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*dr. Muhammad Isman Jusuf, Sp.S*

has successfully participated in :

*Participant in Oral Presentation*

INTERNATIONAL CONFERENCE ON CARDIOVASCULAR DISEASES

INTEGRATIVE APPROACH FROM BASIC, CLINICAL SCIENCE, PUBLIC HEALTH AND BIOETHICS (CVD-IA)

FACULTY OF MEDICINE, ISLAMIC UNIVERSITY OF INDONESIA

YOGYAKARTA, MAY 14-17, 2016

Dean,  
Faculty of Medicine, Islamic University of Indonesia

dr. Linda Rosita M.Kes, Sp.PK

Conference Chair,

dr. Putrya Hawa, M.Biomed



# **BOOK OF ABSTRACTS**

International Conference  
**CARDIOVASCULAR DISEASES**

# **CVD-IA**

Integrated Approach From Basic,  
Clinical Science, Public Health and Bioethics

**Yogyakarta, May 14-17, 2016**

Abdul Kahar Muzakkir, Conference Hall  
Universitas Islam Indonesia, Yogyakarta  
UII Main Campus, Jl. Kaliurang KM 14.5 Sleman Yogyakarta



## **ABSTRACT OF ORAL PRESENTATION**

**O-001**

**Fajar Wahyu Pribadi, Iwan Dwiprahasto, Jarir At Thobari.**

**COST ANALYSIS INPATIENT DAYS A YEAR OF COMBINATION DIURETIC THERAPY WITH ACE-INHIBITORS TO DIURETIC THERAPY WITHOUT ACE-INHIBITORS IN HEART FAILURE PATIENTS ASKES PARTICIPANTS**

**O-002**

**Vitarani Dwi Ananda Ningrum, Zullies Ikawati, Ari Wibowo, Defrinda A. Saputri, Dynny Prasinta, Ahmad H.Sadewa, M.Robikhul Ikhsan.**

**STEADY STATE PLASMA LEVEL OF METFORMIN IN THERAPEUTIC DRUG MONITORING APPLICATION AND ITS CORRELATION WITH GLYCEMIC CONTROL IN DIABETIC PATIENTS**

**O-003**

**Retno Wahyuningrum, Djoko Wahyono, Mustofa, Yayi Suryo Prabandari.**

**MEDICATION-RELATED PROBLEMS IN PATIENTS WITH TYPE 2 DIABETES: A QUALITATIVE INTERVIEWS**

**O-004**

**Ndaru Setyaningrum, Rina Agustina, Okti Ratna Mafruhah, Yosi Febrianti**

**THE SUITABILITY OF ORAL ANTI-DIABETIC PATIENTS WITH CHRONIC KIDNEY DISEASE COMPLICATIONS IN PKU MUHAMMADIYAH HOSPITAL YOGYAKARTA**

**O-005**

**Mutiara Herawati, Yosi Febrianti, Poppy Pratiwi.**

**THE EFFECTIVENESS OF ANTIBIOTICS THERAPY IN PATIENTS WITH DIABETIC ULCER AT GENERAL HOSPITAL CENTER DR. SARDJITO YOGYAKARTA**

**O-006**

**Bohari Bohari, Saifuddin Sirajuddin, Masni Masni, Nikmah Utami Dewi**

**SIMULATION OF PREVENTION TYPE 2 DIABETES MELLITUS WITH FRUIT AND VEGETABLE CONSUMPTIONS USING DYNAMIC MODEL APPROACH IN SOUTH SULAWESI, INDONESIA**

O-007

**Aninditya Verinda Putrinadia, Taqwatin Ma'rifah, Zaka Jauhar Firdaus, Prathita Nityasewaka, Dono Indarto**

IDENTIFYING ACTINODAPHNINE AS A POTENTIAL DIPEPTIDYL PEPTIDASE 4 INHIBITOR FOR TYPE 2 DIABETES MELLITUS AND CARDIOVASCULAR DISEASE TREATMENT USING MOLECULAR DOCKING METHOD

O-008

**Yoga Mulia Pratama.**

INHIBITION EFFECT OF VARIOUS POSITIVE AND NEGATIVE INOTROPIC DRUGS ON PHOSPHODIESTERASE 3 USING IN SILICO STUDY

O-009

**Hanifullah Khan.**

IS PCOS A CARDIOMETABOLIC RISK FACTOR IN MALAY WOMEN?

O-010

**Titiek Hidayati, M. Irham Fanani, Irawati Hidayah, Hanif Febrian Akbar, Faris Bariqi and Ira Safira.**

PRELIMINARY STUDY: (ALERT) BASIC LIFE SUPPORT GROUP ESTABLISHMENT OF POLICE FOR OUT OF HOSPITAL CARDIAC ARREST TREATMENT IN YOGYAKARTA

O-011

**Aqsa Anam, Nadeem Afzal, Muhammad Kashif, Faheem Shahzad.**

SERUM LEVEL OF ANTI-ENDOTHELIAL, ANTI-CARDIOLIPIN AND ANTI-GLOMERULAR BASEMENT MEMBRANE ANTIBODIES IN PATIENTS OF RHEUMATIC HEART DISEASE

O-012

**Mahmoud Hassebo.**

CORRELATION BETWEEN P WAVE DISPERSION, QRS DURATION & QT DISPERSION IN HOSPITAL EVENTS IN ACUTE CORONARY SYNDROME

O-013

**Sari Rakhmawati, Valensa Yosephi, Shofa Chasani and Santoso.**

THE RELATIONSHIP BETWEEN THE DEGREE OF HYPERTENSION AND TARGET ORGANS COMPLICATION IN ELDERLY POPULATION

O-014

**Eka Prasasti Nur Rachmani, Suwijiyo Pramono, Agung Endro Nugroho.**

TOTAL FLAVONOID CONTENT OF EXTRACT AND ITS FRACTIONS FROM *ANDROGRAPHIS PANICULATA* LEAVES



O-015

**Nuridin Rahman, Baharuddin Hamzah, Eska Perdanawati.**

ANALYSIS OF BIOACTIVE SUBSTANCES IN AVOCADO (*PERSEA AMERICANA* MILL.) LEAF EXTRACT AND PRECLINICAL TESTING IN LOWERING BLOOD GLUCOSE LEVEL IN MICE (*MUS MUSCULUS*)

O-016

**Ety S. Handayani, Zainuri S. N, Titis N, Kuswati, Dwi N.A, Ajeng G.N, Faisal Ridho.**  
ETHANOL EXTRACT OF BLACK SUGARCANE REDUCE RAT BRAIN ISCHEMIA

O-017

**Azhari Gani, Rosjta Juwita Sembiring, Taufik Indrajaya, Hasri Hasan, Aznan Lelo, M. Yamin, rer. nat. Effendy de lux Putra, Harun Al rasyid Damanik.**  
THE RELATIONSHIP BETWEEN CAFFEINE LEVEL AND TNF- $\alpha$  CYTOKINES ON CORONARY HEART DISEASE PATIENT OF ACEH TRIBES

O-018

**Ana Fauziyati, Agus Siswanto, Hemi Sinorita.**

TYPE OF PSYCHOSOCIAL STRESSOR AS RISK FACTOR OF DEPRESSIVE SYMPTOM IN METABOLIC SYNDROME

O-019

**Mirnawati Mappiare, Muzakkir Amir.**

THE IMPACT OF CYTOCHROME P450 2C19 POLYMORPHISM ON CARDIOVASCULAR EVENTS IN INDONESIAN PATIENTS WITH CORONARY ARTERY DISEASE

O-020

**Muhammad Isman Jusuf, Mohammad Hasan Machfoed, Soedjadjadi Keman.**

INFARCTION STROKE RISK PREDICTION MODEL FOR INDONESIAN POPULATION: A CASE-CONTROL STUDY

O-021

**Fransiska Theresia Meivy Babang, Debora Sharon Rory, Radha Govinda Padma, Rizaldy Taslim Pinzon, Esdras Ardi Pramudita.**

PREDICTIVE FACTORS OF MORTALITY IN PATIENTS WITH ISCHEMIC STROKE IN BETHESDA HOSPITAL YOGYAKARTA

O-022

**Saleh Muhammed Raqib, Mahmudul Hassan.**

A JUSTICE PROSPECTIVE OF CARDIOVASCULAR DISEASES IN BANGLADESH

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O-023

**Achmad Zaldy Burham Rahadi.**

**FATWA IMPACT CIGARETTES FOR HEALTH LEVEL CARDIOVASCULAR SYSTEM IN  
MADIUN REGENCY SOCIETY**

O-024

**Fathimah.**

**RELATIONSHIP OF MAGNESIUM INTAKE AND SERUM MAGNESIUM LEVELS WITH  
PREDIABETES IGT**



## INFARCTION STROKE RISK PREDICTION MODEL FOR INDONESIAN POPULATION: A CASE- CONTROL STUDY

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### Background:

Stroke is the main cause of death and disabilities in Indonesia and the world. Various prediction model for stroke have been developed. This study attempts to develop a model used to predict infarction stroke in Indonesia.

### Objective:

This study aims to develop a model to predict infarction stroke risks.

### Method:

This study is an observational research applying case-control research design. The number of samples used in this study were 310 individuals, consisting of 155 members of case group and 155 members of control groups. The writers used discriminant analysis to conduct statistical analysis on the data.

### Results:

Valid and reliable risk factors of stroke used to develop prediction model for infarction stroke in this study are systolic blood pressure, diastolic blood pressure, triglyceride levels, stroke history, hypertension history, dyslipidemia history, vegetable consumption, sleep duration, snoring, exercises, and emotional stresses.

### Conclusion:

This study comes up with a prediction model for infarction stroke risks. The prediction model is expressed by following formula: Infarction stroke risk =  $0.929 \times \text{Systolic Blood Pressure} + 0.886 \times \text{Diastolic Blood Pressure} + 0.160 \times \text{Triglyceride Levels} + 0.850 \times \text{Hypertension History} + 0.332 \times \text{Stroke History} + 0.084 \times \text{Dyslipidemia History} + 0.124 \times \text{Vegetable Consumption} + 0.245 \times \text{Emotional Stresses} + 0.346 \times \text{Snoring Habit} - 0.193 \times \text{Exercise Habit} - 0.190 \times \text{Sleep Duration}$

**Keywords:** Infarction Stroke, Prediction Model, Index, Risk Factors