DAFTAR LAMPIRAN

Lampiran 1. Surat Permohonan Bimbingan Skripsi

UNIVERSITAS MUHAMMADIYAH BANJARMASIN
SK. KEMENRISTEK DIKTI. 204/KPT/I/2015

Fakultas Farmasi

Nomor : 074/UM-Bjm/Far/Skripsi/III/2020
Lampiran : -
Perihal : **Permohonan Bimbingan Skripsi**

Banjarmasin, 5 Maret 2020

Kepada Yth,
Bapak / Ibu
Risya Mulyani, M.Sc., Apt.
di –
Tempat

Assalamu'alaikum Warahmatullahi Wabarakatuh

Sehubungan dengan kegiatan akademik penyusunan **Skripsi** untuk mahasiswa tingkat akhir Program Studi S1 Farmasi Fakultas Farmasi Universitas Muhammadiyah Banjarmasin, kami telah menyetujui usulan judul Skripsi dari mahasiswa tersebut di bawah ini :

Nama : Muhammad Iman Rizqiawan
NPM : 1648201110130
Judul : Studi Terapi Golongan Statin pada Pasien Stroke Iskemik di RSUD. Ulin Banjarmasin

Berikut nama pembimbing yang kami tetapkan bagi mahasiswa yang bersangkutan :

Pembimbing I : Risya Mulyani, M.Sc., Apt.
Pembimbing II : Dr. M. Anshari, MM., Apt.

dengan ini kami mohon kesediaan Bapak/Ibu **untuk membimbing proses penyusunan dan penulisan Skripsi mahasiswa tersebut**. Perlu kami informasikan bahwa perubahan judul Skripsi harus dengan sepengetahuan Program Studi S1 Farmasi Universitas Muhammadiyah Banjarmasin.

Demikian surat permohonan ini disampaikan, atas kesediaan dan kerjasama Bapak/Ibu kami ucapkan terimakasih.

Wassalamu'alaikum Warahmatullahi Wabarakatuh

Ka. Prodi S1 Farmasi,

Andika, M.Farm., Apt
NIDN. 1110068601

Kampus Utama : Jl. Gubernur H. Syarkawi, Lingkar Utara, Barito Kuala
Kampus 1 : Jl. S. Parman Komplek Rumah Sakit Islam Banjarmasin
Kampus 2 : Jl. S. Parman, Samping BRI Cabang S.Parman, Banjarmasin
Telp/Fax : (0511) 3363002 Email : info@umbjm.ac.id
Website : www.umbjm.ac.id

UNIVERSITAS MUHAMMADIYAH BANJARMASIN
SK. KEMENRISTEK DIKTI: 204/KPT/I/2015

Fakultas Farmasi

Nomor : 074/UM-Bjm/Far/Skripsi/III/2020 Banjarmasin, 6 Maret 2020
Lampiran : -
Perihal : **Permohonan Bimbingan Skripsi**

Kepada Yth,
Bapak / Ibu
Dr. M. Anshari, MM., Apt.
di –
Tempat

Assalamu'alaikum Warahmatullahi Wabarakatuh

Sehubungan dengan kegiatan akademik penyusunan **Skripsi** untuk mahasiswa tingkat akhir Program Studi S1 Farmasi Fakultas Farmasi Universitas Muhammadiyah Banjarmasin, kami telah menyetujui usulan judul Skripsi dari mahasiswa tersebut di bawah ini :

Nama : Muhammad Iman Rizqiawan
NPM : 1648201110130
Judul : Studi Terapi Golongan Statin pada Pasien Stroke Iskemik di RSUD. Ulin Banjarmasin

Berikut nama pembimbing yang kami tetapkan bagi mahasiswa yang bersangkutan :

Pembimbing I : Risya Mulyani, M.Sc., Apt.
Pembimbing II : Dr. M. Anshari, MM., Apt.

dengan ini kami mohon kesediaan Bapak/Ibu **untuk membimbing proses penyusunan dan penulisan Skripsi mahasiswa tersebut**. Perlu kami informasikan bahwa perubahan judul Skripsi harus dengan sepengetahuan Program Studi S1 Farmasi Universitas Muhammadiyah Banjarmasin.

Demikian surat permohonan ini disampaikan, atas kesediaan dan kerjasama Bapak/Ibu kami ucapkan terimakasih.

Wassalamu'alaikum Warahmatullahi Wabarakatuh

Ketua Prodi S1 Farmasi,

Andika, M.Farm., Apt
NIDN. 1110068601

Kampus Utama : Jl. Gubernur H. Syarkawi, Lingkar Utara, Barito Kuala
Kampus 1 : Jl. S. Parman Komplek Rumah Sakit Islam Banjarmasin
Kampus 2 : Jl. S. Parman, Samping BRI Cabang S.Parman, Banjarmasin
Telp/Fax : (0511) 3363002 Email : info@umbjm.ac.id
Website : www.umbjm.ac.id

Lampiran 2. Kartu Bimbingan Skripsi

KARTU BIMBINGAN PROPOSAL SKRIPSI
PROGRAM STUDI S1 FARMASI
FAKULTAS FARMASI
UNIVERSITAS MUHAMMADIYAH BANJARMASIN
(Untuk Pembimbing I)

Nama Mahasiswa : Muhammad Iman Rizqiawan
No. Mahasiswa : 1648201110130
Judul Skripsi : STUDI TERAPI GOLONGAN STATIN PADA PASIEN STROKE ISKEMIK DI RUMAH SAKIT UMUM DAERAH ULIN BANJARMASIN
Jumlah SKS : IPK: 3,40
Pembimbing 1 : Risya Mulyani, M.Sc., Apt.
Pembimbing 2 : Dr. M. Anshari, MM., Apt.

Menyetujui:
Kaprodi S1 Farmasi

Andika, M.Farm., Apt
NIDN. 1110068601

No.	Tanggal Bimbingan	Saran / perbaikan	Paraf Pembimbing 1
1.	5 maret 2020	perbaiki aturan penulisan, pertajam tentang tema yg diangkat (stroke iskemik), angka kejadian kalau bisa dicari	
2.		kumkan, dijabarkan yg tata laksana terapi stroke iskemik (dikaitkan dgn statin), lengkapi jurnal terkait	
3.		perbaiki rumusan masalah & tujuan penelitian, manfaat dipertajam	
4.	9 maret 2020	BAB I = ok, sambil dites dapat data kejadian (studi pendahuluan) yg t'4 penelitian bisa ditambahkan	
5.		BAB II : sumber tabel dicantumkan, keterangan tabel, (+) teori ttg statin & golongan yang digunakan	
6.		u/ stroke iskemik → penguatan keprofil penggunaan obat	
7.	15 maret 2020	BAB III : diperkuat teori statin, dengan rumusan dg kerangka dilapangan, lanjut BAB III.	
8.	16 April 2020	Perbaiki judul skripsi untuk menghapus nama tempat penelitian, perbaiki latar belakang, perbaiki rumusan masalah dan perbaiki tujuan penelitian	

9	10 Mei 2020	Konsul proposal skripsi dan di acc proposal skripsi untuk melanjutkan ke pengajuan proposal skripsi	
10	09 Juli 2020	Perbaiki bab 4 pada keterangan gambar harus di bawah	
11	10 Juli 2020	Perbaiki bab 5 pada bagian kesimpulan untuk tidak perlu dibahas lagi dan langsung menjawab rumusan masalah	
12	14 Juli 2020	Acc bagian abstrak dan perlu ditambahkan jumlah pustaka dan rentang tahunnya	

KARTU BIMBINGAN PROPOSAL SKRIPSI
PROGRAM STUDI S1 FARMASI
FAKULTAS FARMASI
UNIVERSITAS MUHAMMADIYAH BANJARMASIN
(Untuk Pembimbing 2)

Nama Mahasiswa	:	Muhammad Iman Rizqiawan
No. Mahasiswa	:	1648201110130
Judul Skripsi	:	STUDI LITERATUR TERAPI GOLONGAN STATIN PADA PASIEN STROKE ISKEMIK DI RUMAH SAKIT
Jumlah SKS	:	IPK: 3,40
Pembimbing 1	:	Risya Mulyani, M.Sc., Apt.
Pembimbing 2	:	Dr. M. Anshari, MM., Apt.

Menyetujui:
Kaprodi S1 Farmasi

Andika, M.Farm., Apt
NIDN. 1110068601

No.	Tanggal Bimbingan	Saran / perbaikan	Paraf Pembimbing 2
1.	11 Maret 2020	Rumusan masalah di fix lagi; penelitian sejenis	
2.	25 April 2020	Perbaiki judul menjadi studi literatur, latar belakang, dan rumusan masalah	
3.	6 Mei 2020	Revisi terkait memunculkan fenomena penelitian pada bagian latar belakang yang nanti dirumuskan menjadi pertanyaan penelitian di rumusan masalah	
4.	12 Mei 2020	Acc proposal skripsi dan dilanjutkan pengajuan proposal skripsi	
5.	10 Juli 2020	Acc bab 4 untuk dilanjutkan ke bab berikutnya	
6.	12 Juli 2020	Acc bagian abstrak	
7.	13 Juli 2020	Perbaiki pada bab 5 bagian kesimpulan membuat rangkuman pola penggunaan dan evaluasi terhadap statin. Evaluasi terapi di ambil dari jurnal yaitu kelebihan dan kekurangan (efek samping dan sebagainya) yang ditemukan	
8.	15 Juli 2020	Acc naskah skripsi dan dilanjutkan pengajuan ujian siding skripsi	

Lampiran 3. Lembar Persetujuan Proposal

PERSETUJUAN PEMBIMBING

Proposal/Skripsi dengan judul Studi Literatur Terapi Golongan Statin pada Pasien Stroke Iskemik di Rumah Sakit oleh Muhammad Iman Rizqiawan, NPM 1648201110130 telah diperiksa dan disetujui oleh pembimbing dan akan dipertahankan di hadapan Dewan Penguji Seminar Proposal/Seminar Hasil Skripsi Program Studi S1 Farmasi Fakultas Farmasi Universitas Muhammadiyah Banjarmasin.

Banjarmasin, 14 Mei 2020
Pembimbing 1

apt. Risya Mulyani, M.Sc.
NIDN. 1122038301

Pembimbing 2

Dr. Apt. M. Anshari, MM.
NIDN. 1115106701

Mengetahui,
Ketua Program Studi S1 Farmasi

apt. Andika, M.Farm.
NIDN. 1110068601

Lampiran 4. Lembar Pengesahan Proposal Skripsi

PENGESAHAN PROPOSAL

Proposal skripsi berjudul Studi Literatur Terapi Golongan Statin pada Pasien Stroke Iskemik di Rumah Sakit yang dibuat oleh Muhammad Iman Rizqiawan, NPM 1648201110130 telah diujikan di depan tim penguji pada Seminar Proposal Program Studi S1 Farmasi Fakultas Farmasi Universitas Muhammadiyah Banjarmasin pada tanggal 18 Mei 2020

DEWAN PENGUJI :

Penguji 1

apt. Risya Mulyani, M.Sc.
NIDN. 1122038301

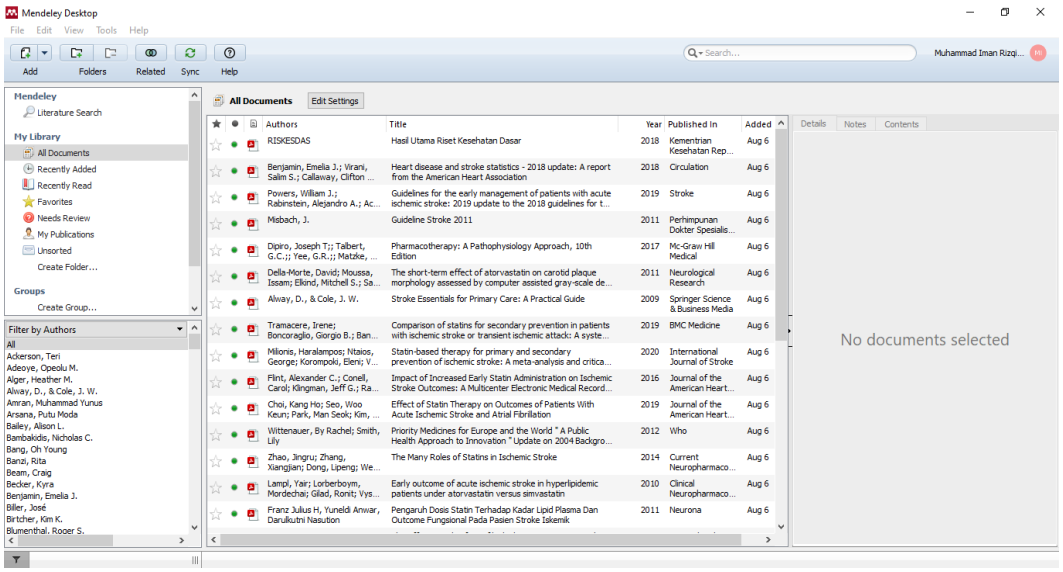
Penguji 2

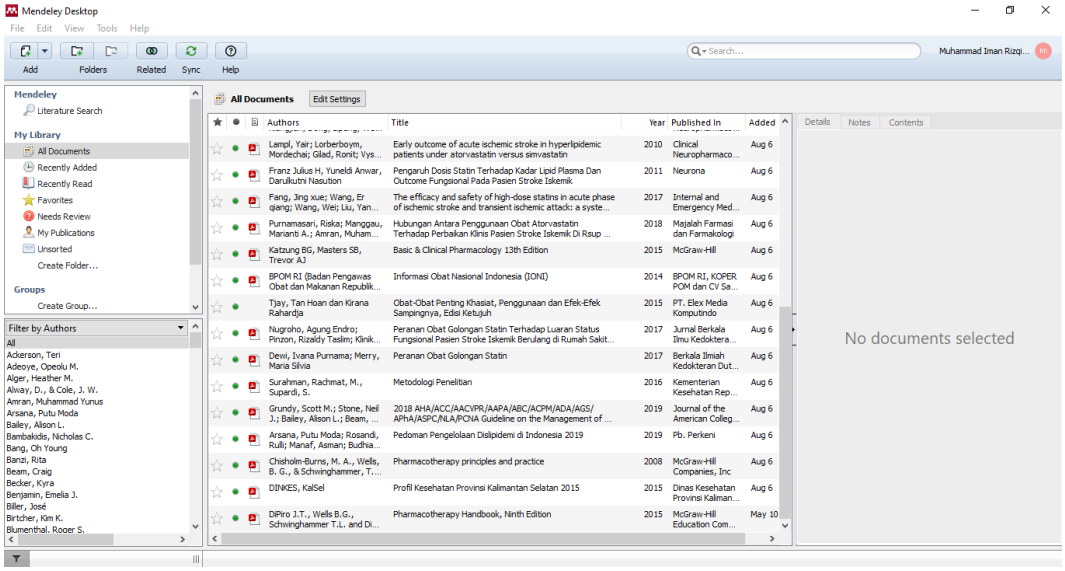
Dr. Apt. M. Anshari, MM.
NIDN. 1115106701

Mengesahkan di : Banjarmasin
Tanggal : 18 Mei 2020

Mengesahkan	Mengetahui
Dekan Fakultas Farmasi	Ketua Program Studi S1 Farmasi
apt. Risya Mulyani, M.Sc.	apt. Andika, M.Farm.
NIDN. 1122038301	NIDN. 1110068601

Lampiran 5. Dokumentasi Mendeley Jurnal





Lampiran 6. Jurnal Purnamasari et al (2018)

Original Article MFF 2018; 22(1):8-12
Majalah Farmasi dan Farmakologi

HUBUNGAN ANTARA PENGGUNAAN OBAT ATORVASTATIN TERHADAP PERBAIKAN KLINIS PASIEN STROKE ISKEMIK DI RSUP DR. WAHIDIN SUDIROHUSODO

Riska Purnamasari[1], Marianti A.Manggau[1], Muhammad Yunus Amran[2]
[1]Fakultas Farmasi, Universitas Hasanuddin, Makassar
[2]Departemen Neurologi, Fakultas Kedokteran, Universitas Hasanuddin, Makassar

ABSTRAK

Indonesia menduduki terbanyak di Asia yang menderita stroke. Statin dengan efek pleiotropiknya dapat menjadi *neuroprotektan* sehingga dapat memperbaiki kondisi klinis dan mencegah terjadinya stroke berulang. Di rumah sakit ataupun di klinik ada pasien yang mendapatkan terapi atorvastatin dan ada pula yang tidak. Penelitian ini bertujuan menganalisis efektivitas atorvastatin terhadap pasien stroke iskemik dengan menganaisis nilai kolestrol total, HDL, LDL, dan atorvastatin terhadap perbaikan klinis pasien dengan pengukuran nilai *gcs* dan *mRS*.Desain penelitian yang digunakan adalah observasional non eksperimen deskriptif-analitik. Pengambilan sampel dengan teknik *non-probability sampling* dengan cara *purposive sampling*.Jumlah sampel 30, terdiri dari kelompok atorvastatin (15 pasien) dan kelompok tanpa Atorvastatin (15 pasien). Kolestrol total, HDL, dan LDL, dan *mRS* diperiksa sebelum dan setelah terapi. Data kolestrol dianalisis secara deskriptif, dan nilai mRS dianalisis dengan menggunakan Uji *paried t Test*. Hasil penelitian menunjukkan terjadi penurunan nilai kolestrol total (25 %) dengan nilai rata-rata 194.80 dan setelah terapi 151.40, sedangkan untuk nilai HDL tidak terjadi peningkatan, sebelum terapi (31.00 setelah terapi menjadi 27.00 , dan untuk LDL tidak terjadi penurunan yang signifikan, sebelum terapi 113.80 mg/dl dan setelah terapi menjadi 93.20, sedangkan untuk perbaikan *nilai mRS*, memberikan hasil mRS yang meningkat secara signifikan dari kelompok atorvastatin (p=0.001) dibandingkan pasien yang tidak diterapi dengan atorvastatin (p=0.610). Dapat disimpulkan bahwa ada hubungan yang signifikan dari pemberian Atorvastatin terhadap perbaikan klinis pasien yang diukur dengan *mRS (modified rankin scale)*

Kata Kunci :
Stroke Iskemik, Atrovastatin, Kolesterol, *GCS*, *mRS*

Lampiran 7. Jurnal Nugroho et al (2017)

ISSN : 2460-9684 [VOLUME: 02 – NOMOR 03 – September 2017]

PERANAN OBAT GOLONGAN STATIN TERHADAP LUARAN STATUS FUNGSIONAL PASIEN STROKE ISKEMIK BERULANG DI RUMAH SAKIT BETHESDA YOGYAKARTA

Alexxander[1], Agung Endro Nugroho[1], Rizaldy Taslim Pinzon[2]
[1]Magister Farmasi Klinik, Fakultas Farmasi Universitas Gadjah Mada
[2]Fakultas Kedokteran Universitas Kristen Duta Wacana
Korespondensi: smartnaco81@gmail.com

ABSTRAK

Latar Belakang: Proporsi pasien yang menggunakan statin ketika pertama kali masuk rumah sakit dengan stroke iskemik berulang sangat meningkat dengan cepat. Tetapi masih menjadi kontroversi. Hal tersebut yang melatarbelakangi penelitian ini dilakukan untuk mengukur peranan terapi statin dengan luaran status fungsional pada pasien stroke iskemik berulang di rumah sakit Bethesda Yogyakarta.

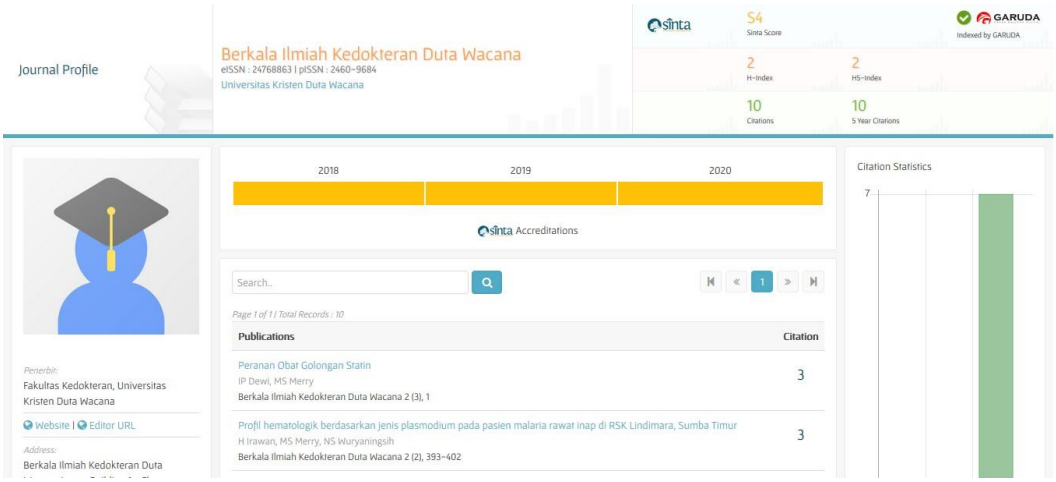
Tujuan: Penelitian ini bertujuan membuktikan apakah pemberian statin pada pasien stroke iskemik berulang mampu memberikan luaran status fungsional yang baik.

Metode Penelitian: *Retrospective cohort* menggunakan data-data rekam medis pasien. Sebagai sampel dipilih kelompok pasien stroke iskemik berulang, baik yang mendapat pengobatan dengan statin ataupun yang tidak mendapatkan pengobatan statin. Secara retrospektif, diamati pengaruh penggunaan statin terhadap luaran status fungsional pasien. Jumlah subyek untuk masing masing kelompok adalah 77 pasien. Luaran baik ditandai dengan nilai mRS 0-3, sedangkan luaran buruk ditandai dengan 4-6. Lokasi penelitian adalah di rumah sakit Bethesda Yogyakarta.

Hasil: Penggunaan statin pada pasien stroke iskemik berulang dapat memberikan luaran status fungsional yang baik di RS Bethesda Yogyakarta (p=0,022; RR=1,56; IK 95%=1,056–2,305). Selain itu penelitian ini juga memberikan luaran sekunder yaitu variabel usia, GCS, dan kelemahan otot gerak memiliki hubungan bermakna terhadap luaran status fungsional pasien stroke iskemik berulang. Faktor prediktor untuk mendapatkan luaran status fungsional yang baik pada penelitian ini adalah pasien tanpa penggunaan antibiotik, GCS 13-15, penggunaan anti koagulan, pasien tanpa analgetik antipiretik, dan pasien dengan penggunaan anti platelet.

Kesimpulan: Penggunaan statin pada pasien stroke iskemik berulang dapat memberikan luaran status fungsional yang baik di RS Bethesda Yogyakarta

Kata Kunci: statin, luaran status fungsional stroke iskemik, statin dan nilai mRS.



Lampiran 8. Jurnal Julius dkk (2011)

Artikel Penelitian

PENGARUH DOSIS STATIN TERHADAP KADAR LIPID PLASMA DAN *OUTCOME* FUNGSIONAL PADA PASIEN STROKE ISKEMIK

Studi pendahuluan

Franz Julius H, Yuneldi Anwar*, Darulkutni Nasution**

ABSTRACT

Introduction: *High level of cholesterol is the risk factor for ischemic stroke. Early treatment with statins may reduce plasma lipid level and, therefore improve outcomes of acute ischemic stroke.*

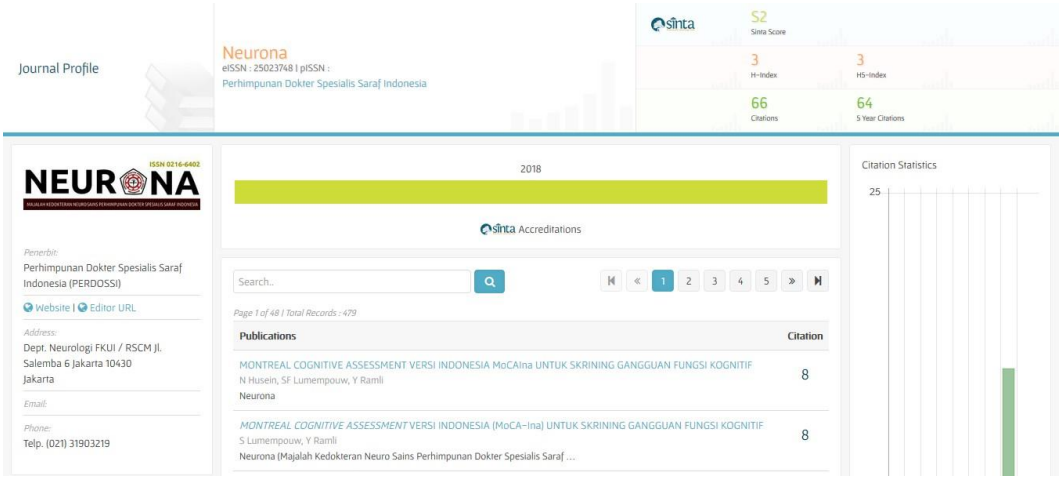
Aim: *This study was performed to determine the effects of dosage of statin on the level of plasma lipid and functional outcome in ischemic stroke.*

Methods: *Randomized, control-group, pretest-postest design was used in thi study. The subjects was divided by 3 groups, the first used Simvastatin 10mg(A), the second used 20mg, and the third used Atorvastatin calcium 20mg, which of 12 patients for each group. The average of plasma lipid was measured three times, the first was before treatment, then followed in day 14th and 28th after treatment. To determine the difference of plasma lipid, before and after treatment, Anova test (p<0,05) was used. Outcome was measured with NIHSS (≤5=mild;6-13=moderate;>13 severe) and mRS (1-2=good;3-6=poor), and changes of outcome was determined by using the Wilcoxon test.*

Results: *From 6 samples obtained for each group so far, Simvastatin 20mg reduced total cholesterol (p=0,01) and triglyceride level (p=0,0001), Atorvastatin calcium 20mg reduced the total cholesterol (p=0,001) and LDL level (p=0,007). Atorvastatin calcium 20mg improved outcome in NIHSS and mRS score was significant (p=0,046).*

Conclusion: *This preliminary study suggested that early treatment with atorvastatin calcium 20mg for stroke could reduce the plasma lipid level and improved functional outcome more significant than Simvastatin 10mg and 20mg.*

Keywords: *Dosage of statins, ischemic stroke, outcome, plasma lipid*



Lampiran 9. Jurnal Milionis et al (2019)

Research

International Journal of Stroke WSO

Statin-based therapy for primary and secondary prevention of ischemic stroke: A meta-analysis and critical overview

International Journal of Stroke
0(0) 1–8

DOI: 10.1177/1747493019873594
journals.sagepub.com/home/wso
SAGE

Haralampos Milionis[1,2], George Ntaios[2,3], Eleni Korompoki[2,4,5], Konstantinos Vemmos[2] and Patrik Michel[6]

Abstract

Background and aims: To reassess the effect of statin-based lipid-lowering therapy on ischemic stroke in primary and secondary prevention trials with regard to achieved levels of low-density lipoprotein-cholesterol in view of the availability of novel potent hypolipidemic agents.

Methods: English literature was searched (up to November 2018) for publications restricted to trials with a minimum enrolment of 1000 and 500 subjects for primary and secondary prevention, respectively, meeting the following criteria: adult population, randomized controlled design, and recorded outcome data on ischemic stroke events. Data were meta-analyzed and curve-estimation procedure was applied to estimate regression statistics and produce related plots.

Results: Four primary prevention trials and four secondary prevention trials fulfilled the eligibility criteria. Lipid-lowering therapy was associated with a lower risk of ischemic stroke in primary (risk ratio, RR 0.70, 95% confidence interval, CI, 0.60–0.82; $p < 0.001$) and in the secondary prevention setting (RR 0.80, 95% CI 0.70–0.90; $p < 0.001$). Curve-estimation procedure revealed a linear relationship between the absolute risk reduction of ischemic stroke and active treatment-achieved low-density lipoprotein-cholesterol levels in secondary prevention (adjusted R-square 0.90) in support of "the lower the better" hypothesis for stroke survivors. On the other hand, the cubic model followed the observed data well in primary prevention (adjusted R-square 0.98), indicating greater absolute risk reduction in high-risk cardiovascular disease-free individuals.

Conclusions: Statin-based lipid-lowering is effective both for primary and secondary prevention of ischemic stroke. Most benefit derives from targeting disease-free individuals at high cardiovascular risk, and by achieving low treatment targets for low-density lipoprotein-cholesterol in stroke survivors.

Keywords
Cholesterol, ischemic stroke, lipid lowering, meta-analysis, prevention, statin

Received: 18 May 2019; accepted: 6 June 2019

International Journal of Stroke

Country	United States - SIR Ranking of United States
Subject Area and Category	Neuroscience Neurology
Publisher	SAGE Publications Ltd
Publication type	Journals
ISSN	17474930, 17474949
Coverage	2006-2020
Scope	International Journal of Stroke is the only, truly international stroke journal. We focus on the clinical aspect of stroke with basic science contributions in areas of clinical interest. To facilitate the international nature of the journal, our Associate Editors from Europe, Asia, South America and North America coordinate segments of the journal. These segments are Reviews, Leading Opinions, Research, Panorama, Clinical Trial Protocols and Guidelines. International Journal of Stroke is fully peer-reviewed. · Leading opinions: publishing rapid and concise responses by world opinion leaders to recent developments in stroke worldwide. · Topical reviews: producing overviews of recent developments in stroke by leaders in their field. · Original contributions: publishing articles from clinical or basic science researchers which are relevant to professionals working in the field of stroke. · Panoramas: pieces focusing on the burden of disease and the structures in place to manage its ever-increasing reach. · Protocols: articles highlighting this important preliminary component of the clinical trial research process.

67

H Index

Lampiran 10. Jurnal Tramacere et al (2019)

Tramacere et al. BMC Medicine (2019) 17:67
https://doi.org/10.1186/s12916-019-1298-5

BMC Medicine

RESEARCH ARTICLE Open Access

Comparison of statins for secondary prevention in patients with ischemic stroke or transient ischemic attack: a systematic review and network meta-analysis

Irene Tramacere[1*], Giorgio B. Boncoraglio[2], Rita Banzi[3], Cinzia Del Giovane[4], Koren H. Kwag[5], Alessandro Squizzato[6] and Lorenzo Moja[7,8]

Abstract

Background: Statins may prevent recurrent ischemic events after ischemic stroke. Determining which statin to use remains controversial. We aimed to summarize the evidence for the use of statins in secondary prevention for patients with ischemic stroke by comparing benefits and harms of various statins.

Methods: We searched for randomized controlled trials (RCTs) assessing statins in patients with ischemic stroke or transient ischemic attack (TIA) in MEDLINE, EMBASE, and CENTRAL up to July 2017. Two authors extracted data and appraised risks of bias. We performed pairwise meta-analyses and trial sequential analyses (TSA) to compare statins versus placebo/no statin, and network meta-analyses using frequentist random-effects models to compare statins through indirect evidence. We used GRADE to rate the overall certainty of evidence. Primary outcomes were all-cause mortality and all strokes. Secondary outcomes were different types of strokes, cardiovascular events, and adverse events.

BMC Medicine

Country	United Kingdom - SIR Ranking of United Kingdom
Subject Area and Category	Medicine Medicine (miscellaneous)
Publisher	BioMed Central Ltd.
Publication type	Journals
ISSN	17417015
Coverage	2003-2020
Scope	BMC Medicine is the flagship medical journal of the BMC series. An open access, open peer-reviewed general medical journal, BMC Medicine publishes outstanding and influential research in all areas of clinical practice, translational medicine, medical and health advances, public health, global health, policy, and general topics of interest to the biomedical and sociomedical professional communities. We also publish stimulating debates and reviews as well as unique forum articles and concise tutorials.

123

H Index

Lampiran 11. Jurnal Choi et al (2019)

ORIGINAL RESEARCH

American Heart Association.

Effect of Statin Therapy on Outcomes of Patients With Acute Ischemic Stroke and Atrial Fibrillation

Kang-Ho Choi, MD, PhD; Woo-Keun Seo, MD, PhD; Man-Seok Park, MD, PhD; Joon-Tae Kim, MD, PhD; Jong-Won Chung, MD, PhD; Oh Young Bang, MD, PhD; Gyeong-Moon Kim, MD, PhD; Tae-Jin Song, MD, PhD; Bum Joon Kim, MD, PhD; Sung Hyuk Heo, MD, PhD; Jin-Man Jung, MD, PhD; Kyung-Mi Oh, MD, PhD; Chi Kyung Kim, MD, PhD; Sungwook Yu, MD, PhD; Kwang-Yeol Park, MD, PhD; Jeong-Min Kim, MD, PhD; Jong-Ho Park, MD, PhD; Jay Chol Choi, MD, PhD; Yang-Ha Hwang, MD, PhD; Yong-Jae Kim, MD, PhD

Background—There is insufficient evidence on the effect of statins, particularly high-intensity statins, in patients with acute ischemic stroke and atrial fibrillation. We investigated the impact of statins on the outcomes in these patients, including those who might be vulnerable to statin therapy and those without clinical atherosclerotic cardiovascular diseases.

Methods and Results—A total of 2153 patients with acute ischemic stroke and atrial fibrillation were enrolled in the present nationwide, multicenter, cohort study. The primary composite end point was the occurrence of net adverse clinical and cerebral events (NACCE; death from any cause, stroke, acute coronary syndrome, or major bleeding) over a 3-year period based on statin intensity. NACCE rates were lower in patients receiving low- to moderate-intensity (adjusted hazard ratio 0.64; 95% CI: 0.52-0.78) and high-intensity statins (hazard ratio 0.51; 95% CI 0.40-0.66) than in those not receiving statin therapy. High-intensity statins were associated with a lower risk for NACCE than low- to moderate-intensity statins (hazard ratio 0.76; 95% CI 0.59-0.96). Subgroup analyses showed that the differences in hazard ratio for 3-year NACCE favored statin use across all subgroups, including older patients, those with low cholesterol levels, patients receiving anticoagulants, and patients without clinical atherosclerotic cardiovascular diseases. Magnified benefits of high-intensity statins compared with low- to moderate-intensity statins were observed in patients who underwent revascularization therapy and those under 75 years of age.

Conclusions—Statins, particularly high-intensity statins, could reduce the risk for NACCE in patients with acute ischemic stroke and atrial fibrillation; this needs to be further explored in randomized controlled trials. (***J Am Heart Assoc.*** **2019;8:e013941. DOI: 10.1161/JAHA.119.013941.)**

Key Words: atrial fibrillation • ischemic stroke • NACCE • outcome • statin

Downl

Journal of the American Heart Association

Country	United Kingdom - SIR Ranking of United Kingdom
Subject Area and Category	Medicine Cardiology and Cardiovascular Medicine
Publisher	Wiley-Blackwell Publishing Ltd
Publication type	Journals
ISSN	20479980
Coverage	2012-2020
Scope	JAHA provides a global forum for basic and clinical research articles and timely reviews on cardiovascular disease and stroke. As an Open Access journal, its content is freely available, accelerating the translation of strong science into effective practice. JAHA considers all types of original research articles, including experiments conducted in human subjects and laboratory animals, as well as high-quality applied clinical, epidemiological, and health care policy papers related to cardiovascular and cerebrovascular diseases. Specific content areas of interest are as follows: arrhythmia and electrophysiology, cardiovascular nursing, cardiovascular surgery, congenital heart disease, coronary heart disease, epidemiology, exercise physiology, genetics and translational biology, health services and outcomes research, heart failure, hypertension, imaging, interventional cardiology, molecular cardiology, nutrition, pediatric cardiology, pericardial disease, peripheral vascular disease, preventive cardiology, renal disease, resuscitation science, stroke, transplantation, valvular heart disease, and vascular medicine.

72

H Index

Lampiran 12. Jurnal Flint et al (2016)

ORIGINAL RESEARCH

Impact of Increased Early Statin Administration on Ischemic Stroke Outcomes: A Multicenter Electronic Medical Record Intervention

Alexander C. Flint, MD, PhD; Carol Conell, PhD; Jeff G. Klingman, MD; Vivek A. Rao, MD; Sheila L. Chan, MD; Hooman Kamel, MD; Sean P. Cullen, MD; Bonnie S. Faigeles, NP, MPH; Steve Sidney, MD; S. Claiborne Johnston, MD, PhD

***Background*—**Statin administration early in ischemic stroke may influence outcomes. Our aim was to determine the clinical impact of increasing statin administration early in ischemic stroke hospitalization.

***Methods and Results*—**This is a retrospective analysis of a multicenter electronic medical record (EMR) intervention to increase early statin administration in ischemic stroke across all 20 hospitals of an integrated healthcare delivery system. A stroke EMR order set was modified from an "opt-in" to "opt-out" mode of statin ordering. Outcomes were mortality by 90 days, discharge disposition, and increase in stroke severity. We examined the relationship between intervention and outcome using autoregressive integrated moving average (ARIMA) time-series modeling. The EMR intervention increased both overall in-hospital statin administration (from 87.2% to 90.7%, $P<0.001$) and early statin administration (from 16.9% to 26.3%, $P<0.001$). ARIMA models showed a small increase in the rate of survival (difference in probability [P_{diff}]=0.02, $P=0.016$) and discharge to home or rehabilitation facility ($P_{diff}=0.04$, $P=0.034$) associated with the intervention. The increase in statin administration <8 hours was associated with much larger increases in survival ($P_{diff}=0.17$, $P=0.033$) and rate of discharge to home or rehabilitation ($P_{diff}=0.29$, $P=0.011$), as well as a decreased rate of neurological deterioration in-hospital ($P_{diff}=-0.14$, $P=0.026$).

***Conclusions*—**A simple EMR change increased early statin administration in ischemic stroke and was associated with improved clinical outcomes. This is, to our knowledge, the first EMR intervention study to show that a modification of an electronic order set resulted in improved clinical outcomes. **(*J Am Heart Assoc*. 2016;5:e003413 doi: 10.1161/JAHA.116.003413)**

Key Words: electronic medical record intervention • ischemic stroke • order sets • outcome • statin intervention

Journal of the American Heart Association

Country	United Kingdom - SIR Ranking of United Kingdom
Subject Area and Category	Medicine Cardiology and Cardiovascular Medicine
Publisher	Wiley-Blackwell Publishing Ltd
Publication type	Journals
ISSN	20479980
Coverage	2012-2020
Scope	JAHA provides a global forum for basic and clinical research articles and timely reviews on cardiovascular disease and stroke. As an Open Access journal, its content is freely available, accelerating the translation of strong science into effective practice. JAHA considers all types of original research articles, including experiments conducted in human subjects and laboratory animals, as well as high-quality applied clinical, epidemiological, and health care policy papers related to cardiovascular and cerebrovascular diseases. Specific content areas of interest are as follows: arrhythmia and electrophysiology, cardiovascular nursing, cardiovascular surgery, congenital heart disease, coronary heart disease, epidemiology, exercise physiology, genetics and translational biology, health services and outcomes research, heart failure, hypertension, imaging, interventional cardiology, molecular cardiology, nutrition, pediatric cardiology, pericardial disease, peripheral vascular disease, preventive cardiology, renal disease, resuscitation science, stroke, transplantation, valvular heart disease, and vascular medicine.

72

H Index

Lampiran 13. Jurnal Zhao et al (2014)

ORIGINAL ARTICLE

Early Outcome of Acute Ischemic Stroke in Hyperlipidemic Patients Under Atorvastatin Versus Simvastatin

Yair Lampl, MD, Mordechai Lorberboym, MD,† Ronit Gilad, MD,* Igor Vysberg, MD,* Adele Tikozky, MD,* Menachem Sadeh, MD,* and Mona Boaz, PhD‡*

Background: Studies designed to evaluate the efficacy of atorvastatin on stroke suggest that, in addition to cholesterol lowering, this drug may play a role in poststroke neuroprotection. The objective of this historical-prospective study was to analyze the efficacy of atorvastatin (40–80 mg) or simvastatin (at an optimal dose) during the first 2 weeks after stroke in hyperlipidemic patients treated with simvastatin before stroke onset.

Methods: Medical records of all adult (aged >18 years) patients diagnosed with acute stroke were reviewed. Subjects were categorized on the basis of poststroke treatment exposure: atorvastatin (40 or 80 mg) or simvastatin (at an optimal dose). Each patient was examined using the National Institutes of Health Stroke Scale (NIHSS) and the modified Rankin Scale (mRS). Blood lipid profile was determined. All tests were performed at baseline and at 4 weeks after stroke.

Results: A total of 371 patients (249 male and 122 female) were included. Subjects who received simvastatin were significantly older than those who received either dose of atorvastatin. Baseline differences in functional scores were not detected across treatment groups. Two weeks after stroke, subjects exposed to simvastatin had significantly poorer NIHSS and mRS scores than did subjects exposed to either atorvastatin dose. Atorvastatin 80 mg was associated with significantly better outcome compared with either of the other treatment groups. These differences persisted even after controlling for age and baseline scores.

tor 1, and directly act on metalloproteinases 2 and 9 in the core and boundary of the infarction. These effects were demonstrated after administration of recombinant human plasminogen activator in rat models after inducing embolic stroke, 4 hours after the event.[6] The evidence that atorvastatin protects against stroke by acting on the eNOS and the endogenous plasminogen activator was demonstrated also in the middle cerebral artery embolic ischemic mouse model, 14 days after treatment with atorvastatin. Treatment was associated with an increase in endogenous eNOS expression, but without involvement of plasminogen activator inhibitor 1. Similar findings were observed in the eNOS knockout mice model and were associated with reduction of infarcted tissue volume and better neurological outcome.[7] The effect of atorvastatin on local cerebral blood flow via nitric oxide production and reduction of asymmetric dimethylarginine was confirmed in stroke-prone spontaneously hypertensive rats (SHRPS) after treatment with 2 and 20 mg/kg for 11 weeks.[8] The effect of 40 mg atorvastatin on the cerebral blood flow was also shown in human study of patients after lacunar stroke.[9]

Targets of effect include the increase in interleukin 4 (IL-4), antagonizing the interferon γ effect and increase in microglial activity measured in hippocampal tissue of rats[10] and stabilization of the blood-brain barrier disruption in rats.[11] This effect is

Lampiran 14. Jurnal Lampl et al (2010)

Send Orders for Reprints to reprints@benthamscience.net

564 *Current Neuropharmacology*, 2014, *12*, 564-574

The Many Roles of Statins in Ischemic Stroke

Jingru Zhao[1,4], Xiangjian Zhang[1,2,3,*], Lipeng Dong[1], Ya Wen[1] and Lili Cui[1,2]

[1]Department of Neurology, Second Hospital of Hebei Medical University, Shijiazhuang, Hebei 050000, China; [2]Hebei collaborative innovation center for cerebro-vascular disease, Second Hospital of Hebei Medical University, Shijiazhuang, Hebei 050000, China; [3]Hebei Key Laboratory for Neurology, Shijiazhuang, Hebei 050000, China; [4]Department of Neurology, Hebei General Hospital, Shijiazhuang, Hebei 050051, China

Abstract: Stroke is the third leading cause of human death. Endothelial dysfunction, thrombogenesis, inflammatory and oxidative stress damage, and angiogenesis play an important role in cerebral ischemic pathogenesis and represent a target for prevention and treatment. Statins have been found to improve endothelial function, modulate thrombogenesis, attenuate inflammatory and oxidative stress damage, and facilitate angiogenesis far beyond lowering cholesterol levels. Statins have also been proved to significantly decrease cardiovascular risk and to improve clinical outcome. Could statins be the new candidate agent for the prevention and therapy in ischemic stroke? In recent years, a vast expansion in the understanding of the pathophysiology of ischemic stroke and the pleiotropic effects of statins has occurred and clinical trials involving statins for the prevention and treatment of ischemic stroke have begun. These facts force us to revisit ischemic stroke and consider new strategies for prevention and treatment. Here, we survey the important developments in the non-lipid dependent pleiotropic effects and clinical effects of statins in ischemic stroke.

Keywords: Clinical effects, endothelial dysfunction, inflammation, ischemic stroke, oxidative stress, statins, thrombogenesis.

Current Neuropharmacology

Country	United Arab Emirates - SIR Ranking of United Arab Emirates
Subject Area and Category	Medicine Medicine (miscellaneous) Neurology (clinical) Pharmacology (medical) Psychiatry and Mental Health Neuroscience Neurology Pharmacology, Toxicology and Pharmaceutics Pharmacology
Publisher	Bentham Science Publishers B.V.
Publication type	Journals
ISSN	18756190, 1570159X
Coverage	2004-2020
Scope	Current Neuropharmacology aims to provide current, comprehensive/mini reviews and guest edited issues of all areas of neuropharmacology and related matters of neuroscience. The reviews cover the fields of molecular, cellular, and systems/behavioural aspects of neuropharmacology and neuroscience. The journal serves as a comprehensive, multidisciplinary expert forum for neuropharmacologists and neuroscientists.

65

H Index

Lampiran 15. Jurnal Fang et al (2017)

Intern Emerg Med
DOI 10.1007/s11739-017-1650-8

CE- SYSTEMATIC REVIEW

The efficacy and safety of high-dose statins in acute phase of ischemic stroke and transient ischemic attack: a systematic review

Jing-xue Fang[1] · Er-qiang Wang[2] · Wei Wang[1] · Yang Liu[1] · Gang Cheng[3]

Received: 8 December 2016 / Accepted: 8 March 2017

Abstract Inconsistent findings in the studies have been observed concerning the higher dose of statins use in the acute phase of ischemic stroke and transient ischemic attack (TIA). Therefore, we performed a systematic review to assess this issue. A computerized literature search in PubMed, Cochrane Library databases, and EMBASE for randomized controlled trials (RCTs) was conducted. The efficacy outcome indicators were National Institutes of cerebrovascular events (OR 0.70, 95% CI 0.35–1.43, $P = 0.33$) (available in 2 studies), and all-cause death (OR 1.18, 95% CI 0.60–2.35, $P = 0.63$) (available in 2 studies) were found. High-dose statin therapy in the acute phase of ischemic stroke and TIA significantly reduce the NIHSS score and improve short-term functional outcome without increasing related adverse events.

Internal and Emergency Medicine

Country	Italy - SIR Ranking of Italy
Subject Area and Category	Medicine Emergency Medicine Internal Medicine
Publisher	Springer-Verlag Italia
Publication type	Journals
ISSN	18280447
Coverage	2006-2020
Scope	Internal and Emergency Medicine (IEM) is an independent, international, English-language, peer-reviewed journal designed for internists and emergency physicians. IEM publishes a variety of manuscript types including Original investigations, Review articles, Letters to the Editor, Editorials and Commentaries. Occasionally IEM accepts unsolicited Reviews, Commentaries or Editorials. The journal is divided into three sections, i.e., Internal Medicine, Emergency Medicine and Clinical Evidence and Health Technology Assessment, with three separate editorial boards. In the Internal Medicine section, invited Case records and Physical examinations, devoted to underlining the role of a clinical approach in selected clinical cases, are also published. The Emergency Medicine section will include a Morbidity and Mortality Report and an Airway Forum concerning the management of difficult airway problems. As far as Critical Care is becoming an integral part of Emergency Medicine, a new sub-section will report the literature that concerns the interface not only for the care of the critical patient in the Emergency Department, but also in the Intensive Care Unit. Finally, in the Clinical Evidence and Health Technology Assessment section brief discussions of topics of evidence-based medicine (Cochrane's corner) and

44

H Index

Lampiran 16. Biodata Riwayat Hidup

Muhammad Iman Rizqiawan, anak kedua dari dua bersaudara lahir di Banjarmasin, Kalimantan Selatan pada tanggal 26 April 1998 dari pasangan H. Dasair dan Hj. Rasidah yang bertempat tinggal di Jl. Mahligai Permai 3 No. 6 E RT. 28 Kecamatan Banjarmasin Timur Kota Banjarmasin Provinsi Kalimantan Selatan Indonesia. Alamat email imanrizqiawan26@gmail.com

Adapun riwayat pendidikan penulis yaitu :

1. Tamatan Sekolah Dasar Negeri Pemurus Dalam 3 Banjarmasin, pada tahun 2010.
2. Tamatan Sekolah Menengah Pertama Negeri 3 Banjarmasin, pada tahun 2013.
3. Tamatan Madrasah Aliyah Negeri 2 Model Banjarmasin, pada tahun 2016.
4. Terdaftar sebagai Mahasiswa Universitas Muhammadiyah Banjarmasin Program Studi S1 Farmasi Fakultas Farmasi pada tahun 2016.

Selama kuliah aktif di:

1. Anggota Bidang Pengabdian Masyarakat BEM Fakultas Farmasi pada tahum 2016-2017.
2. Ketua Divisi Media dan Publikasi HIMA FARMA KOSCHEVNIKOVI (HIMA S1 Farmasi) Fakultas Farmasi pada tahun 2017-2018.