

## DAFTAR PUSTAKA

1. KDIGO. Clinical practice guideline for the evaluation and management of chronic kidney disease. *Kidney international supplements*. 2013;3 (1):5-8.
2. Jager KJ, Kovesdy C, Langham R, Rosenberg M, Jha V, Zoccali C. A single number for advocacy and communication worldwide more than 850 million individuals have kidney diseases. *Kidney International*. 2019;96: 1048–50
3. Perhimpunan nefrologi indonesia. 11th report of indonesian renal registry 2018. *IRR*. 2018;15-16.
4. Badan penelitian dan pengembangan kesehatan kemenkes RI. Riset kesehatan dasar 2018. *Balitbangkes*. 2019;169–70.
5. Covic A, Jackson J, Hadfield A, Pike J, Siriopol D. Real-world impact of cardiovascular disease and anemia on quality of life and productivity in patients with non-dialysis dependent chronic kidney disease. *Advances in therapy*. 2017;34: 1662–72
6. Silva R, Rigby, Witte KA, Nikitin NP, Tin L, Goode K. Anemia, renal dysfunction, and their interaction in patients with chronic heart failure. *The american journal of cardiology*. 2006; 98(3): 391-8.
7. Mcfarlane SI, Salifu MO, Makaryus J, Sowers JR. Anemia and cardiovascular disease in diabetic nephropathy. *Current diabetes reports*. 2006; 6:213–8
8. Hamano H, Ikeda1 Y, Watanabe H, Horinouch Y. The uremic toxin indoxyl sulfate interferes with iron metabolism by regulating hepcidin in chronic kidney disease. *Nephrology Dialysis Transplantation*. 2018; 33(4), 586-97.
9. Brzózka AG, Franczyk B, Olszewski R, Rysz J. The influence of inflammation on anemia in ckd patients. *International Journal Of Molecular Sciences*, 2020; 21(3): 2-5.
10. Hirayama A, Akazaki S, Nagano Y, Ueda A. Hemodialysis raises oxidative stress through carbon-centered radicals despite improved

- biocompatibility. *Journal of Clinical Biochemistry and Nutrition*. 2021;69:44–51.
11. Malyszko J, Mysliwiec M. Hepcidin in anemia and inflammation in chronic kidney disease. *Kidney and Blood Pressure Research*. 2007; 30(1): 15-30.
  12. Ko EJ, Kim BH, Jeong HY, Soe SU, Yang DH, Lee SY, et al. Serum 25-hydroxyvitamin D as a predictor of hospitalization free survival in predialysis and dialysis patients with chronic kidney disease: a single-center prospective observational analysis. *Kidney research and clinical practice*. 2020; 35(1): 2228.
  13. Viana LT, Freitas BJ, Almendra. 25-hydroxyvitamin D concentrations and their relationship with iron parameters in patients with chronic kidney disease. *Review Nutrition*. 2022; 35: 210-19.
  14. Zughaiier SM, Alvarez JA, John H, Sloanc JH, Konrad R, Tangpricha V, et al. The role of vitamin D in regulating the iron-hepcidin-ferroportin axis in monocytes. *Journal of Clinical & Translational Endocrinology*. 2014;1(1): 19-25.
  15. KDIGO. KDIGO 2025 clinical practice guideline for anemia in chronic kidney disease (CKD) Public Review Draft. *Kidney International Supplements*. 2024;1(2): 20-22.
  16. World Health Organization. Hemoglobin concentrations for the diagnosis of anemia and assessment of severity. *WHO*. 2011; 1-5.
  17. Centers For Disease Control And Prevention. Chronic kidney disease surveillance system. 2021; 3-5.
  18. Perhimpunan Nefrologi Indonesia (PERNEFRI). Konsensus manajemen anemia pada penyakit ginjal kronik. *PERNEFRI*. 2011; 3-8.
  19. Aitken GR, Roderick PJ, Fraser S. Change in prevalence of chronic kidney disease in england over time: comparison of nationally representative cross-sectional surveys from 2003 to 2010. *BMJ Open*. 2014; 4:1-4.

20. Portolés J, Gorri J, Rubio E, Alvaro F, García F, Alvarez V, et al. The development of anemia is associated to poor prognosis in nfk/kdoqi stage 3 chronic kidney disease. *BMC Nephrol*. 2013; 14:2-5.
21. Wu HL, Chinnadurai R. Erythropoietin stimulating agent hyporesponsiveness in patients living with chronic kidney disease. *Kidney Diseases*, 2022; 8(2): 103-114.
22. Ganz T, Nemeth E. Hepcidin and iron homeostasis. *Biochimica et Biophysica Acta (BBA) Molecular Cell Research*. 2012, 1823;9: 1434-43.
23. Lemos AR, Ismael LS, Boato CCM, Borges. Hepcidin as a biochemical parameter for the assessment of iron deficiency anemia. *Revista Da Associação Médica Brasileira*. 2010; 56: 596
24. Stefanova D, Raychev A, Deville J, Humphries R, Campeau S. Hepcidin protects against lethal escherichia coli sepsis in mice inoculated with isolates from septic patients. *Infection and Immunity*. 2018; 86(7): 1125-28.
25. Schmidt AD, John RS. IL-6 pathway in the liver: from physiopathology to therapy. *Journal of Hepatology*. 2016; 64(6): 1403-15.
26. Piper BJ, Alinea AA, Wroblewski JR. A quantitative and narrative evaluation of goodman and gilman's pharmacological basis of therapeutics. *Pharmacy*. 2019;8(1):1.
27. Bikle DD. Vitamin D metabolism, mechanism of action, and clinical applications. *Chemistry & biology*. 2015; 21(3): 319-329.
28. Jean G, Souberbielle JC, Chazot C. Vitamin D in chronic kidney disease and dialysis patients. *Nutrients*. 2017; 9(4): 328-65.
29. Kim CS, Kim SW. Vitamin D and chronic kidney disease. *Korean Journal Internal Medicine*. 2014; 29:416-27.
30. Holick M F, Binkley NC, Bischoff HA, Gordon CM, Hanley. Evaluation, Treatment, And Prevention Of Vitamin D Deficiency: An Endocrine Society

Clinical Practice Guideline. *The Journal of Clinical Endocrinology & Metabolism*. 2011; 96(7): 1911-20.

31. Gonzalez JM, Castorino K, Ebrahim A, Hurley D, Jovanovic L. Clinical practice guidelines for healthy eating for the prevention and treatment of metabolic and endocrine diseases in adults. *Endocrine Practice*. 2011; 19: 1-5.
32. Li YC. Renoprotective effects of vitamin D analogs. *Kidney International*. 2010;78:134-9
33. Qian Q. Inflammation: a key contributor to the genesis and progression of chronic kidney disease. *Contribution Nephrol*. 2017; 191: 72–83.
34. Liu J. Hepcidin: A promising therapeutic target for iron disorders: a systematic review. *Medicine*. 2016; 95.14:1-10.
35. Wise SA, Camara JE, Sempos CT. Vitamin D standardization program (VDSP) intralaboratory study for the assessment of 25-hydroxyvitamin D assay variability and bias. *Journal Steroid Biochemistry Molecular Biology*. 2021; 212:1-10.
36. Kiss Z, Ambrus C, Almasi C. Serum 25-hydroxyvitamin D concentration is associated with hemoglobin level and erythropoietin resistance in patients on maintenance hemodialysis. *Nephron Clinical Practice*. 2010;117(4):373-8.
37. Chandra P, Binongo JN, Ziegler TR, Schlanger LE, Wang W, Someren JT, et al. Cholecalciferol (Vitamin D3) therapy and vitamin d insufficiency in patients with chronic kidney disease: a randomized controlled pilot study. *Endocrinology Practice*. 2008;14(1):10-13.
38. Carvalho C, Isakova T, Collerone G, Olbina G, Wolf M, Westerman M, et al. Hepcidin and disordered mineral metabolism in chronic kidney disease. *Clinical Nephrology*. 2011;76(2):90-2.
39. Bacchetta J, Zaritsky JJ, Sea JL. Suppression of iron-regulatory hepcidin by 25-hydroxyvitamin D. *Journal of The American Society of Nephrology*. 2014;25: 564–72.

40. Christakos S, Li S, Cruz J, Bikle DD. New developments in our understanding of vitamin d metabolism, action and treatment. *Metabolism*. 2019; 98:112-20.
41. Smith EM, Alvarez JA, Kearns MD, Hao L. High-dose vitamin D3 reduces circulating hepcidin concentrations: a pilot, randomized, double-blind, placebo-controlled trial in healthy adults. *Clinical Nutrition*. 2017; 36(4): 980-85.
42. Jones KS, Assar S, Harnpanich D. 25(OH)D2 half-life is shorter than 25(OH)D3 half-life and is influenced by DBP concentration and genotype. *J Clin Endocrinol Metab*. 2014;99(9):3373-81.
43. Lips P. Relative value of 25(OH)D and 1,25(OH)2D measurements. *J Bone Miner Res*. 2007;22(11):1668-71.
44. Pistis KD, Westerberg PA, Qureshi AR, Beshara S. The effect of high-dose vitamin d supplementation on hepcidin-25 and erythropoiesis in patients with chronic kidney disease. *BMC Nephrology*. 2023; 24(1): 20-1.
45. Hecking M, Tu C, Zee J, Bieber B, Hödlmoser S, Reichel, et al. Sex-specific differences in mortality and incident dialysis in the chronic kidney disease outcomes and practice patterns study. *Kidney International Reports*. 2022; 7(3): 410-23.
46. Farahmand M, Ramezani T, Khalili D, Cheraghi L. Endogenous estrogen exposure and chronic kidney disease; a 15-year prospective cohort study. *BMC Endocrine Disorders*. 2021; 21(1): 1-8.
47. Gava AL, Freitas FP, Meyrelles S, Silva IV. Gender-dependent effects of aging on the kidney. *Brazilian Journal of Medical and Biological Research*. 2011; 44: 905-13.
48. Hecking M, Bieber BA, Ethier J, Kautzky W, Sunder PG, Säemann et al. Sex-specific differences in hemodialysis prevalence and practices and the male-to-female mortality rate: the Dialysis Outcomes and Practice Patterns Study (DOPPS). *PLOS Medicine*. 2014;1-17.

49. Jacob P, McCafferty K. Assessment and management of chronic kidney disease in people living with obesity. *Clinical Medicine*. 2023; 23(4): 353-56.
50. Mazhar F, Sjölander A, Fu E, Ärnlöv J, Levey AS, Coresh J. Estimating the prevalence of chronic kidney disease while accounting for nonrandom testing with inverse probability weighting. *Kidney international*. 2023;103(2): 416-20.
51. Zemplényi A, Sághy E, Kónyi A, Szabó L, Wittmann I, Laczy B, et al. Prevalence, Cardiometabolic Comorbidities and Reporting of Chronic Kidney Disease; A Hungarian Cohort Analysis. *Int J Public Health*. 2023;68.
52. Hasibuan SF, Makmun A, Sukesi L. Profile of anemia and the relationship between hemoglobin levels and quality of life in end-stage chronic kidney disease patients undergoing chronic hemodialysis at Hasan Sadikin Hospital during 2021-2022. *Ina kidney*. 2025;1(1):17-23
53. Kahdina M, Mardiana N, Fauziah D. Levels of hemoglobin, leukocytes, and platelets of chronic kidney disease patients undergoing hemodialysis in Surabaya. *Biomolecular and Health Science Journal*. 2018; 1(1): 29-33.
54. Stauffer ME, Fan T. Prevalence of anemia in chronic kidney disease in the united states. *PLOS ONE*. 2014; 9:2–5
55. Inker LA, Grams ME, Levey AS, Coresh J, Cirillo M. Relationship of estimated GFR and albuminuria to concurrent laboratory abnormalities: an individual participant data meta-analysis in a global consortium. *Am J Kidney Dis*. 2019; 73:206–17
56. Bhuvaneswari VN, Alexander H, Shenoy MT, Sriramulu D. Comparison of serum urea, salivary urea, and creatinine levels in pre-dialysis and post-dialysis patients: a case-control study. *Cureus*. 2023; 15(3).
57. Putra RN, Perangin VA, Ferdinand S, Tandau E. Description of serum urea and creatinine levels pre hemodialysis and post hemodialysis at Royal Prima Hospital in chronic kidney disease. *AMCR*. 2021;2(2):118-22

58. Sridhar NR, Josyula S. Hypoalbuminemia in hemodialyzed end stage renal disease patients: risk factors and relationships-a 2 year single center study. *BMC nephrology*. 2013; 14: 1-9.
59. Boz G, Uludag K. Serum albumin trends in relation with prognosis of individuals receiving hemodialysis therapy. *Cureus*. 2021;13(11):1.
60. Hsu HJ, Wu I, Hsu K, Sun C, Chen C. Vitamin D deficiency, cardiothoracic ratio, and long-term mortality in hemodialysis patients. *Scientific Reports*. 2020; 10(1): 753-55.
61. Luo C, Bian X, Bao L, Xu Q, Ji C. Association between serum 25-hydroxyvitamin D level and inflammatory markers in hemodialysis-treated patients. *Immunity, Inflammation and Disease*. 2024 12(4): 12-14.
62. Luohua L, Zhao J.. Association of serum 25-hydroxyvitamin D with cardiovascular and all-cause mortality in patients with chronic kidney disease: NHANES 2007–2018 results. *Clinics*. 2024; 79: 1-5.
63. Bhan I, Hewison M, Thadhani R. Dietary vitamin D intake in advanced CKD/ESRD. *Seminars in dialysis*. 2010; 23(4): 407-410.
64. Franca PH, Wolley M, Ranganathan D, Seguro AC. Vitamin D deficiency in chronic kidney disease: recent evidence and controversies. *International journal of environmental research and public health*. 2018; 15(8): 1773.
65. Jhee JH, Nam K, An S, Cha M, Lee M. Severe vitamin D deficiency is a risk factor for renal hyperfiltration. *The American Journal of Clinical Nutrition*. 2018; 108(6): 1342-51.
66. Trandafir MF, Savu O, Pasarica D, Bleotu C, Gheorghiu M. Interleukin-6 as a director of immunological events and tissue regenerative capacity in hemodialyzed diabetes patients. *Medical Sciences*. 2024; 12(2): 31-32.
67. Honda H, Qureshi AR, Heimbürger O. Serum albumin, c-reactive protein, interleukin 6, and fetuin a as predictors of malnutrition, cardiovascular disease, and mortality in patients with ESRD. *Am J Kidney Dis*. 2006;47(1):139-48.

68. Martinez L, Perla M, Tabbara M. Systemic profile of cytokines in arteriovenous fistula patients and their associations with maturation failure. *Kidney*. 2022;3:677-86.
69. Kamal NM, Diab M, Khalil RA. Study of hepcidin level in patients with chronic kidney disease and its correlation with markers of iron status in zagazig university hospital. *The Egyptian Journal of Internal Medicine*. 2018; 30: 284-88.
70. Indrawanto W, Aman AK, Thamrin A. The correlation of anemia and hepcidin serum levels in regular hemodialysis patients with chronic hepatitis C in haji adam malik hospital medan. *Indonesian Journal of Clinical Pathology and Medical Laboratory*. 2019; 25(2): 218-23.
71. Ulrahman BAA, Sharba IR. Serum hepcidin levels as indicator of anemia status in male hemodialysis patients. *Int J Health Sci*. 2022;1:1-10.
72. Kamboj, Yadav AK, Kumar V, Jha V. Effect of Vitamin D Supplementation on Serum Hepcidin Levels in Non-Diabetic Chronic Kidney Disease Patients. *Indian Journal of Nephrology*. 2023; 33(6): 444-48.
73. Panwar B, McCann D, Olbina G, Westerman M, Gutiérrez OM. Effect of calcitriol on serum hepcidin in individuals with chronic kidney disease: a randomized controlled trial. *BMC Nephrology*. 2018; 19: 1-8.
74. Hertanto DM, Nurwidda AD, Tjempakasari A, Widodo W, Pranawa P. The administration of intradialytic parenteral nutrition does not affect the anemia status of chronic kidney disease patients undergoing hemodialysis. *Indonesian Journal of Kidney and Hypertension*. 2024;1(1):4-8.
75. Kasprowicz K, Ratkowski W, Wolyniec W, Kaczmarczyk M, Witek K, Zmijewski P, et al. The effect of vitamin D3 supplementation on hepcidin, iron, and IL-6 responses after a 100 km ultra-marathon. *Int J Environ Res Public Health* 2020;17:2962.
76. Alubaidi GT, Humadi YA, Hamoodi DA, Mahdi HT, Anid BA, Jasim IA, et al. Serum interleukin-6 is associated with hypocalcemia, hypoferritinemia and

- hyperkalemia in end-stage renal disease patients. *Italian Journal of Medicine*. 2022;16(1).11-16.
77. Ustuner B, Bek S, Eren N, Bakirdogen S, Kalender B. Hepcidin and vitamin d levels: mutual effects in anemia of chronic kidney disease. *Kocaeli Üniversitesi Sağlık Bilimleri Dergisi*. 2021;7(2):110-4.
  78. Shankar A, Sabanayagam C, Kalidindi S. Serum 25-hydroxyvitamin d levels and prediabetes among subjects free of diabetes. *Diabetes care*. 2021;34(5): 4-9.
  79. Madar AA, Stene LC, Meyer HE, Brekke M, Lagerløv P, Knutsen KV, et al. Effect of vitamin d 3 supplementation on iron status: a randomized, double-blind, placebo-controlled trial among ethnic minorities living in Norway. *Nutrition journal*. 2015;15:1-10.
  80. Lim J, Park YW, Lee SH, Do JY, Kim SH, Han S, et al. Association of hepcidin with anemia parameters in incident dialysis patients: differences between dialysis modalities. *Therapeutic Apheresis and Dialysis*. 2020; 24(1): 4-16.
  81. Wang C, Fang Z, Zhu Z, Liu J, Chen H. Reciprocal regulation between hepcidin and erythropoiesis and its therapeutic application in erythroid disorders. *Experimental hematology*. 2017;52:24-31.
  82. Andriopoulos BJ, Corradini E, Xia Y. BMP6 is a key endogenous regulator of hepcidin expression and iron metabolism. *Nat Genet*. 2009;41:482–7.
  83. Silvestri L. Inhibiting the hepcidin inhibitor for treatment of iron overload. *Blood*. 2013;121:1068–9