

## DAFTAR PUSTAKA

- Altemose, K. E., Kumar, J., Portale, A. A., Warady, B. A., Furth, S. L., Fadrowski, J. J., & Atkinson, M. A. (2018). Vitamin D insufficiency, hemoglobin, and anemia in children with chronic kidney disease. *Pediatric Nephrology*, *33*(11), 2131–2136. <https://doi.org/10.1007/s00467-018-4020-5>
- Amanullah, F., Malik, A. A., & Zaidi, Z. (2022). Chronic kidney disease causes and outcomes in children: Perspective from a LMIC setting. *PLoS ONE*, *17*(6 June). <https://doi.org/10.1371/journal.pone.0269632>
- Aras, J. *et al.* (2021) “Role of Hepcidin in Pediatric Chronic Kidney Disease with Anemia,” *Green Medical Journal*, *3*(3), hal. 100–107. Tersedia pada: <https://doi.org/10.33096/gmj.v3i3.87>.
- Atkinson, M.A. *et al.* (2015) “Hepcidin and risk of anemia in CKD: a cross-sectional and longitudinal analysis in the CKiD cohort,” *Pediatric Nephrology*, *30*(4), hal. 635–643. Tersedia pada: <https://doi.org/10.1007/s00467-014-2991-4>.
- Avner, E. D., Harmon, W. E., Niaudet, P., Yoshikawa, N., Emma, F., & Goldstein, S. L. (Eds.). (2016a). *Pediatric Nephrology*. Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-662-43596-0>
- Becherucci, F., Roperto, R. M., Materassi, M., & Romagnani, P. (2016). Chronic kidney disease in children. In *Clinical Kidney Journal* (Vol. 9, Issue 4, pp. 583–591). Oxford University Press. <https://doi.org/10.1093/ckj/sfw047>
- Branten, A.J.W. *et al.* (2004) “Serum ferritin levels are increased in patients with glomerular diseases and proteinuria,” *Nephrology Dialysis Transplantation*, *19*(11), hal. 2754–2760. Tersedia pada: <https://doi.org/10.1093/ndt/gfh454>.
- Chang, T.J. *et al.* (2018) “Relationship between body mass index and renal function deterioration among the Taiwanese chronic kidney disease population,” *Scientific Reports*, *8*(1), hal. 1–12. Tersedia pada: <https://doi.org/10.1038/s41598-018-24757-6>.
- Chen, T. K., Knicely, D. H., & Grams, M. E. (2019). Chronic Kidney Disease Diagnosis and Management: A Review. In *JAMA - Journal of the American Medical Association* (Vol. 322, Issue 13, pp. 1294–1304). American Medical Association. <https://doi.org/10.1001/jama.2019.14745>
- Christodoulou, M., Aspray, T.J. dan Schoenmakers, I. (2021) “Vitamin D Supplementation for Patients with Chronic Kidney Disease: A Systematic Review and Meta-analyses of Trials Investigating the Response to Supplementation and an Overview of Guidelines,” *Calcified Tissue*

- International*, 109(2), hal. 157–178. Tersedia pada: <https://doi.org/10.1007/s00223-021-00844-1>.
- Coccia, P. *et al.* (2017) “High prevalence of Vitamin D deficiency among children with chronic kidney disease and kidney transplant,” *Archivos Argentinos de Pediatría*, 115(3), hal. 220–226. Tersedia pada: <https://doi.org/10.5546/aap.2017.eng.220>.
- Dyussenova, S.B. *et al.* (2021) “Vitamin d deficiency in children with chronic renal disease,” *Open Access Macedonian Journal of Medical Sciences*, 9(B), hal. 1751–1757. Tersedia pada: <https://doi.org/10.3889/oamjms.2021.6991>.
- Esfandiar, N., Shakiba, M. dan Mirzaei, Z. (2019) “Vitamin D Deficiency in Children with Chronic Kidney Disease,” *Journal of Clinical and Diagnostic Research*, hal. 13–16. Tersedia pada: <https://doi.org/10.7860/jcdr/2019/38044.12633>.
- Ganz, T., & Nemeth, E. (2016). Iron Balance and the Role of Hcpidin in Chronic Kidney Disease. In *Seminars in Nephrology* (Vol. 36, Issue 2, pp. 87–93). W.B. Saunders. <https://doi.org/10.1016/j.semnephrol.2016.02.001>
- Gois, P. H. F., Wolley, M., Ranganathan, D., & Seguro, A. C. (2018). Vitamin D deficiency in chronic kidney disease: Recent evidence and controversies. In *International Journal of Environmental Research and Public Health* (Vol. 15, Issue 8). MDPI AG. <https://doi.org/10.3390/ijerph15081773>
- Goyal, K.K. *et al.* (2018) “Hcpidin and proinflammatory markers in children with chronic kidney disease: A case-control study,” *Clinical Nephrology*, 89(5), hal. 363–370. Tersedia pada: <https://doi.org/10.5414/CN109132>.
- Iyengar, A., Kamath, N., Reddy, H. v., Sharma, J., Singhal, J., Uthup, S., Ekambaram, S., Selvam, S., Rahn, A., Fischer, D. C., Wan, M., & Shroff, R. (2022). Determining the optimal cholecalciferol dosing regimen in children with CKD: A randomized controlled trial. *Nephrology Dialysis Transplantation*, 37(2), 326–334. <https://doi.org/10.1093/ndt/gfaa369>
- Jančič, S.G., Močnik, M. dan Marčun Varda, N. (2022) “Glomerular Filtration Rate Assessment in Children,” *Children*, 9(12), hal. 1–12. Tersedia pada: <https://doi.org/10.3390/children9121995>.
- Kamboj, K. *et al.* (2023) “Effect of Vitamin D Supplementation on Serum Hcpidin Levels in Non-Diabetic Chronic Kidney Disease Patients,” *Indian journal of nephrology*, hal. 132–134. Tersedia pada: <https://doi.org/10.4103/ijn.IJN>.
- Kang, H.T. *et al.* (2016) “Ferritin level is positively associated with chronic kidney disease in Korean men, based on the 2010–2012 Korean national health and

- nutrition examination survey,” *International Journal of Environmental Research and Public Health*, 13(11). Tersedia pada: <https://doi.org/10.3390/ijerph13111058>.
- KDIGO 2012. (2012). *Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease*. [www.publicationethics.org](http://www.publicationethics.org)
- Lee, K.H. *et al.* (2019) “Anemia and iron deficiency in children with chronic kidney disease (CKD): Data from the know-ped CKD study,” *Journal of Clinical Medicine*, 8(2). Tersedia pada: <https://doi.org/10.3390/jcm8020152>.
- Lestari, H.I. (2020) “The Role of Vitamin D and Heparin in Pathophysiology of Anaemia in Children with Chronic Kidney Disease,” *Sriwijaya Journal of Medicine*, 3(2), hal. 95–110. Tersedia pada: <https://doi.org/10.32539/sjm.v3i2.69>.
- Libowo, A., Widiasta, A. dan Rachmadi, D. (2020) “Length of Stay Children Hospitalized with Chronic Kidney Disease Based on Etiology and Stage in Dr. Hasan Sadikin Hospital Bandung,” *International Journal of Integrated Health Sciences*, 8(1), hal. 27–31. Tersedia pada: <https://doi.org/10.15850/ijih.v8n1.1880>.
- 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). Springer New York LLC. [https://doi.org/10.1007/978-981-13-88712\\_1](https://doi.org/10.1007/978-981-13-88712_1)
- Nalado, A. M., Olorunfemi, G., Dix-Peek, T., Dickens, C., Khambule, L., Snyman, T., Paget, G., Mahlangu, J., Duarte, R., George, J., & Naicker, S. (2020). Heparin and GDF-15 are potential biomarkers of iron deficiency anaemia in chronic kidney disease patients in South Africa. *BMC Nephrology*, 21(1). <https://doi.org/10.1186/s12882-020-02046-7>
- Oleksik, N. *et al.* (2020) “Vitamin D level in children with chronic kidney disease on conservative treatment- A pilot study,” *Pediatrics Polska*, 95(4), hal. 223–227. Tersedia pada: <https://doi.org/10.5114/polp.2020.103504>.
- Pistis, K.D. *et al.* (2023) “The effect of high-dose vitamin D supplementation on heparin-25 and erythropoiesis in patients with chronic kidney disease,” *BMC Nephrology*, 24(1), hal. 1–14. Tersedia pada: <https://doi.org/10.1186/s12882022-03014-z>.
- Pottel, H., Hoste, L. dan Delanaye, P. (2015) “Abnormal glomerular filtration rate in children , adolescents and young adults PubMed Commons,” *Pediatric nephrology (Berlin, Germany)*, 30(5), hal. 821–828.
- Pradeep, R., Punam, R. dan Sonam, B. (2019) “Prevalence Patterns of Chronic Kidney Disease among School Children and Adolescents in a School in

- Varanasi, India,” *Open Access Journal of Urology & Nephrology*, 4(1), hal. 2–9. Tersedia pada: <https://doi.org/10.23880/oajun-16000154>.
- Roemhild, K., von Maltzahn, F., Weiskirchen, R., Knüchel, R., von Stillfried, S., & Lammers, T. (2021). Iron metabolism: pathophysiology and pharmacology. In *Trends in Pharmacological Sciences* (Vol. 42, Issue 8, pp. 640–656). Elsevier Ltd. <https://doi.org/10.1016/j.tips.2021.05.001>
- Romagnani, P., Remuzzi, G., Glassock, R., Levin, A., Jager, K. J., Tonelli, M., Massy, Z., Wanner, C., & Anders, H. J. (2017). Chronic kidney disease. In *Nature Reviews Disease Primers* (Vol. 3). Nature Publishing Group. <https://doi.org/10.1038/nrdp.2017.88>
- Shroff, R. *et al.* (2017) “Clinical practice recommendations for native Vitamin D therapy in children with chronic kidney disease Stages 2-5 and on dialysis,” *Nephrology Dialysis Transplantation*, 32(7), hal. 1098–1113. Tersedia pada: <https://doi.org/10.1093/ndt/gfx065>.
- Ueda, N. dan Takasawa, K. (2018) “Impact of inflammation on ferritin, hepcidin and the management of iron deficiency anemia in chronic kidney disease,” *Nutrients*, 10(9). Tersedia pada: <https://doi.org/10.3390/nu10091173>.
- Ulrahman, B.A.A. dan Sharba, I.R. (2022) “Vitamin D deficiency as risk factor associated with anemia and outcome hemodialysis patients,” *International journal of health sciences*, 6(April), hal. 1322–1333. Tersedia pada: <https://doi.org/10.53730/ijhs.v6ns5.8866>.
- USTUNER, B., BEK, S., EREN, N., BAKİRDOĞEN, S., & KALENDER, B. (2021). Hepcidin and Vitamin D Levels: Mutual Effects in Anemia of Chronic Kidney Disease. *Kocaeli Üniversitesi Sağlık Bilimleri Dergisi*. <https://doi.org/10.30934/kusbed.661316>
- Vahdat, S. (2020). Vitamin D and Kidney Diseases: A Narrative Review. *International Journal of Preventive Medicine*, 11, 195. [https://doi.org/10.4103/ijpvm.IJPVM\\_54\\_19](https://doi.org/10.4103/ijpvm.IJPVM_54_19)
- Wang, A.Y.M. *et al.* (2024) “Vitamin Supplement Use in Patients With CKD: Worth the Pill Burden?,” *American Journal of Kidney Diseases*, 83(3), hal. 370–385. Tersedia pada: <https://doi.org/10.1053/j.ajkd.2023.09.005>.
- Wenderfer, S.E., Orjuela, A. dan Dionne, J. (2023) “How common is chronic kidney disease in children with lupus nephritis?,” *Pediatric Nephrology*, 38(6), hal. 1701–1705. Tersedia pada: <https://doi.org/10.1007/s00467-022-05848-z>
- Whyte, D. A., & Fine, R. N. (2008). Chronic kidney disease in Children. *Pediatrics in Review*, 29(10), 335–341. <https://doi.org/10.1542/pir.29-10-33>.

Wong, M. M. Y., Tu, C., Li, Y., Perlman, R. L., Pecoits-Filho, R., Lopes, A. A., Narita, I., Reichel, H., Port, F. K., Sukul, N., Stengel, B., Robinson, B. M., Massy, Z. A., & Pisoni, R. L. (2021). Anemia and iron deficiency among chronic kidney disease Stages 3-5ND patients in the chronic kidney disease outcomes and practice patterns study: Often unmeasured, variably treated. *Clinical Kidney Journal*, *13*, 613–624. <https://doi.org/10.1093/CKJ/SFZ091>



FAKULTAS KEDOKTERAN UNIVERSITAS HASANUDDIN  
RSUP Dr. WAHIDIN SUDIROHUSODO  
KOMISI ETIK PENELITIAN KESEHATAN  
Sekretariat : JEMBATAN PENGHUBUNG LT. 2 PCC-IGD RSWS  
Jl. PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.11, Makassar. Telp. (041 1)586 105 Ext. 8147



**FORM PERSETUJUAN SETELAH PENJELASAN (PSP)**  
*(Informed Consent Penelitian)*

Saya bertanda tangan dibawah ini:

Nama : .....

Umur/Kelamin : .....

Alamat : .....

Bukti diri/KTP : .....

Setelah membaca/mendengar dan mengerti penjelasan yang diberikan mengenai tujuan, manfaat apa yang akan dilakukan pada penelitian ini, dengan ini saya menyatakan dengan sesungguhnya serta memberikan persetujuan secara sukarela tanpa paksaan dan bersedia menjalani/mengikuti penelitian mengenai "Pengaruh Pemberian Vitamin D3 terhadap Kadar Serum Hcpicidin dan Kadar Besi pada Anak Penyakit Ginjal Kronik di RSUP Dr. Wahidin Sudirohusodo Makassar"

Saya mengerti bahwa dari semua hal yang dilakukan penelitian pada saya dapat menimbulkan masalah, namun saya percaya kemungkinan tersebut sangat kecil karena akan dilakukan oleh petugas yang terlatih.

Saya tahu bahwa keikutsertaan saya ini bersifat sukarela tanpa paksaan, sehingga saya bias menolak ikut atau mengundurkan diri dari penelitian ini tanpa kehilangan hak saya untuk mendapatkan pelayanan kesehatan. Juga saya berhak bertanya atau meminta penjelasan pada penelitian bila masih ada hal yang belum jelas atau masih ada hal-hal yang ingin saya ketahui tentang penelitian ini.

Saya juga mengerti bahwa semua biaya yang dikeluarkan sehubungan dengan penelitian ini, akan ditanggung oleh peneliti. Demikian juga biaya perawatan dan pengobatan bila terjadi hal-hal yang tidak diinginkan akibat penelitian ini, akan dibiayai oleh peneliti.

Saya percaya bahwa keamanan dan kerahasiaan data penelitian akan terjamin dan saya dengan ini menyetujui semua data yang dihasilkan pada penelitian ini untuk dipublikasikan dalam bentuk lisan maupun tulisan.

Bila terjadi perbedaan pendapat dikemudian hari, kami akan menyelesaikan secara kekeluargaan.

	NAMA	TANDA TANGAN	TGL/BLN/TAHUN
Klien	: .....	.....	.....
Saksi 1	: .....	.....	.....
Saksi 2	: .....	.....	.....

**Penanggung Jawab Penelitian:**

**Penanggung Jawab Medis:**

Nama : .....

Nama : .....

Alamat : .....

Alamat : .....

Telepon : .....

Telepon : .....

Lampiran 2



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI  
 UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
 KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN  
 RSTN UNIVERSITAS HASANUDDIN  
 RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR  
 Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
 JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.  
 Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431



**REKOMENDASI PERSETUJUAN ETIK**

Nomor : 985/UN4.6.4.5.31/ PP36/ 2024

Tanggal: 29 Desember 2023

Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

No Protokol	UH23110836	No Sponsor	
Peneliti Utama	<b>dr. Andi Muldiana Dwi Rachmayani</b>	Sponsor	
Judul Peneliti	PENGARUH PEMBERIAN VITAMIN D3 TERHADAP KADAR SERUM HEPSIDIN DAN FERRITIN PADA ANAK PENYAKIT GINJAL KRONIK		
No Versi Protokol	2	Tanggal Versi	<b>28 Desember 2023</b>
No Versi PSP	2	Tanggal Versi	<b>28 Desember 2023</b>
Tempat Penelitian	RS Wahidin Sudirohusodo Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input type="checkbox"/> Expedited <input checked="" type="checkbox"/> Fullboard Tanggal <b>29 Nopember 2023</b>	Masa Berlaku <b>29 Desember 2023</b> sampai <b>29 Desember 2024</b>	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama <b>Prof. dr. Muh Nasrum Massi, PhD, SpMK, Subsp. Bakt(K)</b>	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama <b>dr. Firdaus Hamid, PhD, SpMK(K)</b>	Tanda tangan	

Kewajiban Peneliti Utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan



Kementerian Kesehatan  
RS Wahidin Sudirohusodo

Jalan Perintis Kemerdekaan KM. 11, Tamalanrea, Makassar 90245  
(0411)583333 / (0411)582688  
www.rsipwahidin.com

Nomor : DP.04.03/D XIX.2/19723 /2024  
Hal : Izin Penelitian

30 Juli 2024

Yth. Ketua Program Studi PPDS Ilmu Kesehatan Anak  
Fakultas Kedokteran Universitas Hasanuddin

Sehubungan dengan surat saudara nomor 13525/UN4.6.8/PT.01.04/2024, tertanggal 2 Juli 2024, hal Permohonan Izin Penelitian, dapat kami fasilitasi dan memberikan izin pelaksanaan penelitian kepada:

Nama : dr. A. Muldiana Dwi Rachmayani  
NIM : C105201005  
Prog. Pend : PPDS Ilmu Kesehatan Anak  
No. HP : 087840482295  
Judul : Pengaruh Pemberian Vitamin D3 Terhadap Kadar Serum Hepsidin Dan Ferritin Pada Anak Penyakit Ginjal Kronik  
Jangka Waktu : Tiga Bulan Setelah Surat ini di Keluarkan  
Lokasi : Rawat Inap Pinang 1; Poliklinik Mochi; Instalasi Rekam Medik; Instalasi SIRS

Dengan ketentuan sebagai berikut :

1. Mengikuti seluruh peraturan dan ketentuan penelitian yang berlaku di lingkup RS Wahidin Sudirohusodo
2. Sebelum meneliti, peneliti wajib melapor kepada Pengawas Penelitian di masing-masing unit yang menjadi lokasi penelitian dan mengikuti syarat administrasi di *Clinical Research Unit* (CRU)
3. Pelaksanaan penelitian tidak mengganggu proses pelayanan, dan mendukung upaya peningkatan mutu pelayanan serta keselamatan pasien
4. Pemesnakan penunjang. Bahan Habis Pakai (BHP) dan lain-lain yang digunakan dalam penelitian, menjadi tanggung jawab peneliti, tidak dibebankan kepada pasien ataupun RS
5. Peneliti melaporkan proses penelitian secara periodik serta hasil penelitian di akhir waktu penelitian di link <https://s.id/SisterElit>
6. Mencantumkan nama RS Wahidin Sudirohusodo sebagai afiliasi institusi dalam naskah dan publikasi penelitian
7. Surat Keterangan Selesai Penelitian menjadi salah satu syarat untuk mengikuti Seminar Hasil Penelitian
8. Bukti Penyerahan Skripsi/Thesis/Disertasi ke RS Wahidin Sudirohusodo menjadi syarat penyelesaian studi

Mohon dapat dipastikan agar ketentuan tersebut dipenuhi peneliti sebelum menyelesaikan studi di institusi saudara. Atas perhatian dan kerjasama yang baik, diucapkan terima kasih.

an Direktur Utama  
Direktur SDM, Pendidikan dan Penelitian,



Tembusan:

1. Kepala Instalasi Pelayanan Ibu dan Anak
2. Kepala Instalasi Rekam Medik
3. Kepala Instalasi Sistem Informasi Rumah Sakit (SIRS)
4. Kepala Sub Instalasi Poli Pelayanan Kandungan, Kebidanan dan Kesehatan Anak
5. Kepala Sub Instalasi Perawatan Pinang 1

Kementerian Kesehatan tidak menerima suap dan/atau gratifikasi dalam bentuk apapun. Jika terdapat potensi suap atau gratifikasi silahkan laporkan melalui HALO KEMENKES 1500567 dan <https://whs.kemkes.go.id>. Untuk verifikasi keaslian tanda tangan elektronik, silahkan unggah dokumen pada laman <https://te.keminfo.go.id/verifyPDF>.



#### Lampiran 4. Data Penelitian

No	Nama	RM	Tanggal lahir	Usia	Jenis kelamin	Berat badan (kg)	Tinggi badan (cm)	Status gizi	Diagnosa
1	S	1029889	8/29/2006	17 tahun	Perempuan	55	158	Gizi baik	Nefritik lupus
2	DPR	1018466	8/30/2006	17 tahun 9 bulan	Laki-laki	74	173	Gizi Baik	Pyelonephritis Chronic + CKD Stage V on HD
3	AF	1032002	8/31/2006	17 tahun 6 bulan	Perempuan	50	161.1	Gizi Baik	Nefritik Lupus
4	SZ	982867	9/1/2006	15 tahun 3 bulan	Perempuan	56	155	Gizi baik	Nefritik Lupus + AKI KDIGO III
5	DS	967300	9/2/2006	17 tahun 3 bulan	Perempuan	57.5	147	Overweight	Nefritik lupus
6	AB	110650	9/3/2006	3 tahun 9 bulan	Laki-laki	12.5	95	Gizi baik	Rapidly Progressive Glomerulonephritis (RPGN)
7	ZS	1018051	9/4/2006	16 tahun 10 bulan	Perempuan	49	150	Gizi baik	Nefritik Lupus
8	DE	1025484	9/5/2006	14 tahun 10 bulan	Perempuan	39	152	Gizi baik	Nefritik Lupus
9	ZA	1011036	9/6/2006	2 tahun 7 bulan	Laki-laki	10	76	Gizi baik	Sindrom Nefrotik sensitif Steroid
10	CF	1013247	9/7/2006	2 tahun 11 bulan	Perempuan	11	86	Gizi baik	Sindrom Nefrotik sensitif Steroid
11	YY	1011872	9/8/2006	16 tahun 9 bulan	Perempuan	61	152	overweight	Nefritik Lupus
12	AN	948557	9/9/2006	16 tahun 1 bulan	Perempuan	41	149	Gizi baik	Nefritik Lupus
13	AH	907443	9/10/2006	17 tahun 3 bulan	Perempuan	60.5	151.5	overweight	Nefritik Lupus
14	FN	1034883	9/11/2006	10 tahun	Perempuan	29	124	Gizi baik	Nefritik lupus
15	AK	1026693	9/12/2006	6 tahun 4 bulan	Laki-laki	18	102	overweight	Sindrom Nefrotik Resisten Steroid
16	MA	987050	9/13/2006	15 tahun 10 bulan	Laki-laki	39	158	Gizi baik	Sindroma Nefrotik Resisten Steroid
17	AR	970725	9/14/2006	8 tahun 3 bulan	Laki-laki	25	117	Gizi baik	Rapidly Progressive Glomerulonephritis (RPGN)
18	MD	921066	9/15/2006	15 tahun 1 bulan	Perempuan	30	137	gizi baik	Pyelonephritis Chronic + CKD Stg V on CAPD
19	RF	994667	9/16/2006	17 tahun 8 bulan	Laki-laki	49	152	Gizi baik	Sindrom Nefrotik Resisten Steroid
20	AM	872114	9/17/2006	9 tahun	Laki-laki	24	117.5	Gizi baik	Sindrom Nefrotik sensitif Steroid
21	AL	912983	9/18/2006	9 tahun 8 bulan	Laki-laki	19.5	115.5	Gizi kurang	Sindrom Nefrotik sensitif Steroid
22	AA	1014429	9/19/2006	16 tahun 2 bulan	Laki-laki	61.5	167	Gizi baik	Sindrom Nefrotik Resisten Steroid
23	AO	977346	9/20/2006	16 tahun 5 bulan	Perempuan	56	150	Gizi baik	Nefritik lupus
24	ZL	1025725	9/21/2006	12 tahun 4 bulan	Perempuan	34	153	Gizi kurang	Nefritik lupus
25	WL	1026292	9/22/2006	16 tahun 5 bulan	Perempuan	36	148	Gizi Kurang	Nefritik Lupus
26	WD	770814	9/23/2006	16 tahun 7 bulan	Perempuan	48.5	154	Gizi baik	Sindrom Nefrotik Resisten Steroid
27	AAA	953614	9/24/2006	5 tahun 5 bulan	Perempuan	15	100	gizi baik	Sindrom Nefrotik Relaps
28	MH	570954	9/25/2006	17 tahun 2 bulan	Laki-laki	49.5	161	Gizi baik	CAKUT (Hipoplasia Renal Bilateral)
29	AV	1036034	9/26/2006	5 tahun 1 bulan	Perempuan	11	86	Gizi baik	CAKUT (Agenesis Renal Dextra) + CKD Stage V on Acute PD
30	MY	949066	9/27/2006	5 tahun 6 bulan	Laki-laki	16	94	Gizi baik	Sindrom Nefrotik Resisten Steroid
31	MR	951624	9/28/2006	12 tahun 4 bulan	Laki-laki	22	126.5	Gizi baik	Sindrom Nefrotik Resisten Steroid
32	CK	1003311	9/29/2006	14 tahun 10 bulan	Perempuan	56	160.5	Gizi baik	Nefritik Lupus
33	MAP	1045472	9/30/2006	17 tahun 11 bulan	Laki-laki	54	168	Gizi baik	Sindrom Nefrotik Resisten Steroid
34	AAV	1022820	10/1/2006	16 tahun	Laki-laki	48	160.3	gizi baik	Sindrom Nefrotik sensitif Steroid
35	MRI	1018761	10/2/2006	17 tahun 6 bulan	Laki-laki	53	175	Gizi Kurang	Sindrom Nefrotik Resisten Steroid
36	NR	882291	10/3/2006	12 tahun 9 bulan	Perempuan	26	135	Gizi Kurang	Rapidly Progressive Glomerulonephritis (RPGN)
37	MAO	982870	10/4/2006	7 tahun 1 bulan	Laki-laki	15	106	Gizi Kurang	Pyelonephritis Chronic + CKD Stage V on CAPD
38	AS	969717	10/5/2006	15 tahun 4 bulan	Laki-laki	59.5	151.5	Gizi baik	Nefritik Lupus
39	NRA	1002692	10/6/2006	7 tahun 11 bulan	Perempuan	25	112	Overweight	Sindrom Nefrotik Resisten Steroid
40	SA	1036521	10/7/2006	17 tahun	Perempuan	39	149	Gizi baik	Nefritik Lupus
41	AHA	1027487	10/8/2006	9 tahun	Perempuan	21	116.7	gizi baik	Sindrom Nefrotik sensitif Steroid
42	HI	658560	10/9/2006	17 tahun 4 bulan	Laki-laki	28	137.5	Gizi kurang	Sindrom Nefrotik sensitif Steroid
43	MAN	804864	10/10/2006	7 tahun 11 bulan	Laki-laki	16	107	gizi baik	Pyelonephritis Chronic+ CKD Stage 4

No	Nama	Tanggal Pengambilan Sampel Pertama	Tanggal Pengambilan Sampel	Data sebelum pemberian vitamin D															
				Hb	Wbc	Plt	MCV	MCH	Ureum	Creatine	GFR	Kelompok GFR	SGOT	SGPT	Albumin	Vitamin D	Fe	Ferritine	Hepcidin
1	S	24/Jul/2023	4/Sep/2023	8.7	18900	202000	83	28	67	1.01	85	II	15	23	3.1	10	46	512	1000.57
2	DPR	24/Jul/2023	4/Sep/2023	9.1	8200	80000	87	30	117	14.98	7.3	II	13	8	3.6	13	18	>2000	1472.43
3	AF	24/Jul/2023	4/Sep/2023	10.9	19200	387000	76	25	108	0.99	113.90	I	14	7	2.5	4	14	334.9	1178.93
4	SZ	27/Jul/2023	18/Sep/2023	8.9	4500	175000	82	29	61	4.47	19	II	25	10	3.2	15	98	>2000	1147.62
5	DS	27/Jul/2023	8/Sep/2023	13	10900	254000	85	32	22	0.76	110.25	I	15	8	4.1	12	63	108.2	1565.35
6	AB	27/Jul/2023	8/Sep/2023	14.6	11000	306000	80	31	20	0.26	200.96	I	31	17	1.8	5	37	83.4	104.51
7	ZS	31/Jul/2023	14/Sep/2023	11.8	29800	375000	81	32	41	0.29	283	I	13	12	2.9	13	91	1789.2	1598.5
8	DE	31/Jul/2023	14/Sep/2023	8.2	4070	139000	88	28.7	95	1.2	72.2	II	16	20	1.4	12	16.6	320.3	71.78
9	ZA	31/Jul/2023	14/Sep/2023	13	11900	394000	73	25	20	0.24	174.16	I	41	21	3.9	4	38	99.2	91.73
10	CF	9/Aug/2023	21/Sep/2023	13.3	13300	543000	83	30	24	0.6	78.8	I	30	36	4	24	110	168	1911.95
11	YY	18/Aug/2023	2/Oct/2023	14.6	21700	318000	79	25	19	0.63	137.5	I	23	25	3.4	8.1	66	225.3	6341.88
12	AN	18/Aug/2023	2/Oct/2023	9	4300	287000	79	28	36	1.1	77.2	II	10	15	2.8	25	28	669.5	1379.76
13	AH	18/Aug/2023	2/Oct/2023	10.8	7200	186000	83	29	85	1.12	77.12	II	29	13	1.4	8	37	299.6	1440.76
14	FN	21/Aug/2023	4/Oct/2023	8.8	15500	323000	80	29	29	0.59	115.59	I	94	103	3	16	151	1242.5	1133.87
15	AK	21/Aug/2023	4/Oct/2023	11.1	10400	539000	70	22	14	0.4	132	I	25	12	2.5	17	26	112	1032.87
16	MA	22/Aug/2023	5/Oct/2023	14	9400	549000	85	33	23	0.55	182	I	245	257	2.2	10	124	158	1445.09
17	AR	22/Aug/2023	5/Oct/2023	13.3	6000	293000	78	29	30	0.89	72.3	II	27	16	3.8	39	20	114	1481.15
18	MD	22/Aug/2023	5/Oct/2023	9.2	5500	265000	83	30	119	6.63	11.3	II	44	17	3.6	16	98	923.5	2402.47
19	RF	22/Aug/2023	5/Oct/2023	15.2	11900	309000	87	32	38	1.24	85.8	II	15	8	4	40	80	157.2	999.78
20	AM	22/Aug/2023	4/Oct/2023	11	9600	505000	71	25	20	0.48	127	I	22	8	4.1	27	47	99.9	1403.94
21	AL	22/Aug/2023	4/Oct/2023	13.8	15300	424000	79	28	30	0.52	155	I	13	12	3.9	16	92	177.2	1252.62
22	AA	23/Aug/2023	6/Oct/2023	12.5	12300	223000	86	32	44	1.48	78.9	II	21	44	4.1	23	15	282.1	948.74
23	AO	30/Aug/2023	13/Oct/2023	11.1	6000	223000	86	31	10	0.61	134	I	27	24	4.1	16	50	158.2	902.94
24	ZL	11/Sep/2023	25/Oct/2023	11.3	7000	281000	86	28	39	0.68	128.25	I	21	20	3.8	16	65	401	38.58
25	WL	14/Sep/2023	27/Oct/2023	10.6	12200	327000	80	29	50	1.05	80.34	II	12	10	2.5	11	18	505.2	1293.7
26	WD	26/Sep/2023	8/Nov/2023	9.5	6000	446000	61	12	14	0.45	195.06	I	19	9	4.2	18	12	78	2570.8
27	AAA	9/Oct/2023	22/Nov/2023	14.2	13100	683000	73	26	12	0.79	69.62	I	25	18	4.0	19	101	200.7	1707.88
28	MH	9/Oct/2023	22/Nov/2023	15.7	6500	224000	84	29	52	2.69	41.89	II	16	11	4	38	97	149.2	1085.49
29	AV	8/Nov/2023	22/Dec/2023	9.4	5200	103000	85	30	127	3.45	12.9	II	20	11	4.8	21	54	825	1028.8
30	MY	8/Nov/2023	22/Nov/2023	16.5	12500	342000	78	27	20	0.6	86.16	II	26	14	3.9	53	51	93.4	1096.08
31	MR	8/Nov/2023	22/Nov/2023	11.5	10300	316000	71	23	22	0.8	86.96	II	30	11	3.6	21	70	122.6	1422.64
32	CK	8/Nov/2023	22/Nov/2023	11.7	4700	358000	84	28	10	0.7	125	I	21	15	3.8	30	45	106	159.52
33	MAP	22/Nov/2023	3/Jan/2024	15.8	11300	211000	85	30	24	1.6	73.93	II	30	42	4.04	20	65	790.3	777.87
34	AAAY	24/Nov/2023	8/Jan/2024	13.7	6500	282000	88	29	19	0.58	102	I	18	16	4.4	17	168	116	8523.04
35	MRI	7/Dec/2023	19/Jan/2024	13.8	10700	175000	80	29	134	2.36	51.9	II	20	9	1.1	12	34	709.3	1552.29
36	NR	8/Dec/2023	22/Jan/2024	7	7900	442000	83	28	83	7.54	9.2	II	15	22	2.8	22	35	831.8	1346.16
37	MAO	19/Dec/2023	31/Jan/2024	10.8	10600	757000	70	24	62	2.13	27.37	II	27	10	2.9	15	62	377.3	1970.89
38	AS	26/Jan/2024	8/Mar/2024	11.1	10400	340000	76	24	27	0.61	173.85	I	37	26	4.8	21	46	267.3	179.11
39	NRA	16/Feb/2024	1/Apr/2024	14.8	16200	374000	89	28	46	0.56	110	I	23	24	3.7	20	78	123	1034.5
40	SA	19/Feb/2024	3/Apr/2024	9.8	9900	445000	75	27	41	0.69	123.08	I	19	15	3.9	23	15	504	1146.2
41	AHA	19/Feb/2024	3/Apr/2024	14.7	18100	595000	64	29	26	0.76	84.453	II	62	121	4.1	36	27	200.4	80.87
42	HI	19/Feb/2024	3/Apr/2024	16.3	13100	442000	78	26	26	0.58	165.94	I	21	12	2.7	5	103	91	1177.3
43	MAN	19/Feb/2024	3/Apr/2024	10	8800	534000	83	26	98	1.85	31.81	II	44	22	3.7	29	54	801.9	1404.15

No	Nama	Data setelah pemberian vitamin D														
		Hb	Wbc	Plt	MCV	MCH	Ureum	Creatine	Grading CKD	SGOT	SGPT	Albumin	Vitamin D	Fe	Ferritine	Hepcidin
1	S	12.4	6400	282000	85	26	19	0.70	128,65	32	15	4.8	26	89	406.92	753.85
2	DPR	10.2	6700	178000	89	27	34	3.4	35,61	34	22	3.5	26	79	>2000	835.37
3	AF	8.4	13400	367000	73	22	52	0.68	153.38	19	7	2.2	18	20	210.1	1143.98
4	SZ	9.8	11.2	169000	80	28	65	3.41	24.9	20	22	3.4	34	109	1830.5	931.43
5	DS	13.8	8900	367000	86	28	19	0.5	167.58	20	17	3.9	26	79	50.9	582.5
6	AB	14.3	14800	343000	82	28	31	0.22	237.5	31	18	4.2	40	131	53.4	0.42
7	ZS	9.4	5900	322000	82	27	84	1.32	62	19	12	3.5	26	112	93.8	1169.28
8	DE	10.1	8000	210000	89	28	67	1.0	86,64	43	34	3.6	22	93	260.94	57,72
9	ZA	14.5	10700	460000	77	27	44	0.62	67.41	94	80	1.5	19	59	13.5	18.3
10	CF	14.7	9400	328000	80	27	15	0.35	127	32	20	4.2	30	112	158	586.22
11	YY	14	17400	330000	77	25	23	0.59	146,84	118	106	2.8	22	109	141.3	5496.89
12	AN	9.2	4100	321000	76	32	30	0.68	120	34	11	2.8	31	76	571.9	645.26
13	AH	9.9	7700	271000	82	29	69	1.09	79.24	33	13	1.6	46	77	244.7	983.8
14	FN	9	9400	294000	81	26	40	0.7	97.42	18	9	2.5	22	183	1066.5	585.7
15	AK	11.7	11800	463000	65	21	17	0.6	88	26	8	3.6	22	89	17.8	769.78
16	MA	14	8300	385000	87	32	15	0.45	223	208	298	3	21	135	139.5	1055.66
17	AR	12.8	7800	291000	75	26	21	0.4	151	32	29	3.9	42	76	45.3	832.57
18	MD	9.9	4000	224000	97	31	120	8.57	8.7	35	21	3.1	29	107	226.9	2207
19	RF	13.9	6000	274000	86	28	28	0.83	116	20	12	4.1	45	104	133.8	906.07
20	AM	10.6	10.1	590000	71	25	18	0.3	203	23	14	3.8	30	93	9.2	532.71
21	AL	14.3	9700	297000	79	29	27	0.46	130	22	19	4.1	23	112	24.7	1133.87
22	AA	13.3	14600	353000	84	30	30	1.6	73.06	19	22	4.1	31	125	139.2	777.19
23	AO	12.7	9100	279000	88	29	21	0.72	114	26	43	4.3	34	79	124.2	723.83
24	ZL	13.3	7600	254000	80	27	36	0.6	196	42	56	4.6	23	88	379	30,93
25	WL	11	10600	313000	81	26	89	1.9	44.4	19	10	2.2	23	92	209.5	1058.53
26	WD	7.3	10000	364000	61	17	13	0.72	121.9	15	16	4.2	26	54	3.0	1163.66
27	AAA	12.9	18200	912000	74	24	15	0.20	275	35	18	4.7	32	158	50.6	1104.89
28	MH	13.7	5700	220000	83	29	120.95	1.79	62.96	20	13	4.8	45	92	101	779.71
29	AV	9	14200	302000	81	29	73	7.1	6.2	58	9	3.8	26	117	517.7	1017.21
30	MY	17	7600	387000	75	27	15	0.55	94	24	20	4.4	59	97	43.6	600.66
31	MR	10.8	11400	546000	71	23	24	0.65	107.03	30	9	3.7	29	96	32.6	578.94
32	CK	10.8	6500	409000	82	29	13	0.68	129	20	12	4.3	36	76	3.7	99.19
33	MAP	11	6700	410000	85	32	31	0.9	130,67	18	23	3.7	30	75	209.3	600.31
34	AA	13.8	8700	364000	88	28	24	0.61	183,9	19	12	4.5	29	198	89.6	4553.78
35	MRI	11	9800	421000	81	29	112	1.5	89,8	23	42	3.5	26	89	1113.8	935.84
36	NR	5.9	6700	291000	84	27	94	9.75	7.1	14	9	3.3	28	79	779.1	1285.32
37	MAO	11.7	8900	652000	74	24	90	3.13	18.6	16	8	3.1	24	106.8	70.5	1104.09
38	AS	11.8	10700	341000	78	24	23	0.58	182,84	38	25	5.2	54	89	125	8.1
39	NRA	12	6700	340000	89	29	44	0.5	123,2	24	22	3.7	29	122	70.2	981.85
40	SA	11.9	7800	422000	76	25	20	0.55	154.41	27	27	4.2	32	63	188.9	937.57
41	AHA	14.1	15700	524000	70	26	29	0.93	69,01	88	168	2.3	62	98	11.6	1.11
42	HI	17.3	10700	367000	79	26	17	0.37	260,13	50	25	2.4	22	128	68.8	420.63
43	MAN	9.9	15700	459000	83	26	119	2.04	28.84	19	10	3.2	32	147	236.5	1190.58

## Lampiran 5. Olah Data SPSS

### OUTPUT SPSS

#### DESKRIPTIF

##### Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13-18 tahun	25	58.1	58.1	58.1
	2-5 tahun	3	7.0	7.0	65.1
	5-12 tahun	15	34.9	34.9	100.0
	Total	43	100.0	100.0	

##### Jenis\_kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	20	46.5	46.5	46.5
	Perempuan	23	53.5	53.5	100.0
	Total	43	100.0	100.0	

##### Status\_gizi

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Gizi baik	31	72.1	72.1	72.1
	Gizi kurang	7	16.3	16.3	88.4
	Overweight	5	11.6	11.6	100.0
	Total	43	100.0	100.0	

##### Diagnosis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Pyelobefritis Chronic	4	9,3	9,3	9,3
	Nefritik lupus	16	37.2	37.2	46,5
	Sindrom Nefrotik Resisten Resisten Steroid	10	23,3	23,3	69,8
	RPGN	3	7,0	7,0	76,8
	Sindrom Nefrotik Resisten Steroid	7	16.3	16.3	93,1
	Sindrom Nefrotik Relaps	1	2.3	2.3	95,4
	CAKUT	2	4,6	4,6	100.0
	Total	43	100.0	100.0	

#### Explore

##### Descriptives

			Statistic	Std. Error
Usia	Mean		12.9179	.76319
	95% Confidence Interval for Mean	Lower Bound	11.3777	
		Upper Bound	14.4581	
	5% Trimmed Mean		13.1792	

Median	15.2500	
Variance	25.046	
Std. Deviation	5.00458	
Minimum	2.58	
Maximum	18.58	
Range	16.00	
Interquartile Range	8.92	
Skewness	-.699	.361
Kurtosis	-.968	.709

## PERBANDINGAN BERDASARKAN GFR

### Descriptives

	GFR		Statistic	Std. Error			
VitD_pre	2	Mean	22.8095	2.65170			
		95% Confidence Interval for Mean	Lower Bound	17.2782			
			Upper Bound	28.3409			
		5% Trimmed Mean	21.9841				
		Median	21.0000				
		Variance	147.662				
		Std. Deviation	12.15162				
		Minimum	8.00				
		Maximum	53.00				
		Range	45.00				
		Interquartile Range	20.00				
		Skewness	.958	.501			
		Kurtosis	.247	.972			
		VitD_pre	1	Mean	15.5045	1.56671	
				95% Confidence Interval for Mean	Lower Bound	12.2464	
					Upper Bound	18.7627	
5% Trimmed Mean	15.3535						
Median	16.0000						
Variance	54.000						
Std. Deviation	7.34850						
Minimum	4.00						
Maximum	30.00						
Range	26.00						
Interquartile Range	10.73						
Skewness	-.010			.491			
Kurtosis	-.546			.953			
Ferritin_Pre	2			Mean	1045.5124	303.93194	
				95% Confidence Interval for Mean	Lower Bound	411.5215	
					Upper Bound	1679.5033	
		5% Trimmed Mean	858.7490				
		Median	723.8300				

		Variance	1939867.135	
		Std. Deviation	1392.79113	
		Minimum	.42	
		Maximum	5496.89	
		Range	5496.47	
		Interquartile Range	859.47	
		Skewness	2.565	.501
		Kurtosis	6.360	.972
1		Mean	873.9336	93.04906
		95% Confidence Interval for Mean	Lower Bound	680.4275
			Upper Bound	1067.4397
		5% Trimmed Mean	852.7336	
		Median	870.7200	
		Variance	190478.799	
		Std. Deviation	436.43877	
		Minimum	1.11	
		Maximum	2207.00	
		Range	2205.89	
		Interquartile Range	435.81	
		Skewness	.770	.491
		Kurtosis	3.950	.953
Hepsidin_Pre	2	Mean	1209.7143	113.70121
		95% Confidence Interval for Mean	Lower Bound	972.5377
			Upper Bound	1446.8909
		5% Trimmed Mean	1207.7863	
		Median	1293.7000	
		Variance	271487.287	
		Std. Deviation	521.04442	
		Minimum	71.78	
		Maximum	2402.47	
		Range	2330.69	
		Interquartile Range	456.42	
		Skewness	-.307	.501
		Kurtosis	1.748	.972
1		Mean	1659.1414	427.72552
		95% Confidence Interval for Mean	Lower Bound	769.6375
			Upper Bound	2548.6453
		5% Trimmed Mean	1378.5924	
		Median	1178.1150	
		Variance	4024880.648	
		Std. Deviation	2006.21052	
		Minimum	38.58	
		Maximum	8523.04	
		Range	8484.46	
		Interquartile Range	903.86	

		Skewness		2.639	.491
		Kurtosis		7.207	.953
VitD_post	2	Mean		34.0952	2.48989
		95% Confidence Interval for Mean	Lower Bound	28.9014	
	Upper Bound		39.2891		
	5% Trimmed Mean		33.2222		
	Median		30.0000		
	Variance		130.190		
	Std. Deviation		11.41010		
	Minimum		22.00		
	Maximum		62.00		
	Range		40.00		
	Interquartile Range		17.50		
	Skewness		1.303	.501	
	Kurtosis		.917	.972	
		1	Mean		28.0000
95% Confidence Interval for Mean	Lower Bound		24.3824		
	Upper Bound		31.6176		
5% Trimmed Mean			27.1768		
Median			26.0000		
Variance			66.571		
Std. Deviation			8.15913		
Minimum			18.00		
Maximum			54.00		
Range			36.00		
Interquartile Range			10.00		
Skewness			1.636	.491	
Kurtosis			3.802	.953	
Ferritin_post	2		Mean		136.7429
		95% Confidence Interval for Mean	Lower Bound	32.1856	
	Upper Bound		241.3001		
	5% Trimmed Mean		94.3368		
	Median		70.2000		
	Variance		52761.179		
	Std. Deviation		229.69802		
	Minimum		3.00		
	Maximum		1066.50		
	Range		1063.50		
	Interquartile Range		119.15		
	Skewness		3.665	.501	
	Kurtosis		14.748	.972	
		1	Mean		427.0664
95% Confidence Interval for Mean	Lower Bound		182.8498		
	Upper Bound		671.2829		
5% Trimmed Mean			363.5126		
Median			218.5000		

		Variance		303394.402	
		Std. Deviation		550.81249	
		Minimum		11.60	
		Maximum		2000.00	
		Range		1988.40	
		Interquartile Range		437.88	
		Skewness		2.068	.491
		Kurtosis		3.675	.953
Hepsidin_Post	2	Mean		861.0743	96.65423
		95% Confidence Interval for Mean	Lower Bound	659.4571	
			Upper Bound	1062.6915	
		5% Trimmed Mean		836.3650	
		Median		835.3700	
		Variance		196182.855	
		Std. Deviation		442.92534	
		Minimum		1.11	
		Maximum		2207.00	
		Range		2205.89	
		Interquartile Range		414.91	
		Skewness		.861	.501
		Kurtosis		4.060	.972
	1	Mean		1049.9882	289.82230
		95% Confidence Interval for Mean	Lower Bound	447.2697	
			Upper Bound	1652.7066	
		5% Trimmed Mean		865.9718	
		Median		746.8050	
		Variance		1847933.231	
		Std. Deviation		1359.38708	
		Minimum		.42	
		Maximum		5496.89	
		Range		5496.47	
		Interquartile Range		796.13	
		Skewness		2.605	.491
		Kurtosis		6.686	.953

### Tests of Normality

	GFR	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
VitD_pre	2	.160	21	.167	.903	21	.040
	1	.163	22	.132	.958	22	.459
Ferritin_Pre	2	.369	21	.000	.628	21	.000
	1	.159	22	.157	.889	22	.018
Hepsidin_Pre	2	.165	21	.138	.918	21	.078
	1	.313	22	.000	.643	22	.000
VitD_post	2	.240	21	.003	.835	21	.002
	1	.142	22	.200	.866	22	.007
Ferritin_post	2	.320	21	.000	.528	21	.000
	1	.300	22	.000	.697	22	.000



Hepsidin_Post	2	.167	21	.131	.883	21	.017
	1	.374	22	.000	.628	22	.000

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

### Ranks

	GFR	N	Mean Rank	Sum of Ranks
VitD_pre	2	21	25.33	532.00
	1	22	18.82	414.00
	Total	43		
Ferritin_Pre	2	21	20.19	424.00
	1	22	23.73	522.00
	Total	43		
Hepsidin_Pre	2	21	21.52	452.00
	1	22	22.45	494.00
	Total	43		
VitD_post	2	21	25.88	543.50
	1	22	18.30	402.50
	Total	43		
Ferritin_post	2	21	16.29	342.00
	1	22	27.45	604.00
	Total	43		
Hepsidin_Post	2	21	23.14	486.00
	1	22	20.91	460.00
	Total	43		

### Test Statistics<sup>a</sup>

	VitD_pre	Ferritin_Pre	Hepsidin_Pre	VitD_post	Ferritin_post	Hepsidin_Post
Mann-Whitney U	161.000	193.000	221.000	149.500	111.000	207.000
Wilcoxon W	414.000	424.000	452.000	402.500	342.000	460.000
Z	-1.703	-.923	-.243	-1.988	-2.916	-.583
Asymp. Sig. (2-tailed)	.089	.356	.808	.047	.004	.560

a. Grouping Variable: GFR

## PERBANDINGAN PERUBAHAN BERDASARKAN GFR

### Descriptives

	GFR		Statistic	Std. Error	
Delta_VitD	1	Mean	11.2857	1.80890	
		95% Confidence Interval for Mean	Lower Bound	7.5124	
			Upper Bound	15.0590	
		5% Trimmed Mean	10.2937		
		Median	9.0000		
		Variance	68.714		
		Std. Deviation	8.28941		
		Minimum	3.00		
		Maximum	38.00		
		Range	35.00		
		Interquartile Range	7.50		

		Skewness	1.999	.501
		Kurtosis	4.728	.972
	2	Mean	12.4955	1.72278
		95% Confidence Interval for Mean	Lower Bound	8.9127
			Upper Bound	16.0782
		5% Trimmed Mean	11.7727	
		Median	11.5000	
		Variance	65.296	
		Std. Deviation	8.08058	
		Minimum	3.00	
		Maximum	35.00	
		Range	32.00	
		Interquartile Range	7.50	
		Skewness	1.756	.491
		Kurtosis	3.268	.953
Delta_Ferritin	1	Mean	-790.5962	333.67490
		95% Confidence Interval for Mean	Lower Bound	-1486.6298
			Upper Bound	-94.5625
		5% Trimmed Mean	-646.1894	
		Median	-531.6000	
		Variance	2338117.702	
		Std. Deviation	1529.09048	
		Minimum	-5443.49	
		Maximum	1244.80	
		Range	6688.29	
		Interquartile Range	992.61	
		Skewness	-2.111	.501
		Kurtosis	4.964	.972
	2	Mean	-805.2495	206.16688
		95% Confidence Interval for Mean	Lower Bound	-1233.9971
			Upper Bound	-376.5020
		5% Trimmed Mean	-723.7369	
		Median	-728.8350	
		Variance	935105.250	
		Std. Deviation	967.00840	
		Minimum	-4429.58	
		Maximum	1222.81	
		Range	5652.39	
		Interquartile Range	379.47	
		Skewness	-2.290	.491
		Kurtosis	10.366	.953
Delta_Hepsidin	1	Mean	-272.2805	279.47640
		95% Confidence Interval for Mean	Lower Bound	-855.2580
			Upper Bound	310.6971
		5% Trimmed Mean	-461.8811	
		Median	-605.3900	

	Variance	1640248.208	
	Std. Deviation	1280.72175	
	Minimum	-1521.36	
	Maximum	4548.15	
	Range	6069.51	
	Interquartile Range	813.96	
	Skewness	2.867	.501
	Kurtosis	10.345	.972
2	Mean	-702.1882	371.22103
	95% Confidence Interval for Mean	Lower Bound	-1474.1846
		Upper Bound	69.8082
	5% Trimmed Mean	-431.1970	
	Median	-397.8550	
	Variance	3031711.209	
	Std. Deviation	1741.18098	
	Minimum	-7799.21	
	Maximum	974.35	
	Range	8773.56	
	Interquartile Range	862.12	
	Skewness	-3.414	.491
	Kurtosis	14.194	.953

### Tests of Normality

	GFR	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Delta_VitD	2	.181	21	.070	.804	21	.001
	1	.199	22	.024	.809	22	.001
Delta_Ferritin	2	.331	21	.000	.738	21	.000
	1	.327	22	.000	.668	22	.000
Delta_Hepsidin	2	.273	21	.000	.701	21	.000
	1	.256	22	.001	.614	22	.000

a. Lilliefors Significance Correction

### Ranks

	GFR	N	Mean Rank	Sum of Ranks
Delta_VitD	2	21	20.43	429.00
	1	22	23.50	517.00
	Total		43	
Delta_Ferritin	2	21	22.90	481.00
	1	22	21.14	465.00
	Total		43	
Delta_Hepsidin	2	21	21.76	457.00
	1	22	22.23	489.00
	Total		43	

### Test Statistics<sup>a</sup>

	Delta_VitD	Delta_Ferritin	Delta_Hepsidin
Mann-Whitney U	198.000	212.000	226.000
Wilcoxon W	429.000	465.000	457.000
Z	-.804	-.462	-.121
Asymp. Sig. (2-tailed)	.421	.644	.903

a. Grouping Variable: GFR

## PERBANDINGAN SEBELUM DAN SESUDAH INTERVENSI

### Ranks

		N	Mean Rank	Sum of Ranks
Dua_PostVitD - Dua_PreVitD	Negative Ranks	0 <sup>a</sup>	.00	.00
	Positive Ranks	21 <sup>b</sup>	11.00	231.00
	Ties	0 <sup>c</sup>		
	Total	21		
Dua_PostFerritin - Dua_PreFerritin	Negative Ranks	16 <sup>d</sup>	12.88	206.00
	Positive Ranks	5 <sup>e</sup>	5.00	25.00
	Ties	0 <sup>f</sup>		
	Total	21		
Dua_PostHepsidin - Dua_PreHepsidin	Negative Ranks	21 <sup>g</sup>	11.00	231.00
	Positive Ranks	0 <sup>h</sup>	.00	.00
	Ties	0 <sup>i</sup>		
	Total	21		
Satu_PostVitD - Dua_PreVitD	Negative Ranks	0 <sup>j</sup>	.00	.00
	Positive Ranks	22 <sup>k</sup>	11.50	253.00
	Ties	0 <sup>l</sup>		
	Total	22		
Satu_PostFerritin - Satu_PreFerritin	Negative Ranks	18 <sup>m</sup>	11.78	212.00
	Positive Ranks	4 <sup>n</sup>	10.25	41.00
	Ties	0 <sup>o</sup>		
	Total	22		
Satu_PostHepsidin - Satu_PreHepsidin	Negative Ranks	22 <sup>p</sup>	11.50	253.00
	Positive Ranks	0 <sup>q</sup>	.00	.00
	Ties	0 <sup>r</sup>		
	Total	22		

a. Dua\_PostVitD < Dua\_PreVitD

b. Dua\_PostVitD > Dua\_PreVitD

c. Dua\_PostVitD = Dua\_PreVitD

d. Dua\_PostFerritin < Dua\_PreFerritin

e. Dua\_PostFerritin > Dua\_PreFerritin

f. Dua\_PostFerritin = Dua\_PreFerritin

g. Dua\_PostHepsidin < Dua\_PreHepsidin

h. Dua\_PostHepsidin > Dua\_PreHepsidin

i. Dua\_PostHepsidin = Dua\_PreHepsidin

j. Satu\_PostVitD < Satu\_PreVitD

k. Satu\_PostVitD > Satu\_PreVitD

l. Satu\_PostVitD = Satu\_PreVitD

m. Satu\_PostFerritin < Satu\_PreFerritin

n. Satu\_PostFerritin > Satu\_PreFerritin

o. Satu\_PostFerritin = Satu\_PreFerritin

p. Satu\_PostHepsidin < Satu\_PreHepsidin

q. Satu\_PostHepsidin > Satu\_PreHepsidin

r. Satu\_PostHepsidin = Satu\_PreHepsidin

### Test Statistics<sup>a</sup>

	Dua_PostVit D - Dua_PreVitD	Dua_PostFerriti n - Dua_PreFerriti n	Dua_PostHepsidi n - Dua_PreHepsidi n	Satu_PostVit D - Satu_PreVitD	Satu_PostFerriti n - Satu_PreFerriti n	Satu_PostHepsidi in - Satu_PreHepsidi n
Z	-4.017 <sup>b</sup>	-3.146 <sup>c</sup>	-4.015 <sup>c</sup>	-4.109 <sup>b</sup>	-2.776 <sup>c</sup>	-4.107 <sup>c</sup>
Asymp. Sig. (2- tailed)	.000	.002	.000	.000	.006	.000

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

c. Based on positive ranks.

### Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	VitD	.137	.038	13.267	1	.000	1.147	1.065	1.235
	Ferritin	-.003	.001	13.551	1	.000	.997	.996	.999
	Hepsidin	.000	.000	.332	1	.564	1.000	.999	1.000
	Constant	-1.872	1.019	3.375	1	.066	.154		
Step 2 <sup>a</sup>	VitD	.140	.037	13.992	1	.000	1.150	1.069	1.238
	Ferritin	-.003	.001	13.671	1	.000	.997	.996	.999
	Constant	-2.132	.926	5.305	1	.021	.119		

a. Variable(s) entered on step 1: VitD, Ferritin, Hepsidin.

### Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	Vit_D_kel1	.088	.035	6.429	1	.011	1.092	1.020	1.168
	Ferritin_kel1	.000	.000	.317	1	.573	1.000	.999	1.001
	Hepsidin_kel1	.000	.000	.780	1	.377	1.000	1.000	1.001
	Constant	-3.034	1.180	6.614	1	.010	.048		
Step 2 <sup>a</sup>	Vit_D_kel1	.087	.034	6.548	1	.011	1.091	1.021	1.166
	Hepsidin_kel1	.000	.000	.827	1	.363	1.000	1.000	1.001
	Constant	-2.836	1.091	6.758	1	.009	.059		
Step 3 <sup>a</sup>	Vit_D_kel1	.087	.034	6.550	1	.010	1.091	1.021	1.167
	Constant	-2.438	.989	6.073	1	.014	.087		

a. Variable(s) entered on step 1: Vit\_D\_kel1, Ferritin\_kel1, Hepsidin\_kel1.

### Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	Vit_D_kel2	.337	.111	9.169	1	.002	1.400	1.126	1.741
	Ferritin_kel2	-.003	.001	6.121	1	.013	.997	.994	.999
	Hepsidin_kel2	.000	.000	.236	1	.627	1.000	.999	1.001
	Constant	-4.833	2.252	4.606	1	.032	.008		
Step 2 <sup>a</sup>	Vit_D_kel2	.335	.108	9.661	1	.002	1.397	1.132	1.726
	Ferritin_kel2	-.003	.001	6.254	1	.012	.997	.994	.999
	Constant	-5.096	2.164	5.547	1	.019	.006		

a. Variable(s) entered on step 1: Vit\_D\_kel2, Ferritin\_kel2, Hepsidin\_kel2.