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## LAMPIRAN 1. SURAT PERSETUJUAN ETIK


 KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI  
 UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
 KOMITE ETIK PENELITIAN KESEHATAN  
 RSPN UNIVERSITAS HASANUDDIN  
 RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR  
 Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
 JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90245.  
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### REKOMENDASI PERSETUJUAN ETIK

Nomor : 583/UN4.6.4.5.31/ PP36/ 2021

Tanggal: 10 September 2021

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

No Protokol	UH21060375	No Sponsor Protokol	
Peneliti Utama	<b>dr. Ardy Gisnawan, M.Kes</b>	Sponsor	
Judul Peneliti	Thyrotropin Receptor Antibody Sebagai Biomarker Pada Aktivitas Dan Severitas Pasien Grave's Oftalmopati Di RSUP Wahidin Sudirohusodo Makassar		
No Versi Protokol	2	Tanggal Versi	<b>5 September 2021</b>
No Versi PSP	2	Tanggal Versi	<b>5 September 2021</b>
Tempat Penelitian	RS Universitas Hasanuddin dan RS Dr. Wahidin Sudirohusodo Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku <b>10 September 2021</b> sampai <b>10 September 2022</b>	Frekuensi review lanjutan
Ketua Komisi Etik Penelitian Kesehatan FKUH	Nama <b>Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)</b>	Tanda tangan	
Sekretaris Komisi Etik Penelitian Kesehatan FKUH	Nama <b>dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (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 Laporan 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 protokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

## LAMPIRAN 2. FORMULIR PERSETUJUAN

### FORMULIR PERSETUJUAN

Saya yang bertanda tangan di bawah ini :

Nama : .....

Umur : .....tahun

Alamat : .....

Telepon/HP : .....

Menyatakan bersedia untuk berpartisipasi pada penelitian ini yang berjudul :

**“THYROTROPIN RECEPTOR ANTIBODY SEBAGAI BIOMARKER  
PADA AKTIVITAS DAN SEVERITAS PASIEN OFTALMOPATI  
GRAVES’ DI RSUP WAHIDIN SUDIROHUSODO MAKASSAR”**

setelah mendengar/membaca dan mengerti penjelasan yang diberikan mengenai tujuan dan manfaat yang akan didapatkan pada penelitian ini, khususnya bagi kemajuan ilmu kedokteran.

Makassar,

.....

Subjek/wali

Peneliti

(.....)

(.....)

Saksi

(.....)

Penanggung jawab penelitian:

dr. Ardy Gisnawan, M.Kes

Jalan Beringin V no.5, Kota Makassar

0852-5678-2179

Penanggung jawab medik :

Dr. dr. Yunita, Sp.M(K)

Jl. Bangkala Dalam II/144 P. Antang

Telp. 0821-8833-3370

## LAMPIRAN 3. CARA PEMERIKSAAN TRAB



### PEMERIKSAAN TRAB (Anti-TSHR)

<b>Metode</b>	: ECLIA
<b>Sampel</b>	
<b>Jenis</b>	: Serum
<b>Volume</b>	: 500 – 6.00 µL
<b>Stabilitas</b>	: • 6 hari pada suhu 2 – 8°C • 1 bulan pada suhu - 20°C • 6 bulan pada (-15) – (-25)°C

#### Penanganan Sampel :

- ◆ Sampel yang mengandung presipitat harus disentrifugasi sebelum diperiksa
- ◆ Sampel harus disetarakan pada suhu ruang (20 °C – 25 °C) sebelum dikerjakan
- ◆ Untuk menghindari terjadinya evaporasi pada sampel didalam alat, maka harus segera dikerjakan dalam jangka waktu 2 jam

**Alat** : Cobas e601

#### Langkah Kerja :

1. Cara Kalibrasi
  - a. Pipet sejumlah Kalibrator kedalam sampel cup
  - b. Letakkan pada rak kalibrator alat
  - c. Kerjakan seperti pada program kalibrasi alat terkait
2. Mengerjakan Kontrol
  - a. Kontrol dikerjakan sesudah hasil kalibrasi memenuhi syarat.
  - b. Cara mengerjakan kontrol
    - Pipet sejumlah kontrol kedalam sampel cup.
    - Letakkan pada rak kontrol alat
    - Kerjakan seperti pada program kontrol alat terkait
3. Melakukan pemeriksaan sampel
  - a. Dilakukan sesudah hasil kalibrasi dan kontrol memenuhi syarat.
  - b. Cara melakukan pemeriksaan sampel
    - Pipet 600 µL sampel kedalam sampel cup.
    - Letakkan pada rak sampel pada alat
    - Kerjakan seperti pada program sampel alat terkait

#### Performance Reagen :

<b>Linearitas</b>	: 0.8 – 40 IU/L
<b>Batas Deteksi</b>	: 0.8 IU/L
<b>Batas Pengenceran</b>	: > konsentrasi linearitas tertinggi, lakukan pengenceran secara manual atau autodilution 11 X (Sampel 1 bagian + 10 bagian NaCl 0.9%, hasil kalikan 11)
<b>Spesifisitas analitik</b>	: • Tidak terdapat pengaruh pada autoantibodi terhadap tiroglobulin (<4000 IU/mL) atau anti-TPO (<600 IU/mL) • Tidak adanya interferensi dengan LH (<10,000 mIU/mL), FSH (<10,000 mIU/mL) dan hCG (<50,000 mIU/mL)
<b>Interferensi</b>	: Pemeriksaan ini tidak dipengaruhi oleh : <ul style="list-style-type: none"><li>• Sampel ikterik (Bilirubin &lt; 427 µmol/L atau &lt; 25 mg/dL)</li><li>• Sampel hemolisis (Hemoglobin &lt; 0.248 mmol/L atau &lt; 400 mg/dL)</li><li>• Sampel lipemik (Intralipid ≤1500 mg/dL)</li><li>• Biotin ≤2456 nmol/L atau ≤600 ng/mL</li><li>• Rheumatoid factor ≤600 IU/mL</li></ul>

## LAMPIRAN 4. DATA SAMPEL PENELITIAN

No	Nama	Jenis Kelamin	RM	Tgl lahir	RS	Status Thyroid	Onset TED (tahun)	Onset Graves' Disease (tahun)	TRAb	ft4	TSH	Pulse Steroid	Gejala Klinis					Soft Tissue Involvement / CAS										CAS SCORE	Interpretasi CAS	Integritas Kornea	Riwayat Merokok	EUGOGO		
													Proptosis	Retraksi Kelopak Mata	Diplopia	Nyeri	Penglihatan Menurun	Nyeri Orbita	Nyeri Gerakan Bola Mata	Edema Palpebra	Eritema Palpebra	Injeksi Konjungtiva	Kemosis Konjungtiva	Inflamasi Kornea	Proptosis >2mm	Penurunan gerakan bola mata	Penurunan Visus 1 baris							
1	Fathin Furaidan	P	942296	28/11/1997	RSWS	Hyperthyroid on Ti	4	3,0	4,830	0,93	0,05	0 v	v	x	x	v	0	0	1	0	1	0	1	0	1	0	0	0	0	3	Active	Jernih	Tidak	Mild TED
2	Hamzah	L	942970	01/07/1970	RSWS	Hyperthyroid on Ti	1	1,0	2,100	1,45	1,2	0 V	X	X	X	X	0	0	1	0	1	0	1	0	1	0	0	0	0	3	Active	Tidak Jernih	Ya	Moderate TED
3	Junaedi Sam	L	944245	16/10/1989	RSWS	Euthyroid	0	0,2	3,560	1,32	1,35	0 X	X	V	X	X	0	0	1	0	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED	
4	Syarifah Balyana	P	882387	19/10/1992	RSWS	Hyperthyroid on Ti	2	2,0	4,000	5,56	0,05	0 v	v	v	v	v	1	1	1	0	0	0	0	1	0	0	0	0	4	Active	Jernih	Tidak	Moderate TED	
5	Natalia Gustom	P	954314	17/12/1985	RSWS	Hasimoto tiroid	4	1,0	2,050	0,80	0,19	0 V	V	X	X	X	1	0	1	1	1	0	0	0	0	0	0	0	4	Active	Jernih	Tidak	Mild TED	
6	Asriadi	L	893780	01/08/1979	RSWS	Hyperthyroid on Ti	2	2,0	3,550	1,66	0,05	4 v	v	x	x	v	0	0	1	0	0	0	1	1	1	1	1	1	5	Active	Jernih	Ada	Sight Treating	
7	Nelvi Mustika Indah	P	886246	21/10/2003	RSWS	Hyperthyroid on Ti	1	2,0	16,610	0,99	2,04	1 V	X	X	X	X	0	0	1	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Pasif	Mild TED		
8	Ernawati	P	690423	12/08/1989	RSWS	Euthyroid	8	0,0	0,900	1,47	3,81	3 v	v	x	x	x	0	0	1	1	1	0	1	0	0	0	0	4	Active	Jernih	Pasif	Mild TED		
9	Nn. Khadijah	P	956219	12/09/2002	RSWS	Hyperthyroid on Ti	1	2,0	10,030	7,77	0,05	1 x	x	x	x	x	0	0	1	1	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED		
10	Nn. Khadijah	P	956219	12/09/2002	RSWS	Hyperthyroid on Ti	1	2,0	17,560	1,42	0,05	6 x	x	x	x	x	0	0	1	0	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED	
11	Nelvi Mustika Indah	P	886246	21/10/2003	RSWS	Hyperthyroid on Ti	1	2,0	1,100	0,90	1,48	6 V	X	X	X	X	0	0	1	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Pasif	Mild TED		
12	Stefanus	L	970047	01/07/1967	RSWS	Hyperthyroid on Ti	6	6	5,820	3,33	0,09	0 v	v	x	x	v	0	0	1	0	1	0	1	0	0	0	0	3	Active	Tidak Jernih	Ada	Sight Treating		
13	Rosmiati	P		16/07/1967	Bontan	Hyperthyroid on Ti	1	2	2,600	1,1	0,05	0 x	v	x	x	x	0	0	1	0	1	0	1	0	0	0	0	2	Inactive	Jernih	Pasif	Mild TED		
14	Arum Dwi	P	954283	10/12/1996	RSWS	Hyperthyroid on Ti	1	1	7,310	2,16	0,05	0 V	X	X	X	X	0	0	1	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED		
15	Andi Agusmulawati	P	447860	22/08/1974	RSWS	Euthyroid	9	10	1,140	1,14	1,3	0 V	V	X	X	X	0	0	1	0	0	0	0	1	0	0	0	2	Inactive	Jernih	Tidak	Moderate TED		
16	Haerun	L	932390	02/07/1970	RSWS	Hyperthyroid on Ti	1	1	26,910	1,27	0,05	12 V	V	X	X	X	0	0	0	0	0	0	1	1	1	1	1	3	Inactive	Jernih	Ada	Moderate TED		
17	Nursyamsi	P	939664	17/09/1990	RSWS	Hyperthyroid on Ti	0,7	0,1	6,570	4,25	0,05	0 V	X	X	V	V	1	1	0	0	1	0	1	0	0	0	0	3	Active	Jernih	Tidak	Sight Treating		
18	Risma Dg Minne	P	948027	17/12/1983	RSWS	Hyperthyroid on Ti	1	0,1	5,510	4,27	0,05	0 V	X	X	X	V	0	0	1	0	1	0	1	0	0	0	0	3	Active	Tidak Jernih	Pasif	Moderate TED		
19	Achmad Chairul	L	9423135	23/11/1990	RSWS	Hyperthyroid on Ti	0,7	0	2,740	1,29	0,05	0 V	X	X	X	X	0	0	1	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Moderate TED		
20	Fitriani	P	944777	08/12/2001	RSWS	Hyperthyroid on Ti	0,7	0,7	2,180	2,53	0,05	0 V	X	X	X	X	0	0	0	0	0	0	1	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED		
21	Agus Syarif	L	944242	1980	RSWS	Hyperthyroid on Ti	0,2	0	4,221	48,5	0,05	0 V	X	X	X	X	1	0	0	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Ya	Mild TED		
22	Ratnawati Saharuddin	P	9328043	01/10/1980	RSWS	Hyperthyroid on Ti	1	0,2	30,180	23,1	0,05	0 V	X	X	X	X	0	0	1	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Tidak	Mild TED		
23	Ulfa Dwi Ningsih	P	926637	19/05/1995	RSWS	Hyperthyroid on Ti	1	1	4,670	1,09	1,91	10 v	X	X	X	X	0	0	1	0	1	0	1	0	0	0	0	3	Active	Jernih	Tidak	Moderate TED		
24	Darwis	L	943421	04/03/1963	RSWS	Hyperthyroid on Ti	19	0,2	3,540	1,44	3,54	0 V	X	V	X	V	0	0	0	0	1	1	1	0	0	0	0	3	Active	Jernih	Ya	Sight Treating		
25	Darwis	L	943421	04/03/1963	RSWS	Hyperthyroid on Ti	19	0,2	1,940	1,44	3,54	6 X	X	V	X	X	0	0	1	0	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Ya	Moderate TED	
26	Soraya wildhan	P	921742	27/11/1988	RSWS	Hyperthyroid on Ti	1	1	3,230	1,1	0,05	0 V	X	X	X	X	0	0	1	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED		
27	Vindi	P	912557	1999	RSWS	Hyperthyroid on Ti	1	1	2,560	23,4	0,05	0 V	X	X	X	X	0	0	1	0	0	0	0	0	0	0	0	1	Inactive	Jernih	Tidak	Mild TED		
28	Maudi Kusnaedi	P	934482	11/11/1989	RSWS	Hyperthyroid on Ti	1	1	2,090	1,07	0,95	0 V	X	X	X	X	0	0	1	0	0	0	0	1	0	0	0	2	Inactive	Jernih	Tidak	Mild TED		
29	Patta Ida	P	941220	04/05/1974	RSWS	Hyperthyroid on Ti	1	1	24,430	1,64	0,05	0 V	X	X	V	X	1	1	1	0	0	0	0	0	0	0	0	3	Active	Jernih	Tidak	Moderate TED		
30	Hedi Pramadan	L	973737	21/12/1997	RSWS	Hyperthyroid on Ti	2	2	7,890	0,64	0,07	0 V	X	X	X	X	0	0	1	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Ya	Moderate TED		
31	Ulfa Dwi Ningsih	P	926637	19/05/1995	RSWS	Hyperthyroid on Ti	1	1	23,200	1,12	4,79	0 V	X	X	X	X	0	0	0	0	0	0	0	1	0	0	0	1	Inactive	Jernih	Tidak	Moderate TED		
32	Ulfa Dwi Ningsih	P	926637	19/05/1995	RSWS	Hyperthyroid on Ti	1	1	0,900	1,12	4,79	10 V	X	X	X	X	0	0	0	0	0	0	0	1	0	0	0	1	Inactive	Jernih	Tidak	Moderate TED		
33	Basir	L	179553	19/11/1973	RSUH	Hyperthyroid on Ti	2	17	6,530	4,32	0,05	0 V	V	X	V	V	1	1	1	0	1	1	1	0	0	0	0	6	Active	Tidak Jernih	Ya	Sight Treating		
34	Nelly Karyawati	P	969331	27/12/1981	RSWS	Hyperthyroid on Ti	1	1,3	6,090	0,77	0,65	0 V	X	X	X	X	0	0	1	0	0	0	1	0	0	0	0	2	Inactive	Jernih	Tidak	Mild TED		

## LAMPIRAN 5. HASIL UJI STATISTIK

### Umur

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-25	9	26.5	26.5	26.5
	26-35	10	29.4	29.4	55.9
	36-45	6	17.6	17.6	73.5
	46-55	7	20.6	20.6	94.1
	56-65	2	5.9	5.9	100.0
	Total	34	100.0	100.0	

### Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	11	32.4	32.4	32.4
	Perempuan	23	67.6	67.6	100.0
	Total	34	100.0	100.0	

### Status Thyroid

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Euthyroid	3	8.8	8.8	8.8
	Hyperthyroid on Treatment	30	88.2	88.2	97.1
	Hashimoto Thiroid	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

### Riwayat Merokok

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ya	9	26.5	26.5	26.5
	Tidak	20	58.8	58.8	85.3
	Pasif	5	14.7	14.7	100.0
	Total	34	100.0	100.0	

### Interpretasi CAS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Active	8	23.5	23.5	23.5
	Inactive	26	76.5	76.5	100.0
	Total	34	100.0	100.0	

### Integritas Kornea

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Jernih	30	88.2	88.2	88.2
	Tidak Jernih	4	11.8	11.8	100.0
	Total	34	100.0	100.0	

### EUGOGO

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mild	17	50.0	50.0	50.0
	Moderate	12	35.3	35.3	85.3
	Sight Treating	5	14.7	14.7	100.0
	Total	34	100.0	100.0	

### Descriptives

		Statistic	Std. Error	
Onset TED (Tahun)	Mean	2.868	.7847	
	95% Confidence Interval for Mean	Lower Bound	1.271	
		Upper Bound	4.464	
	5% Trimmed Mean	2.120		
	Median	1.000		
	Variance	20.938		
	Std. Deviation	4.5758		
	Minimum	.2		
	Maximum	19.0		
	Range	18.8		
	Interquartile Range	1.0		
	Skewness	2.893	.403	

	Kurtosis		8.154	.788
Onset Graves (Tahun)	Mean		1.941	.5595
	95% Confidence Interval for Mean	Lower Bound	.803	
		Upper Bound	3.080	
	5% Trimmed Mean		1.373	
	Median		1.000	
	Variance		10.644	
	Std. Deviation		3.2625	
	Minimum		.0	
	Maximum		17.0	
	Range		17.0	
	Interquartile Range		1.8	
	Skewness		3.653	.403
	Kurtosis		14.685	.788
	TRab	Mean		7.3100
95% Confidence Interval for Mean		Lower Bound	4.5170	
		Upper Bound	10.1030	
5% Trimmed Mean			6.4704	
Median			4.1105	
Variance			64.076	
Std. Deviation			8.00475	
Minimum			.90	
Maximum			30.18	
Range			29.28	
Interquartile Range			5.30	
Skewness			1.761	.403
Kurtosis			2.037	.788
ft4		Mean		4.5371
	95% Confidence Interval for Mean	Lower Bound	1.2995	
		Upper Bound	7.7746	
	5% Trimmed Mean		2.8845	
	Median		1.4300	
	Variance		86.097	
	Std. Deviation		9.27883	
	Minimum		.64	
	Maximum		48.47	



	Range		47.83	
	Interquartile Range		2.46	
	Skewness		3.833	.403
	Kurtosis		15.973	.788
TSH	Mean		.9588	.25081
	95% Confidence Interval for Mean	Lower Bound	.4485	
		Upper Bound	1.4691	
	5% Trimmed Mean		.7965	
	Median		.0500	
	Variance		2.139	
	Std. Deviation		1.46248	
	Minimum		.05	
	Maximum		4.79	
	Range		4.74	
	Interquartile Range		1.33	
	Skewness		1.617	.403
	Kurtosis		1.489	.788

### TRabRange \* Interpretasi CAS Crosstabulation

		Interpretasi CAS		Total	
		Active	Inactive		
TRabRange	Normal	Count	0	4	4
		% within Interpretasi CAS	0.0%	15.4%	11.8%
	Abnormal	Count	8	22	30
		% within Interpretasi CAS	100.0%	84.6%	88.2%
Total	Count	8	26	34	
	% within Interpretasi CAS	100.0%	100.0%	100.0%	

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	1.395 <sup>a</sup>	1	.238		
Continuity Correction <sup>b</sup>	.306	1	.580		
Likelihood Ratio	2.306	1	.129		
Fisher's Exact Test				.551	.322

Linear-by-Linear Association	1.354	1	.245	
N of Valid Cases	34			

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .94.

b. Computed only for a 2x2 table

### Descriptives

		Interpretasi CAS	Statistic	Std. Error	
TRab	Active	Mean	5.0438	.44292	
		95% Confidence Interval for Mean	Lower Bound	3.9964	
			Upper Bound	6.0911	
		5% Trimmed Mean	5.0425		
		Median	5.1700		
		Variance	1.569		
		Std. Deviation	1.25277		
		Minimum	3.54		
		Maximum	6.57		
		Range	3.03		
	Interquartile Range	2.69			
	Inactive	Skewness		-.046	.752
			Kurtosis	-1.838	1.481
		Mean	8.0073	1.77582	
		95% Confidence Interval for Mean	Lower Bound	4.3500	
			Upper Bound	11.6647	
		5% Trimmed Mean	7.2123		
		Median	3.3950		
		Variance	81.992		
		Std. Deviation	9.05492		
Minimum		.90			
Maximum	30.18				
Range	29.28				
Interquartile Range	9.59				
Skewness	1.397	.456			

		Kurtosis	.605	.887	
ft4	Active	Mean	3.2200	.59322	
		95% Confidence Interval for Mean	Lower Bound	1.8172	
			Upper Bound	4.6228	
		5% Trimmed Mean	3.2172		
		Median	3.7900		
		Variance	2.815		
		Std. Deviation	1.67789		
		Minimum	.93		
		Maximum	5.56		
		Range	4.63		
		Interquartile Range	2.81		
		Skewness	-.204	.752	
		Kurtosis	-1.558	1.481	
		Inactive	Inactive	Mean	4.9423
95% Confidence Interval for Mean	Lower Bound			.6652	
	Upper Bound			9.2194	
5% Trimmed Mean	3.0835				
Median	1.2800				
Variance	112.134				
Std. Deviation	10.58931				
Minimum	.64				
Maximum	48.47				
Range	47.83				
Interquartile Range	.69				
Skewness	3.350			.456	
Kurtosis	11.883			.887	
TSH	Active			Mean	.4913
		95% Confidence Interval for Mean	Lower Bound	-.5387	
			Upper Bound	1.5212	
		5% Trimmed Mean	.3464		
		Median	.0500		
		Variance	1.518		
		Std. Deviation	1.23196		
		Minimum	.05		
		Maximum	3.54		
		Range	3.49		

	Interquartile Range		.03	
	Skewness		2.828	.752
	Kurtosis		7.997	1.481
Inactive	Mean		1.1027	.29786
	95% Confidence Interval for Mean	Lower Bound	.4892	
		Upper Bound	1.7162	
	5% Trimmed Mean		.9563	
	Median		.1300	
	Variance		2.307	
	Std. Deviation		1.51882	
	Minimum		.05	
	Maximum		4.79	
	Range		4.74	
	Interquartile Range		1.54	
	Skewness		1.485	.456
	Kurtosis		1.159	.887

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

	TRab	ft4	TSH
Mann-Whitney U	86.000	57.500	71.500
Wilcoxon W	437.000	408.500	107.500
Z	-.731	-1.888	-1.430
Asymp. Sig. (2-tailed)	.465	.059	.153
Exact Sig. [2*(1-tailed Sig.)]	.485 <sup>b</sup>	.058 <sup>b</sup>	.191 <sup>b</sup>

a. Grouping Variable: Interpretasi CAS

b. Not corrected for ties.

### TRabRange \* EUGOGO Crosstabulation

			EUGOGO			Total
			Mild	Moderate	Sight Treatening	
TRabRange	Normal	Count	2	2	0	4
		% within EUGOGO	11.8%	16.7%	0.0%	11.8%
	Abnormal	Count	15	10	5	30
		% within EUGOGO	88.2%	83.3%	100.0%	88.2%
Total		Count	17	12	5	34

% within EUGOGO	100.0%	100.0%	100.0%	100.0%
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### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	.944 <sup>a</sup>	2	.624
Likelihood Ratio	1.502	2	.472
Linear-by-Linear Association	.182	1	.670
N of Valid Cases	34		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .59.

### TRabRange \* Status Thyroid Crosstabulation

		Status Thyroid			Total	
		Euthyroid	Hyperthyroid on Treatment	Hashimoto Thiroid		
TRabRange	Normal	Count	2	2	0	4
		% within Status Thyroid	66.7%	6.7%	0.0%	11.8%
	Abnormal	Count	1	28	1	30
		% within Status Thyroid	33.3%	93.3%	100.0%	88.2%
Total		Count	3	30	1	34
		% within Status Thyroid	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	9.596 <sup>a</sup>	2	.008
Likelihood Ratio	6.115	2	.047
Linear-by-Linear Association	7.500	1	.006
N of Valid Cases	34		

a. 5 cells (83.3%) have expected count less than 5. The minimum expected count is .12.

### Crosstab

		Interpretasi CAS		Total	
		Active	Inactive		
JK	Laki-laki	Count	4	7	11
		% within Interpretasi CAS	50.0%	26.9%	32.4%
	Perempuan	Count	4	19	23
		% within Interpretasi CAS	50.0%	73.1%	67.6%
Total		Count	8	26	34
		% within Interpretasi CAS	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	1.489 <sup>a</sup>	1	.222		
Continuity Correction <sup>b</sup>	.621	1	.431		
Likelihood Ratio	1.426	1	.232		
Fisher's Exact Test				.388	.213
Linear-by-Linear Association	1.445	1	.229		
N of Valid Cases	34				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.59.

b. Computed only for a 2x2 table

### Crosstab

		Interpretasi CAS		Total	
		Active	Inactive		
Umurkat	17-25	Count	1	8	9
		% within Interpretasi CAS	12.5%	30.8%	26.5%
	26-35	Count	2	8	10
		% within Interpretasi CAS	25.0%	30.8%	29.4%
	36-45	Count	2	4	6
		% within Interpretasi CAS	25.0%	15.4%	17.6%
46-55	Count	2	5	7	

	% within Interpretasi CAS	25.0%	19.2%	20.6%
56-65	Count	1	1	2
	% within Interpretasi CAS	12.5%	3.8%	5.9%
Total	Count	8	26	34
	% within Interpretasi CAS	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	2.039 <sup>a</sup>	4	.729
Likelihood Ratio	2.027	4	.731
Linear-by-Linear Association	1.644	1	.200
N of Valid Cases	34		

a. 7 cells (70.0%) have expected count less than 5. The minimum expected count is .47.

### Crosstab

		Interpretasi CAS		Total	
		Active	Inactive		
Status Thyroid	Euthyroid	Count	0	3	3
		% within Interpretasi CAS	0.0%	11.5%	8.8%
Hyperthyroid on Treatment		Count	8	22	30
		% within Interpretasi CAS	100.0%	84.6%	88.2%
Hashimoto Thiroid		Count	0	1	1
		% within Interpretasi CAS	0.0%	3.8%	2.9%
Total		Count	8	26	34
		% within Interpretasi CAS	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	1.395 <sup>a</sup>	2	.498

Likelihood Ratio	2.306	2	.316
Linear-by-Linear Association	.308	1	.579
N of Valid Cases	34		

a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is .24.

### Umurkat \* EUGOGO Crosstabulation

		EUGOGO			Total	
		Mild	Moderate	Sight Treating		
Umurkat	17-25	Count	8	1	0	9
		% within EUGOGO	47.1%	8.3%	0.0%	26.5%
	26-35	Count	4	5	1	10
		% within EUGOGO	23.5%	41.7%	20.0%	29.4%
	36-45	Count	4	1	1	6
		% within EUGOGO	23.5%	8.3%	20.0%	17.6%
	46-55	Count	1	4	2	7
		% within EUGOGO	5.9%	33.3%	40.0%	20.6%
	56-65	Count	0	1	1	2
		% within EUGOGO	0.0%	8.3%	20.0%	5.9%
Total		Count	17	12	5	34
		% within EUGOGO	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.904 <sup>a</sup>	8	.084
Likelihood Ratio	16.022	8	.042
Linear-by-Linear Association	9.058	1	.003
N of Valid Cases	34		

a. 14 cells (93.3%) have expected count less than 5. The minimum expected count is .29.



### Crosstab

		EUGOGO			Total	
		Mild	Moderate	Sight Treating		
JK	Laki-laki	Count	2	5	4	11
		% within EUGOGO	11.8%	41.7%	80.0%	32.4%
	Perempuan	Count	15	7	1	23
		% within EUGOGO	88.2%	58.3%	20.0%	67.6%
Total		Count	17	12	5	34
		% within EUGOGO	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.955 <sup>a</sup>	2	.011
Likelihood Ratio	9.186	2	.010
Linear-by-Linear Association	8.638	1	.003
N of Valid Cases	34		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.62.

### Crosstab

		EUGOGO			Total	
		Mild	Moderate	Sight Treating		
Status Thyroid	Euthyroid	Count	2	1	0	3
		% within EUGOGO	11.8%	8.3%	0.0%	8.8%
	Hyperthyroid on Treatment	Count	14	11	5	30
		% within EUGOGO	82.4%	91.7%	100.0%	88.2%
	Hashimoto Thiroid	Count	1	0	0	1
		% within EUGOGO	5.9%	0.0%	0.0%	2.9%
Total		Count	17	12	5	34
		% within EUGOGO	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	1.772 <sup>a</sup>	4	.778
Likelihood Ratio	2.582	4	.630
Linear-by-Linear Association	.041	1	.839
N of Valid Cases	34		

a. 7 cells (77.8%) have expected count less than 5. The minimum expected count is .15.

### Crosstab

		EUGOGO			Total	
		Mild	Moderate	Sight Treating		
Riwayat Merokok	Ya	Count	1	4	4	9
		% within EUGOGO	5.9%	33.3%	80.0%	26.5%
	Tidak	Count	12	7	1	20
		% within EUGOGO	70.6%	58.3%	20.0%	58.8%
	Pasif	Count	4	1	0	5
		% within EUGOGO	23.5%	8.3%	0.0%	14.7%
Total		Count	17	12	5	34
		% within EUGOGO	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	11.996 <sup>a</sup>	4	.017
Likelihood Ratio	12.409	4	.015
Linear-by-Linear Association	9.715	1	.002
N of Valid Cases	34		

a. 7 cells (77.8%) have expected count less than 5. The minimum expected count is .74.

### Descriptives

		Interpretasi CAS	Statistic	Std. Error	
TRab	Active	Mean	5.0438	.44292	
		95% Confidence Interval for Mean	Lower Bound	3.9964	
			Upper Bound	6.0911	
		5% Trimmed Mean	5.0425		
		Median	5.1700		
		Variance	1.569		
		Std. Deviation	1.25277		
		Minimum	3.54		
		Maximum	6.57		
		Range	3.03		
		Interquartile Range	2.69		
		Skewness	-.046	.752	
		Kurtosis	-1.838	1.481	
		Inactive	Mean	8.0073	1.77582
	95% Confidence Interval for Mean		Lower Bound	4.3500	
			Upper Bound	11.6647	
	5% Trimmed Mean		7.2123		
	Median		3.3950		
	Variance		81.992		
	Std. Deviation		9.05492		
	Minimum		.90		
	Maximum		30.18		
Range	29.28				
Interquartile Range	9.59				
Skewness	1.397	.456			
Kurtosis	.605	.887			

### Descriptives

		EUGOGO	Statistic	Std. Error	
TRab	Mild	Mean	6.8883	1.89085	
		95% Confidence Interval for Mean	Lower Bound	2.8799	
			Upper Bound	10.8967	
		5% Trimmed Mean	5.9270		
		Median	3.5600		

	Variance		60.780	
	Std. Deviation		7.79618	
	Minimum		.90	
	Maximum		30.18	
	Range		29.28	
	Interquartile Range		6.54	
	Skewness		2.061	.550
	Kurtosis		4.265	1.063
Moderate	Mean		8.7858	2.86189
	95% Confidence Interval for	Lower Bound	2.4869	
	Mean	Upper Bound	15.0848	
	5% Trimmed Mean		8.2170	
	Median		4.3350	
	Variance		98.285	
	Std. Deviation		9.91388	
	Minimum		.90	
	Maximum		26.91	
	Range		26.01	
	Interquartile Range		17.39	
	Skewness		1.207	.637
	Kurtosis		-.368	1.232
Sight Treatening	Mean		5.2020	.68950
	95% Confidence Interval for	Lower Bound	3.2876	
	Mean	Upper Bound	7.1164	
	5% Trimmed Mean		5.2183	
	Median		5.8200	
	Variance		2.377	
	Std. Deviation		1.54177	
	Minimum		3.54	
	Maximum		6.57	
	Range		3.03	
	Interquartile Range		3.01	
	Skewness		-.450	.913
	Kurtosis		-3.169	2.000

## Descriptives

		Status Thyroid	Statistic	Std. Error		
TRab	Euthyroid	Mean	1.9125	.60243		
		95% Confidence Interval for	Lower Bound	-.0047		
			Upper Bound	3.8297		
		5% Trimmed Mean	1.8772			
		Median	1.5950			
		Variance	1.452			
		Std. Deviation	1.20486			
		Minimum	.90			
		Maximum	3.56			
		Range	2.66			
		Interquartile Range	2.22			
		Skewness	1.134	1.014		
		Kurtosis	.379	2.619		
		Hyperthyroid on Treatment		Mean	8.0297	1.50786
				95% Confidence Interval for	Lower Bound	4.9458
Upper Bound	11.1136					
5% Trimmed Mean	7.2521					
Median	4.7500					
Variance	68.210					
Std. Deviation	8.25892					
Minimum	.90					
Maximum	30.18					
Range	29.28					
Interquartile Range	5.83					
Skewness	1.605			.427		
Kurtosis	1.416			.833		

### Correlations

		TRab	Interpretasi CAS	EUGOGO	Status Thyroid	
Spearman's rho	TRab	Correlation Coefficient	1.000	-.127	.099	.395*
		Sig. (2-tailed)	.	.473	.578	.021
		N	34	34	34	34
	Interpretasi CAS	Correlation Coefficient	-.127	1.000	-.590**	-.203
		Sig. (2-tailed)	.473	.	.000	.251
		N	34	34	34	34

EUGOGO	Correlation Coefficient	.099	-.590**	1.000	.199
	Sig. (2-tailed)	.578	.000	.	.258
	N	34	34	34	34
Status Thyroid	Correlation Coefficient	.395*	-.203	.199	1.000
	Sig. (2-tailed)	.021	.251	.258	.
	N	34	34	34	34

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

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

### TRabRange \* Status Thyroid Crosstabulation

		Status Thyroid		Total	
		Euthyroid	Hyperthyroid on Treatment		
TRabRange	Normal	Count	2	2	4
		% within Status Thyroid	50.0%	6.7%	11.8%
	Abnormal	Count	2	28	30
		% within Status Thyroid	50.0%	93.3%	88.2%
Total		Count	4	30	34
		% within Status Thyroid	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.384 <sup>a</sup>	1	.012		
Continuity Correction <sup>b</sup>	2.892	1	.089		
Likelihood Ratio	4.389	1	.036		
Fisher's Exact Test				.059	.059
Linear-by-Linear Association	6.197	1	.013		
N of Valid Cases	34				

a. 3 cells (75.0%) have expected count less than 5. The minimum expected count is .47.

b. Computed only for a 2x2 table

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

	TRab
Mann-Whitney U	86.000
Wilcoxon W	437.000
Z	-.731
Asymp. Sig. (2-tailed)	.465
Exact Sig. [2*(1-tailed Sig.)]	.485 <sup>b</sup>

a. Grouping Variable: Interpretasi CAS

b. Not corrected for ties.

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

	TRab
Kruskal-Wallis H	.416
df	2
Asymp. Sig.	.812

a. Kruskal Wallis Test

b. Grouping Variable: EUGOGO

## LAMPIRAN 6. CURRICULUM VITAE

### *CURRICULUM VITAE*



#### I. Data Pribadi

Nama : Ardy Gisnawan  
Tempat, Tanggal Lahir : Palu, 27 Desember 1991  
Jenis Kelamin : Laki-laki  
Kewarganegaraan : Warga Negara Indonesia  
Agama : Islam  
Status Pernikahan : Belum Menikah  
Alamat : Jl. Beringin V no.5  
No.Telepon/HP : 0852 5678 2179  
Alamat Email : ardygisnawan@gmail.com  
Nama Orang Tua :  
Ayah : Dr. Andi Mukramin Amran Sp.Rad  
Ibu : Lina Robot Ollii  
Status dalam Keluarga : Anak ketiga dari enam bersaudara

#### II. Pendidikan

Periode (Tahun)	Jenjang Pendidikan	Sekolah/ Instansi/ Universitas	Jurusan
1996-1997	TK	TK Pertiwi Palu	-
1997-2003	SD	SDN Inpres Lolu VI Palu	-
2003-2006	SMP	SMPN 1 Palu	-
2006-2009	SMA	SMAN Model Terpadu Madani Palu	IPA
2009-2012	S1	Universitas Hasanuddin	Pendidikan Dokter
2012-2015	Profesi	Universitas Hasanuddin	Pendidikan Dokter
2015-2017	S2	Universitas Hasanuddin	Manajemen Rumah Sakit
2018-2022	Sp-1	Universitas Hasanuddin	Program Pendidikan Dokter Spesialis Ilmu Kesehatan Mata