

## LAMPIRAN

### Lampiran 1 Surat permohonan ijin Penelitian Tugas Akhir ke RSUD



Nomor : 380 / H6 - 04 / 16.08.2021  
Lamp. : -  
Hal : Izin Penelitian Proposal Skripsi

Kepada :  
Yth. Bapak / Ibu Direktur / Kepala / Pimpinan  
RSUD Kabupaten Karanganyar  
Karanganyar

Dengan hormat,

Berkaitan dengan tugas penelitian mahasiswa Program Studi S1 Farmasi Fakultas Farmasi Universitas Setia Budi, maka dengan ini kami mengajukan permohonan ijin bagi mahasiswa kami :

Nama : Risky setiawan

NIM : 24185496A

Waktu Penelitian :

Judul Penelitian : Analisis efektivitas biaya penggunaan antihipertensi kombinasi amlodipine-candesartan dan amlodipine-ramipril pada pasien rawat jalan RSUD Kabupaten Karanganyar tahun 2020

Untuk keperluan / memperoleh Data )\* :  
Penelitian di RSUD kabupaten Karanganyar

Besar harapan kami atas terkabulnya permohonan ini yang tentunya akan berguna bagi pembangunan nusa dan bangsa khususnya kemajuan dibidang pendidikan.

Demikian atas kerja samanya disampaikan banyak terima kasih.

Surakarta, 16.08.2021  
Dekan,

Prof. Dr. Apt. R.A. Oetari, SU., MM., M.Sc.  
NIS. 01200409162098

Lampiran 2 Surat rekomendasi penelitian dari RSUD Kabupaten Karanganyar

**S**

**PEMERINTAH KABUPATEN KARANGANYAR**  
**RUMAH SAKIT UMUM DAERAH**  
 Alamat : Jl. Laksda Yos Sudarso Karanganyar Telpun (0271)495025,  
 495118 Fax (0271)495673 Ext. 109  
 Website : [www.rsukaranganyar.go.id](http://www.rsukaranganyar.go.id) E-mail :  
 RsudKabKaranganyar@gmail.com Kode Pos 57716

Kepada Yth.

1. Ka. Ins. Farmasi  
 2. Ka. Ins. Rekam Medis  
 3. IT

Bu. Sarwasfutikis

Dengan Hormat,

Mohon difasilitasi untuk melakukan studi pendahuluan / penelitian / uji validitas :

Nama : Risky Setawan

Institusi : Universitas Sebelas Budi

Judul karya tulis : Analisis Efektivitas Biaya Penggunaan amlodipine - kombinasi dan amlodipine - monoterapi pada pasien rawat jalan RSUD kabupaten Karanganyar tahun 2020

Demikian, atas kerjasamanya diucapkan terima kasih.

Karanganyar, 6-9-2021  
 Tim Diklat RSUD Kab. Karanganyar

1. Swab antigen  ✓  
 2. Pernyataan  ✓  
 3. Pembayaran  ✓

- Jumlah kunjungan pasien rawat jalan periode thn 2020 pada khusus hipertensi (089693644307)  
 Risky Setawan


RJ : 97.555 total

dx 1 295  
 dx 2 3593  
 dx 3 2598

### Lampiran 3 Surat Ethical Clearance dari Komisi Etika Penelitian Kesehatan

0/28/21, 8:35 AM

KEPK-HGDM

 **HEALTH RESEARCH ETHICS COMMITTEE**  
**KOMISI ETIK PENELITIAN KESEHATAN**

***Dr. Moewardi General Hospital***  
**RSUD Dr. Moewardi**

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***ETHICAL CLEARANCE***  
**KELAIKAN ETIK**

**Nomor : 881 / IX / HREC / 2021**

***The Health Research Ethics Committee Dr. Moewardi***  
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi

***after reviewing the proposal design, herewith to certify***  
setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

***That the research proposal with topic :***  
Bahwa usulan penelitian dengan judul


**ANALISIS EFEKTIVITAS BIAYA PENGGUNAAN ANTIHIPERTENSI KOMBINASI AMLODIPINE-CANDESARTAN DAN AMLODIPINE-RAMIPRIL PADA PASIEN RAWAT JALAN RSUD KABUPATEN KARANGANYAR TAHUN 2020**

***Principal investigator*** : Risky Setiawan  
Peneliti Utama 24185496A

***Location of research*** : RSUD Karanganyar  
Lokasi Tempat Penelitian

***Is ethically approved***  
Dinyatakan layak etik

Issued on: 28 September 2021

  
**Chairman**  
**Ketua**  
**Dr. Wahyu Dwi Atmoko, Sp.F**  
19770224 201001 1 004

<http://komisietika.rsudmoewardi.com/ank/ethical-clearance/24185496A-1249>

1/1

Dipindai dengan CamScanner

**Lampiran 4 Data rekam medik pemeriksaan pasien hipertensi**

PEMERINTAH KABUPATEN KARANGANYAR  
 RUMAH SAKIT UMUM DAERAH  
 UNIT POLIKLINIK

No. RMI

**RINGKASAN RIWAYAT POLIKLINIK**

NAMA PASIEN: 00385170 SANYEM  
 Alamat/telepon: Pemporian, PULOARI 3/2 BROYO JATEN BROYO Jaten Karanganyar 11-08-1980

TEMPAT/TGL LAHIR/UMUR: PR ISLAM

STATUS KAWIN/JENKEL/AGAMA

PEKERJAAN

NAMA TMP PEKERJAAN

ALAMAT TMP PEKERJAAN

NAMA/UMUR/PEKERJAAN AYAH

NAMA/UMUR/PEKERJAAN IBU

YANG MENGIRIM

ALAMAT/TELEPON

PERUBAHAN ALAMAT

| TGL KUNJUNGAN | POLI YANG DIKUNJUNGI | DIAGNOSIS                       | TINDAKAN/OPERASI    | TANDA TANGAN DOKTER | KODE DIAGNOSIS / OPERASI |
|---------------|----------------------|---------------------------------|---------------------|---------------------|--------------------------|
| 21/7/20       | dekur                | S. Jantung jumpa?<br>07. 137/68 | jumpa?<br>FLM<br>OK |                     | 2008<br>D11.5<br>R119.5  |
| 27/8/20       | dekur                | S. Lutut salut<br>07. 126/42    | FLM<br>OK           |                     | 2008<br>D11.5<br>R119.5  |
| 28/11/20      | dekur                | S. Jantung jumpa?<br>07. 150/80 | FLM<br>OK           |                     | 2008<br>D11.5<br>R119.5  |

### Lampiran 5 Data instalasi farmasi pasien hipertensi

The screenshot shows a pharmacy software interface titled "Operasional Farmasi". The patient information section includes:

- Tgl Ambil: 29-06-2020
- No. RM: 00500316
- Nama: SRI SUWARTI
- Jenis Pasien: 21 BPJS PBI
- Poliklinik: 03 PENYAKIT DALAM 1
- Dokter: 00064 DR. MUSRIFAH BUDI UTAMI, SP.PD.M.KES
- No. Resep: 2006-05895
- No. Bukti Lunas: [Empty]
- Penjamin: [Empty]

Cost summary:

- Biaya: 84.269
- Biaya CS: 0
- Imbalage: 3.000
- Total: 3.000

Medication list (Obat):

| Kode  | Nama Obat                   | Aturan Pakai              | Jml | Jml CS | @ Harga | Sub Total | Sat     | Tipe |
|-------|-----------------------------|---------------------------|-----|--------|---------|-----------|---------|------|
| U4080 | Amlodipin 10 mg/tab         | 1 X SEHARI 1 TABLET       | 30  | 0      | 118,8   | 0         | TAB     | N    |
| U3712 | Lisinopril 10 mg/tab        | 1 X SEHARI 1 TABLET       | 30  | 0      | 310,8   | 0         | tablet  | N    |
| U0172 | na diclofenac 50 tab        | 3 X SEHARI 1 TABLET       | 20  | 0      | 147,6   | 0         | tablet  | N    |
| U0722 | Alpentin 100 mg Reguler JKN | MALAM 1 KAPSUL            | 7   | 0      | 1.254   | 0         | tablet  | N    |
| U0153 | lansoprazole/cap            | PAGI 1 KAPSUL, SORE 1 KAP | 14  | 0      | 810,81  | 0         | kaapsul | N    |
| U4116 | Ondansetron 8mg/tab         | 3 X SEHARI 1 TABLET       | 20  | 0      | 1.973,4 | 0         | tablet  | N    |
| U3208 | Ulsidex tab                 | 3 X SEHARI 1 TABLET       | 20  | 0      | 441,6   | 0         | tablet  | N    |

Buttons at the bottom: Rincian Obat, Cetak Label, Cetak Resep.

### Lampiran 6 Data karakteristik pasien yang menggunakan terapi kombinasi Amlodipin – Candesartan

| No RM  | Nama            | Umur | Jenis Kelamin | Tekanan Darah awal | Tekanan Darah Akhir | Biaya Terapi | Biaya Pemeriksaan | Total Biaya |
|--------|-----------------|------|---------------|--------------------|---------------------|--------------|-------------------|-------------|
| 507467 | SUHARMI         | 64   | Pr            | 190/110            |                     | 60.043       | Rp30.000          | 90.043      |
| 164225 | TITIK SUHARTI   | 65   | Pr            | 140/85             | 118/65              | 100.073      | Rp210.000         | 310.073     |
| 257713 | SUNARTI         | 83   | Pr            | 168/96             | 138/79              | 84.138       | Rp90.000          | 174.138     |
| 415579 | SUTIJO          | 77   | Lk            | 180/78             | 140/84              | 220.943      | Rp60.000          | 280.943     |
| 460841 | PREHATIN SUROTO | 51   | Lk            | 148/97             | 134/69              | 51.372       | Rp150.000         | 201.372     |
| 447391 | SAIKEM          | 58   | Pr            | 140/70             |                     | 50.546       | Rp30.000          | 80.546      |
| 232196 | SUKINEM         | 55   | Pr            | 140/80             |                     | 68.543       | Rp30.000          | 98.543      |
| 415684 | SUKINI          | 65   | Pr            | 165/77             | 134/53              | 76.483       | Rp120.000         | 196.483     |
| 314429 | WHENYARTIE      | 60   | Pr            | 142/61             | 170/90              | 89.208       | Rp150.000         | 239.208     |

|        |               |    |    |         |         |         |           |          |
|--------|---------------|----|----|---------|---------|---------|-----------|----------|
| 448159 | DWI RAHAYUNI  | 55 | Pr | 174/93  | 167/85  | 57.029  | Rp90.000  | 147.029  |
| 357194 | SUTARDI       | 49 | Lk | 164/104 | 138/80  | 35.912  | Rp210.000 | 245.912  |
| 365179 | SANIYEM       | 53 | Pr | 140/85  | 125/70  | 55.114  | Rp360.000 | 415.114  |
| 316261 | GIYEM         | 51 | Pr | 206/122 | 132/65  | 216.984 | Rp120.000 | 336.984  |
| 323239 | SUTARMI       | 61 | Pr | 140/90  | 140/80  | 53.603  | Rp60.000  | 113.603  |
| 357194 | SUTARDI       | 49 | Lk | 158/90  | 135/78  | 35.912  | Rp90.000  | 125.912  |
| 164225 | TITIK SUHARTI | 65 | Pr | 145/105 | 130/90  | 70.754  | Rp60.000  | 130.754  |
| 365934 | SUMARNI       | 57 | Lk | 160/90  | 135/97  | 31.480  | Rp180.000 | 211.480  |
| 357194 | SUTARDI       | 49 | Lk | 167/86  | 155/90  | 35.912  | Rp60.000  | 95.912   |
| 189215 | SRI SUPARSI   | 67 | Pr | 158/88  | 135/76  | 71.354  | Rp90.000  | 161.354  |
| 497595 | UNTARI        | 54 | Pr | 180/112 |         | 221.646 | Rp30.000  | 251.646  |
| 269802 | LAMI          | 71 | Pr | 178/102 | 167/99  | 47.623  | Rp90.000  | 137.623  |
| 365934 | SUMARNI       | 57 | Pr | 160/90  | 135/97  | 82.392  | Rp180.000 | 262.392  |
| 357194 | SUTARDI       | 50 | Lk | 173/90  | 157/100 | 79.331  | Rp60.000  | 139.331  |
| 130123 | PARDJONO      | 69 | Lk | 184/91  | 169/73  | 96.961  | Rp150.000 | 246.961  |
| 365934 | SUMARNI       | 57 | Lk | 140/96  | 140/83  | 82.392  | Rp60.000  | 142.392  |
| 351664 | SEMI          | 54 | Pr | 173/105 | 156/96  | 602.486 | Rp60.000  | 662.486  |
| 507947 | SUKINEM       | 60 | Pr | 164/98  | 110/70  | 19.953  | Rp60.000  | 79.953   |
| 500439 | WARSI         | 72 | Pr | 195/100 | 160/90  | 176.623 | Rp120.000 | 296.623  |
|        |               |    |    |         |         |         |           | 209.8146 |

**Lampiran 7 Data karakteristik pasien yang menggunakan terapi kombinasi  
Amlodipin – Lisinopril**

| No RM  | Nama         | Umur | Jenis Kelamin | Tekanan Darah awal | Tekanan Darah Akhir | Biaya Terapi | Biaya Pemeriksaan | Total Biaya |
|--------|--------------|------|---------------|--------------------|---------------------|--------------|-------------------|-------------|
| 500316 | SRI SUWARTI  | 37   | Pr            | 147/92             | 128/80              | 84.269       | Rp60.000          | 144.269     |
| 441352 | SUNAMI       | 58   | Pr            | 165/90             |                     | 12.888       | Rp30.000          | 42.888      |
| 481971 | JAMIN        | 67   | Lk            | 250/130            | 228/116             | 33.213       | Rp60.000          | 93.213      |
| 501290 | NARDI        | 67   | Lk            | 140/60             | 110/70              | 12.888       | Rp120.000         | 132.888     |
| 503818 | SARIKEM      | 56   | Pr            | 205/101            |                     | 15.372       | Rp30.000          | 45.372      |
| 503838 | ANIK SUPARMI | 46   | Pr            | 191/100            |                     | 21.234       | Rp30.000          | 51.234      |
| 357674 | SUMARDI      | 66   | Lk            | 140/69             | 170/90              | 22.259       | Rp60.000          | 82.259      |
| 507206 | HARTONO BP   | 51   | Lk            | 178/100            | 136/89              | 44.116       | Rp60.000          | 104.116     |
| 318150 | BUDIANTO     | 61   | Lk            | 187/105            | 180/77              | 47.168       | Rp90.000          | 137.168     |
| 471472 | SARYANTO     | 50   | Lk            | 140/70             |                     | 189.899      | Rp30.000          | 219.899     |

|        |                |    |    |         |         |         |           |         |
|--------|----------------|----|----|---------|---------|---------|-----------|---------|
| 482121 | NGADIYEM       | 63 | Pr | 185/94  | 160/89  | 195.356 | Rp60.000  | 255.356 |
| 194070 | SITI SUWARNI   | 57 | Pr | 170/100 | 130/90  | 21.296  | Rp60.000  | 81.296  |
| 289234 | NGAADINAH      | 60 | Pr | 167/79  | 143/83  | 205.913 | Rp90.000  | 295.913 |
| 471268 | SUPARDI        | 53 | Lk | 131/87  | 156/97  | 103.572 | Rp120.000 | 223.572 |
| 447479 | WAGINAH        | 58 | Pr | 159/92  | 118/60  | 89.045  | Rp210.000 | 299.045 |
| 491008 | SUPARNO        | 57 | Lk | 183/90  | 179/90  | 226.459 | Rp90.000  | 316.459 |
| 331167 | ATIK WAEDANI   | 27 | Pr | 150/92  | 140/84  | 14.802  | Rp120.000 | 134.802 |
| 471472 | SARYANTO       | 50 | Lk | 165/96  | 138/83  | 189.900 | Rp60.000  | 249.900 |
| 287423 | JINEM MARYATUN | 73 | Pr | 190/90  | 190/102 | 20.932  | Rp60.000  | 80.932  |
| 416539 | PANIYEM        | 63 | Pr | 140/90  | 129/83  | 199.930 | Rp60.000  | 259.930 |
| 454829 | SUPONO         | 55 | Lk | 157/91  | 132/79  | 202.037 | Rp60.000  | 262.037 |
| 416539 | PANIYEM        | 63 | Pr | 160/88  | 135/79  | 199.93  | Rp60.000  | 259.930 |
| 383291 | SRI SUHARYANTI | 61 | Lk | 189/90  | 167/83  | 323.532 | Rp60.000  | 383.532 |
| 417442 | TRI SUWARNI    | 48 | Pr | 170/87  | 134/66  | 5.992   | Rp60.000  | 65.992  |
| 238572 | SITI ROHANI    | 40 | Pr | 200/120 |         | 20.816  | Rp30.000  | 50.816  |
| 429747 | SUNARSI        | 62 | Pr | 170/86  | 116/68  | 26.094  | Rp60.000  | 86.094  |
| 464607 | SULARMI        | 55 | Pr | 154/95  |         | 115.550 | Rp30.000  | 145.550 |
| 321308 | SUNARSI        | 89 | Pr | 140/70  | 170/90  | 74.515  | Rp60.000  | 134.515 |
| 331167 | ATIK WARDANI   | 27 | Pr | 150/92  | 140/84  | 14.802  | Rp120.000 | 134.802 |
| 267412 | PARTINI        | 61 | Pr | 179/114 | 133/50  | 34.652  | Rp210.000 | 244.652 |
| 490858 | HADIANTO       | 45 | Lk | 210/123 | 184/99  | 19.845  | Rp60.000  | 79.845  |
| 493722 | SUKIYEM        | 62 | Pr | 190/89  | 149/93  | 49.123  | Rp90.000  | 139.123 |
| 416403 | SAMIYEM        | 63 | Pr | 166/87  | 164/77  | 23.646  | Rp120.000 | 143.646 |
| 487233 | ANIS HAERUNISA | 36 | Pr | 183/90  | 157/85  | 240.536 | Rp90.000  | 330.536 |
| 222061 | MARWANTO       | 65 | Lk | 202/102 | 147/74  | 26.574  | Rp60.000  | 86.574  |
| 464828 | PARTINI        | 43 | Pr | 140/78  | 100/60  | 79.080  | Rp90.000  | 169.080 |
| 403254 | SUJARWO        | 58 | Lk | 180/104 | 135/85  | 57.498  | Rp90.000  | 147.498 |
| 489793 | SUJARWO        | 58 | Lk | 170/96  | 164/90  | 12.888  | Rp60.000  | 72.888  |
| 490858 | HADIANTO       | 45 | Lk | 210/123 | 184/99  | 19.845  | Rp60.000  | 79.845  |
| 401640 | SUMARSIH       | 71 | Pr | 155/90  | 141/94  | 28.649  | Rp60.000  | 88.649  |
| 222061 | MARWANTO       | 64 | Lk | 202/102 | 147/74  | 26.574  | Rp60.000  | 86.574  |
| 492200 | SUDARNI        | 49 | Pr | 198/90  | 176/95  | 14.364  | Rp60.000  | 74.364  |
| 493291 | NGADIYEM       | 49 | Pr | 173/57  |         | 86.956  | Rp30.000  | 116.956 |
| 467381 | TASLIM         | 49 | Lk | 184/106 | 143/74  | 84.168  | Rp60.000  | 144.168 |
| 493802 | SUPANI         | 57 | Pr | 181/69  | 187/88  | 318.672 | Rp90.000  | 408.672 |
| 130050 | SUWARDI        | 75 | Lk | 185/89  | 150/83  | 61.181  | Rp60.000  | 121.181 |
| 493722 | SUKIYEM        | 62 | Pr | 183/96  | 164/87  | 49.123  | Rp90.000  | 139.123 |

|        |             |    |    |         |         |         |           |         |
|--------|-------------|----|----|---------|---------|---------|-----------|---------|
| 222061 | MARWANTO    | 64 | Lk | 167/84  | 150/92  | 26.574  | Rp60.000  | 86.574  |
| 486013 | SINAH       | 82 | Pr | 140/90  | 160/100 | 76.466  | Rp90.000  | 166.466 |
| 409526 | SUKIYO      | 50 | Lk | 161/72  | 134/77  | 278.957 | Rp210.000 | 488.957 |
| 357674 | SUMARDI     | 66 | Lk | 140/69  | 170/90  | 22.259  | Rp60.000  | 82.259  |
| 329781 | SUKINI      | 51 | Pr | 173/93  | 140/80  | 58.122  | Rp90.000  | 148.122 |
| 423616 | SULASTRI    | 46 | Pr | 178/88  | 142/101 | 157.676 | Rp60.000  | 217.676 |
| 498314 | SAMI        | 64 | Pr | 171/100 | 103/60  | 36.414  | Rp150.000 | 186.414 |
| 365006 | SUPARMAN    | 58 | Lk | 155/90  | 139/88  | 97.535  | Rp60.000  | 157.535 |
| 502898 | WAHYUDIYONO | 48 | Lk | 164/97  | 130/80  | 22.259  | Rp60.000  | 82.259  |
|        |             |    |    |         |         |         |           | 161.847 |

### Lampiran 8 Perhitungan data distribusi pasien berdasarkan umur

$$1. < 60 = \frac{10}{8425} \times 100\%$$

$$= 40\%$$

$$2. \geq 60 = \frac{15}{25} \times 100\%$$

$$= 60\%$$

### Lampiran 9 Perhitungan distribusi pasien berdasarkan jenis kelamin

$$1. \text{ Laki – laki} = \frac{9}{24} \times 100\%$$

$$= 37,5\%$$

$$2. \text{ Perempuan} = \frac{15}{24} \times 100\%$$

$$= 62,5\%$$



### Lampiran 10 Perhitungan efektivitas terapi

#### 1. Kelompok terapi kombinasi amlodipine-candesartan

$$\begin{aligned}
 \text{Efektivitas} &= \frac{\text{Jumlah pasien yang mencapai target}}{\text{Jumlah pasien yang menggunakan obat}} \times 100\% \\
 &= \frac{24}{28} \times 100\% \\
 &= 85,7\%
 \end{aligned}$$

#### 2. Kelompok terapi kombinasi amlodipine-lisinopril

$$\begin{aligned}
 \text{Efektivitas} &= \frac{\text{Jumlah pasien yang mencapai target}}{\text{Jumlah pasien yang menggunakan obat}} \times 100\% \\
 &= \frac{49}{56} \times 100\% \\
 &= 87,5\%
 \end{aligned}$$

### Lampiran 11 Perhitungan ACER

#### 1. Kelompok terapi kombinasi amlodipine-candesartan

$$\begin{aligned}
 \text{ACER} &= \frac{\text{Rata-rata biaya (Rp)}}{\text{Efektivitas (\%)}} \\
 &= \frac{209.814}{85,7} \\
 &= 2.448
 \end{aligned}$$

#### 2. Kelompok terapi kombinasi amlodipine-lisinopril

$$\begin{aligned}
 \text{ACER} &= \frac{\text{Rata-rata biaya (Rp)}}{\text{Efektivitas (\%)}} \\
 &= \frac{161.847}{87,5}
 \end{aligned}$$

$$=1.849$$

### Lampiran 12 Perhitungan ICER

$$\text{ICER} = \frac{(\text{Biaya terapi amlodipine-lisinopril}) - (\text{Biaya amlodipine-candesartan})}{(\text{efektivitas amlidipine-lisinopril}) - (\text{efektivitas amlodipine-candesartan})}$$

$$= \frac{161.847 - 209.814}{87,5\% - 85,7\%}$$

$$= \frac{-47.967}{1,8}$$

$$= \text{Rp } -26.648$$

