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LAMPIRAN

Lampiran 1. Ethical Clearance

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN UNIVERSITAS HASANUDDIN
RSPTN 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 : 595/UN4.6.4.5.31/ PP36/ 2023

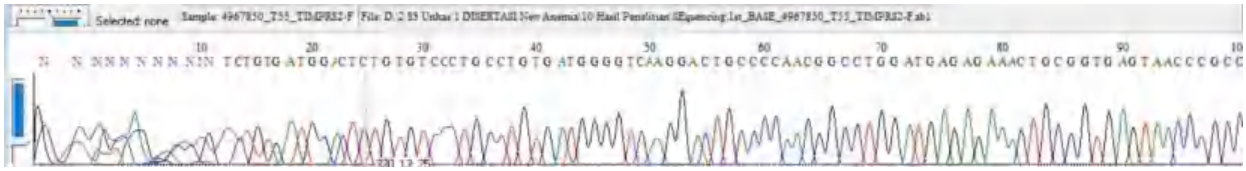
Tanggal: 28 Agustus 2023

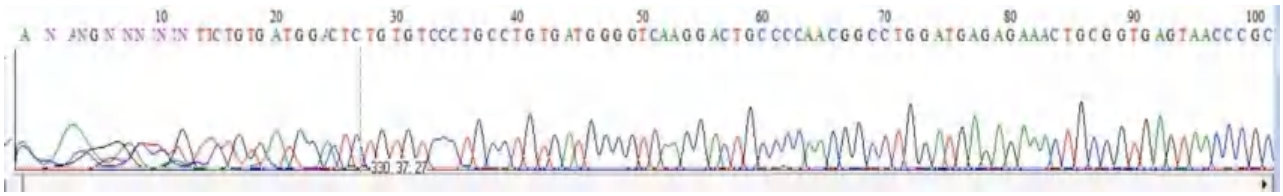
Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

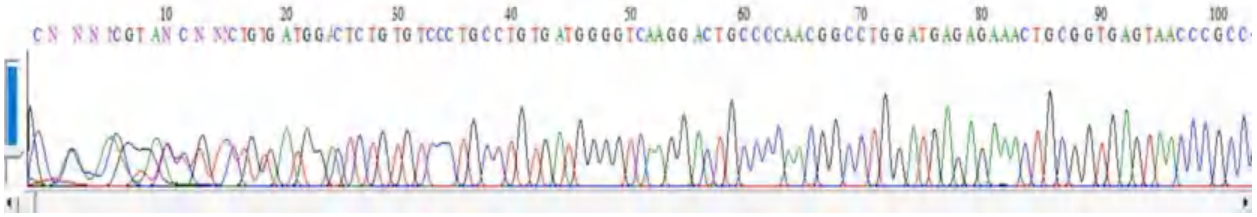
No Protokol	UH23080560	No Sponsor	
Peneliti Utama	**dr. Rifana Cholidah, M.Sc**	Sponsor	
Judul Peneliti	Analisis Pengaruh Polimorfisme Gen TMPRSS6 pada Status Zat Besi Remaja Putri yang Mendapatkan Tablet Zat Besi di Mataram, Lombok, Indonesia		
No Versi Protokol	**2**	Tanggal Versi	**25 Agustus 2023**
No Versi PSP	**2**	Tanggal Versi	**25 Agustus 2023**
Tempat Penelitian	Mataram, Lombok, Indonesia		
Jenis Review	☐ Exempted ☒ Expedited ☐ Fullboard Tanggal	Masa Berlaku **28 Agustus 2023** sampai **28 Agustus 2024**	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama **Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)**	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama **dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)**	Tanda tangan	

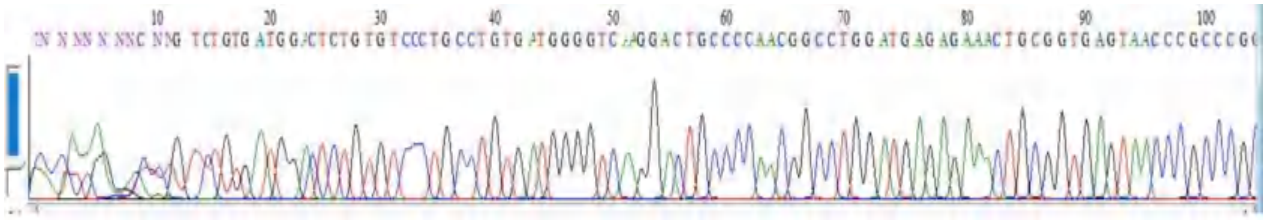
Kewajiban Peneliti Utama:
- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Lapor SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) 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

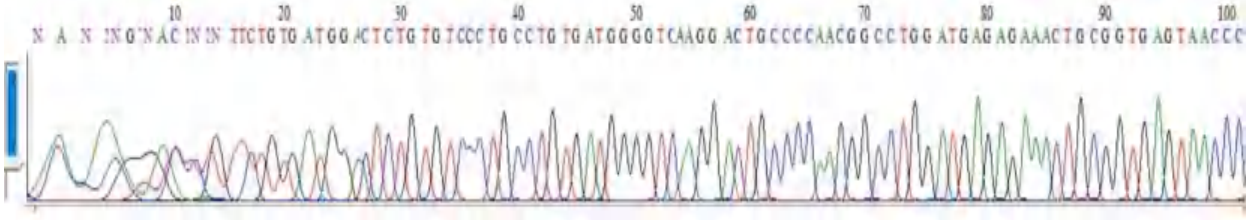
Lampiran 2. Gambaran hasil sequencing sampel penelitian











Lampiran 3. Dokumentasi Penelitian

Penjelasan tentang prosedur penelitian

Pemeriksaan Antropometri

Pengambilan Darah

Pemeriksaan ELISA dan PCR

Lampiran 4. Informed Consent dan kuesioner

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI

UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN
KOMITE ETIK PENELITIAN KESEHATAN
RSPTN UNIVERSITAS HASANUDDIN
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR
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Contact Person: dr. Agussalim Bukhari.,MMed,PhD, SpGK TELP. 081241850858, 0411 5780103, Fax : 0411-581431

FORMULIR PERSETUJUAN SETELAH PENJELASAN (PSP)

(INFORMED CONSENT)

Selamat pagi Bapak / Ibu /Saudara(i), saya **dr. Rifana Cholidah, M. Sc**, bermaksud untuk melakukan penelitian **"Analisis Pengaruh Polimorfisme Gen TMPRSS6 pada Status Zat Besi Remaja Putri yang Mendapatkan Tablet Zat Besi di Mataram, Lombok, Indonesia".**

Adapun penelitian ini bertujuan untuk mengetahui pengaruh polimorfisme gen TMPRSS6 pada rs420268 pada status zat besi remaja putri yang mendapatkan tablet zat besi di Mataram, Lombok, Indonesia. Manfaat penelitian ini diharapkan dapat memberikan pengetahuan tambahan mengenai pengaruh polimorfisme gen TMPRSS6 pada rs420268 dan pemberian tablet zat besi pada status zat besi remaja putri di Mataram, Lombok, Indonesia.

Spesimen penelitian berupa spesimen darah yang akan diambil sebanyak 6 ml oleh ıboratorium yang berpengalaman. Prosedur pengambilan spesimen ı dilakukan dengan cara pengambilan darah dengan spuit injeksi pada

bagian lipatan siku dengan tehnik aseptik. Pengambilan spesimen darah ini bertujuan untuk mengetahui kadar hemoglobin dan status besi yang lain.

Pada umumnya terdapat efek samping ringan pada prosedur pengambilan spesimen darah seperti nyeri, hematom dan juga rasa tidak nyaman. Namun, kami akan berusaha meminimalisir terjadinya efek samping tersebut dan kami akan memberikan bantuan dasar hidup (BHD) jika ada subjek yang mengalami syok pada saat pengambilan darah. Selain pengambilan darah kami akan melakukan wawancara terkait makanan yang anda konsumsi dalam 24 jam dan dalam beberapa bulan terakhir.

Keikutsertaan dalam penelitian ini bersifat suka rela, tidak ada paksaan dan dapat mengundurkan diri kapan saja dari penelitian ini. Jika anda bersedia dan menyetujui untuk ikut maka anda harus mengikuti protokol penelitian sampai selesai. Partisipan akan mendapatkan kompensasi hadiah berupa kotak makan siang setelah menyelesaikan rangkaian penelitian.

Kami akan menjaga kerahasiaan informasi selama penelitian maupun setelah penelitian dilakukan. Jika ada hal yang ingin ditanyakan mengenai penelitian ini dapat menghubungi peneliti dengan alamat dan nomor kontak dibawah ini atau menghubungi Komisi etik Penelitian Kesehatan Fakultas Kedokteran Universitas Hasanuddin An. Ibu Rahayu Iriani no HP. 081343825297 atau dr. Agussalim Bukhari, M.Med, Ph.D, Sp.GK (K) No. HP. 081225704670 Alamat: Jl. Perintis Kemerdekaan KM 10 Tamalanrea 90245, Makassar.

Identitas Peneliti

Nama : dr. Rifana Cholidah, M.Sc

: Jln TGH Munir Gang Makbul, Beleka, Lombok Barat, NTB

082260851010

Persetujuan Partisipan

Tanggal : .....

Nama : .....

Kelas : .....

Usia : .....

Tanda tangan : .....

24 HOUR FOOD RECALL

Nama :
Kelas :
Tanggal :

Enumerator :

Hari: Bangun tidur: Waktu tidur:

Waktu	Deskripsi makanan/minuman	Porsi
Pagi Bangun pagi- jam 10		
jam 10-12		
Siang jam 12-16		
Sore jam 16-18		
Malam jam 18-tidur		

batan dan suplemen makanan

san:	Waktu:

Apakah hari ini merupakan hari biasa? Ya

Tidak

Jika tidak, jelaskan:

Catatan

KUESIONER PENELITIAN

"Analisis Pengaruh Polimorfisme Gen TMPRSS6 pada Status Zat Besi Remaja Putri yang Mendapatkan Tablet Zat Besi di Mataram, Lombok, Indonesia"

Tanggal:.....

Data Demografi Responden

1. Nama anda :
2. Usia :
3. Kelas :
4. Jenis Kelamin :
5. Alamat :

Data Orangtua

A. AYAH

Nama :

Usia :

Pendidikan terakhir :

- ○ Tidak sekolah
- ○ SD
- ○ SMP
- ○ SMA
- ○ D1/D2/D3
- ○ S1
- ○ Lainnya, sebutkan.....

Pekerjaan :

- ○ PNS
- ○ Wirausaha
- ○ Buruh
- ○ Petani
- ○ Nelayan
- ○ Lainnya, sebutkan .....

Penghasilan :

- ○ < Rp. 500.000
- ○ Rp. 500.000 – Rp. 1.000.000
- ○ Rp. 1.000.000 – 2.500.000
- ○ Rp. 2.500.000 – 5.000.000
- ○ > Rp. 5.000.000

B. IBU

ama :

sia :

Pendidikan terakhir :

- Tidak sekolah
- SD
- SMP
- SMA
- D1/D2/D3
- S1
- Lainnya, sebutkan…….

Pekerjaan :

- PNS
- Wirausaha
- Buruh
- Petani
- Nelayan
- Lainnya, sebutkan ……..

Penghasilan :

- < Rp. 500.000
- Rp. 500.000 – Rp. 1.000.000
- Rp. 1.000.000 – 2.500.000
- Rp. 2.500.000 – 5.000.000
- > Rp. 5.000.000

6. Sumber pengetahuan Anda tentang resiko anemia pada remaja
   - Guru
   - Dokter
   - Perawat
   - Keluarga atau teman
   - Sosial media (FB, IG, Youtube)
   - Media cetak
   - media elektronik
   - Lainnya, sebutkan……..
7. Sumber pengetahuan Anda tentang pentingnya mengkonsumsi tablet tambah besi
   - Guru
   - Dokter
   - Perawat
   - Keluarga atau teman
   - Sosial media (FB, IG, Youtube)
   - Media cetak
   - media elektronik
   - Lainnya, sebutkan……

Kuesioner Penelitian

Analisis Pengaruh Polimorfisme Gen TMPRSS6 pada Status Zat Besi Remaja Putri yang Mendapatkan Tablet Zat Besi di Mataram, Lombok, Indonesia"

TanggaL : ……
Nama Sampel : .....
Kode : .....
Pewawancara: .....

Pertanyaaan:

1. Apakah pada hari ini sedang haid?
   a. Ya b. Tidak

2. Apakah mempunyai siklus haid teratur
   a. Ya b. Tidak

3. Berapa Hari Siklus haid yang biasa dialami?

4. Berapa hari haid berlangsung?

5. Tahun berapa pertama kali Haid? (sebutkan tahunnya dan tingkat sekolah, misal saat kelas 1
   SMP).....

6. Apakah menderita penyakit kronis seperti kanker, penyakit ginjal, HIV/AIDS
   a. Ya b. Tidak

7. Apakah mempunyai riwayat kelainan darah, seperti thalassemia, anemia aplastik , hemofilia
   a. Ya b. Tidak

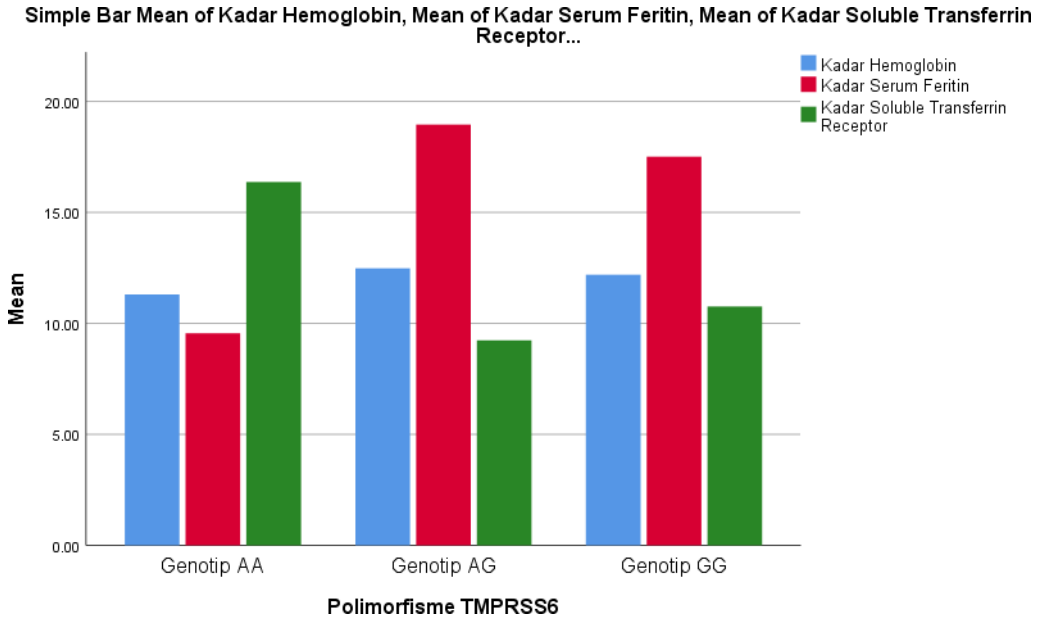
8. Apakah pernah melakukan donor darah 3 bulan dalam 3 bulan terakhir?
   b. Ya b. Tidak
   Bila jawaban Ya, kapan.....

Lampiran 5. Hasil data statistik

1. Data Demografi sampel

a. Data berat badan, tinggi badan, usia orang tua, kadar Hb, SF dan sTfR

		Usia Responden	Tinggi Badan Responden (cm)	Berat Badan Responden (kg)	Usia Orang Tua (Ayah)	Usia Orang Tua (Ibu)	Kadar Hemoglobin	Kadar Serum Feritin	Kadar Soluble Transferrin Reseptor	Asupan Fe
N	Valid	60	60	60	58	57	60	60	60	60
	Missing	0	0	0	2	3	0	0	0	0
Mean		15.98	152.16	50.37	47.40	43.49	12.2750	17.7965	10.3643	9.0167
Std. Error of Mean		.140	.613	1.368	.816	.717	.14324	1.67791	.61093	1.38523
Median		16.00	152.35	48.25	47.00	43.00	12.4500	14.5919	9.7409	4.5000
Std. Deviation		1.081	4.750	10.594	6.212	5.412	1.10953	12.99707	4.73226	10.729992
Minimum		15	141	36	35	35	8.70	1.46	1.73	1.10
Maximum		18	165	97	63	56	14.60	59.02	37.53	53.00



b. Pekerjaan orangtua

Pekerjaan Orang Tua (Ayah)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PNS	15	25.0	25.9	25.9
	Wirausaha	24	40.0	41.4	67.2
	Buruh	7	11.7	12.1	79.3
	Petani	1	1.7	1.7	81.0
	TNI	2	3.3	3.4	84.5
	Pariwisata	1	1.7	1.7	86.2
	Honorer	1	1.7	1.7	87.9
	Polisi	1	1.7	1.7	89.7
	Karyawan Swasta	1	1.7	1.7	91.4
	Guru	1	1.7	1.7	93.1
	Polisi Hutan	1	1.7	1.7	94.8
	TKI	1	1.7	1.7	96.6
	Kuli Bangunan	1	1.7	1.7	98.3
	Mandor	1	1.7	1.7	100.0
	Total	58	96.7	100.0	
	System	2	3.3		
		60	100.0		

Pekerjaan Orang Tua (Ibu)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PNS	11	18.3	18.6	18.6
	Wirausaha	18	30.0	30.5	49.2
	Petani	1	1.7	1.7	50.8
	Guru	3	5.0	5.1	55.9
	TKI	2	3.3	3.4	59.3
	IRT	23	38.3	39.0	98.3
	Perawat	1	1.7	1.7	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

c. Penghasilan orangtua

Penghasilan Orang Tua (Ayah)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<500.000	8	13.3	13.3	13.3
	500.000-1.000.000	10	16.7	16.7	30.0
	1.000.000-2.000.000	19	31.7	31.7	61.7
	2.500.000-5.000.000	10	16.7	16.7	78.3
	>5.000.000	13	21.7	21.7	100.0
	Total	60	100.0	100.0	

Penghasilan Orang Tua (Ibu)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<500.000	25	41.7	41.7	41.7
	500.000-1.000.000	12	20.0	20.0	61.7
	1.000.000-2.000.000	11	18.3	18.3	80.0
	2.500.000-5.000.000	8	13.3	13.3	93.3
	>5.000.000	4	6.7	6.7	100.0
	Total	60	100.0	100.0	

d. Pendidikan orangtua

Pendidikan Orang Tua (Ayah)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak Sekolah	1	1.7	1.7	1.7
	SD	2	3.3	3.3	5.0
	SMP	4	6.7	6.7	11.7
	SMA	33	55.0	55.0	66.7
	D1/D2/D3	5	8.3	8.3	75.0
	S1	12	20.0	20.0	95.0
	S2	2	3.3	3.3	98.3
	S3	1	1.7	1.7	100.0
	Total	60	100.0	100.0	

Pekerjaan Orang Tua (Ibu)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	PNS	11	18.3	18.6	18.6
	Wirausaha	18	30.0	30.5	49.2
	Petani	1	1.7	1.7	50.8
	Guru	3	5.0	5.1	55.9
	TKI	2	3.3	3.4	59.3
	IRT	23	38.3	39.0	98.3
	Perawat	1	1.7	1.7	100.0
	Total	59	98.3	100.0	
Missing	System	1	1.7		
Total		60	100.0		

2. Polimorfisme TMPRSS6 rs4820268

Polimorfisme TMPRSS6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Genotip AA	2	3.3	3.3	3.3
	Genotip AG	23	38.3	38.3	41.7
	Genotip GG	35	58.3	58.3	100.0

Total	60	100.0	100.0	

3. Distribusi angka kejadian anemia, defisiensi besi dan anemia defisiensi besi pada SNP rs4820268 pada genotip AA, AG dan GG

Anemia (Hb) * Polimorfisme TMPRSS6

Anemia (Hb) * Polimorfisme TMPRSS6 Crosstabulation

			Polimorfisme TMPRSS6			
			Genotip AA	Genotip AG	Genotip GG	Total
Anemia (Hb)	Normal	Count	1	17	24	42
		% within Anemia (Hb)	2.4%	40.5%	57.1%	100.0%
		% within Polimorfisme TMPRSS6	50.0%	73.9%	68.6%	70.0%
	Anemia	Count	1	6	11	18
		% within Anemia (Hb)	5.6%	33.3%	61.1%	100.0%
		% within Polimorfisme TMPRSS6	50.0%	26.1%	31.4%	30.0%
Total		Count	2	23	35	60
		% within Anemia (Hb)	3.3%	38.3%	58.3%	100.0%
		% within Polimorfisme TMPRSS6	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.583[a]	2	.747
Likelihood Ratio	.555	2	.758
Linear-by-Linear Association	.002	1	.960
N of Valid Cases	60		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .60.

Defisiensi Besi * Polimorfisme TMPRSS6 Crosstabulation

		Polimorfisme TMPRSS6			
		Genotip AA	Genotip AG	Genotip GG	Total
Normal	Count	0	13	20	33
	% within Defisiensi Besi	0.0%	39.4%	60.6%	100.0%
	% within Polimorfisme TMPRSS6	0.0%	56.5%	57.1%	55.0%
Anemia	Count	2	10	15	27

	% within Defisiensi Besi	7.4%	37.0%	55.6%	100.0%
	% within Polimorfisme TMPRSS6	100.0%	43.5%	42.9%	45.0%
Total	Count	2	23	35	60
	% within Defisiensi Besi	3.3%	38.3%	58.3%	100.0%
	% within Polimorfisme TMPRSS6	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.531[a]	2	.282
Likelihood Ratio	3.281	2	.194
Linear-by-Linear Association	.721	1	.396
N of Valid Cases	60		

a. 2 cells (33.3%) have expected count less than 5. The minimum expected count is .90.

Anemia Defisiensi Besi * Polimorfisme TMPRSS6 Crosstabulation

			Polimorfisme TMPRSS6			Total
			Genotip AA	Genotip AG	Genotip GG	
Anemia Defisiensi Besi	Normal	Count	1	18	29	48
		% within Anemia Defisiensi Besi	2.1%	37.5%	60.4%	100.0%
		% within Polimorfisme TMPRSS6	50.0%	78.3%	82.9%	80.0%
	Anemia	Count	1	5	6	12
		% within Anemia Defisiensi Besi	8.3%	41.7%	50.0%	100.0%
		% within Polimorfisme TMPRSS6	50.0%	21.7%	17.1%	20.0%
Total		Count	2	23	35	60
		% within Anemia Defisiensi Besi	3.3%	38.3%	58.3%	100.0%
		% within Polimorfisme TMPRSS6	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.347[a]	2	.510
Likelihood Ratio	1.121	2	.571
Linear-by-Linear Association	.835	1	.361
	60		

have expected count less than 5. The minimum

.40.

genotip AA, AG dan GG

Kruskal-Wallis Test

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Kadar Hemoglobin	Genotip AA	2	11.3000	2.96985	2.10000	-15.3830	37.9830	9.20	13.40
	Genotip AG	23	12.4826	.96184	.20056	12.0667	12.8985	9.80	13.90
	Genotip GG	35	12.1943	1.08924	.18411	11.8201	12.5685	8.70	14.60
	Total	60	12.2750	1.10953	.14324	11.9884	12.5616	8.70	14.60
Kadar Serum Feritin	Genotip AA	2	9.5538	1.84758	1.30643	-7.0460	26.1536	8.25	10.86
	Genotip AG	23	18.9538	11.84444	2.46974	13.8319	24.0757	2.50	50.34
	Genotip GG	35	17.5069	14.04517	2.37407	12.6823	22.3316	1.46	59.02
	Total	60	17.7965	12.99707	1.67791	14.4390	21.1540	1.46	59.02
Kadar Soluble Transferrin Receptor	Genotip AA	2	16.3713	.10854	.07675	15.3960	17.3465	16.29	16.45
	Genotip AG	23	9.2346	3.19465	.66613	7.8531	10.6161	1.88	15.42
	Genotip GG	35	10.7634	5.39507	.91193	8.9101	12.6167	1.73	37.53
	Total	60	10.3643	4.73226	.61093	9.1418	11.5868	1.73	37.53

Ranks

	Polimorfisme TMPRSS6	N	Mean Rank
Kadar Hemoglobin	Genotip AA	2	27.50
	Genotip AG	23	33.65
	Genotip GG	35	28.60
	Total	60	
Kadar Serum Feritin	Genotip AA	2	20.00
	Genotip AG	23	32.74
	Genotip GG	35	29.63
	Total	60	
Kadar Soluble Transferrin Receptor	Genotip AA	2	58.50
	Genotip AG	23	26.17
	Genotip GG	35	31.74
	Total	60	

Test Statistics[a,b]

	Kadar Hemoglobin	Kadar Serum Feritin	Kadar Soluble Transferrin Receptor
Wallis H	1.227	1.188	6.730
	2	2	2
Sig.	.542	.552	**.035**

l Wallis Test

b. Grouping Variable: Polimorfisme TMPRSS6

5. Perbedaan kadar Hb, SF dan sTfR pada SNP TMPRSS6 rs4820268 genotip AA vs AG/GG

Mann-Whitney Test

Group Statistics

	Polimorfisme TMPRSS6	N	Mean	Std. Deviation	Std. Error Mean
Kadar Hemoglobin	AA	2	11.3000	2.96985	2.10000
	AG/GG	58	12.3086	1.04164	.13677
Kadar Serum Feritin	AA	2	9.5538	1.84758	1.30643
	AG/GG	58	18.0807	13.12726	1.72369
Kadar Soluble Transferrin Receptor	AA	2	16.3713	.10854	.07675
	AG/GG	58	10.1571	4.67655	.61406

Ranks

	Polimorfisme TMPRSS6	N	Mean Rank	Sum of Ranks
Kadar Hemoglobin	AA	2	27.50	55.00
	AG/GG	58	30.60	1775.00
	Total	60		
Kadar Serum Feritin	AA	2	20.00	40.00
	AG/GG	58	30.86	1790.00
	Total	60		
Kadar Soluble Transferrin Receptor	AA	2	58.50	117.00
	AG/GG	58	29.53	1713.00
	Total	60		

Test Statistics[a]

	Kadar Hemoglobin	Kadar Serum Feritin	Kadar Soluble Transferrin Receptor
Mann-Whitney U	52.000	37.000	2.000
Wilcoxon W	55.000	40.000	1713.000
Z	-.248	-.865	-2.306
g. (2-tailed)	.805	.387	.021
[2*(1-tailed Sig.)]	.824[b]	.429[b]	**.005[b]**

a. Grouping Variable: Polimorfisme TMPRSS6

b. Not corrected for ties.

6. Hubungan antara status gizi dengan kadar Hb, SF dan sTfR

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Kadar Hemoglobin	Gizi baik	48	12.2833	1.12540	.16244	11.9566	12.6101	8.70	14.60
	Gizi kurang	3	11.1667	1.70978	.98714	6.9193	15.4140	9.20	12.30
	Gizi lebih	6	12.5667	.67132	.27406	11.8622	13.2712	11.40	13.40
	Obese	3	12.6667	.41633	.24037	11.6324	13.7009	12.20	13.00
	Total	60	12.2750	1.10953	.14324	11.9884	12.5616	8.70	14.60
Kadar Serum Feritin	Gizi baik	48	17.8198	13.91573	2.00856	13.7791	21.8605	1.46	59.02
	Gizi kurang	3	21.8426	13.06758	7.54457	-10.6191	54.3042	8.25	34.31
	Gizi lebih	6	12.0633	4.68442	1.91241	7.1473	16.9793	7.51	20.84
	Obese	3	24.8430	3.04192	1.75625	17.2864	32.3995	21.75	27.83
	Total	60	17.7965	12.99707	1.67791	14.4390	21.1540	1.46	59.02
Kadar Soluble Transferrin Receptor	Gizi baik	48	10.3877	5.13402	.74103	8.8969	11.8785	1.73	37.53
	Gizi kurang	3	12.1934	4.05820	2.34300	2.1123	22.2745	8.18	16.29
	Gizi lebih	6	10.4825	2.05267	.83800	8.3283	12.6366	8.18	13.31
	Obese	3	7.9241	.45605	.26330	6.7912	9.0570	7.53	8.42
	Total	60	10.3643	4.73226	.61093	9.1418	11.5868	1.73	37.53

Ranks

	Status Gizi	N	Mean Rank
Kadar Hemoglobin	Gizi baik	48	30.38
	Gizi kurang	3	16.33
	Gizi lebih	6	35.17
	Obese	3	37.33
	Total	60	
Kadar Serum Feritin	Gizi baik	48	29.83
	Gizi kurang	3	38.33
	Gizi lebih	6	24.50
	Obese	3	45.33
	Total	60	
ble Transferrin Receptor	Gizi baik	48	30.63
	Gizi kurang	3	39.67
	Gizi lebih	6	33.67
	Obese	3	13.00
	Total	60	

Test Statistics[a,b]

	Kadar Hemoglobin	Kadar Serum Feritin	Kadar Soluble Transferrin Receptor
Kruskal-Wallis H	2.874	3.546	4.039
df	3	3	3
Asymp. Sig.	.411	.315	.257

a. Kruskal Wallis Test

b. Grouping Variable: Status Gizi

7. Uji Regresi linear pengaruh polimorfisme TMPRSS6 rs4820268 terhadap kadar Hb, SF dan sTfR

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Status Gizi, Polimorfisme TMPRSS6, Usia Responden[b]	.	Enter

a. Dependent Variable: Kadar Hemoglobin
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342[a]	.117	.069	1.07038

a. Predictors: (Constant), Status Gizi, Polimorfisme TMPRSS6, Usia Responden

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	6.085	2.356		2.583	.012
	Polimorfisme TMPRSS6	1.339	.782	.218	1.711	.093
	Usia Responden	.304	.131	.296	2.319	.024
	Status Gizi	.100	.161	.078	.624	.535

a. Dependent Variable: Kadar Hemoglobin

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Status Gizi, Polimorfisme TMPRSS6, Usia Responden[b]	.	Enter

a. Dependent Variable: Kadar Serum Feritin
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.230[a]	.053	.002	12.98223

a. Predictors: (Constant), Status Gizi, Polimorfisme TMPRSS6, Usia Responden

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	50.391	28.573		1.764	.083
	Polimorfisme TMPRSS6	6.007	9.488	.084	.633	.529
	Usia Responden	-2.405	1.589	-.200	-1.514	.136
	Status Gizi	.093	1.950	.006	.048	.962

ent Variable: Kadar Serum Feritin

Regression

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Status Gizi, Polimorfisme TMPRSS6, Usia Responden[b]	.	Enter

a. Dependent Variable: Kadar Soluble Transferrin Receptor
b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.309[a]	.095	.047	4.61964

a. Predictors: (Constant), Status Gizi, Polimorfisme TMPRSS6, Usia Responden

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	30.608	10.168		3.010	.004
	Polimorfisme TMPRSS6	-7.124	3.376	-.273	-2.110	**.039**
	Usia Responden	-.826	.565	-.189	-1.460	.150
	Status Gizi	-.401	.694	-.073	-.578	.566

a. Dependent Variable: Kadar Soluble Transferrin Receptor

Variabel	Hemoglobin (g/dL)			Serum Ferritin (µg/L)			Serum Transferrin Receptor (mg/L)		
	B	SE	p	B	SE	p	B	SE	p
Model 1									
Gen TMPRSS6	1.392	0.796	0.086	9.333	9.139	0.312	-6.581	3.403	0.058
Usia	0.305	0.132	0.025	-2.342	1.515	0.128	-0.815	0.564	0.154
Status Gizi	0.103	0.162	0.527	0.274	1.860	0.883	-0.371	0.693	0.594
Asupan Fe	0.006	0.013	0.635	0.390	0.152	0.013	0.064	0.057	0.265

Multiple Linear Regression method = enter (*N* = 60), Model 1: Hb; R2 = 0.120, SF; R2 = 0.154, STfR; R2 = 0.116, AA = 2/AG = 1/GG = 0

Note: Variabel gen TMPRSS6 yang sebelumnya berupa data kategorik telah dimodifikasi menjadi data numerik. Variabel outcome (Hb, Ferritin, dan STfR) dalam bentuk numerik

Pada tabel diatas menunjukkan bahwa tidak ada pengaruh polimorfisme gen TMPRSS6 terhadap kadar hemoglobin (B=1.392, SE=0.796, p=0.086), kadar serum ferritin (B=9.333, SE=9.139, p=0.312), dan kadar soluble transferrin reseptor (B=-6.581, SE=3.403, p=0.058).

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Asupan Fe Pertama, Usia Responden, Status Gizi, Polimorfisme TMPRSS6[b]	.	Enter

a. Dependent Variable: Kadar Hemoglobin

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	47[a]	.120	.056	1.07784

ıstant), Asupan Fe Pertama, Usia Responden, Status

ɨ TMPRSS6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.959	2.387		2.497	.016
	Polimorfisme TMPRSS6	1.392	.796	.227	1.750	.086
	Usia Responden	.305	.132	.297	2.311	.025
	Status Gizi	.103	.162	.081	.637	.527
	Asupan Fe Pertama	.006	.013	.061	.477	.635

a. Dependent Variable: Kadar Hemoglobin

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Asupan Fe Pertama, Usia Responden, Status Gizi, Polimorfisme TMPRSS6[b]	.	Enter

a. Dependent Variable: Kadar Serum Feritin

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393[a]	.154	.093	12.37805

a. Predictors: (Constant), Asupan Fe Pertama, Usia Responden, Status Gizi, Polimorfisme TMPRSS6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	42.586	27.413		1.554	.126
	Polimorfisme TMPRSS6	9.333	9.139	.130	1.021	.312
	Usia Responden	-2.342	1.515	-.195	-1.546	.128
	Status Gizi	.274	1.860	.018	.147	.883
	Asupan Fe Pertama	.390	.152	.322	2.569	.013

a. Dependent Variable: Kadar Serum Feritin

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Asupan Fe Pertama, Usia Responden, Status Gizi, Polimorfisme TMPRSS6[b]	.	Enter

a. Dependent Variable: Kadar Soluble Transferrin Receptor

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.340[a]	.116	.052	4.60867

ıstant), Asupan Fe Pertama, Usia Responden, Status
ᵢ TMPRSS6

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	29.335	10.206		2.874	.006
	Polimorfisme TMPRSS6	-6.581	3.403	-.252	-1.934	.058
	Usia Responden	-.815	.564	-.186	-1.446	.154
	Status Gizi	-.371	.693	-.068	-.536	.594
	Asupan Fe Pertama	.064	.057	.144	1.126	.265

a. Dependent Variable: Kadar Soluble Transferrin Receptor

Korelasi Asupan Fe terhadap Kadar Hemoglobin, Serum Ferritin, dan Soluble transferrin receptor

	Hemoglobin (g/dL)	**Serum Ferritin (µg/L)**	**Soluble Transferrin Receptor (mg/L)**
Asupan Fe	-0.032 (0.806)	0.390 (*0.002*)	-0.254 (0.050)

Data disajikan dalam bentuk r (p-value). r merupakan koefisien korelasi dari nilai 0-1. Semakin mendekati nilai satu maka semakin kuat kekuatan korelasinya.

Pada tabel diatas menunjukkan bahwa asupan Fe hanya memiliki hubungan yang signifikan dengan kadar serum ferritin dengan nilai korelasi (r) sebesar 0.390 (p=0.002) sedangkan tidak ada hubungan yang signifikan dengan kadar hemoglobin (r=-0.032, p=0.806) dan kadar serum transferrin reseptor (r=-0.254, p=0.050). Nilai korelasi asupan Fe dan kadar ferritin menunjukkan kekuatan hubungan yang moderat dimana semakin tinggi asupan Fe maka semakin tinggi pula kadar serum ferritin.

Nonparametric Correlations

Correlations

			Kadar Hemoglobin	Kadar Serum Feritin	Kadar Soluble Transferrin Receptor	Asupan Fe Pertama
Spearman's rho	Kadar Hemoglobin	Correlation Coefficient	1.000	.216	-.175	**-.032**
		Sig. (2-tailed)	.	.097	.182	**.806**
		N	60	60	60	60
	Kadar Serum Feritin	Correlation Coefficient	.216	1.000	-.220	**.390****
		Sig. (2-tailed)	.097	.	.091	**.002**
		N	60	60	60	60
	Kadar Soluble Transferrin Receptor	Correlation Coefficient	-.175	-.220	1.000	**-.254***
		Sig. (2-tailed)	.182	.091	.	**.050**
		N	60	60	60	60
	Asupan Fe Pertama	Correlation Coefficient	**-.032**	**.390****	**-.254***	**1.000**
		Sig. (2-tailed)	**.806**	**.002**	**.050**	**.**
		N	60	60	60	60

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).