

## **6.2 Saran**

1. Diperlukan penelitian lanjutan dengan metode kasus Kontrol atau kohort prospektif untuk melihat derajat klinis stroke dan menentukan luaran klinis pasien dalam hal morbiditas.
2. Penelitian lebih lanjut untuk melihat faktor-faktor lain yang mempengaruhi nilai MPV terhadap derajat klinis stroke, antara lain
  - Terkontrol tidaknya faktor komorbid
  - Kadar C-reaktif protein

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## LAMPIRAN

## Lampiran 1 : Analisa data

Explore

	Tests of Normality					
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Umur	.064	176	.076	.969	176	.001
WBC	.133	176	.000	.879	176	.000
Neutrofil	.064	176	.073	.982	176	.020
Limfosit	.054	176	.200*	.981	176	.016
Monosit	.285	176	.000	.296	176	.000
PLT	.086	176	.003	.963	176	.000
PDW	.140	176	.000	.912	176	.000
GDS	.172	176	.000	.785	176	.000
MPV	.094	176	.001	.971	176	.001

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

Frequencies

		Statistics					
		Jenis Kelamin	Status Gizi	Tekanan Darah	Dislipidemia	Faktor Risiko	CT Scan Kepala
N	Valid	176	176	176	176	176	176
	Missing	0	0	0	0	0	0

Frequency Table

		Jenis Kelamin			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-laki	109	61.9	61.9	61.9
	Pemrosaan	67	38.1	38.1	100.0
	Total	176	100.0	100.0	

		Status Gizi			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Obesitas	132	75.0	75.0	75.0
	Obesitas	44	25.0	25.0	100.0
	Total	176	100.0	100.0	

		Tekanan Darah			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-Hipertensi	28	15.9	15.9	15.9
	Hipertensi	148	84.1	84.1	100.0
	Total	176	100.0	100.0	

		Dislipidemia			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak	126	71.6	71.6	71.6
	Ya	50	28.4	28.4	100.0
	Total	176	100.0	100.0	

		Faktor Risiko			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tunggal	118	67.0	67.0	67.0
	Multiple	58	33.0	33.0	100.0
	Total	176	100.0	100.0	

		CT Scan Kepala			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sub Kortikal	126	71.6	71.6	71.6
	Kortikal	50	28.4	28.4	100.0
	Total	176	100.0	100.0	

Means

	Case Processing Summary					
	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Umur	176	100.0%	0	0.0%	176	100.0%
Derajat Klinis (NIHSS)	176	100.0%	0	0.0%	176	100.0%
PLT	176	100.0%	0	0.0%	176	100.0%
PDW	176	100.0%	0	0.0%	176	100.0%
MPV	176	100.0%	0	0.0%	176	100.0%

Report

	Umur	Derajat Klinis (NIHSS)	PLT	PDW	MPV
Mean	57.52	6.19	273.943	11.641	9.308
N	176	176	176	176	176
Std. Deviation	12.208	2.899	85.6355	2.2185	1.1345
Median	58.00	6.00	273.000	11.300	9.500
Minimum	18	2	16.0	7.5	6.4
Maximum	80	15	640.0	19.3	12.5

Correlations

		Umur	Derajat Klinis (NIHSS)	PLT	PDW	MPV
Umur	Pearson Correlation	1	-.026	.003	-.075	-.101
	Sig. (2-tailed)		.730	.968	.320	.181
	N	176	176	176	176	176
Derajat Klinis (NIHSS)	Pearson Correlation	-.026	1	-.024	.000	.536**
	Sig. (2-tailed)	.730		.756	.997	.000
	N	176	176	176	176	176
PLT	Pearson Correlation	.003	-.024	1	-.219**	-.153*
	Sig. (2-tailed)	.968	.756		.003	.042
	N	176	176	176	176	176
PDW	Pearson Correlation	-.075	.000	-.219**	1	.217**
	Sig. (2-tailed)	.320	.997	.003		.004
	N	176	176	176	176	176
MPV	Pearson Correlation	-.101	.536**	-.153*	.217**	1
	Sig. (2-tailed)	.181	.000	.042	.004	
	N	176	176	176	176	176

\*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

Nonparametric Correlations

		Umur	Derajat Klinis (NIHSS)	PLT	PDW	MPV	
Spearman's rho	Umur	Correlation Coefficient	1.000	.030	-.064	-.071	-.080
		Sig. (2-tailed)		.692	.398	.346	.292
		N	176	176	176	176	176
	Derajat Klinis (NIHSS)	Correlation Coefficient	.030	1.000	-.059	.054	.644**
		Sig. (2-tailed)	.692		.440	.480	.000
		N	176	176	176	176	176
	PLT	Correlation Coefficient	-.064	-.059	1.000	-.151*	-.155*
		Sig. (2-tailed)	.398	.440		.046	.040
		N	176	176	176	176	176
	PDW	Correlation Coefficient	-.071	.054	-.151*	1.000	.249**
		Sig. (2-tailed)	.346	.480	.046		.001
		N	176	176	176	176	176
	MPV	Correlation Coefficient	-.080	.644**	-.155*	.249**	1.000
		Sig. (2-tailed)	.292	.000	.040	.001	
		N	176	176	176	176	176

\*\* Correlation is significant at the 0.01 level (2-tailed).  
 \* Correlation is significant at the 0.05 level (2-tailed).

Frequency Table

		PJK			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak	157	89.2	89.2	89.2
	Ya	19	10.8	10.8	100.0
Total		176	100.0	100.0	

		Hipertensi			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak	66	37.5	37.5	37.5
	Ya	110	62.5	62.5	100.0
Total		176	100.0	100.0	

		DM			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak	148	84.1	84.1	84.1
	Ya	28	15.9	15.9	100.0
Total		176	100.0	100.0	

		Merokok			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tidak	155	88.1	88.1	88.1
	Ya	21	11.9	11.9	100.0
Total		176	100.0	100.0	

T-Test

		Group Statistics				
		Hipertensi	N	Mean	Std. Deviation	Std. Error Mean
DerajatKlinis (NIHSS)	Tidak	66	6.42	3.196	.393	
	Ya	110	6.05	2.710	.258	
MPV	Tidak	66	9.335	1.1362	.1399	
	Ya	110	9.292	1.1383	.1085	

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
DerajatKlinis (NIHSS)	Equal variances assumed	2.096	.150	838	174	.403	.379	.452	-.513	1.270
	Equal variances not assumed			805	119.877	.423	.379	.471	-.553	1.311
MPV	Equal variances assumed	.071	.790	240	174	.810	.0426	.1771	-.3070	.3921
	Equal variances not assumed			240	137.197	.810	.0426	.1770	-.3075	.3926

T-Test

		Group Statistics				
		DM	N	Mean	Std. Deviation	Std. Error Mean
DerajatKlinis (NIHSS)	Tidak	148	6.08	2.884	.237	
	Ya	28	6.75	2.964	.560	
MPV	Tidak	148	9.286	1.0495	.0863	
	Ya	28	9.425	1.5260	.2884	

T-Test

Group Statistics

Derajat Klinis	N	Mean	Std. Deviation	Std. Error Mean
PLT Ringan	60	273.317	87.6724	11.3185
Sedang	116	274.267	84.9457	7.8870
PDW Ringan	60	11.437	2.3996	.3098
Sedang	116	11.747	2.1219	.1970
MPV Ringan	60	8.505	.9280	.1198
Sedang	116	9.724	1.0030	.0931

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
PLT	Equal variances assumed	.140	.709	-.070	174	.945	-.9506	13.6566	-27.9046	26.0034	
	Equal variances not assumed			-.069	116.157	.945	-.9506	13.7954	-28.2737	26.3725	
PDW	Equal variances assumed	1.202	.275	-.878	174	.381	-.3099	.3530	-1.0066	.3869	
	Equal variances not assumed			-.844	107.363	.401	-.3099	.3671	-1.0377	.4179	
MPV	Equal variances assumed	.504	.479	-7.835	174	.000	-1.2187	.1556	-1.5257	-.9117	
	Equal variances not assumed			-8.032	127.885	.000	-1.2187	.1517	-1.5190	-.9185	

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Derajat Klinis (NIHSS)	Equal variances assumed	.000	.987	-1.120	174	.264	-.669	.597	-1.847	.509	
	Equal variances not assumed			-1.100	37.320	.279	-.669	.608	-1.901	.563	
MPV	Equal variances assumed	7.725	.006	-.593	174	.554	-.1389	.2342	-.6012	.3235	
	Equal variances not assumed			-.461	32.001	.648	-.1389	.3010	-.7520	.4743	

T-Test

Group Statistics

Derajat Klinis (NIHSS)	PJK	N	Mean	Std. Deviation	Std. Error Mean
Derajat Klinis (NIHSS)	Tidak	157	6.11	2.896	.231
	Ya	19	6.79	2.936	.674
MPV	Tidak	157	9.301	1.1108	.0886
	Ya	19	9.368	1.3474	.3091

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Derajat Klinis (NIHSS)	Equal variances assumed	.015	.903	-.958	174	.339	-.675	.704	-2.065	.715	
	Equal variances not assumed			-.948	22.451	.353	-.675	.712	-2.150	.800	
MPV	Equal variances assumed	2.882	.091	-.244	174	.807	-.0675	.2763	-.6128	.4779	
	Equal variances not assumed			-.210	21.066	.836	-.0675	.3216	-.7361	.6012	



## Lampiran 2 : Analisa kurva ROC

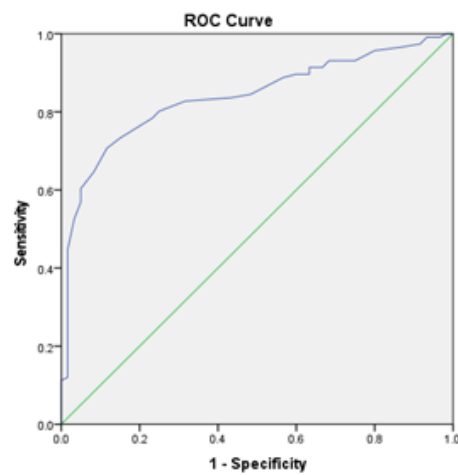
### ROC Curve

#### Case Processing Summary

Derajat Klinis	Valid N (listwise)
Positive <sup>a</sup>	116
Negative	60

Larger values of the test result variable(s) indicate stronger evidence for a positive actual state.

a. The positive actual state is Sedang.



Diagonal segments are produced by ties.

### Area Under the Curve

Test Result Variable(s): MPV

Area	Std. Error <sup>a</sup>	Asymptotic Sig. <sup>b</sup>	Asymptotic 95% Confidence Interval	
			Lower Bound	Upper Bound
.839	.030	.000	.779	.898

The test result variable(s): MPV has at least one tie between the positive actual state group and the negative actual state group. Statistics may be biased.

a. Under the nonparametric assumption

b. Null hypothesis: true area = 0.5

**Coordinates of the Curve**

Test Result Variable(s): MPV

Positive if Greater Than or Equal To*	Sensitivity	1 - Specificity
5.400	1.000	1.000
6.600	1.000	.983
6.850	.991	.967
6.950	.991	.950
7.100	.991	.933
7.250	.974	.917
7.350	.966	.867
7.500	.957	.800
7.650	.931	.750
7.800	.931	.683
8.000	.914	.667
8.200	.914	.633
8.350	.897	.633
8.500	.897	.600
8.650	.888	.567
8.750	.853	.500
8.850	.845	.483
8.950	.836	.433
9.050	.828	.317
9.150	.802	.250
9.250	.784	.233
9.350	.733	.150
9.450	.707	.117
9.550	.647	.083
9.650	.603	.050
9.725	.578	.050
9.775	.569	.050
9.850	.526	.033
9.950	.448	.017
10.050	.353	.017

## Lampiran 3 Persetujuan komite etik



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN  
UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN  
KOMITE ETIK PENELITIAN KESEHATAN  
RSPTN UNIVERSITAS HASANUDDIN  
RSUP Dr. WAHIDIN SUDIROHUSODO MAKASSAR  
Sekretariat : Lantai 2 Gedung Laboratorium Terpadu  
JL.PERINTIS KEMERDEKAAN KAMPUS TAMALANREA KM.10 MAKASSAR 90045.  
Contact Person: dr. Agusalim Bukhari, MMed,PhD, SpGK. TELP. 081241850858, 0411 5780103. Fax : 0411-581431

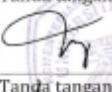



### REKOMENDASI PERSETUJUAN ETIK

Nomor : 111/UN4.6.4.5.31/ PP36/ 2021

Tanggal: 23 Februari 2021

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

No Protokol	UH21020071	No Sponsor Protokol	
Peneliti Utama	<b>dr. Agus Sulistyawati</b>	Sponsor	
Judul Peneliti	Hubungan antara Mean Platelet Volume (MPV) dengan Derajat Klinis Penderita Stroke Iskemik Akut		
No Versi Protokol	1	Tanggal Versi	8 Februari 2021
No Versi PSP	1	Tanggal Versi	8 Februari 2021
Tempat Penelitian	RS Dr. Wahidin Sudirohusodo dan RS Jejaring di Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal:	Masa Berlaku 23 Februari 2021 sampai 23 Februari 2022	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. Agusalim 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 prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

# Lampiran 4 : Form NIHSS

National Institutes of Health Stroke Score (NIHSS)

Nama Pasien : .....

Umur : .....

Jenis Kelamin : .....

	ACTHITS	NILAI	
		0-4	5-14
1a. Derajat Kesadaran	0 = Sadar penuh		
	1 = Semimemor		
	2 = Stupor		
1b. Menjawab Pertanyaan	0 = Dapat menjawab 2 pertanyaan dengan benar (mis, bulan berapa dan usia)		
	1 = Hanya dapat menjawab 1 pertanyaan dengan benar/didak dapat bicara karena terpasang pipa endotrakeal/disatra		
	2 = Tidak bisa menjawab kedua pertanyaan dengan benar/hasi/stupor		
1c. Mengikuti Perintah	0 = Dapat melakukan 2 perintah dengan benar (mis, buka mata dan tutup mata)		
	1 = Hanya dapat melakukan satu perintah dengan benar		
	2 = Tidak dapat melakukan kedua perintah dengan benar		
2. Gerakan mata	0 = Normal		
	1 = Gerakan abnormal hanya pada satu mata		
	2 = Gerakan konyugit yang kuat satu perasi konyugit total pada kedua mata		
	3 = Lapang pandang pada konfrontasi		
3. Lapang pandang pada konfrontasi	0 = Tidak ada gangguan		
	1 = Kuantropia		
	2 = Hemianopia total		
	3 = Hemianopia bilateral/biara kortikal		
4. Parase wajah	0 = Normal		
	1 = Parasi ringan		
	2 = Parasi parsi		
		3 = Parasi total	

	ACTHITS	NILAI	
		0-4	5-14
5. Motorik lengan kanan	0 = Tidak ada simpangan bila pasien diuruk		
	1 = Lengan menyimpang ke bawah sebelum 10 detik		
	2 = Lengan erisuh ke kasur atau badan atau tidak dapat diurukan secara penuh		
6. Motorik lengan kiri	0 = Tidak ada simpangan bila pasien diuruk		
	1 = Lengan menyimpang ke bawah sebelum 10 detik		
	2 = Lengan erisuh ke kasur atau badan atau tidak dapat diurukan secara penuh		
7. Motorik tungkai kanan	0 = Tidak ada simpangan bila pasien diuruk		
	1 = Lengan menyimpang ke bawah sebelum 10 detik		
	2 = Lengan erisuh ke kasur atau badan atau tidak dapat diurukan secara penuh		
8. Motorik tungkai kiri	0 = Tidak ada simpangan bila pasien diuruk		
	1 = Lengan menyimpang ke bawah sebelum 10 detik		
	2 = Lengan erisuh ke kasur atau badan atau tidak dapat diurukan secara penuh		
9. Aktiva anggota badan	0 = Tidak ada		
	1 = Pada satu ekstremitas		
	2 = Pada dua atau lebih ekstremitas		
10. Sensorik	0 = Normal		
	1 = Deltoid parsi yaitu merasa tap, berkurang		
	2 = Deltoid total yaitu jika pasien tidak merasa atau terdapat gangguan bilateral		
11. Bahasa terhak	0 = Tidak ada afasia		
	1 = Afasia ringan-sedang		
	2 = Afasia berat		
12. Disatria	0 = Tidak dapat bicara (bisu)/afasia global/homa		
	1 = Artikulasi normal		
	2 = Disatria berat		
13. Neglect/didak ada atensi	0 = Tidak ada		
	1 = Parsial		
	2 = Total		
		Nilai total:	

## Lampiran 5: Form Penelitian

**DATA PASIEN PENELITIAN**

TGL MASUK :

1. NAMA :
2. RM :
3. NO TLP :
4. ALAMAT :
5. SUKU :
6. PEKERJAAN :
7. PENDIDIKAN :
8. STATUS GIZI : B/K/OB, BB TB IMT LILA
9. TANGGAL LAHIR /UMUR :
10. ONSET STROKE :
11. TTV MASUK : TD : HR: RR: TEMP :
12. GCS MASUK :
13. NIHSS MASUK :
14. NIHSS KELUAR :
15. BARTHEL INDEKS :
16. mRS :
17. Kekuatan saat masuk :
18. Kekuatan saat keluar :
19. FAKTOR RESIKO STROKE :
20. LAMA PERAWATAN :
21. LABORATORIUM SAAT PERAWATAN : JAM AMBIL SAMPEL : JAM HASIL SAMPEL :

Darah Rutin saat masuk :

WBC :	RDW :	EOSINOFIL:
RBC :	PDW:	BASOFIL:
HCT:	MPV:	LED I/II:
MCV:	PCT:	PT :
MCH:	NEUTROFIL:	INR :
MCHC:	LYMPHOSIT:	APTT:
PLT:	MONOSIT:	Asam Urat :

Kimia Darah :

GDS :	UREUM:	D-Dimer :	kolesterol tot:
GOT:	KREATININ:	Albumin :	LDL:
GPT :	ALBUMIN:	HbA1c :	HDL :
IMUNOSERELOGI :			TGd:

HBsAG :  
AntiHCV : Prokalsitonin :

CT SCAN KEPALA NON KONTRAS :