

# Dr. dr. Bastian Lubis, M.Ked (An), SpAn-TI, Subsp.TI (K)

Dosen Program Studi Sp-1 Anestesiologi dan Terapi Intensif  
Fakultas Kedokteran  
Universitas Sumatera Utara

✉ [bastian.lubis@usu.ac.id](mailto:bastian.lubis@usu.ac.id)

🌐 [fk.usu.ac.id/id/dosen/bastian-lubis](http://fk.usu.ac.id/id/dosen/bastian-lubis)

## Publications

---

2024

Jurnal nasional terakreditasi

### **Perbandingan Prediktor Sulit Intubasi Indeks Risiko El-Ganzouri dengan Indeks Cormack Lehane Pada Pasien Operasi Elektif**

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

### **Relationship between Adjuvant Thiamine, Ascorbic Acid, and Combinations of These Drugs with Reducing the Incidence, Increasing MMP-9/TIMP-1 Ratio, and Decreasing Score Sofa inÂ ...**

RR. SINTA IRINA , BASTIAN LUBIS

2022

Jurnal internasional bereputasi

### **High Central Venous Pressure Associated with Mortality in Intensive Care Unit**

PUTRI AMELIA , BASTIAN LUBIS

2026

Jurnal internasional bereputasi

### **EARLY CONTINUOUS RENAL REPLACEMENT THERAPY IN PATIENTS WITH ST-ELEVATION MYOCARDIAL INFARCTION AND COVID-19 AFTER PERCUTANEOUS CORONARY INTERVENTION: A CASE REPORT**

BASTIAN LUBIS

2023

Jurnal internasional

### **The Effect of Giving Low Dosage Furosemide in Sepsis Patients with Acute Kidney Injury in Intensive Care Unit of H. Adam Malik General Hospital Medan**

BASTIAN LUBIS , TOMMY ARISANDY

2024

Jurnal nasional terakreditasi

### **Hubungan Nilai Platelet Lymphocyte Ratio, D-dimer, dan Fibrinogen Terhadap Tingkat Keparahan Pasien Sepsis**

BASTIAN LUBIS , Eka Setia Miharja , YUTU SOLOHAT

2018

Jurnal nasional terakreditasi

### **Emboli Paru**

BASTIAN LUBIS

2026

Jurnal internasional bereputasi

### **The Association between Mean Arterial Pressure, Central Venous Pressure,**

# Cerebral Perfusion Pressure, Lung Oxygenation, and Glasgow Coma Scale in Sepsis Patients in the Intensive Care Unit

BASTIAN LUBIS

2025

Jurnal nasional terakreditasi

## Hubungan Intra-abdominal Pressure Terhadap Gastric Residual Volume pada Pasien Sepsis

MIFTAH FURQON AULIA , ANDRIAMURI PRIMAPUTRA LUBIS , BASTIAN LUBIS

2023

Jurnal internasional bereputasi

## Correlation between Glasgow Coma Scale with central venous pressure and near-infrared spectroscopy in patients with acquired brain injury in the intensive care unit of Adam Malik Hospital Medan

DR. GALDY WAFIE , BASTIAN LUBIS

2023

Jurnal nasional

## A Case Series of Bleeding Complication Post Percutaneous Dilatational Tracheostomy and Management

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## The Association between Mean Arterial Pressure, Central Venous Pressure, Cerebral Perfusion Pressure, Lung Oxygenation, and Glasgow Coma Scale in Sepsis Patients in the Intensive Care Unit

BASTIAN LUBIS , PUTRI AMELIA

2021

Jurnal internasional bereputasi

## The association between daily fluid balance and mean perfusion pressure as a critical sign in the intensive care unit of adam malik central hospital, medan

PUTRI AMELIA , BASTIAN LUBIS

2021

Jurnal nasional

## Hubungan Neutrophil:Lymphocyte Ratio (NLR) Terhadap Mortalitas Pasien Sepsis di Unit Perawatan Intensif RSUP Haji Adam Malik Pada Tahun 2018

BASTIAN LUBIS

2024

Jurnal internasional bereputasi

## The Correlation between Mean Perfusion Pressure (MPP) and Renal Resistive Index (RRI) in Sepsis Patients in the Intensive Care Unit (ICU)

PUTRI AMELIA , BASTIAN LUBIS , RIZKY ADRIANSYAH

2023

Jurnal internasional bereputasi

## Mortality Rate of COVID-19 Patients in Intensive Care Unit: A Multicentre Retrospective Observational Study

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## Mortality Rate of COVID-19 Patients in Intensive Care Unit: A Multicentre Retrospective Observational Study

BASTIAN LUBIS

2023

Jurnal internasional bereputasi

## Correlation between Glasgow Coma Scale with central venous pressure and near-infrared spectroscopy in patients with acquired brain injury in the

## **intensive care unit of AdamÂ ...**

BASTIAN LUBIS , GALDY WAFIE

2021

Jurnal internasional

### **Description of Cerebral Oxygenation Measures after One Hour Bundle in the Treatment of Sepsis Patients in Adam Malik Haji General Hospital, Medan**

BASTIAN LUBIS , DR. ALPERT DAVISTA

2018

Jurnal internasional bereputasi

### **Incremental Innovation towards Business Performance: Data Management Challenges in Healthcare Industry in Indonesia**

BASTIAN LUBIS

2021

Jurnal internasional bereputasi

### **The Problematic Internet Use among Students: Prevalence of Internet Addiction towards Indonesian Hospital Management Information System Readiness**

BASTIAN LUBIS

2024

Jurnal nasional terakreditasi

### **Correlation between Mean Platelet Volume, Fibrinogen and D-dimer with NIHSS Score**

BASTIAN LUBIS , RR. SINTA IRINA , PUTRA FAJAR NASUTION

2021

Jurnal internasional bereputasi

### **The outcomes of transcatheter closure in patients with patent ductus arteriosus at Haji Adam Malik general hospital, Indonesia**

RIZKY ADRIANSYAH , PUTRI AMELIA , BASTIAN LUBIS

2026

Buku lainnya

### **Thiamin (B1) and Its Application in Patients with Critical Condition**

BASTIAN LUBIS

2021

Jurnal internasional

### **Analysis of Blood Culture Profile and Factors Related to Microbial Patterns and Antibiotic Resistance in Intensive Care Unit**

BASTIAN LUBIS , YUTU SOLIHAT , DR. APRIANDENY HAITHAMI

2023

Jurnal internasional bereputasi

### **Mortality Rate of COVID-19 Patients in Intensive Care Unit: A Multicentre Retrospective Observational Study**

HAIZAH NURDIN , BASTIAN LUBIS

2023

Jurnal internasional bereputasi

### **Relationship between Adjuvant Thiamine, Ascorbic Acid, and Combinations of These Drugs with Reducing the Incidence, Increasing MMP-9/TIMP-1 Ratio, and Decreasing Score Sofa in Mechanically Ventilated Patients with Severe Sepsis or Septic Shock**

AGUS PRIMA , BASTIAN LUBIS , RR. SINTA IRINA

2020

Artikel ilmiah

### **High Central Venous Pressure Associated with Mortality in ICU**

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## **Relationship between Adjuvant Thiamine, Ascorbic Acid, and Combinations of These Drugs with Reducing the Incidence, Increasing MMP-9/TIMP-1 Ratio, and Decreasing Score Sofa inÂ ...**

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## **The Association between Mean Arterial Pressure, Central Venous Pressure, Cerebral Perfusion Pressure, Lung Oxygenation, and Glasgow Coma Scale in Sepsis Patients in the Intensive Care Unit**

BASTIAN LUBIS , PUTRI AMELIA

2023

Jurnal nasional terakreditasi

## **Pengukuran Oksigenasi Otak dengan NIRS Dibandingkan S<sub>ijv</sub>O<sub>2</sub> pada Pasien dengan Penurunan Kesadaran di Instalasi Perawatan Intensif**

BASTIAN LUBIS

2022

Jurnal nasional terakreditasi

## **The Relationship of Renal Resistive Index and Central Venous Pressure As Predictors of Acute Kidney Injury in Critically III Patients of Intensive Care Unit Adam Malik GeneralÂ ...**

BASTIAN LUBIS

2025

Jurnal nasional terakreditasi

## **Hubungan Lama Rawat Inap dengan Lepas dari Ventilasi Mekanik pada Pasien dengan Percutaneous Dilatation Tracheostomy**

BASTIAN LUBIS

2024

Jurnal internasional bereputasi

## **Establishing clinical research networks for future infectious disease outbreak responses in Southeast Asia: Report of a workshop on challenges and opportunities**

INKE NADIA DINIYANTI LUBIS , BASTIAN LUBIS , HENDRI WIJAYA , PUTRI AMELIA , BINTANG YINKE MAGDALENA SINAGA

2022

Jurnal internasional bereputasi

## **Early short course of neuromuscular blocking agents in patients with COVID-19 ARDS: a propensity score analysis**

BASTIAN LUBIS

2021

Jurnal internasional bereputasi

## **Comparison of neutrophil gelatinase-associated lipocalin and renal resistive index as acute kidney injury predictor in critically ill patients at icu h. Adam malik hospital medan**

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## **Correlation of Matrix Metalloproteinase-9 and Tissue Inhibitor Matrix Metalloproteinase-1 on Lactate Concentration in Sepsis patients Admitted to Intensive Care Unit**

PUTRI AMELIA , BASTIAN LUBIS

2026

Jurnal internasional bereputasi

## **The effect of thiamine, ascorbic acid, and the combination of them on the levels of matrix metalloproteinase-9 (MMP-9) and tissue inhibitor of matrix metalloproteinase-1 (TIMP&#8230;**

BASTIAN LUBIS

2020  
Jurnal internasional bereputasi

## **The association between cyanotic and acyanotic congenital heart disease with nutritional status**

RIZKY ADRIANSYAH , BASTIAN LUBIS , PUTRI AMELIA

2022  
Jurnal nasional

## **Perioperative Nutritional Status of Digestive Surgery Laparotomy Surgery**

BASTIAN LUBIS

2022  
Jurnal nasional

## **Comparison of Pre-Loading Fluid With Norepinephrine Toward Mean Arterial Pressure (MAP) In Sepsis Patients In Intensive Care Unit (ICU) of Haji Adam Malik General Hospital, Medan**

BASTIAN LUBIS

2020  
Poster seminar internasional

## **CONTINUOUS RENAL REPLACEMENT THERAPY IN NEUROMUSCULAR DISORDERS: A FORGOTTEN APPROACH**

BASTIAN LUBIS

2021  
Jurnal nasional terakreditasi

## **Promotive and preventive programs about basic life support in Medan Barat district**

RIZKY ADRIANSYAH , ALI NAFIAH NASUTION , BASTIAN LUBIS , PUTRI AMELIA , MELATI SILVANNI NASUTION

2021  
Jurnal internasional bereputasi

## **The association between daily fluid balance and mean perfusion pressure as a critical sign in the intensive care unit of adam malik central hospital, medan**

BASTIAN LUBIS , PUTRI AMELIA

2023  
Jurnal internasional bereputasi

## **Correlation between Glasgow Coma Scale with central venous pressure and near-infrared spectroscopy in patients with acquired brain injury in the intensive care unit of Adam ...**

BASTIAN LUBIS

2020  
Jurnal nasional

## **Relationships of DVT (Deep Vein Thrombosis) Based on Ultrasound with 72 Hours ICU Patients Using Mechanical Ventilation at RSUP. Haji Adam Malik Medan**

BASTIAN LUBIS , AKHYAR HAMONANGAN NASUTION

2024  
Jurnal internasional bereputasi

## **Stroke in critically ill patients with respiratory failure due to COVID-19: Disparities between low-middle and high-income countries**

BASTIAN LUBIS

2023  
Jurnal internasional bereputasi

## **Selective Critically Ill Patients with Tracheostomy are Eligible for Direct from Intensive Care Unit Sent Home: Case Series**

BASTIAN LUBIS , MAYANG INDAH LESTARI

2018  
Jurnal nasional terakreditasi

## **Peran Angiografi Pada Emboli Paru**

BASTIAN LUBIS

---

2021  
Jurnal nasional

**A Promotive and Preventive Program for Febrile Seizures in Medan Barat District**

PUTRI AMELIA , BASTIAN LUBIS

---

2025  
Jurnal nasional

**Effect of Thiamine on Serum Glucagon and Reactive Oxygen Species (ROS) in Perioperative Stress Response**

PUTRI AMELIA , BASTIAN LUBIS

---

2024  
Jurnal nasional terakreditasi

**Perbandingan Efektifitas Bisoprolol 2, 5 mg dan Bisoprolol 5 mg dalam Mengontrol Denyut Jantung pada Pasien Sepsis di Ruang Rawat Intensif**

BASTIAN LUBIS , ANDRIAMURI PRIMAPUTRA LUBIS

---

2022  
Jurnal internasional bereputasi

**The Effect of Thiamine, Ascorbic Acid, and the Combination of Them on the Levels of Matrix Metalloproteinase-9 (MMP-9) and Tissue Inhibitor of Matrix Metalloproteinase-1 (TIMP-1) in Sepsis Patients**

PUTRI AMELIA , BASTIAN LUBIS

---

2023  
Jurnal nasional terakreditasi

**Gambaran Trakeostomi terhadap Length of Stay Pasien yang Dirawat di ICU RSUP Haji Adam Malik Medan Tahun 2021**

BASTIAN LUBIS

---

2024  
Poster seminar internasional

**Correlation between Glasgow Coma Scale with central venous pressure and near-infrared spectroscopy in patients with acquired brain injury in the intensive care unit of Adam Malik Hospital Medan**

BASTIAN LUBIS

---

2023  
Jurnal nasional terakreditasi

**Plasmapheresis in Myasthenia Gravis Crisis**

BASTIAN LUBIS

---

2024  
Buku lainnya

**Pengantar Sistem Kesehatan Pintar**

PUTRI AMELIA , BASTIAN LUBIS

---

2021  
Jurnal internasional bereputasi

**Combination Therapy of Vitamin C and Thiamine on Matrix Metalloproteinases-9 (Mmp-9) for Septic in ICU**

BASTIAN LUBIS

---

2022  
Jurnal internasional bereputasi

**The Association between Mean Arterial Pressure, Central Venous Pressure, Cerebral Perfusion Pressure, Lung Oxygenation, and Glasgow Coma Scale in Sepsis Patients in the Intensive Care Unit**

PUTRI AMELIA , BASTIAN LUBIS

---

2019  
Jurnal nasional terakreditasi

**Promotive and preventive programs of heavy infection knowledge in Medan Barat district**

2025

Jurnal internasional bereputasi

**Comparison of dexmedetomidine and midazolam in reducing agitation in the ICU patients using the Richmond Agitation Sedation Scale (RASS) and Bispectral Index (BIS)**

BASTIAN LUBIS

2022

Jurnal nasional terakreditasi

**The Relationship of Renal Resistive Index and Central Venous Pressure As Predictors of Acute Kidney Injury in Critically III Patients of Intensive Care Unit Adam Malik GeneralÂ ...**

BASTIAN LUBIS

2022

Jurnal internasional bereputasi

**Mortality Rate of COVID-19 Patients in Intensive Care Unit: A Multicentre Retrospective Observational Study**

BASTIAN LUBIS

2025

Jurnal internasional bereputasi

**Survival of Blalock-Taussig shunt surgery in children with congenital heart disease in the postoperative cardiac ICU of a national referral hospital in Jakarta**

PUTRI AMELIA , BASTIAN LUBIS

2026

Jurnal nasional

**THE ROLE OF DIGITAL SUBTRACTION ANGIOGRAPHY IN MASSIVE PULMONARY EMBOLISM**

BASTIAN LUBIS

2023

Jurnal internasional bereputasi

**Understanding NT-proBNP as One of Useful Marker for Cerebral Perfusion and Venous Congestion in Intensive Care Unit**

BASTIAN LUBIS , Adityo Prabowo , Azwar Iwan Tona , Agus Prima

2025

Jurnal nasional terakreditasi

**Perbandingan Efektivitas Pemberian Antibiotik Empiris Ceftriaxone dan Levofloxacin pada Pasien Sepsis dengan Community Acquired Pneumonia (CAP) di RSUP H. Adam Malik Medan Tahun 2020-2022**

BASTIAN LUBIS

2024

Jurnal nasional terakreditasi

**Perbandingan Efektifitas Teknik Jugular Interna dan Supraklavikula pada Pemasangan Kateter Vena Sentral dengan Panduan USG di RSUP H. Adam Malik Medan**

BASTIAN LUBIS , RR. SINTA IRINA

2024

Poster seminar internasional

**COMPARISON OF THE EFFECTIVENESS OF THE INTERNAL JUGULAR AND SUPRACLAVICULAR APPROACH IN CENTRAL VENOUS CATHETER INSERTION WITH USG GUIDANCE AT H. ADAM MALIK HOSPITAL MEDAN**

BASTIAN LUBIS

2022

Jurnal nasional

**Early Continuous Renal Replacement Therapy In Patients With St-Elevation**

# Myocardial Infarction And Covid-19 After Percutaneous Coronary Intervention: A Case Report

BASTIAN LUBIS , PUTRI AMELIA

2024

Jurnal nasional terakreditasi

## Perbandingan Ekokardiografi Transtorakal dan Ultrasonic Cardiac Output Monitor dalam Menilai Respon Terapi Cairan pada Pasien Sepsis

BASTIAN LUBIS

2021

Jurnal internasional bereputasi

## The outcomes of transcatheter closure in patients with patent ductus arteriosus at Haji Adam Malik general hospital, Indonesia

RIZKY ADRIANSYAH , PUTRI AMELIA , BASTIAN LUBIS

2022

Jurnal internasional bereputasi

## The Effect of Thiamine, Ascorbic Acid, and the Combination of Them on the Levels of Matrix Metalloproteinase-9 (MMP-9) and Tissue Inhibitor of Matrix Metalloproteinase-1 (TIMP-1) in Sepsis Patients

PUTRI AMELIA , BASTIAN LUBIS , AZNAN LELO

2026

Jurnal internasional bereputasi

## CORRELATION BETWEEN SERUM MAGNESIUM LEVELS AND NATIONAL EARLY WARNING SCORE (NEWS) IN SEPSIS PATIENTS ADMITTED TO THE INTENSIVE CARE UNIT

BASTIAN LUBIS

2026

Jurnal nasional terakreditasi

## Correlation Between Platelet Distribution Width and Mean Platelet Volume with Hematocrit in Dengue Hemorrhagic Fever Patients at Prof. Dr. Chairuddin Panusunan Lubis Hospital Universitas Sumatera Utara

ALMAYCANO GINTING , AIDA FITRI , BASTIAN LUBIS , DEWI FORTUNA CHAIRIYA

2021

Jurnal nasional terakreditasi

## Hubungan Neutrophil-Lymphocyte Ratio (NLR) Terhadap Mortalitas Pasien Sepsis di Unit Perawatan Intensif RSUP Haji Adam Malik Pada Tahun 2018

BASTIAN LUBIS , PUTRI AMELIA

2019

Jurnal nasional

## Deteksi Dini Gejala Emboli Paru di ICU

BASTIAN LUBIS , AKHYAR HAMONANGAN NASUTION

2023

Jurnal internasional bereputasi

## Correlation Between Anemia (Hemoglobin Level) and Cardiomegaly Based On Chest Radiograph and Echocardiography

RIZKY ADRIANSYAH , PUTRI AMELIA , BASTIAN LUBIS

2022

Jurnal nasional

## Comparison of Pre-Loading Fluid With Norepinephrine Toward Mean Arterial Pressure (MAP) In Sepsis Patients In Intensive Care Unit (ICU) of Haji Adam Malik General Hospital, Medan

BASTIAN LUBIS , RENDI SIDIQ

2023

Jurnal internasional bereputasi

## Relationship between Adjuvant Thiamine, Ascorbic Acid, and Combinations of These Drugs with Reducing the Incidence, Increasing MMP-9/TIMP-1 Ratio,

# and Decreasing Score Sofa in Mechanically Ventilated Patients with Severe Sepsis or Septic Shock

RR. SINTA IRINA , BASTIAN LUBIS

2023

Jurnal internasional bereputasi

**Correction: Epidemiology and outcomes of early-onset AKI in COVID-19-related ARDS in comparison with non-COVID-19-related ARDS: insights from two prospective global cohort studies (Critical Care, (2023), 27, 1, (3), 10.1186/s13054-022-04294-5)**

BASTIAN LUBIS

2025

Jurnal internasional bereputasi

**Survival of Blalock-Taussig shunt surgery in children with congenital heart disease in the postoperative cardiac ICU of a national referral hospital in Jakarta**

PUTRI AMELIA , BASTIAN LUBIS

## Researches

2022

**HUBUNGAN MEAN PERFUSION PRESSURE (MPP) DENGAN RENAL RESISTIVE INDEX (RRI) PADA PASIEN SEPSIS DI INTENSIVE CARE UNIT (ICU)**

RIZKY ADRIANSYAH , BASTIAN LUBIS , PUTRI AMELIA

2023

Ipteks

**A Case Series of Bleeding Complication Post Percutaneous Dilatational Tracheostomy and Management**

BASTIAN LUBIS , MUHAMMAD HUSNI THAMRIN

2025

**ANALISIS KETERLAMBATAN DIAGNOSIS PENYAKIT JANTUNG BAWAAN DI DAERAH URBAN DAN RURAL: STUDI KOMPARATIF DI SUMATERA UTARA**

WINRA PRATITA , BASTIAN LUBIS , PUTRI AMELIA

2022

**HUBUNGAN ANEMIA (KADAR HEMOGLOBIN) DENGAN PEMBESARAN JANTUNG BERDASARKAN FOTO THORAX DAN EKO KARDIOGRAFI**

RIZKY ADRIANSYAH , BASTIAN LUBIS , PUTRI AMELIA

2024

Penelitian Fundamental

**INSIDENSI SEPSIS PADA PASIEN DEWASA DENGAN BAKTEREMIA DAN KETERKAITANNYA DENGAN PERUBAHAN NILAI BIOMARKER INFEKSI DAN INFLAMASI**

BASTIAN LUBIS , RINA YUNITA

2024

Kerjasama Luar Negeri dan Publikasi Internasional

**Aetiology agents of community acquired pneumonia in South-East Asia**

RINI SAVITRI DAULAY , BINTANG YINKE MAGDALENA SINAGA , RANTI PERMATASARI , BASTIAN LUBIS , ANANDA WIBAWANTA GINTING , HERWINDO AHMAD

2024

Biomedik

**INSIDENSI SEPSIS PADA PASIEN DEWASA DENGAN BAKTEREMIA DAN KETERKAITANNYA DENGAN PERUBAHAN NILAI BIOMARKER INFEKSI DAN INFLAMASI**

BASTIAN LUBIS , EVITA MAYASARI , RINA YUNITA

2024

Kerjasama Luar Negeri dan Publikasi Internasional

## **Agen Penyebab Community Acquired Pneumonia di Asia Tenggara**

BINTANG YINKE MAGDALENA SINAGA , RANTI PERMATASARI , INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI , BASTIAN LUBIS , ANANDA WIBAWANTA GINTING , HERWINDO AHMAD , FAJRINUR SYARANI , Yeo Tsin Wen

---

## **Community Services**

2025

### **PERTEMUAN ORANG TUA/WALI MAHASISWA BARU PESERTA PROGRAM PENDIDIKAN PROFESI DOKTER (P3D) DENGAN KOORDINATOR PROGRAM PENDIDIKAN PROFESI DOKTER (P3D) FAKULTAS KEDOKTERAN UNIVERSITAS SUMATERA UTARA (FK USU)**

BASTIAN LUBIS , PUTRI AMELIA

2019

Penelitian Dosen Pemula

### **Program promotif dan preventif tingkat pengetahuan infeksi berat di Kecamatan Medan Barat**

BASTIAN LUBIS , PUTRI AMELIA

2023

### **PEMBERDAYAAN TIM PENGGERAK PKK DALAM DETEKSI DINI DAN PENCEGAHAN PENYAKIT JANTUNG BAWAAN DI KOTA PEMATANG SIANTAR**

BASTIAN LUBIS , PUTRI AMELIA

2024

### **SEMINAR PRA-INTERNSHIP PESERTA P3D FK USU**

BASTIAN LUBIS , NAOMI NIARI DALIMUNTHE , PUTRI AMELIA

2024

### **PERTEMUAN ORANG TUA/ WALI MAHASISWA BARU PESERTA P3D DENGAN KOORDINATOR P3D FK USU**

FATHIA MEIRINA , BASTIAN LUBIS , PUTRI AMELIA

2024

### **SEMINAR Prakepaniteraan Klinik Peserta Pendidikan Profesi Dokter (P3D) Fakultas Kedokteran Universitas Sumatera Utara**

FATHIA MEIRINA , BASTIAN LUBIS , PUTRI AMELIA

---

## **Intellectual Property Rights**

2025

Hak cipta nasional

### **PENGARUH PEMBERIAN TIAMIN, ASAM ASKORBAT, DAN KOMBINASI KEDUANYA TERHADAP KADAR MATRIX METALLOPROTEINASE (MMP-9) DAN TISSUE INHIBITOR OF MATRIX METALLOPROTEINASE (TIMP-1) PADA PASIEN SEPSIS**

BASTIAN LUBIS

2025

Hak cipta nasional

### **Tiamin, Asam Askrobat : Telaah Mekanisme Intraseluler**

PUTRI AMELIA , BASTIAN LUBIS

2025

Hak cipta nasional

### **Pengantar Sistem Kesehatan Pintar**

BASTIAN LUBIS , PUTRI AMELIA

