



DAFTAR PUSTAKA

- Abdelkarim, O. A., Abdelrahmeem, M. A., Abubakar, U., & Ekheir, H. K. (2020). Prevalence and Factors Predicting Anemia in Sudanese Hemodialysis Patients. *Research Square*, 2020(1), 1–13. <https://doi.org/10.21203/rs.2.21912/v1>
- Achadi, E. (2010). *Gizi dan Kesehatan Masyarakat. Edisi revisi. Departemen Gizi dan Kesehatan Masyarakat. Fakultas Kesehatan Masyarakat. Universitas Indonesia*. Jakarta: Raja Grafindo Persada.
- Adera, H., Hailu, W., Adane, A., & Tadesse, A. (2019). Prevalence of anemia and its associated factors among chronic kidney disease patients at university of gondar hospital, northwest ethiopia: A hospital-based cross sectional study. *International Journal of Nephrology and Renovascular Disease*, 15(12), 219–228. <https://doi.org/10.2147/IJNRD.S216010>
- Afshar, R., Sanavi, S., Salimi, J., & Ahmadzadeh, M. (2010). Hematological profile of chronic kidney disease (CKD) patients in Iran, in pre-dialysis stages and after initiation of hemodialysis. *Saudi Journal of Kidney Diseases and Transplantation : An Official Publication of the Saudi Center for Organ Transplantation, Saudi Arabia*, 21(2), 368–371. Retrieved from <https://www.sjkdt.org/article.asp?issn=1319-2442;year=2010;volume=21;issue=2;spage=368;epage=371;aulast=Afshar>
- Agustina, W., & Purnomo, A. E. (2018). Menurunnya Kadar Hemoglobin Pada Penderita End Stage Renal Disease (ESRD) Yang Menjalani Hemodialisis Di Kota Malang. *Prosiding Seminar Nasional 2018 Universitas Muhammadiyah Jember*, 76–83. <https://doi.org/10.32528/psn.v0i0.1733>
- Al Rahbi, F., & Al Salmi, I. (2020). Awareness, knowledge, and perception of chronic kidney disease patients at renal medicine outpatients' clinic. *Saudi Journal of Kidney Diseases and Transplantation*, 31(6), 1351–1360. <https://doi.org/10.4103/1319-2442.308344>
- Almatsier, S. (2002). *Prinsip Dasar Ilmu Gizi*, Gramedia. Jakarta: Gramedia Pustaka Utama.



- Almatsier, S. (2009). *Prinsip Dasar Ilmu Gizi*. Jakarta: Gramedia Pustaka Utama.
- Alvionita, A., Ayu, W. D., & Masruhim, M. A. (2016). Pengaruh Penggunaan Asam Folat terhadap Kadar Hemoglobin Pasien Penyakit Ginjal Kronik yang Menjalani Hemodialisis Di RSUD Abdul Wahab Sjahranie. *Journal of Tropical Pharmacy and Chemistry*, 3(3), 179–184.
<https://doi.org/10.25026/JTPC.V3I3.104>
- Amini, M., Khosravi, M., Baradaran, H. R., & Atlasi, R. (2015). Vitamin B12 supplementation in end stage renal diseases: a systematic review. *Medical Journal of the Islamic Republic of Iran*, 29(1), 167–175. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4431359/pdf/MJIRI-29-167.pdf>
- Anand, N., Chandrasekaran, S., & Alam, M. N. (2013). The Malnutrition Inflammation Complex Syndrome-The Missing Factor in the Perio-Chronic Kidney Disease Interlink. *Journal of Clinical and Diagnostic Research*, 7(4), 763–767. <https://doi.org/10.7860/JCDR/2013/5329.2907>
- Aoun, M., Karam, R., Sleilaty, G., Antoun, L., & Ammar, W. (2018). Iron deficiency across chronic kidney disease stages: Is there a reverse gender pattern? *PLOS ONE*, 13(1), 1–12.
<https://doi.org/10.1371/JOURNAL.PONE.0191541>
- Ayesh, M. H., Bataineh, A., Elamin, E., Khader, Y., Alawneh, K., & Rababah, M. (2014). Adequate Hemodialysis improves anemia by enhancing glucose-6-phosphate dehydrogenase activity in patients with end-stage renal disease. *BMC Nephrology*, 15(1), 1–5. <https://doi.org/10.1186/1471-2369-15-155>
- Bandiara, R. (2003). Penatalaksanaan Anemi Defisiensi Besi Pada Pasien Yang Menjalani Hemodialisis. *Pustaka Ilmiah Universitas Padjajaran*. Retrieved from <https://pustaka.unpad.ac.id/archives/29085>
- Batchelor, E. K., Kapitsinou, P., Pergola, P. E., Kovesdy, C. P., & Jalal, D. I. (2020). Iron deficiency in chronic kidney disease: Updates on pathophysiology, diagnosis, and treatment. *Journal of the American Society of Nephrology*, 31(3), 456–468. <https://doi.org/10.1681/ASN.2019020213>
- Beck, M. E. (2011). *Ilmu Gizi dan Diet Hubungannya dengan Penyakit-penyakit*



untuk Perawat dan Dokter. Yogyakarta: C.V Andi Offset.

- Belinda, B., & Dewi, Z. L. (2021). Exploring Self-Regulation of Patients with Chronic Kidney Disease Undergoing Hemodialysis. *Jurnal Psikologi*, 48(2), 1–15. <https://doi.org/10.22146/jpsi.61144>
- Bhoopalan, S. V., Huang, L. J. shen, & Weiss, M. J. (2020). Erythropoietin regulation of red blood cell production: From bench to bedside and back. *F1000 Research*, 18(9), 1–17. <https://doi.org/10.12688/f1000research.26648.1>
- Bogacka, A., Sobczak-Czysz, A., Kucharska, E., Madaj, M., & Stucka, K. (2018). Analysis of nutrition and nutritional status of haemodialysis patients. *Roczniki Panstwowego Zakladu Higieny*, 69(2), 165–174. Retrieved from http://wydawnictwa.pzh.gov.pl/roczniki_pzh/
- Bonsaksen, T., Haukeland-Parker, S., Lerdal, A., & Fagermoen, M. S. (2014). A 1-year follow-up study exploring the associations between perception of illness and health-related quality of life in persons with chronic obstructive pulmonary disease. *International Journal of COPD*, 2014(9), 41–50. <https://doi.org/10.2147/COPD.S52700>
- Bramania, P., Ruggajo, P., Bramania, R., Mahmoud, M., & Furia, F. (2021). Nutritional Status of Patients on Maintenance Hemodialysis at Muhimbili National Hospital in Dar es Salaam, Tanzania: A Cross-Sectional Study. *Journal of Nutrition and Metabolism*, 2021, 1–7. <https://doi.org/10.1155/2021/6672185>
- Broadbent, E., Petrie, K. J., Main, J., & Weinman, J. (2006). The Brief Illness Perception Questionnaire. *Journal of Psychosomatic Research*, 60(6), 631–637. <https://doi.org/10.1016/j.jpsychores.2005.10.020>
- Broadbent, E., Wilkes, C., Koschwanez, H., Weinman, J., Norton, S., & Petrie, K. J. (2015). A systematic review and meta-analysis of the Brief Illness Perception Questionnaire. *Psychology and Health*, 30(11), 1361–1385. <https://doi.org/10.1080/08870446.2015.1070851>
- Camaschella, C. (2019). Iron deficiency. *Blood Review Series*, 133(1), 30–39. <https://doi.org/10.1182/BLOOD-2018-05-815944>



- Capelli, I., Cianciolo, G., Gasperoni, L., Zappulo, F., Tondolo, F., Cappuccilli, M., & Manna, G. La. (2019). *Folic Acid and Vitamin B12 Administration in CKD, Why Not?* 11(2), 383–402. <https://doi.org/10.3390/nu11020383>
- Cappuccilli, M., Bergamini, C., Giacomelli, F. A., Cianciolo, G., Donati, G., Conte, D., ... Capelli, I. (2020). Vitamin B Supplementation and Nutritional Intake of Methyl Donors in Patients with Chronic Kidney Disease : A Critical Review of the Impact on Epigenetic Machinery. *MDPI Nutrients*, 12(5), 1234–1253. <https://doi.org/10.3390/nu12051234>.
- Carrero, J. J., Thomas, F., Nagy, K., Arogundade, F., Avesani, C. M., Chan, M., ... Kovesdy, C. P. (2018). Global Prevalence of Protein-Energy Wasting in Kidney Disease: A Meta-analysis of Contemporary Observational Studies From the International Society of Renal Nutrition and Metabolism. *Journal of Renal Nutrition*, 28(6), 380–392. <https://doi.org/10.1053/J.JRN.2018.08.006>
- Cases, A., Egocheaga, M. I., Tranche, S., Pallarés, V., Ojeda, R., Górriz, J. L., & Portolés, J. M. (2018). Anemia of chronic kidney disease: Protocol of study, management and referral to Nephrology. *Nefrología*, 38(1), 8–12. <https://doi.org/10.1016/j.nefroe.2018.01.007>
- CDC. (2021). *Chronic Kidney Disease in the United States , 2021*. Retrieved from <https://www.cdc.gov/kidneydisease/publications-resources/CKD-national-facts.html%0AWhen>
- Chilcot, J., Davenport, A., Wellsted, D., Firth, J., & Farrington, K. (2011). An association between depressive symptoms and survival in incident dialysis patients. *Nephrology Dialysis Transplantation*, 26(5), 1628–1634. <https://doi.org/10.1093/ndt/gfq611>
- Chilcot, J., Guirguis, A., Friedli, K., Almond, M., Day, C., Silva-Gane, M. Da, ... Farrington, K. (2018). Depression symptoms in haemodialysis patients predict all-cause mortality but not kidney transplantation: A cause-specific outcome analysis. *Annals of Behavioral Medicine*, 52(1), 1–8. <https://doi.org/10.1007/s12160-017-9918-9>
- Choi, J. H., Yates, Z., Veysey, M., Heo, Y. R., & Lucock, M. (2014). Contemporary Issues Surrounding Folic Acid Fortification Initiatives. *Preventive Nutrition*



and *Food Science*, 19(4), 247–260.

<https://doi.org/10.3746/PNF.2014.19.4.247>

Cichon, B., Fabiansen, C., Iuel-Brockdorf, A. S., Yaméogo, C. W., Ritz, C., Christensen, V. B., ... Friis, H. (2018). Impact of food supplements on hemoglobin, iron status, and inflammation in children with moderate acute malnutrition: A $2 \times 2 \times 3$ factorial randomized trial in Burkina Faso. *American Journal of Clinical Nutrition*, 107(2), 278–286.
<https://doi.org/10.1093/ajcn/nqx050>

Clase, C. M., Ki, V., & Holden, R. M. (2013). Water-Soluble Vitamins in people with low glomerular filtration rate or on dialysis: A Review. *Seminars in Dialysis*, 26(5), 546–567. <https://doi.org/10.1111/sdi.12099>

Coates, P. M., Betz, J. M., Blackman, M. R., Cragg, G. M., Levine, M., Moss, J., & White, J. D. (2015). *Encyclopedia of Dietary Supplements* (2nd ed.). Boca Raton: CRC Press. <https://doi.org/https://doi.org/10.1201/b14669>

D'Alessandro, C., Piccoli, G. B., Calella, P., Brunori, G., Pasticci, F., Egidi, M. F., ... Cupisti, A. (2016). “Dietaly”: Practical issues for the nutritional management of CKD patients in Italy. *BMC Nephrology*, 17(1), 1–18.
<https://doi.org/10.1186/s12882-016-0296-5>

Dahlan, M. S. (2014). *Statistik untuk Kedokteran dan Kesehatan: Deskriptif, Bivariat, dan Multivariat Dilengkapi Aplikasi Menggunakan SPSS* (6th ed.). Jakarta: Epidemiologi Indonesia.

Dahlan, M. S. (2016). *Besar Sampel dalam Penelitian Kedokteran dan Kesehatan* (4th ed.). Jakarta: Epidemiologi Indonesia.

Damtie, S., Biadgo, B., Baynes, H. W., Ambachew, S., Melak, T., Asmelash, D., & Abebe, M. (2018). Chronic Kidney Disease and Associated Risk Factors Assessment among Diabetes Mellitus Patients at A Tertiary Hospital, Northwest Ethiopia. *Ethiopian Journal of Health Sciences*, 28(6), 691–700.
<https://doi.org/10.4314/ejhs.v28i6.3>

Dandge, V. A., & Variya, D. (2020). Study of vitamin B12 deficiency in chronic kidney disease. *International Journal of Advances in Medicine*, 7(2), 303–307.
<https://doi.org/10.18203/2349-3933.ijam20200085>



- Deglin, H. ., & Vallerand, A. . (2005). *Pedoman Obat untuk Perawat*. Jakarta: Penerbit Buku Kedokteran EGC.
- Deivita, Y., Syafruddin, S., Andi Nilawati, U., Aminuddin, A., Burhanuddin, B., & Zahir, Z. (2021). Overview of Anemia; risk factors and solution offering. *Gaceta Sanitaria*, 35(2), 235–241. <https://doi.org/10.1016/J.GACETA.2021.07.034>
- Depner, T. A. (2005). Hemodialysis adequacy: Basic essentials and practical points for the nephrologist in training. *Hemodialysis International*, 9(3), 241–254. <https://doi.org/10.1111/j.1492-7535.2005.01138.x>
- Du, Y., Dennis, B., Ramirez, V., Li, C., Wang, J., & Meireles, C. L. (2022). Experiences and disease self-management in individuals living with chronic kidney disease: qualitative analysis of the National Kidney Foundation's online community. *BMC Nephrology*, 23(1), 1–10. <https://doi.org/10.1186/s12882-022-02717-7>
- Farid, Y., Bowman, N. S., & Lecat, P. (2021). *Biochemistry, Hemoglobin Synthesis*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK536912/>
- Ferrer, R., & Klein, W. M. (2015). Risk perceptions and health behavior. *Current Opinion in Psychology*, 1(5), 85–89. <https://doi.org/10.1016/j.copsyc.2015.03.012>
- Finkelstein, F. O., Story, K., Firaneck, C., Mendelssohn, D., Barre, P., Takano, T., ... Mujais, S. (2009). Health-Related Quality of Life and Hemoglobin Levels in Chronic Kidney Disease Patients. *Clinical Journal of the American Society of Nephrology*, 4(1), 33–38. <https://doi.org/10.2215/CJN.00630208>
- Fishbane, S., & Spinowitz, B. (2018). Update on Anemia in ESRD and Earlier Stages of CKD: Core Curriculum 2018. *American Journal of Kidney Diseases*, 71(3), 423–435. <https://doi.org/10.1053/J.AJKD.2017.09.026>
- Froese, D. S., Fowler, B., & Baumgartner, M. R. (2019). Vitamin B12, folate, and the methionine remethylation cycle—biochemistry, pathways, and regulation. *Journal of Inherited Metabolic Disease*, 42(4), 673–685. <https://doi.org/10.1002/jimd.12009>



- Garini, A. (2019). Kadar Hemoglobin Pada Pasien Gagal Ginjal Kronik Yang Menjalani Hemodialisis. *Jurnal Kesehatan Poltekkes Palembang*, 13(2), 111–116. <https://doi.org/10.36086/jpp.v13i2.234>
- Gerogianni, S. K., & Babatsikou, F. P. (2014). Psychological aspects in chronic renal failure. *Health Science Journal*, 8(2), 205–214. Retrieved from <https://www.itmedicalteam.pl/articles/psychological-aspects-in-chronic-renal-failure-105494.html>
- Ghasemi, F., Abdi, A., Salari, N., Tohidi, M. R., & Faraji, A. (2019). Comparing the effects of intravenous and subcutaneous Erythropoietin on blood indices in hemodialysis patients. *Scientific Reports*, 9(1), 1–8. <https://doi.org/10.1038/s41598-018-38193-z>
- Gilbert, S. J., & Weiner, D. E. (2014). *National Kidney Foundation's Primer on Kidney Diseases* (6th ed.; D. S. Gipson, M. A. Perazella, & M. Tonelli, eds.). Philadelphia: Elsevier Saunders. Retrieved from <https://medicinahmx.files.wordpress.com/2017/07/national-kidney-foundations-primer-on-kidney-diseases.pdf>
- Ginting, L., Aziz, A., Wulandari, Lasono, D. B., & Koerniawan, D. (2018). Hubungan Capaian Adekuasi Hemodialisis dengan Angka Kejadian Anemia Pada Pasien. *Diklit RS Fatmawati Jakarta*, 3–12. Retrieved from <http://diklitrfsfatmawati.com/jurnal/single.php?id=27>
- Gluba-Brzózka, A., Franczyk, B., Olszewski, R., & Rysz, J. (2020). The Influence of Inflammation on Anemia in CKD Patients. *International Journal of Molecular Sciences*, 21(3), 725–749. <https://doi.org/10.3390/IJMS21030725>
- González-Ortiz, A., Correa-Rotter, R., Vázquez-Rangel, A., Vega-Vega, O., & Espinosa-Cuevas, Á. (2019). Relationship between protein-energy wasting in adults with chronic hemodialysis and the response to treatment with erythropoietin. *BMC Nephrology*, 20(1), 1–9. <https://doi.org/10.1186/s12882-019-1457-0>
- Green, R. (2017). Review Article Vitamin B 12 deficiency from the perspective of a practicing hematologist. *Blood*, 129(19), 2603–2612. <https://doi.org/10.1182/blood-2016-10-569186.In>



- Gunarathne, T. G. N. S., Tang, L. Y., Lim, S. K., Nanayakkara, N., Damayanthi, H. D. W. T., & Abdullah, K. L. (2022). Factors Associated with Symptom Burden in Adults with Chronic Kidney Disease Undergoing Hemodialysis: A Prospective Study. *International Journal of Environmental Research and Public Health*, 19(9), 1–13. <https://doi.org/10.3390/ijerph19095540>
- Günes, E. (2013). Medical Nutrition Therapy for Hemodialysis Patients. In H. Suzuki (Ed.), *Hemodialysis*. Intechopen. <https://doi.org/10.5772/53473>
- Hadisa, N., Susanti, R., & Robiyanto. (2017). Uji Validitas dan Reliabilitas B-IPQ Versi Indonesia pada Pasien Gagal Ginjal Kronik di RSUD Soedarso Pontianak. *Jurnal Manajemen Dan Pelayanan Farmasi*, 7(4), 175–181. <https://doi.org/10.22146/jmpf.33340>
- Hansen, D. K., & Inselman, A. L. (2022). Folic Acid. In *Encyclopedia of Toxicology: Third Edition*. StatPearls Publishing. <https://doi.org/10.1016/B978-0-12-386454-3.00731-4>
- Hasanzamani, B., & Sabbagh, M. G. (2020). The relationship between anemia and Kt/V index in patients undergoing continuous ambulatory peritoneal dialysis and hemodialysis. *Journal of Renal Injury Prevention*, 9(1), 1–4. <https://doi.org/10.15171/jrip.2020.06>
- Hazin, M. A. A. (2020). Anemia in chronic kidney disease. *Revista Da Associacao Medica Brasileira*, 66(1), 55–58. <https://doi.org/10.1590/1806-9282.66.S1.55>
- Hekmat, R. (2020). Hemodialysis Adequacy and Its Impact on Long-Term Patient Survival in Demographically, Socially, and Culturally Homogeneous Patients. *International Journal of Nephrology*, 2020. <https://doi.org/10.1155/2020/9857123>
- Herawati, N. (2009). Mengenal Anemia dan Peranan Erythropoietin. *Biotrends*, 4(1), 35–39. Retrieved from <https://terbitan.bioteck.lipi.go.id/index.php/biotrends/article/view/24>
- Hillman, R. S., Ault, K. A., Leporrier, M., & Rinder, H. M. (2010). *Hematology in Clinical Practice* (5th ed.). New York: McGraw-Hill.
- Himmelfarb, J. (2005). Hemodialysis complications. *American Journal of Kidney Diseases*, 45(6), 1122–1131. <https://doi.org/10.1053/j.ajkd.2005.02.031>



- Hodson, E. M., & Craig, J. C. (2014). Oral Iron for Patients Receiving Dialysis: What is the Evidence? *Seminars in Dialysis*, 27(1), 8–10. <https://doi.org/10.1111/SDI.12149>
- Hoffbrand, A., & Moss, P. (2013). *Kapita Selekta Hematologi* (6th ed.). Jakarta: EGC.
- Hooda, J., Shah, A., & Zhang, L. (2014). Heme, an essential nutrient from dietary proteins, critically impacts diverse physiological and pathological processes. *Nutrients*, 6(3), 1080–1102. <https://doi.org/10.3390/nu6031080>
- Hung, C. C., Yu, P. H., Niu, S. W., Kuo, I. C., Lee, J. J., Shen, F. C., ... Hwang, S. J. (2022). Association between Body Mass Index and Renal Outcomes Modified by Chronic Kidney Disease and Anemia: The Obesity Paradox for Renal Outcomes. *Journal of Clinical Medicine*, 11(1), 1–13. <https://doi.org/10.3390/jcm11102787>
- IRR. (2017). *Report of Indonesian Renal Registry*. Retrieved from <https://www.indonesianrenalregistry.org/data/IRR 2017.pdf>
- IRR. (2018). *Report of Indonesian Renal Registry*. Retrieved from <https://www.indonesianrenalregistry.org/data/IRR 2018.pdf>
- Jadeja, Y. P., & Kher, V. (2012). Protein energy wasting in chronic kidney disease: An update with focus on nutritional interventions to improve outcomes. *Indian Journal of Endocrinology and Metabolism*, 16(2), 246–251. <https://doi.org/10.4103/2230-8210.93743>
- Jankowski, J., & Noels, H. (2021). Comorbidities in Chronic Kidney Disease (CKD). In *Comorbidities in Chronic Kidney Disease (CKD)* (1st ed.). Basel: MPDI. <https://doi.org/10.3390/books978-3-03936-669-9>
- Jayanti, A., Foden, P., Wearden, A., & Mitra, S. (2016). Illness beliefs in end stage renal disease and associations with self-care modality choice. *PLoS ONE*, 11(7), 1–17. <https://doi.org/10.1371/journal.pone.0154299>
- K/DOQI. (2007). Clinical Practice Guidelines for Chronic Kidney Disease: Evaluation, Classification, and Stratification. In *National Kidney Foundation*. Retrieved from https://www.kidney.org/sites/default/files/docs/ckd_evaluation_classification



_stratification.pdf

- Kalantar-Zadeh, K., & Aronoff, G. R. (2009). Hemoglobin variability in anemia of chronic kidney disease. *Journal of the American Society of Nephrology*, 20(3), 479–487. <https://doi.org/10.1681/ASN.2007070728>
- Kalantar-Zadeh, K., & Fouque, D. (2017). Nutritional Management of Chronic Kidney Disease. *New England Journal of Medicine*, 377(18), 1765–1776. <https://doi.org/10.1056/NEJMra1700312>
- Kalantar-Zadeh, K., Ikizler, T. A., Block, G., Avram, M. M., & Kopple, J. D. (2003). Malnutrition-inflammation complex syndrome in dialysis patients: causes and consequences. *American Journal of Kidney Diseases*, 42(5), 864–881. <https://doi.org/10.1016/J.AJKD.2003.07.016>
- Kazancioğlu, R. (2013). Risk factors for chronic kidney disease: an update. *International Society of Nephrology*, 3(4), 368–371. <https://doi.org/10.1038/kisup.2013.79>
- KDIGO. (2012a). Clinical Practice Guideline for Anemia in Chronic Kidney Disease. *Journal of the International Society of Nephrology*, 2(4). Retrieved from <http://www.kidney-international.org>
- KDIGO. (2012b). Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Official Journal of The International Society of Nephrology*, 3(1). Retrieved from <http://www.kidney-international.org>
- Kemenkes RI. (2017). *INFODATIN Situasi Penyakit Ginjal Kronis*. Retrieved from <https://pusdatin.kemkes.go.id/resources/download/pusdatin/infodatin/infodatin-ginjal-2017.pdf>
- Kemenkes RI. (2021, July 1). Bagaimana Cara Mengukur Indeks Massa Tubuh (IMT) / Berat Badan Normal? - Direktorat P2PTM. Retrieved December 3, 2021, from <http://p2ptm.kemkes.go.id/infographic-p2ptm/obesitas/page/3/bagaimana-cara-mengukur-indeks-massa-tubuh-imt-berat-badan-normal>
- Khan, S., & Ahmad, I. (2020). Impact of Hemodialysis on the Wellbeing of Chronic Kidney Diseases Patients: A Pre-Post Analysis. *Middle East Current Psychiatry*, 27(54), 1–5. <https://doi.org/10.1186/s43045-020-00060-x>



- Kim, H. J., Kim, T. E., Han, M., Yi, Y., Jeong, J. C., Chin, H. J., ... Chae, D. W. (2021). Effects of Blood Erea Nitrogen Independent of The Estimated Glomerular Filtration Rate on The Development of Anemia in Non-dialysis Chronic Kidney Disease: The Results of The KNOW-CKD Study. *PLoS ONE*, 16(9), e0257305. <https://doi.org/10.1371/journal.pone.0257305>
- Kim, S., Kim, E., & Ryu, E. (2019). Illness Perceptions , Self-Care Management , and Clinical Outcomes According to Age-Group in Korean Hemodialysis Patients. *International Journal of Environmental Research and Public Health*, 16(22), 1–12. <https://doi.org/10.3390/ijerph16224459>
- Kistler, B. M., Benner, D., Burrowes, J. D., Campbell, K. L., Fouque, D., Garibotto, G., ... Kalantar-Zadeh, K. (2018). Eating During Hemodialysis Treatment: A Consensus Statement From the International Society of Renal Nutrition and Metabolism. *Journal of Renal Nutrition*, 28(1), 4–12. <https://doi.org/10.1053/J.JRN.2017.10.003>
- Knovich, M. A., Storey, J. A., Coffman, L. G., Torti, S. V., & Torti, F. M. (2009). Ferritin for the Clinician. *Blood Reviews*, 23(3), 95–104. <https://doi.org/10.1016/J.BLRE.2008.08.001>
- Kosmadakis, G., Correia, E. D. C., Carceles, O., Somda, F., & Aguilera, D. (2014). Vitamins in dialysis: Who, when and how much? *Renal Failure*, 36(4), 638–650. <https://doi.org/10.3109/0886022X.2014.882714>
- Kovesdy, C. P., Kopple, J. D., & Kalantar-Zadeh, K. (2013). Management of protein-energy wasting in non-dialysis-dependent chronic kidney disease: Reconciling low protein intake with nutritional therapy. *American Journal of Clinical Nutrition*, 97(6), 1163–1177. <https://doi.org/10.3945/ajcn.112.036418>
- Laudański, K., Nowak, Z., & Wańkowicz, Z. (2010). Psychological aspects of dialysis: Does cognitive appraisal determine the overall outcome? *Polskie Archiwum Medycyny Wewnętrznej*, 120(1–2), 49–53. <https://doi.org/10.20452/pamw.881>
- Levey, A. S., & Coresh, J. (2012). Chronic Kidney Disease. *The Lancet*, 379(9811), 165–180. [https://doi.org/10.1016/S0140-6736\(11\)60178-5](https://doi.org/10.1016/S0140-6736(11)60178-5)



- Liyanage, T., Ninomiya, T., Perkovic, V., Woodward, M., Stirnadel-Farrant, Matsushita, H. K., ... Jha, V. (2017). Chronic kidney disease in Asia: Protocol for a collaborative overview. *Japanese Journal of Crop Science*, 22(6), 1–6. <https://doi.org/10.1111/nep.12821>
- Locham, S., Mathlouthi, A., Dakour-Aridi, H., Nejim, B., & Malas, M. B. (2020). Association between Severe Anemia and Outcomes of Hemodialysis Vascular Access. *Annals of Vascular Surgery*, 1(62), 295–303. <https://doi.org/10.1016/J.AVSG.2019.06.016>
- Lopez, M. J., & Mohiuddin, S. S. (2022). *Biochemistry, Essential Amino Acids*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK557845/>
- Loutradis, C., Skodra, A., Georgianos, P., Tolika, P., Alexandrou, D., Avdelidou, A., & Sarafidis, P. A. (2016). Diabetes mellitus increases the prevalence of anemia in patients with chronic kidney disease: A nested case-control study. *World Journal of Nephrology*, 5(4), 358. <https://doi.org/10.5527/wjn.v5.i4.358>
- Lubis, A. R., Lubis, H. R., & Sitepu, R. R. (2016). Hemodiafiltrasi. *Repositori Institusi Universitas Sumatera Utara*, 1–27. Retrieved from <http://repository.usu.ac.id/handle/123456789/63396>
- Lv, J. C., & Zhang, L. X. (2019). Prevalence and Disease Burden of Chronic Kidney Disease. In *Advances in Experimental Medicine and Biology* (Vol. 1165, pp. 3–15). Singapore: Springer. https://doi.org/10.1007/978-981-13-8871-2_1
- Macdougall, I. C., Bircher, A. J., Eckardt, K. U., Obrador, G. T., Pollock, C. A., Stenvinkel, P., ... Zakhrova, E. (2016). Iron management in chronic kidney disease: Conclusions from a “kidney Disease: Improving Global Outcomes” (KDIGO) Controversies Conference. *Kidney International*, 89(1), 28–39. <https://doi.org/10.1016/j.kint.2015.10.002>
- MacRae, C., Mercer, S. W., Guthrie, B., & Henderson, D. (2021). Comorbidity in chronic kidney disease: A large cross-sectional study of prevalence in Scottish primary care. *British Journal of General Practice*, 71(704), 243–249. <https://doi.org/10.3399/bjgp20X714125>



- Maduell, F. (2005). Hemodiafiltration. *International Society for Dialysis*, 9(1), 47–55. <https://doi.org/10.1111/J.1492-7535.2005.01117.X>
- Mallappallil, M., Friedman, E. A., Delano, B. G., Mcfarlane, S. I., & Salifu, M. O. (2014). Chronic kidney disease in the elderly: evaluation and management. *Clinical Practice (London, England)*, 11(5), 525–535. <https://doi.org/10.2217/CPR.14.46>
- Mandoorah, Q. M., Shaheen, F. A., Mandoorah, S. M., Bawazir, S. A., & Alshohaib, S. S. (2014). Impact of demographic and comorbid conditions on quality of life of hemodialysis patients: a cross-sectional study. *Saudi Journal of Kidney Diseases and Transplantation*, 25(2), 402–437. <https://doi.org/10.4103/1319-2442.128613>
- Maruyama, Y., Kanda, E., Kikuchi, K., Abe, M., Masakane, I., Yokoo, T., & Nitta, K. (2021). Association between anemia and mortality in hemodialysis patients is modified by the presence of diabetes. *Journal of Nephrology*, 34(3), 781–790. <https://doi.org/10.1007/s40620-020-00879-x>
- Mathias, S. D., Blum, S. I., Sikirica, V., Johansen, K. L., Colwell, H. H., & Okoro, T. (2020). Symptoms and impacts in anemia of chronic kidney disease. *Journal of Patient-Reported Outcomes*, 4(1), 64–74. <https://doi.org/10.1186/s41687-020-00215-8>
- Matovinović, M. S. (2009). Pathophysiology and Classification of Kidney Diseases. *EJIFCC*, 20(1), 2–11. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4975264/>
- McFarlane, S. I., Chen, S. C., Whaley-Connell, A. T., Sowers, J. R., Vassalotti, J. A., Salifu, M. O., ... Norris, K. C. (2008). Prevalence and Associations of Anemia of CKD: Kidney Early Evaluation Program (KEEP) and National Health and Nutrition Examination Survey (NHANES) 1999-2004. *American Journal of Kidney Diseases*, 51(4), S46–S55. <https://doi.org/10.1053/J.AJKD.2007.12.019>
- Mikhail, A., Brown, C., Williams, J. A., Mathrani, V., Shrivastava, R., Evans, J., ... Bhandari, S. (2017). Renal association clinical practice guideline on Anaemia of Chronic Kidney Disease. *BMC Nephrology*, 18(1), 345–374.



<https://doi.org/10.1186/S12882-017-0688-1>

- Mollaoglu, M., Candan, F., & Mollaoglu, M. (2016). Illness Perception and Hopelessness in Hemodialysis. *Archives of Clinical Nephrology*, 2(1), 044–048. <https://doi.org/10.17352/acn.000014>
- Murali, K. M., & Lonergan, M. (2020). Breaking the adherence barriers: Strategies to improve treatment adherence in dialysis patients. *Seminars in Dialysis*, 33(6), 475–485. <https://doi.org/10.1111/sdi.12925>
- Murdeswar, H. N., & Anjum, F. (2021). *Hemodialysis*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK563296/>
- Muscat, P., Weinman, J., Farrugia, E., Callus, R., & Chilcot, J. (2021). Illness perceptions predict distress in patients with chronic kidney disease. *BMC Psychology*, 9(1), 1–13. <https://doi.org/10.1186/s40359-021-00572-z>
- Nahas, A. R. F. M., Al Zarzour, R. H., Abu Laila, A. S. M., Tabash, A. M., Abu Mustafa, A. M., Allyan, F. M., ... Elnaem, M. H. (2022). Effect of B12 supplementation on renal anemia among hemodialysis patients at El-Najar hospital, Gaza strip. *Journal of Renal Injury Prevention*, x(x), 1–5. <https://doi.org/10.34172/jrip.2022.32009>
- NHS. (2019, May 23). Vitamin B12 or Folate Deficiency Anaemia. Retrieved August 3, 2022, from National Health Society website: <https://www.nhs.uk/conditions/vitamin-b12-or-folate-deficiency-anaemia/>
- NHS. (2021, September 29). Dialysis. Retrieved July 30, 2022, from National Health Society website: <https://www.nhs.uk/conditions/dialysis/side-effects/>
- NICE. (2015, June 3). Guidance Chronic kidney disease: Managing Anaemia. Retrieved December 8, 2021, from National Institute for Health and Care Excellence website: <https://www.nice.org.uk/guidance/ng8>
- NIDDK. (2018, January). Choosing a Treatment for Kidney Failure . Retrieved November 10, 2021, from National Institute of Diabetes and Digestive and Kidney Diseases website: <https://www.niddk.nih.gov/health-information/kidney-disease/kidney-failure/choosing-treatment>
- NIH. (2021a, March 29). Folate. Retrieved December 1, 2021, from National Institutes of Health: Office of Dietary Supplements website: <https://ods.od.nih.gov/factsheets/Folate-HealthProfessional/>



- <https://ods.od.nih.gov/factsheets/folate-HealthProfessional/>
- NIH. (2021b, March 30). Iron. Retrieved November 29, 2021, from National Institutes of Health website: <https://ods.od.nih.gov/factsheets/Iron-HealthProfessional/>
- NKF. (2015). Dialysis. Retrieved November 10, 2021, from National Kidney Foundation website: <https://www.kidney.org/atoz/content/dialysisinfo>
- NKF. (2016, March 8). Anemia and Chronic Kidney Disease. Retrieved October 3, 2021, from National Kidney Foundation website: https://www.kidney.org/atoz/content/what_anemia_ckd
- NKF. (2017, March 3). Anemia and Iron Needs in Dialysis. Retrieved December 4, 2021, from National Kidney Foundation website: <https://www.kidney.org/atoz/content/ironDialysis>
- NKF. (2019, April). Dietary Guidelines for Adults Starting on Hemodialysis | National Kidney Foundation. Retrieved November 22, 2021, from National Kidney Foundation website: https://www.kidney.org/atoz/content/dietary_hemodialysis
- NKF. (2022a). Kidney Failure Risk Factor: Gender (Sex) . Retrieved July 28, 2022, from National Kidney Foundation website: <https://www.kidney.org/content/kidney-failure-risk-factor-gender-sex>
- NKF. (2022b). Vitamins and Minerals in Chronic Kidney Disease . Retrieved August 3, 2022, from National Kidney Foundation website: <https://www.kidney.org/atoz/content/vitamineral>
- Nukro, S. (2006). Anemia in chronic kidney disease. *Cleveland Clinic Journal of Medicine*, 73(3), 289–297. <https://doi.org/10.1016/B978-0-323-47871-7.00028-9>
- Obeagu, E. I., Babar, Q., & Obeagu, G. U. (2021). Megaloblastic Anaemia - A Review. *International Journal of Current Research in Medical Science*, 7(5), 17–24. <https://doi.org/10.22192/ijcrms.2021.07.05.004>
- Offurum, A., Wagner, L. A., & Gooden, T. (2016). Adverse safety events in patients with Chronic Kidney Disease (CKD). *Expert Opinion on Drug Safety* , 15(12), 1597–1607. <https://doi.org/10.1080/14740338.2016.1236909>



- Opiyo, O. R., Nyawade, S. A., McCaul, M., Nyasulu, P. S., Lango, D. B., Were, A. J. O., ... Olenja, J. M. (2020). Perceptions on Adherence to Dietary Prescriptions for Adults with Chronic Kidney Disease on Hemodialysis: A Qualitative Study. *Diseases*, 8(3), 29–45. <https://doi.org/10.3390/diseases8030029>
- Par'i, H. M., Wiyono, S., & Harjatmo, T. P. (2017). *Penilaian Status Gizi*. Jakarta: Pusat Pendidikan Sumber Daya Manusia Kesehatan Kemenkes RI.
- Pardede, D. K. B., & Sugianti, I. (2012). Gangguan Gastrointestinal pada Penyakit Ginjal Kronis. *Majalah Kedokteran UKI*, 28(3), 501–507. <https://doi.org/10.33541/mkvol34iss2pp60>
- PERNEFRI. (2003). *Konsensus Dialisis* (1st ed.). Jakarta. Retrieved from <https://www.pernefri.org/konsensus/Konsensus Dialisis.pdf>
- PERNEFRI. (2011). *Konsensus Manajemen Anemia Pada Penyakit Ginjal Kronik* (2nd ed.). Jakarta. Retrieved from <https://www.pernefri.org/konsensus/Konsensus Anemia - Isi.pdf>
- Piccoli, G. B., Lippi, F., Fois, A., Gendrot, L., Nielsen, L., Vigreux, J., ... Cupisti, A. (2020). Intradialytic Nutrition and Hemodialysis Prescriptions: A Personalized Stepwise Approach. *Nutrients MPDI*, 12(3), 785–810. <https://doi.org/10.3390/NU12030785>
- Pretto, C. R., Winkelmann, E. R., Hildebrandt, L. M., Barbosa, D. A., Colet, C. de F., & Stumm, E. M. F. (2020). Quality of life of chronic kidney patients on hemodialysis and related factors. *Revista Latino-Americana de Enfermagem*, 28, e3327–e3338. <https://doi.org/10.1590/1518-8345.3641.3327>
- Price, S. A., & Wilson, L. M. (2012). *Patofisiologi Konsep Klinis Proses-proses Penyakit* (6th ed.; H. Hartanto, N. Susi, P. Wulansari, & D. Mahanani, Eds.). Jakarta: Penerbit Buku Kedokteran EGC.
- Puspita, A. A., Setianingrum, E. L. S., & Lidia, K. (2019). Pengaruh Frekuensi Hemodialisis Terhadap Perbedaan Kadar Hemoglobin Dan Indeks Eritrosit Pasien Gagal Ginjal Kronik Pre Dan Post Hemodialisis Di Rsud Prof. Dr. W. Z. Johannes Tahun 2018. *Cendana Medical Journal*, 7(1), 102–111. <https://doi.org/10.35508/cmj.v7i1.1462>



- Randi, M. L., Bertozzi, I., Santarossa, C., Cosi, E., Lucente, F., Bogoni, G., ...
Fabris, F. (2020). Prevalence and Causes of Anemia in Hospitalized Patients : Impact on Diseases Outcome. *Journal of Clinical Medicine*, 9(4), 950–958. <https://doi.org/10.3390/jcm9040950>
- Raza, S. T., Singh, N., Kumar, D., Singh*, S., Chatterji, T., & Zaidi, Z. (2021). A study to compare hemoglobin levels and body mass index in normal and diagnosed diabetic stages of CKD patients visiting a tertiary care hospital. *Indian Journal of Clinical Anatomy and Physiology*, 8(3), 230–234. <https://doi.org/10.18231/J.IJCAP.2021.051>
- Richardson, S. R., & O'Malley, G. F. (2022). *Glucose 6 Phosphate Dehydrogenase Deficiency*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK470315/>
- Rocco, M. V., Bedinger, M. R., Milam, R., Greer, J. W., McClellan, W. M., & Frankenfield, D. L. (2001). Duration of dialysis and its relationship to dialysis adequacy, anemia management, and serum albumin level. *American Journal of Kidney Diseases*, 38(4), 813–823. <https://doi.org/10.1053/ajkd.2001.27701>
- Rowland, I., Gibson, G., Heinken, A., Scott, K., Swann, J., Thiele, I., & Tuohy, K. (2018). Gut microbiota functions: metabolism of nutrients and other food components. *European Journal of Nutrition*, 57(1), 1–24. <https://doi.org/10.1007/s00394-017-1445-8>
- Ryu, S., Park, S. K., Jung, J. Y., Kim, Y. H., Oh, Y. K., & Yoo, T. H. (2017). The Prevalence and Management of Anemia in Chronic Kidney Disease Patients : Result from the KoreaN Cohort Study for Outcomes in Patients With Chronic Kidney Disease (KNOW- CKD). *The Korean Academy of Medical Sciences*, 2016(June 2011), 249–256. <https://doi.org/10.3346/jkms.2017.32.2.249>
- Saifan, C., Samarneh, M., Shtaynberg, N., Nasr, R., El-Charabaty, E., & El-Sayegh, S. (2013). Treatment of confirmed B12 deficiency in hemodialysis patients improves Epogen® requirements. *International Journal of Nephrology and Renovascular Disease*, 6(1), 89–93. <https://doi.org/10.2147/IJNRD.S44660>
- Schmidt, R. J., Holley, J. L., & Schwab, S. J. (2011). Overview of the hemodialysis apparatus. *Wolters Kluwer*. Retrieved from uptodate.com/contents/overview-



of-the-hemodialysis-apparatus

- Schoener, B., & Borger, J. (2021). *Erythropoietin*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK536997/>
- Shaikh, H., & Aeddula, N. R. (2021). *Anemia Of Chronic Renal Disease*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK539871/>
- Sheeran, P., Harris, P. R., & Epton, T. (2014). Does heightening risk appraisals change people's intentions and behavior? A meta-analysis of experimental studies. *Psychological Bulletin*, 140(2), 511–543. <https://doi.org/10.1037/a0033065>
- Sirajuddin, Surmita, & Astuti, T. (2018). *Bahan Ajar Gizi: Survey Konsumsi Pangan* (1st ed.). Jakarta: Pusat Pendidikan Sumber Daya Manusia Kesehatan Kemenkes RI. Retrieved from http://bpsdmk.kemkes.go.id/pusdiksdmk/wp-content/uploads/2018/09/Survey-Konsumsi-Pangan_SC.pdf
- Somji, S. S., Ruggajo, P., & Moledina, S. (2020). Adequacy of Hemodialysis and Its Associated Factors among Patients Undergoing Chronic Hemodialysis in Dar es Salaam, Tanzania. *International Journal of Nephrology*, 2020, 1–6. <https://doi.org/10.1155/2020/9863065>
- Song, J. H. (2018). Complications of Hemodialysis. In Y.-L. Kim & H. Kawanishi (Eds.), *The Essentials of Clinical Dialysis*. Singapore: Springer Singapore. https://doi.org/10.1007/978-981-10-1100-9_9
- Stauffer, M. E., & Fan, T. (2014). Prevalence of anemia in chronic kidney disease in the United States. *PLoS ONE*, 9(1), e84943–e84943. <https://doi.org/10.1371/journal.pone.0084943>
- Stenvinkel, P., Gillespie, I. A., Tunks, J., Addison, J., Kronenberg, F., Drueke, T. B., ... Anker, S. D. (2016). Inflammation modifies the paradoxical association between body mass index and mortality in hemodialysis patients. *Journal of the American Society of Nephrology*, 27(5), 1479–1486. <https://doi.org/10.1681/ASN.2015030252>
- Tayebi, A., Biniaz, V., Savari, S., Ebadi, A., Shermeh, M. S. adegh., Einollahi, B., & Rahimi, A. (2016). Effect of Vitamin B12 supplementation on serum



- homocysteine in patients undergoing hemodialysis: A randomized controlled trial. *Saudi Journal of Kidney Diseases and Transplantation : An Official Publication of the Saudi Center for Organ Transplantation, Saudi Arabia*, 27(2), 256–262. <https://doi.org/10.4103/1319-2442.178255>
- Therrien, M., Byham-Gray, L., & Beto, J. (2015). A Review of Dietary Intake Studies in Maintenance Dialysis Patients. *Journal of Renal Nutrition*, 25(4), 329–338. <https://doi.org/10.1053/j.jrn.2014.11.001>
- Tsuchida, A., Paudyal, B., Paudyal, P., Ishii, Y., Hiromura, K., Nojima, Y., & Komai, M. (2010). Effectiveness of oral iron to manage anemia in long-term hemodialysis patients with the use of ultrapure dialysate. *Experimental and Therapeutic Medicine*, 1(5), 777–781. <https://doi.org/10.3892/ETM.2010.122>
- Turner, J., Meghana, P., & Badireddy, M. (2022). *Anemia*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK499994/>
- Vaidya, S. R., & Aeddula, N. R. (2021). *Chronic Renal Failure*. StatPearls Publishing. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK535404/>
- Vittoria. (2016). *Hubungan Asupan Makan, Status Gizi dan Adekuasi Hemodialisis dengan Anemia Pasien Gagal Ginjal Terminal yang Menjalani Hemodialisis Rutin di RSUP Dr. Sardjito Yogyakarta*. Universitas Gadjah Mada.
- Wang, A. Y. (2020). Does Vitamin B12 Delay CKD Progression? *American Journal of Kidney Diseases*, 75(3), 317–319. <https://doi.org/10.1053/j.ajkd.2019.10.003>
- Waryana. (2010). *Gizi Reproduksi*. Yogyakarta: Pustaka Rihamma.
- Webster, A. C., Nagler, E. V., Morton, R. L., & Masson, P. (2017). Chronic Kidney Disease. *The Lancet*, 389(10075), 1238–1252. [https://doi.org/10.1016/S0140-6736\(16\)32064-5](https://doi.org/10.1016/S0140-6736(16)32064-5)
- Weiss, G., & Goodnough, L. T. (2005). Anemia of Chronic Disease. *New England Journal of Medicine*, 352(10), 1011–1023. <https://doi.org/10.1056/NEJMra041809>
- WHO. (2011). *Haemoglobin Concentrations for the Diagnosis of Anaemia and Assessment of Severity*. Retrieved from



UNIVERSITAS
GADJAH MADA

FAKTOR-FAKTOR YANG MEMPENGARUHI KADAR HEMOGLOBIN NORMAL PADA PASIEN
 PENYAKIT GINJAL KRONIK (PGK)
 YANG MENJALANI HEMODIALISIS DI RSUP DR. SARDJITO YOGYAKARTA
 MARYADI, Khudazi Aulawi, S.Kp., M.Kes., M.N.Sc., Ph.D; Uki Noviana, S.Kep., Ns., M.N.Sc., Ph.D

Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>

<https://apps.who.int/iris/handle/10665/85839>

Wjayantii, S., Yetti, K., & Masfuri. (2019). Analysis of the Factors Affecting the Hospital Readmission Incidence of Hemodialysis patients in Bandar Lampung, Indonesia. *Enfermeria Clinica*, 29(2), 720–724.
<https://doi.org/10.1016/j.enfcli.2019.04.110>



UNIVERSITAS
GADJAH MADA

FAKTOR-FAKTOR YANG MEMPENGARUHI KADAR HEMOGLOBIN NORMAL PADA PASIEN
 PENYAKIT GINJAL KRONIK (PGK)

YANG MENJALANI HEMODIALISIS DI RSUP DR. SARDJITO YOGYAKARTA

MARYADI, Khudazi Aulawi, S.Kp., M.Kes., M.N.Sc., Ph.D; Uki Noviana, S.Kep., Ns., M.N.Sc., Ph.D

Universitas Gadjah Mada, 2022 | Diunduh dari <http://etd.repository.ugm.ac.id/>