

## DAFTAR PUSTAKA

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## LAMPIRAN

### Lampiran 1. Persetujuan Etik Penelitian


 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 KM10 MAKASSAR 90246.  
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**REKOMENDASI PERSETUJUAN ETIK**  
 Nomor : 276/UN4.6.4.5.31/PP36/2022

Tanggal: 10 Juni 2022

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

No Protokol	UH22040195	No Sponsor Protokol	
Peneliti Utama	dr. Abd Rahim Mubarak	Sponsor	
Judul Peneliti	ANALISIS RESISTENSI INSULIN DENGAN INSULIN-LIKE GROWTH FACTOR 1 (IGF-1) PADA DEWASA NON DIABETES MELLITUS (DM) DENGAN OBESITAS SENTRAL DAN TANPA OBESITAS SENTRAL		
No Versi Protokol	2	Tanggal Versi	9 Juni 2022
No Versi PSP	2	Tanggal Versi	9 Juni 2022
Tempat Penelitian	RS Universitas Hasanuddin Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku 10 Juni 2022 sampai 10 Juni 2023	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. Agassalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)	  	

**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 ditetapkan

## Lampiran 2. Naskah Penjelasan untuk Mendapat Persetujuan dari Subyek Penelitian

### NASKAH PENJELASAN UNTUK MENDAPAT PERSETUJUAN DARI SUBYEK PENELITIAN

Selamat pagi Bapak / Ibu /Saudara(i), saya **dr. Abd. Rahim Mubarak**, bermaksud untuk melakukan penelitian **Analisis Resistensi Insulin dengan *Insulin-Like Growth Factor-1* (IGF-1) pada Dewasa Non Diabetes Mellitus (DM) dengan Obesitas Sentral dan Tanpa Obesitas Sentral**

Obesitas atau kegemukan berlebihan adalah masalah yang menjadi endemi di seluruh dunia, diketahui bahwa obesitas sentral atau kegemukan berlebihan pada daerah perut merupakan salah faktor penyebab terjadinya gangguan fungsi hormon yang mengatur gula di dalam darah (resistensi insulin) yang dapat mengakibatkan komplikasi kencing manis dan gangguan kesehatan lainnya. Orang yang kegemukan memiliki kecenderungan mengalami gangguan pengaturan glukosa darah (resistensi insulin) serta gangguan hormonal lain seperti IGF-1. *Insulin-Like Growth Factor-1* pada orang dengan kegemukan berlebihan pada perut diduga terlibat dalam pengaturan energi tubuh yang dapat memperberat kejadian resistensi insulin ataupun sebaliknya.

Oleh karena itu sangat penting untuk mengetahui nilai HOMA-IR dan IGF-1. Besar harapan kami agar penelitian ini dapat memberikan sumbangan ilmu pengetahuan mengenai nilai HOMA-IR dan IGF-1 pada orang dengan obesitas sentral. Adapun penelitian ini tidak memaksa keikutsertaan Bapak / Ibu / saudara (i) dan jika Bapak / Ibu / saudara (i) bersedia menandatangani formulir kesediaan ikut serta dalam penelitian dengan sukarela. Bapak / Ibu / saudara (i) tidak perlu khawatir ketidakikutsertaan anda dalam penelitian ini tidak mengurangi pelayanan kesehatan yang akan diperoleh dari pihak rumah sakit.

Bila Bapak / Ibu / saudara (i) bersedia untuk menjadi responden dalam penelitian ini, maka prosedur yang kami lakukan adalah mengambil sampel darah diambil dari melalui pembuluh darah di bagian lengan dengan menggunakan jarum. Setelah sampel darah diambil sebanyak minimal 3 cc sampel darah dimasukkan ke dalam botol kecil khusus lalu dibawa ke laboratorium untuk dilakukan pemeriksaan. Prosedurnya adalah sebagai berikut:

1. Dokter atau petugas media akan membalut lengan dengan pengikat lengan atau tourniquet. Tujuannya untuk memperlambat aliran darah dan menjadikan pembuluh vena lebih menonjol. Hal ini membuat proses pengambilan darah menjadi lebih mudah.
2. Petugas medis mengidentifikasi letak pembuluh vena, lalu membersihkan area tersebut dengan alkohol.
3. Petugas medis mengambil darah menggunakan jarum.
4. Bekas tusukan ditutup menggunakan plester.

Prosedur pengambilan darah biasanya berlangsung 5-10 menit. Proses ini bisa lebih cepat jika pembuluh vena mudah ditemukan. Efek samping dari pengambilan darah ini bersifat ringan berupa nyeri, atau adanya memar biru dan hitam pada daerah suntikan. Kemungkinan hal tersebut sangat jarang terjadi karena pengambilan darah dilakukan oleh tenaga medis yang kompeten. Jika hal tersebut terjadi, biasanya tidak membutuhkan penanganan khusus dan akan membaik dalam waktu beberapa hari dengan melakukan kompres dingin pada area pengambilan darah.

Dalam penelitian ini, kami akan memberitahu hasil pengukuran nilai HOMA-IR dan IGF-1 Bapak / Ibu / saudara (i). segala biaya dalam pemeriksaan ini sepenuhnya akan ditanggung oleh pihak peneliti sehingga Bapak / Ibu / saudara (i) tidak perlu khawatir.

Kami menjamin keamanan dan kerahasiaan semua data pada penelitian ini. Data akan disimpan dengan baik dan aman, sehingga hanya bisa dilihat oleh yang berkepentingan saja. Data pribadi disamarkan pada semua catatan dan pada pelaporan baik lisan ataupun tertulis tidak akan menggunakan data pribadi. Bila Bapak / Ibu / saudara (i) merasa masih ada hal yang belum jelas atau belum dimengerti dengan baik, maka ibu dapat menanyakan atau minta penjelasan pada saya dr. Abd. Rahim Mubarak (085242752185)

### Lampiran 3. Formulir Informed Consent

#### FORMULIR PERSETUJUAN MENGIKUTI PENELITIAN

**Judul penelitian:** Analisis Resistensi Insulin dan *Insulin-like Growth Hormone-1 (IGF-1)* pada Dewasa *Non Diabetes Mellitus (DM)* Dengan dan Tanpa Obesitas Sentral

Saya yang bertanda tangan dibawah ini

Nama :  
Jenis kelamin :  
Umur :  
Alamat :

Setelah mendengar dan mengerti penjelasan yang diberikan mengenai tujuan penelitian, dengan ini saya menyatakan bersedia secara sukarela tanpa paksaan dari pihak manapun untuk berpartisipasi dalam penelitian ini dan saya yakin hasilnya bersifat rahasia hanya peneliti utama dan tim komite etik yang mengetahuinya.

Saya mengetahui bahwa saya berhak untuk menolak atau berhenti dari penelitian ini. Biaya pemeriksaan kadar *IGF-1*, glukosa puasa dan insulin puasa dalam penelitian ini ditanggung oleh peneliti.

Bila masih ada hal yang belum saya mengerti atau saya ingin mendapatkan penjelasan lebih lanjut, saya bisa mendapatkannya dari dokter peneliti sebagai *contact person* (alamat dan nomor telepon tertera di bawah).

Makassar, Juni 2022

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Nama subyek  
penanggung jawab klinis

Dokter

No. Nama Saksi

Tanda tangan

1. ....

.....

.....

2. ....

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#### Lampiran 4. Data Penelitian

No	Jenis Kelamin	Umur (tahun)	Lingkar Pinggang (cm)	Obesitas Sentral	Obesitas Non Sentral	GDP (mg/dL)	Insulin Puasa	HOMA IR	IGF-1 (ng/mL)
1	P	36	97	✓		64.2	22.52	3.569837	116.4866
2	L	36	101	✓		61.7	6.46	0.984153	371.9793
3	L	26	103	✓		43.5	32	3.437037	763.8271
4	P	28	95	✓		64.1	7.31	1.156965	43.6809
5	P	22	88	✓		48	15.48	1.834667	42.12307
6	P	35	95	✓		50.7	4.76	0.595881	119.3978
7	L	31	76		✓	64.3	7.87	1.249484	287.7234
8	L	29	95	✓		62.4	11.6	1.787259	310.0408
9	L	30	93	✓		88.4	11.17	2.438094	459.6917
10	L	30	83		✓	87.6	14.93	3.229304	412.9044
11	L	27	71		✓	56.6	5.12	0.715536	165.6681
12	P	33	74		✓	87.8	7.04	1.526202	1360.439
13	P	33	65		✓	62	4.15	0.635309	70.03973
14	P	31	70		✓	61	5.49	0.826889	133.0704
15	L	28	99	✓		66	9.24	1.505778	272.2624
16	L	28	96	✓		65	6.99	1.121852	112.6588
17	P	30	94	✓		80.9	23.2	4.634272	39.16768
18	L	27	89		✓	50.1	10.45	1.292704	283.7875
19	P	26	90	✓		44.7	14.47	1.597059	39.42308
20	L	38	87		✓	28.1	9.54	0.661911	374.4785
21	P	34	89	✓		71.4	11.98	2.11203	55.11861
22	P	29	76		✓	45.4	6.74	0.755546	380.1058
23	P	35	97	✓		79.12	38.02	7.427512	44.59467
24	L	28	84		✓	68.9	3.33	0.566511	305.0316
25	L	30	93	✓		57.4	11.01	1.56043	303.8439

26	L	32	123	✓		90.2	128.2	28.5522	244.4696
27	P	26	97	✓		79.6	24.77	4.868375	707.3275
28	P	32	74		✓	55.2	10.9	1.48563	246.5767
29	P	36	86	✓		56.2	6.77	0.939442	932.486
30	P	29	72		✓	53.9	5.28	0.702696	395.521
31	P	30	67		✓	65.3	9.78	1.576874	809.5085
32	P	32	72		✓	66.7	8.53	1.404817	259.9622
33	L	27	87		✓	65.1	9.72	1.5624	328.1216
34	L	28	98	✓		67.1	11.26	1.865546	417.594
35	P	35	97	✓		68.2	26.77	4.507936	282.0964
36	L	28	88		✓	58.2	4.3	0.617926	310.5197
37	L	34	91	✓		56.9	17.64	2.478311	794.5071
38	L	34	93	✓		56.5	62.77	8.756802	431.4323
39	P	38	81	✓		106.8	22.25	5.867407	346.1232
40	L	42	94	✓		58.3	26.02	3.745595	322.8315
41	P	37	68		✓	57.1	2.79	0.393356	932.3563
42	P	35	72		✓	77.6	8.03	1.538588	733.1218
43	P	31	83	✓		73.4	9.97	1.806909	347.2093
44	P	36	75		✓	78.3	9.85	1.904333	91.257
45	L	31	95	✓		74.2	22.48	4.118558	316.2085
46	P	26	68		✓	56.7	6.32	0.8848	524.6171
47	P	27	89	✓		73.7	12.69	2.309267	34.33097
48	P	27	66		✓	54.5	5.74	0.77242	765.1289
49	P	35	86	✓		64.9	9.12	1.461452	43.85466
50	P	26	64		✓	75.1	9.43	1.748625	720.2871
51	L	26	81		✓	60.3	3.7	0.550889	1016.695
52	L	28	101	✓		61.1	18.73	2.825686	508.0576
53	L	29	84		✓	53.5	2.6	0.343457	324.6181
54	L	27	84		✓	71.4	8.06	1.420948	377.5041
55	P	28	66		✓	56.8	8.36	1.172464	727.7903
56	P	38	81	✓		48.6	11.04	1.3248	926.2686

57	L	33	100	✓		64.4	21.11	3.356751	186.3074
58	L	26	93	✓		56.7	6.13	0.8582	258.4777
59	P	31	84	✓		50.8	15.44	1.936672	87.80373
60	P	32	97	✓		44.1	8.39	0.913578	110.1291
61	P	33	96	✓		66.1	16.25	2.65216	47.22586
62	P	38	86	✓		54.2	32.42	4.338677	178.5783
63	L	31	87		✓	71.2	7.8	1.371259	274.5369
64	P	29	73		✓	70.9	14.58	2.5524	1316.91
65	P	32	67		✓	57.4	12.58	1.782943	963.8635
66	L	37	107	✓		62.9	22.74	3.531719	120.7491
67	P	30	81	✓		58.9	5.41	0.786788	157.1511
68	L	30	98	✓		41.6	12.83	1.317847	293.1612
69	L	30	81		✓	66.3	11.82	1.934978	305.2694
70	L	22	82		✓	81.2	4.4	0.882173	443.1436
71	P	23	78		✓	63.1	19.48	3.035032	808.4153
72	P	39	83	✓		35	10.93	0.944568	1000.814
73	P	38	90	✓		76.2	6.97	1.311393	958.0747
74	L	26	80		✓	86.2	5.12	1.089738	377.9372
75	P	38	103	✓		70.3	17.78	3.086257	1058.009
76	P	38	89	✓		53.6	17.14	2.268405	233.4697
77	P	30	77		✓	57.3	6.62	0.936607	792.3402
78	P	38	67		✓	52.6	8.32	1.080573	260.6314
79	P	38	71		✓	65.2	3.82	0.614973	482.1656
80	L	33	85		✓	60	17.72	2.625185	296.4437
81	P	29	64		✓	68.9	13.12	2.23202	801.6287
82	L	29	80		✓	100.7	9.42	2.342207	258.8485
83	L	30	55.7		✓	91.5	7.7	1.73963	62.75458
84	L	32	85		✓	85.8	5.5	1.165185	652.2631
85	L	29	93	✓		101.7	17.26	4.334178	74.71128
86	L	49	81		✓	103.9	15.06	3.863541	90.01567
87	L	30	83		✓	99.5	10.8	2.653333	61.72323



88	L	29	77		✓	92.9	14.06	3.225121	240.6369
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## Lampiran 5. Curriculum Vitae

### A. DATA PRIBADI

Nama : dr. Abd. Rahim Mubarak  
 Tempat, tanggal lahir : Ujung Pandang, 1 Agustus 1985  
 Agama : Islam  
 Pekerjaan : Mahasiswa PPDS  
 NIP : 198508012011011003  
 Pangkat/Golongan : Penata, III/c  
 Alamat Domisili : Perum Bukit Deltamas Daya Blok C. No.4

### B. RIWAYAT PENDIDIKAN

NO	STRATA	INSTITUSI	TEMPAT	TAHUN TAMAT
1.	SD	SDN 3 Pinrang	Kab. Pinrang	1997
2.	SMP	SLTPN 1 Pinrang	Kab. Pinrang	2000
3.	SMA	SMUN 1 Pinrang	Kab. Pinrang	2003
4.	Dokter	Fakultas Kedokteran Universitas Muslim Indonesia	Makasaar	2010
5.	Spesialis	Prodi Ilmu Patologi Klinik FK-UNHAS	Makassar	2018- sekarang

### C. RIWAYAT PEKERJAAN

No.	Jabatan	Instansi	Tempat	Periode
1.	Dokter Umum	RS Mutiara	Kota Sorong, Papua Barat	2010-2011

2.	Dokter Umum	Puskesmas Lero – Puskesmas Salo	Kabupaten Pinrang, Sulawesi Selatan	2011-2018
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