenstra S, de Sévaux RGL, van Swieten HA, Weerwind PW. The effect of hemodilution during normothermic cardiac surgery on renal physiology and function: A review. *Perfusion.* 2008;23(6):329–38.

Weir CB, Jan A. BMI Classification Percentile And Cut Off Points. [Updated 2022 Jun 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK541070/>

Windsant IC, Hanssen SJ, Buurman WA, Jacobs MJ. Cardiovascular surgery and organ damage: Time to reconsider the role of hemolysis. *J Thorac Cardiovasc Surg [Internet].* 2011;142(1):1–11. Available from: <http://dx.doi.org/10.1016/j.jtcvs.2011.02.012>

Wu B, Chen J, Yang Y. Biomarkers of Acute Kidney Injury after Cardiac Surgery: A Narrative Review. *Biomed Res Int.* 2019;2019.

Yim HE. Neutrophil Gelatinase-Associated Lipocalin and Kidney Diseases. *Child Kidney Dis.* 2015;19(2):79–88.

Zhang J, Han J, Liu J, Liang B, Wang X, Wang C. Clinical significance of novel biomarker NGAL in early diagnosis of acute renal injury. *Exp Ther Med.* 2017;14(5):5017–21.