

 CONFERENCE BOOKLET



MALAYSIAN SOCIETY OF HYPERTENSION

20TH ANNUAL SCIENTIFIC CONGRESS 2025

**Hypertension
Unveiled:**
Safeguarding
Target Organs and
Metabolic Health
in a New Era of Care



2 – 4 May 2025
Friday – Sunday



Shangri-La Hotel
Kuala Lumpur

[CONGRESS2025.MSH.MY](https://congress2025.msh.my)



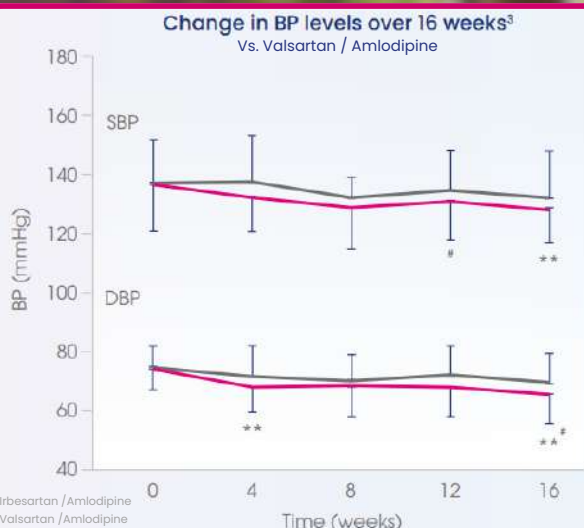
KIDNEY APPROVED BP CONTROL

Elevate hypertension management with renal care

"If my BP's high, I'll feel it!"

Not true ! High BP is often symptomless, earning it the nickname "silent killer". **Nearly 50% of those high BP don't know** it's quietly damaging their heart, blood vessels and kidneys⁴

Aprovasc® fixed-dose combination offers greater BP reduction vs monotherapy¹⁻³



In patients who reached target BP at 8 weeks, **SBP and DBP were significantly lower at the 12th and 16th weeks of Irbesartan/Amlodipine treatment, respectively, compared to Valsartan/ Amlodipine group.**³

What does Aprovasc® offer ?

- Powerful and complete 24h BP control⁵⁻⁶
- Offers greater BP reduction than irbesartan or amlodipine monotherapy, help patients reach BP target⁵⁻⁶
- Exhibits reno-protective effects⁸
- Counteracts CCB-associated peripheral edema⁵
- Recommended for patients not adequately controlled on irbesartan or amlodipine monotherapy⁷



Scan here for more information about **Aprovasc®**.



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For Healthcare Professionals Only

References

1. Bobrie G; I-COMBINE Study Investigators. I-COMBINE Study: Assessment of efficacy and safety profile of irbesartan/Amlodipine fixed-dose combination therapy compared with Amlodipine monotherapy in hypertensive patients uncontrolled with Amlodipine 5 mg monotherapy: A multicenter, phase III, prospective, randomized, open label with blinded-end point evaluation study. Clin Ther. 2012;34:1705-1719.
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8. Kobayashi R, et al. Effect of single-pill irbesartan/Amlodipine combination-based therapy on clinic and home blood pressure profiles in hypertension with chronic kidney diseases. Clin Exp Hypertens. 2016;38(8):744-750

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01



Welcoming Notes

MSH President and Organizing Chairperson's Message



Dear Colleagues and Esteemed Guests,

It is with great pleasure and enthusiasm that I welcome you to the Malaysian Society of Hypertension 20th Annual Scientific Congress, held from 2nd to 4th of May 2025. This year's theme, "Hypertension Unveiled: Safeguarding Target Organs and Metabolic Health in a New Era of Care," highlights our commitment to addressing the multifaceted nature of hypertension management and its impact on overall health.

As we celebrate our 20th congress milestone, we reflect on the progress made in hypertension care while looking forward to the future of comprehensive organ protection and metabolic health management. This congress brings together experts from various disciplines to explore innovative strategies for improving hypertension outcomes and preventing target organ damage.

The scientific program features distinguished speakers who will share the latest advancements in hypertension research, clinical practice, and technological innovations. I encourage all participants to actively engage in discussions, workshops, and networking opportunities throughout the congress.

I extend my sincere gratitude to the organizing committee, speakers, sponsors, and each one of you for your dedication to improving cardiovascular health in Malaysia and beyond.

Lastly, I invite you to join the society as a member and become part of our growing family committed to combating cardiovascular disease.

Thank you for your participation, and I wish you a productive and enlightening congress.

A stylized, handwritten signature in black ink, consisting of a series of loops and a long, sweeping stroke.

DATO' SRI DR. AZHARI BIN ROSMAN

Organizing Chairperson,
20th Annual Scientific Congress
Malaysian Society of Hypertension

Scientific Chairperson's Message



On behalf of the Malaysian Society of Hypertension (MSH), it is my great pleasure to welcome all delegates, distinguished speakers, and esteemed guests to the MSH Annual Scientific Meeting 2025.

This year, we are honored to host a truly global gathering, with renowned international experts joining us to share the latest advancements in hypertension management. From emerging technologies to the newest clinical guidelines, this meeting promises to be an exceptional opportunity for learning, collaboration, and innovation.

As hypertension remains a leading cause of morbidity and mortality worldwide, it is imperative that we continue to advance our understanding and refine our approach to its prevention and treatment. The insights and discussions over these next few days will no doubt inspire us all to elevate our clinical practice and improve patient outcomes.

We encourage you to engage actively in the sessions, exchange ideas, and build connections that will extend beyond this meeting. Together, let us chart the future of hypertension care for the benefit of our patients and communities.

Thank you for being part of this important event. We look forward to a fruitful and memorable meeting.

A handwritten signature in black ink that reads "Iskandar". The script is fluid and cursive.

DR ISKANDAR MIRZA

Scientific Chairperson,
20th Annual Scientific Congress
Malaysian Society of Hypertension

Scientific Co-Chairperson's Message



It is my great honour and pleasure to welcome all of you to the 20th Annual Scientific Congress by Malaysian Society of Hypertension. As the Co-Scientific Chair, I am truly proud to be part of a dedicated team that has worked seamlessly with the other organising committees in curating this scientific programme.

Our journey in developing the programme was a meticulous with multiple rounds of detailed discussions, careful evaluations, and collaborative plannings. We strived to ensure that every session and topic reflects the latest evidence-based updates, which also in line with the European Society of Cardiology (ESC), the European Society of Hypertension (ESH), and our very own Malaysian Clinical Practice Guidelines and many more.

As a family medicine specialist and hypertension specialist, I understand deeply the role we play as frontliners in detecting, diagnosing, and managing hypertension among our population. With a large proportion of our patients living with hypertension, it is vital that we stay updated and well-equipped with current knowledge and clinical skills.

We hope that through this congress, all participants—whether clinicians, researchers, or trainees—will benefit from the rich sharing of knowledge and experiences. Let this be a platform not only for learning but also for networking and collaboration.

I would also like to encourage everyone to continue producing high-quality research and abstracts in the field of hypertension. Together, we can push the boundaries of knowledge and improve outcomes for our patients.

Once again, welcome to the congress. We look forward to having your support not just this year, but for many years to come. May this congress be a fruitful and enriching experience for all.

Thank you.

A handwritten signature in black ink, appearing to read 'B212' with a stylized flourish underneath.

DR. BEH HOOI CHIN

Co-Scientific Chairperson,
20th Annual Scientific Congress
Malaysian Society of Hypertension



02



About Malaysian Society of Hypertension



Malaysia Society of Hypertension (MSH) was officially registered in 1993 and serves as a professional organization dedicated to addressing the issue of hypertension in Malaysia. Hypertension, commonly referred to as high blood pressure, is a widespread health concern with serious complications. The primary objective of MSH is to promote public education on hypertension, increase awareness and understanding among the general population, and enhance its management.

01

PROMOTE

Promote public education on hypertension, raising awareness and knowledge about the condition among the general population in Malaysia

02

HELP

Help healthcare professionals and individuals in achieving optimal hypertension control through education, guidance, and promoting best practices.

03

ENCOURAGING

Encouraging research and publication towards better care in the management of hypertension.

Objective of Society



PROMOTE

Promote basic and clinical studies and educate doctors and para-medical staffs regarding hypertension and to propagate knowledge on hypertension.



EDUCATION

Educate the public and to be of service to all hypertensives in Malaysia and others interested in hypertension and to advise hypertension patients to remain active and to lead a normal and useful life.



COST-EFFECTIVE

Promoting cost-effective management and control of hypertension involves implementing strategies that provide effective care while minimizing financial burden.



INTERNATIONAL LIAISE

Liaise with international bodies related to hypertension and to organise educational meetings or provide services at local and regional levels.



MULTIMEDIA PLATFORM

Compile, print, publish and distribute brochures and/or journals by experts on hypertension.

Membership Information



THE BENEFITS



DISCOUNTED CME

Attendance at MSH's CME programs with discounted price



RESEARCH GRANT

Opportunities to apply for MSH Research Grant (subject to availability)



CONFERENCE SPONSORSHIP

Limited sponsorship to attend selected conferences. (subject to availability)



CONTRIBUTING ARTICLES

Opportunities to submit articles to MSH website and newsletter



MEMBERS PORTAL

Free access to Society's members-only portal

REGISTER NOW

Visit our website to register and know more details and information

MSH.MY/MEMBERSHIP/REGISTRATION

MEMBERSHIP



Committee of MSH



DATO' SRI DR AZHARI ROSMAN
President of MSH



**PROF. DR. NIK
SHERINA HANAFI**
Vice President of MSH



**PROF. DR. CHING
SIEW MOOI**
Treasurer



**DATO WIRA DR.
L.R. CHANDRAN**
Secretary



**PROF. DATIN DR. CHIA
YOOK CHIN**
Council Members



**PROF. DR. KHOO
EE MING**
Council Members



DR. ISKANDAR MIRZA
Council Members



DR NAVIN KUMAR
Council Members




DR BEH HOOI CHIN
Council Members



**DR. CHONG
KUCK MENG**
Council Members



03



About 20th Annual Scientific Congress



MALAYSIAN SOCIETY OF HYPERTENSION

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Hypertension Unveiled:
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The theme emphasizes the importance of protecting vital organs and addressing metabolic health in hypertension management. This approach recognizes that hypertension affects multiple organ systems and requires comprehensive strategies for optimal outcomes. By leveraging advances in clinical assessment, treatment modalities, and management approaches, healthcare professionals can better protect patients from the damaging effects of hypertension on the heart, kidneys, brain and metabolic systems.





04



Organizing Committee





05



Scientific Programme

PROGRAM HIGHLIGHTS

PLENARY LECTURES

PLENARY 1:

How to Diagnose Hypertension in 2025

PLENARY 2:

Future Horizons: Innovations in Diagnosis and Treatment of Hypertension

TEA SYMPOSIA

TEA SYMPOSIUM (Servier):

ACE-ing Hypertension: Complete BP Control & CV Protection

TEA SYMPOSIUM (Novartis):

New Horizon in Lipid Management: LDL-C Target with siRNA Therapy

TEA SYMPOSIUM (Merck):

OSA and Sympathetic Overdrive in Hypertension: Tailoring Beta Blockers

TEA SYMPOSIUM (Viatris):

Shaping the Future of Hypertension Management and Cardiovascular Risk

TEA SYMPOSIUM (Medtronic):

Renal Denervation in Practice

TEA SYMPOSIUM (XepaSoul):

Dyslipidemia Management

TEA SYMPOSIUM (Abbott):

Dual Approach in Managing Hypertension

TEA SYMPOSIUM (iNova):

Obesity Management

PROGRAM HIGHLIGHTS

SYMPOSIA

SYMPOSIUM 1:

Insights on Current Hypertension Guidelines

SYMPOSIUM 2:

Conquering the Challenges to Effective BP Control

SYMPOSIUM 3:

The Silent Threat: How Hypertension Impacts Cardiovascular Outcomes

SYMPOSIUM 4:

Integrative Approaches in Hypertension: Safeguarding Vascular, Cerebral and Renal Health

SYMPOSIUM 5:

Obesity, OSA, and Cardiovascular Health: A Dangerous Triad

SYMPOSIUM 6:

Hypertension in Vulnerable Populations

SYMPOSIUM 7:

Current Advances and Precision Prevention in Cardiac Risk Stratification

LUNCH SYMPOSIUM

LUNCH SYMPOSIUM (Sanofi):

Hypertension as a Modifiable Risk Factor

DEBATE SESSION

Informative Debate:

Eating for Joy vs. Eating for Longevity

SCIENTIFIC PROGRAMME

DAY 1
Friday – 2nd May 2025

0730 Registration and MSH Membership Enrolment
0830 PLENARY 1: How to Diagnose Hypertension in 2025

Chairperson: Dr Alan Fong Yean Yip

Speaker: Prof. Dr. Gianfranco Parati (Honorary Professor of Cardiovascular Medicine; Head of Cardiology Unit and Department of Cardiovascular, Neural and Metabolic Sciences, St. Luke Hospital, Milan)

0900 Welcome Address and Opening Ceremony

Tun Dr. Mahathir Mohamad

0930 SYMPOSIUM 1: Insights on the Current Hypertension Guidelines

Chairperson: Dr Alan Fong Yean Yip

Topic 1: A Peek at What's to Come: Management of Hypertension CPG (6th Edition)

Speaker: Prof Dr. Abdul Rashid (Internal Physician, An-Nur Specialist Hospital)

Topic 2: ESC 2024 Hypertension Guidelines – Practical Application in the Malaysian Context

Speaker: Prof Chee Kok Han (Cardiologist, UMMC)

Topic 3: Emerging Therapies in The Management of Hypertension

Speaker: Prof Sung Ha Park (Division of Cardiology, Cardiovascular Hospital, Yonsei University)

Q&A Session

1040 Tea Break and Enrolment for new MSH members
1100 PLENARY 2: Future Horizons: Innovations in the Diagnosis and Treatment of Hypertension

Chairperson: Dato' Wira Dr. LR Chandran

Speaker: Prof Dr. Jiguang Wang (Professor of Cardiovascular Medicine, Shanghai Jiaotong University; Director, The Shanghai Institute of Hypertension)

1130 TEA SYMPOSIUM – SERVIER MALAYSIA SDN BHD

Chairperson: Dato Sri Dr Azhari Rosman

ACE-ing Hypertension: Complete BP Control & CV Protection

Speaker: Prof Dr. Abdul Rashid (Internal Physician, An-Nur Specialist Hospital)

Diuretics to the Rescue: The Jigsaw Puzzle Piece to Optimise Hypertension Care

Speaker: Dr. Edwin Chow Yok Wai (Consultant Nephrologist, Ayer Keroh Pantai Hospital)

1230 Lunch and Friday Prayers

Next Tentative



SCIENTIFIC PROGRAMME

DAY 1

Friday – 2nd May 2025 (Continue)



1430

SYMPOSIUM 2 HOPE ASIA- International Society of Hypertension- Asia Pacific- Regional Advisory Group- Malaysian Society of Hypertension Symposium: Conquering the Challenges to Effective BP Control

Chairpersons: Datin Prof. Dr. Chia Yook Chin and Dr Hana Azhari

Topic 1: Beyond The Clinic: The Clinical Impact of Out-of-Office BP Readings

Speaker: Prof. Dr. George S. Stergiou (President, International Society of Hypertension; Professor of Medicine & Hypertension, University of Athens, Greece)

Topic 2: Making Sense of Out-of Office BP Readings

Speaker: Prof. Dr. Jin Ho Shin (Professor of Cardiology, Hanyang University College of Medicine, South Korea)

Topic 3: Taming Tough-To-Treat Hypertension: Case Based Discussion

Speaker: Prof. Dr Sungha Park (Division of Cardiology, Cardiovascular Hospital, Yonsei University, South Korea)

Q&A Session

1540

TEA SYMPOSIUM – NOVARTIS CORP MALAYSIA

Chairperson: Dato Sri Dr Azhari Rosman

New Horizon in Lipid Management: Reaching and Staying on LDL-C Target with siRNA Therapy

Speaker: Dr Hafidz B Abd Hadi (Cardiologist, National Heart Institute (IJN))

1610

Coffee Break

1640

TEA SYMPOSIUM – MERCK SDN BHD

Chairperson: Dr Iskandar Mirza

OSA and Sympathetic Overdrive in Hypertension: Tailoring Beta Blockers for Optimal Cardiovascular Health

Speaker: Prof Gianfranco Parati, Honorary Professor of Cardiovascular Medicine; Head of the Cardiology Unit and Head of the Department of Cardiovascular, Neural and Metabolic Sciences, St. Luke Hospital, Milan

Q&A Session

1710

Programme Adjourns

SCIENTIFIC PROGRAMME

DAY 2

Saturday – 3rd May 2025



0800

Spot Diagnosis Session in Hypertension

Chairpersons: Dr Hana Azhari and Dr. Goay Swee En

Speakers:

Dr. Sharimila Shanmugam (Clinical Fellow Cardiology, National Heart Institute (IJN))

Dr. Fa'iz Mashood (Clinical Fellow Cardiology, National Heart Institute (IJN))

0845

SYMPOSIUM 3 – The Silent Threat: How Hypertension Impacts CV Outcomes

Chairpersons: Dr Chong Kuck Meng and Dr. Goay Swee En

Topic 1: Hypertension and Heart failure: Unraveling the Dangerous Duo

Speaker: Prof Chim C Lang (Professor of Cardiology and Head of the Division of Molecular and Clinical Medicine at University of Dundee)

Topic 2: Restoring Order to Chaos: Are We Treating Atrial Fibrillation Right?

Speaker: Dr. Suraya Hani Kamsani (Consultant Electrophysiologist, National Heart Institute (IJN))

Topic 3: Detonate the Danger: Diffuse the Hypertensive Crises

Speaker: Datuk Dr. Mahathar Abd Wahab (Senior Consultant Emergency Physician; Head of Emergency & Trauma Department, Kuala Lumpur Hospital)

Q&A Session

0955

TEA SYMPOSIUM – VIATRIS SDN BHD

Chairperson: Dr Iskandar Mirza

Beyond BP control: Shaping the future of hypertension management and Cardiovascular risk

Speaker: Prof Dr. Jiguang Wang (Professor of Cardiovascular Medicine, Shanghai Jiaotong University; Director, The Shanghai Institute of Hypertension)

1030

Tea Break and Poster Presentations

1105

TEA SYMPOSIUM – MEDTRONIC

Chairperson: Prof Emeritus Datuk Paduka Dr Wan Azman Wan Ahmad

Leading with Symplicity: A New Way to Treat Hypertension

Speaker: Dato' Sri Dr. Azhari Rosman (Director, Malaysian Society of Hypertension; Senior Consultant Cardiologist, National Heart Institute (IJN))

1125

PLENARY 3: Artificial Intelligence in Hypertension Management: An Ace Up Your Sleeve

Chairperson: Dr Nor Hazlin Talib

Speaker: Prof Adina bin Abdullah (Family Medicine Specialist, Universiti Malaya Medical Centre)

1150

SYMPOSIUM 4: Integrative Approaches in Hypertension: Safeguarding Vascular, Cerebral, and Renal Health

Chairperson: Prof Khoo Ee Ming and Dr. Sharimila

Topic 1: Seal the Leak: Managing Hypertension to Improve Renal Outcomes

Speaker: Assoc. Prof Dr. Jimmy Teo Boon Wee (Head Senior Consultant, Division of Nephrology, Department of Medicine, National University Hospital; Secretary, Singapore Hypertension Society)

Next Tentative



SCIENTIFIC PROGRAMME

DAY 2

Saturday – 3rd May 2025 (Continue)



Topic 2: Hypertension and Stroke: Know Your Numbers

Speaker: Assoc. Prof. Dr. Liyana Najwa Inche Mat (Neurologist, Head of Neurology Department, Sultan Abdul Aziz Shah Hospital, University of Putra Malaysia)

Topic 3: The Forgotten Arteries: Diagnosing and Treating Peripheral Vascular Disease

Speaker: Datuk Dr. Shaiful Azmi Yahaya (Senior Consultant Cardiologist, Chief Clinical Officer, Clinical Director of Interventional Cardiology, National Heart Institute (IJN))

Q&A Session

1305 **LUNCH SYMPOSIUM – SANOFI-AVENTIS (MALAYSIA) SDN BHD**

Chairperson: Dr. Iskandar Mirza

Hypertension as a Modifiable Risk Factor: New Perspective on Cardiovascular and Renal Protection

Speaker: Dr. George S. Stergiou (President, International Society of Hypertension; Professor of Medicine & Hypertension, University of Athens, Greece)

1405 **Lunch Break**1445 **SYMPOSIUM 5: Obesity, OSA and Cardiovascular Health: A Dangerous Triad**

Chairperson: Prof. Dr. Ching Siew Mool and Dr. Beh Hooi Chin

Topic 1: Obstructive Sleep Apnoea: Don't Sleep On This Killer

Speaker: Prof. Imran (Consultant Cardiologist, Universiti Malaya Specialist Centre)

Q&A Session

1515 **TEA SYMPOSIUM – XepaSoul SDN BHD**

Chairperson: Dr. Iskandar Mirza

Dyslipidemia Management: Strategies Inside and Out

Speaker: Dr. Teoh Chee Kiang (Deputy Head of Cardiology Department/Consultant Cardiologist, National Heart Institute (IJN))

1545 **TEA SYMPOSIUM – Abbott Laboratories (M) SDN BHD**

Chairperson: Dr. Iskandar Mirza

The Heart and Kidney Protection: Dual Approach in Managing Hypertension

Speaker: Dr. Mugilan (Cardiologist, Northern Heart Hospital)

1615 **Coffee Break and Booth Visit**1630 **TEA SYMPOSIUM – INOVA Pharmaceuticals Pte Ltd**

Chairperson: Dr. Iskandar Mirza

Obesity Management

Speaker: Prof. Dr. Rohana (Medical Professor, Universiti Teknologi MARA)

1700 **Informative Debate: Eating for Joy vs. Eating for Longevity: Which Approach Leads to a Better Life?**

Chairpersons: Prof. Nik Sherina Haidi Hanafi and Dr. Faiz Mashood

Speakers:

Prof. Dr. Lim Soo Kun (Consultant Nephrologist, Universiti Malaya Specialist Centre)

Dr. Edwin Chow Yok Wai (Consultant Nephrologist and Physician, Ayer Keroh Pantar Hospital)

1740 **Faculty Dinner @ Lake Club**

SCIENTIFIC PROGRAMME

DAY 3

Sunday – 4th May 2025



0900 Spot Diagnosis in ECG for Primary Care Physicians

Chairpersons: Dr. Azlan Shah

Speakers:

Dr. Low Ming Yoong (Cardiologist, National Heart Institute (IJN))

Dr. Rohith Stanislaus (Cardiologist, National Heart Institute (IJN))

0940 SYMPOSIUM 6: Across Ages: Hypertension in Vulnerable Populations

Chairpersons: Dr. Navin Kumar Devaraj and Dr. Azlan Shah

Topic 1: Early Recognition of Hypertension in Children and Adolescents

Speaker: Prof. Dr. Muhammad Yazid Jalaludin, Senior Consultant Paediatric Endocrinologist, Universiti Malaya Medical Centre

Topic 2: Managing Hypertension in the Elderly: An Individualized Approach

Speaker: Dato' Dr. Tunku Muzafar Shah Tunku Jaafar (Consultant Geriatrician, Selayang Hospital; Deputy Head of Geriatrics Service, Ministry of Health Malaysia)

Q&A Session

1040 Coffee Break and Enrollment for new MSH members

1110 SYMPOSIUM 7: Looking Ahead: From Routine to Revolutionary

Chairperson: Prof. Dr. Nik Sherina Haidi Hanafi

Topic 1: Current Advances in Cardiac Assessment: Imaging Your Risks

Speaker: Datuk Dr. Ahmad Khairuddin Mohamed Yusof (Consultant Cardiologist/ Clinical Director of Cardiovascular Imaging, National Heart Institute (IJN))

Topic 2: Precision in Prevention: Choosing the Right Tools in Cardiac Risk Stratification

Speaker: Prof. Dr. Sazzli Shazlan Kasim (Consultant Cardiologist, UiTM Private Specialist Centre; Director, Cardio Vascular and Lung Research Institute (CaVaLRI), Faculty of Medicine, UiTM)

Q&A Session

1200 Q&A and Photography Session

1215 Moderated Posters Presentation (6 posters)

Chairperson: Prof Dr Khoo Ee Ming

1300 Prize-giving Ceremony

1310 Closing Keynote Address

Speaker: Dato' Sri Dr. Azhari Rosman (Director, Malaysian Society of Hypertension; Senior Consultant Cardiologist, National Heart Institute (IJN))

1320 Lunch

1430 Poster Viewing

1630 Programme Adjourns



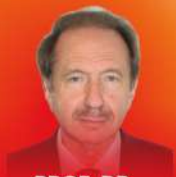
06



Symposium Speakers

Symposium Speakers

DAY 1 | Friday - 2nd May 2025



**PROF. DR.
GIANFRANCO PARATI**
Plenary 1 | Tea Symposium



**PROF. DR. ABDUL
RASHID ABDUL RAHMAN**
Symposium 1 | Tea Symposium



PROF. DR. CHEE KOK HAN
Symposium 1



PROF. SUNGHA PARK
Symposium 1 | Symposium 2



**PROF. DR.
JIGUANG WANG**
Plenary 2



**DR. EDWIN
CHOW YOK WAI**
Tea Symposium



**PROF. DR. GEORGE
S. STERGIOU**
Symposium 2



**PROF. DR.
JIN HO SHIN**
Symposium 2



**DR HAFIDZ B
ABD HADI**
Tea Symposium

Symposium Speakers

DAY 2 | Saturday - 3rd May 2025



PROF CHIM LANG

Symposium 3



**DR. SURAYA
HANI KAMSANI**

Symposium 3



**DATUK DR. MAHATHAR
ABD WAHAB**

Symposium 3



**PROF DR.
JIGUANG WANG**

Tea Symposium



**DATO' SRI DR.
AZHARI ROSMAN**

Tea Symposium



**PROF. DR.
ADINA ABDULLAH**

Plenary 3



**ASSOC. PROF. DR.
JIMMY TEO BOON WEE**

Symposium 4



**ASSOC. PROF. DR LIYANA
NAJWA INCHE MAT**

Symposium 4



**DATUK DR. SHAIFUL
AZMI YAHAYA**

Symposium 4



**PROF. DR. GEORGE
S. STERGIOU**

Lunch Symposium



**PROF. DR. IMRAN
ZAINAL ABIDIN**

Symposium 5



**DR. TEOH
CHEE KIANG**

Tea Symposium



DR. MUGILAN

Tea Symposium



PROF. DR. ROHANA

Tea Symposium



**PROF. DR.
LIM SOO KUN**

Debate



**DR. EDWIN
CHOW YOK WAI**

Debate

Symposium Speakers

DAY 3 | Sunday – 4th May 2025



**PROF. DR. MUHAMMAD
YAZID JALALUDIN**

Symposium 6



**DATO' DR. TUNKU
MUZAFARSHAH
TUNKU JAAFAR**

Symposium 6



**DATUK DR.
AHMAD KHAIRUDDIN
MOHAMED YUSOF**

Symposium 7



**PROF. DR. SAZZLI
SHAHLAN KASIM**

Symposium 7



07



Poster Presentation

Poster Presentation

- 01 Social Support and Other Factors Affecting Medication Adherence Among Hypertensive Patients in a Primary Care Clinic in Klang**
Siti Noor Sulaiman, Aneesa Abdul Rashid
- 02 Poor Blood Pressure Control Among Young Adults with Hypertension Attending Primary Care Clinic: Prevalence and its Associated Factors.**
Ammaar Noor Ibrahim, Teh Rohaila Jamil, Rahmah Kamaludin
- 03 Factors Associated with Good Dietary Salt Intake Practices Among Medical Students At Universiti Putra Malaysia**
Ching, Siew Mooi, Sangeetha a/p Murugapergasam, Muhammad Aizra Putra Sany Putra, Hannah Maihani Nor Azhar, Dhashani Sivaratnam
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Social Support and Other Factors Affecting Medication Adherence Among Hypertensive Patients in a Primary Care Clinic in Klang

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Background:

Medication adherence is a key strategy in managing hypertension, as suboptimal blood pressure control can worsen disease progression and increase the risk of long-term cardiovascular complications. Several factors, including social support, may influence medication adherence.

Objective:

We aimed to determine the prevalence of good medication adherence, its association with social support, and other associated factors among hypertensive patients who attended a primary care clinic in Selangor.

Methods:

A cross-sectional study involving Malaysian adults aged 18 and above with hypertension who visited a public primary care clinic in Klang, was conducted using consecutive sampling from January 8 2024 to February 16, 2024. Participants completed a self-administered questionnaire, which included an assessment of medication adherence using the Malaysia Medication Adherence Assessment Tool (MyMAAT) and social support using the Multidimensional Scale of Perceived Social Support (MSPSS). All analyses were performed using SPSS version 29.

Results:

The study included 322 hypertensive patients, with 43.5% demonstrating good medication adherence. Most participants were female (58.4%), with a median age of 62 years (IQR 15). Key predictors of good adherence were living with family (aOR 4.14, $p=0.046$), no family history of hypertension (aOR 2.15, $p=0.013$), and strong perceived social support from significant others (aOR 2.84, $p < 0.001$).

Conclusion:

Medication adherence rates remain relatively low, highlighting the need for targeted interventions in primary care. Efforts should focus on key factors like living conditions, family history of hypertension, and social support from significant others.

Keywords: Medication Adherence, Hypertension, Social Support

Poor Blood Pressure Control Among Young Adults with Hypertension Attending Primary Care Clinic: Prevalence and its Associated Factors.

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Background:

With the increasing prevalence of hypertension among young individuals, the risk of cardiovascular events is also on the rise.

Objective:

This study was conducted at a government primary healthcare facility in the Klang Valley, Malaysia, to determine the prevalence and associated factors of poor blood pressure management in young adults.

Methods:

From December 2019 to December 2020, hypertensive patients between 18– 39 years old who were listed in the hypertension and diabetes registry were included in this cross-sectional study. 191 patients' clinical, sociodemographic, and management profiles were taken from the Tele-Primary Care (TPC) system.

Results:

The majority of patients were Malay (77.5%), married (41.9%) and employed (67.5%), with a median (IQR) age of 36 (5) years. Nearly all (98.4%) had essential hypertension. 78.0% had poor blood pressure control, and the majority had uncontrolled diastolic blood pressure (67.0%). Half of the patients fell into the obesity class 1 (50.3%) group, with a median (IQR) BMI of 31.35 (7) kg/m². Diabetes mellitus (DM) (47.6%) and dyslipidemia (72.0%) were the most prevalent comorbidities. Patients with DM were nearly 7 times more likely to have poor blood pressure control compared to those without (AOR= 6.688, 95% CI= 1.517, 28.479, p= 0.010).

Conclusion:

Poor blood pressure control was alarmingly common in young adults with hypertension, with diastolic pressure being the most common uncontrolled parameter. DM was significantly associated with poor blood pressure control, thus more aggressive hypertension screening and therapy in young adults with diabetes should be implemented.

Keywords: Young Hypertension, Young Adults, Hypertension, Diastolic Pressure, Primary Care

Factors Associated with Good Dietary Salt Intake Practices Among Medical Students at Universiti Putra Malaysia

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Background:

Excessive dietary salt intake is a major public health concern linked to various health risks, including hypertension and cardiovascular diseases. As future healthcare professionals, medical students must adopt and promote good dietary salt intake practices.

Objective:

This study aimed to identify factors associated with good dietary salt intake practices among medical students at a public university.

Methods:

A cross-sectional study was conducted among first- to fifth-year medical students at UPM using universal sampling. Data were collected using a validated online questionnaire, adapted from the Ministry of Health's guidelines, with good reliability (Cronbach's Alpha = 0.732). Ethical approval was obtained before study commencement. Multiple logistic regression was used to determine factors associated with good dietary salt intake practices.

Results:

A total of 364 medical students participated, with a mean age of 22±2 years. The majority were female (66.2%), Malay (54.2%), and clinical-year students (50.3%). Overall, 55.4% of respondents demonstrated good dietary salt intake practices. Multiple logistic regression analysis showed significant associations with being non-Malay versus Malay (aOR=1.93, 95% CI: 1.22-3.05, p=0.005), being in clinical years versus pre-clinical years (aOR=2.05, 95% CI: 1.30-3.24, p=0.002), and having a higher attitude score towards dietary salt management (aOR=1.52, 95% CI: 1.24-1.86, p<0.001).

Conclusion:

More than half of UPM medical students practiced good dietary salt intake. Targeted educational interventions are needed for Malay students, pre-clinical students, and those with less favorable attitudes towards salt management.

Keywords: Hypertension, Good Blood Pressure Control

Health Perception and Cardiovascular Preventive Activities Practices Among Nurses

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Background:

Cardiovascular disease (CVD) is a leading cause of mortality globally, and nurses play a crucial role in promoting preventive measures. However, the relationship between nurses' health perception and engagement in cardiovascular preventive activities (CVPA) remains underexplored.

Objective:

This study determines the prevalence of CVPA among nurses and identify the relationship between their health perception and engagement in these practices.

Methods:

A cross-sectional study was conducted at Universiti Sains Malaysia (USM) Hospital from June to August 2015, involving 212 female nurses. Data were collected using a structured questionnaire assessing sociodemographic characteristics and CVPA questionnaires based on the Malaysia NCD Surveillance-1 (MyNCDS-1) questionnaire. Activities included dietary habits, physical activity, smoking, alcohol consumption, and regular health checks. Health perception was assessed using a single-item question on a 4-point scale, later dichotomized into "good" (good/excellent) and "poor" (poor/fair). Logistic regression was used to analyze the relationship between health perception and CVPA.

Results:

Only 14.2% of nurses practiced all eight CVPA. 62.7% nurses who perceived their health as good were significantly more likely to engage in CVPA (OR: 2.09, 95% CI: 1.03–4.22). Non-smoking and non-alcohol consumption were the most common practices, while consuming five or more servings of fruits and vegetables daily was the least practiced.

Conclusion:

The study highlights a low prevalence of CVPA among nurses, with a significant association between health perception and engagement in preventive practices. Improving nurses' health perceptions may enhance CVPA, benefiting both their well-being and their role in patient care.

Protocol of Salt and Potassium Management and Reduction Therapeutics in Universiti Malaya Medical Center, Malaysia (SALT SMART: UMMC)

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Background:

Prevalence of hypertension worldwide is high. Low salt and increase potassium intake had proved to improve blood pressure (BP) control. These multiphases studies aim to develop a complex interventional bundle for salt reduction and increase potassium intake among the attendees in UMMC.

Methods:

The study consists of five parts which include conducting a systematic review of studies that evaluate the effectiveness of salt reduction interventions and their cost-effectiveness. Part 2 is to assessing participants' knowledge, attitude, and practice (KAP) regarding salt and potassium consumption using a locally validated questionnaire. The assessment will include patients, caregivers, staff, healthcare providers, and medical students at UMMC. Part 3 by performing a baseline analysis of sodium and potassium levels in vendor-provided menus using Atomic Absorption Spectrometry (AAS) and served as a monitoring baseline for the audit purposes. Part 4 is to engaging stakeholders to identify barriers and facilitators in reducing salt and increasing potassium in their food offerings, guided by the Consolidated Framework for Implementation Research (CFIR). Last phase is to adapting complex interventions using the ADAPT process model and conducting a feasibility study.

Conclusion:

The anticipated outcomes or returns on investment from these studies include establishing a healthy eating environment throughout the hospital, increasing awareness and education, enhancing overall blood pressure control, supporting and influencing national policies, and fostering partnerships across various industries. Looking ahead, there are plans to expand these comprehensive intervention strategies to other university hospitals in the near future.

Prevalence and Associated Factors of Multiple Pill Combination Versus Single Pill Combination Therapy Among People with Hypertension in a Tertiary Hospital

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Background:

Effective management of hypertension often requires pharmacological intervention, which can involve either single pill combination therapy (SPC) or multiple pill combination therapy (MPC). However, the choice between SPC and MPC can be influenced by patient demographics, clinical characteristics, comorbid conditions and physician preferences.

Objective:

This study aims to explore the prevalence of SPC versus MPC among hypertensive patients in a tertiary hospital and its associated factors.

Methods:

A cross-sectional study using a validated questionnaire was conducted among the hypertensive patients aged 18 years and on antihypertensive medication(s) for at least six months attending various speciality clinics at Hospital Sultan Abdul Aziz Shah, Selangor.

Results:

The prevalence of patients using SPC was 27.9% (78/280). In univariate analysis, factors that were found to be associated with the use of SPC were presence of diabetes mellitus ($p < 0.001$), presence of chronic kidney disease ($p = 0.033$), physician's own preference for SPC ($p = 0.027$) and duration of hypertension ($p = 0.003$) meanwhile in the multiple logistic regression analysis, the presence of chronic kidney disease, physician's own preference for SPC and presence of diabetes mellitus were significantly associated with the use of SPC therapy ($p < 0.05$).

Conclusion:

The use of SPC is only 23.4%. Determinants of the use of SPC treatment were presence of diabetes mellitus, presence of chronic kidney disease and physician preferences for SPC. Hence, this study's findings can be applied by healthcare providers who should consider these factors when prescribing hypertension treatments. Tailoring the treatment plan to the individual patient's needs and circumstances can enhance adherence and efficacy.

Keywords: Single Pill Combination Therapy (SPC), Multiple Pill Combination Therapy (MPC), Prevalence, Factors, Malays

Awareness and its Associated Factors Of Home Blood Pressure Monitoring Among Healthcare Providers in Putrajaya Primary Health Clinics

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Background:

Blood Pressure Monitoring (HBPM) is globally recommended for hypertension management, yet awareness of its diagnostic thresholds remains low among healthcare professionals (HCPs). In Japan, only 21.6% of physicians correctly identified the HBPM threshold. Similarly, an 11-country Asian survey found that while 95.9% of physicians recommended HBPM, only 22.4% knew the correct threshold. In Malaysia, data on HCPs' awareness remains limited.

Objective:

To assess HBPM awareness and determine associated factors among HCPs in Putrajaya.

Methods:

A cross-sectional study was conducted among HCPs in four primary healthcare clinics in Putrajaya. A validated self-administered questionnaire collected data on sociodemographics, professional training, HBPM recognition, and awareness. SPSS version 29 was used for analysis. Simple and multiple logistic regression identified factors influencing awareness.

Results:

Among 285 participants (median age 37 years), 98.9% recommended HBPM, yet only 21.1% correctly identified the diagnostic threshold. Multiple logistic regression showed HCPs <30 years had lower awareness than those >40 years (OR = 0.104, 95% CI [0.017, 0.633], $p = 0.014$). Non-doctor HCPs had significantly lower awareness than doctors (OR = 0.075, 95% CI [0.033, 0.169], $p < 0.001$). A higher percentage of hypertensive patients with BP devices was associated with increased awareness (OR = 1.029, 95% CI [1.013, 1.045], $p < 0.001$).

Conclusion:

Despite high HBPM recommendation rates, awareness of correct threshold remains low, especially among younger and non-doctor HCPs. Strengthening structured training and standardised HBPM guidelines in primary care is essential for improving hypertension management.

Keywords: Home Blood Pressure Monitoring, Awareness, Healthcare Providers, Primary care

Factors Associated with Good Blood Pressure Control Among Hypertensive Patients in A Primary Health Care Clinic in Melaka

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Background:

Effective blood pressure (BP) control in hypertensive patients is important in reducing the risk of cardiovascular diseases. Even a modest reduction in BP may significantly improve cardiovascular outcomes. Several factors have been associated with BP control.

Objective:

We aimed to determine the prevalence of good BP control among hypertensive patients and its associated factors.

Methods:

A cross-sectional study involving Malaysian adults aged ≥ 18 with hypertension who attended a public health care clinic in Melaka from December 2024 to February 2025. Patients were selected via systematic random sampling. A self-administration questionnaire was completed, and a clinical BP measurement was performed. BP control was determined from the average of two BP measured five minutes apart.

Results:

A total of 475 hypertensive patients were included in this study. Only 38.7% of the participants ($n=184$) had good BP control. The majority aged ≥ 60 years (64.4%, $n=306$) and female (57.9%, $n=275$). The key predictor of good blood pressure control was the age <40 years old group, those aged 40-59 group ($OR=0.589$, $p=0.017$ and $OR=0.142$, $p=0.011$), and Females ($OR=1.843$, $p=0.003$). Participants taking only one antihypertensive medication ($OR=1.828$, $p=0.018$) and those on two antihypertensive medications ($OR=2.515$, $p=0.001$), and participants without diabetes ($OR=1.812$, $p=0.004$).

Conclusion:

The findings suggest that older age groups, male gender, and diabetes mellitus are associated with poorer BP control, whereas female participants and those on two antihypertensive medications have good BP management. These results emphasize the need for targeted interventions focusing on older individuals, males, and diabetic patients to improve BP control outcomes.

Keywords: Hypertension, Good Blood Pressure Control

Hypertensive Cardiomyopathy with Hypokalemia– To Treat or to Investigate?

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Introduction:

Hypertensive cardiomyopathy (HTN-CM) is of the common complication of long standing uncontrolled systemic hypertension. While in hypertension with hypokalaemia, Conn's syndrome is one of the common causes for resistant hypertension leading early development of HTN-CM. Here, we reported a case of HTN-CM with possibility of underlying Conn's Syndrome.

Case Report:

A 40-year-old serviceman came with history of reduce effort tolerance for 2 months and elevated BP of 160/95mmHg. His ECG and CXR point towards diagnosis of HF. Echo shows EF of 31%. Baseline serum potassium noted to be 2.3mmol/L with TTKG of 6. He was started with 4 pillars of HF GDMT. Repeated Echo shows improvement of EF to 49% after 6 months of therapy with good BP control of <130/80mmHg. His NT-Pro BNP normalized from 864 to <60pg/ml. His potassium remains to be <3.5mmol/L despite on MRA and oral potassium tablets. CT adrenal shows left adrenal enlargement suggestive of Conn's Syndrome. However, evaluation of plasma Renin and Aldosterone were not done with all the HF GDMT medications on board.

Discussion:

A decision to withhold HF-GDMT temporarily in order to properly investigate and confirm the diagnosis of Con's Syndrome, might results in worsening of the HF symptoms which can lead to increase in HF morbidity and mortality. On the other hand, future risk of accelerated HTN with Conn's Syndrome also poses a significant challenge.

Conclusion:

HTN-CM especially in young patient, optimization of HF GDMT seems to be more important in order to prevent potential lethal complications of HF.

Barriers and Facilitators Of Implementing Cardiovascular Health Assessment In Children And Adolescents In Primary Care Settings In Malaysia: A Qualitative Study

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Background:

Cardiovascular disease (CVD) is the leading cause of death in Malaysia, with risk factors emerging in childhood. The American Heart Association's Life's Essential 8 defines cardiovascular health (CVH) through eight factors: diet, physical activity, nicotine exposure, sleep, BMI, blood pressure, cholesterol, and glucose. While CVH assessments in primary care are critical for long-term CVD prevention, insights from low- and middle-income countries (LMICs) including Malaysia remain limited.

Objective:

To explore the barriers and facilitators of implementing CVH assessments in children and adolescents in the Malaysian primary care settings.

Methods:

A qualitative study used semi-structured interviews with policymakers, healthcare professionals (HCPs), adolescents (12-18 years), and parents of children (5-11 years). The Tailored Implementation in Chronic Diseases framework guided data collection and analysis, which used directed content analysis.

Results:

Interviews with 51 participants revealed key barriers: limited school health and primary care capacity, resource constraints, insufficient HCP training, scepticism about long-term impact, fragmented care coordination, patient beliefs (lack of motivation, and stigma), and competing organizational priorities. Facilitators were alignment of CVH assessment with existing adolescent health screening programs, supportive HCPs' attitudes, collaborative teamwork between HCPs, partnership with external organisations, and engagement with community leaders.

Conclusion:

Targeted interventions are needed, including enhancing HCPs training, improving post-assessment follow-up care, and better resource allocation for school health teams. Strengthening parental education, leveraging existing guidelines, and fostering partnerships between schools, community and primary care can support CVH integration. A new CVH assessment tool is under study that could be implemented concurrently with progress in these areas.

Clinical Characteristics and Management Outcomes of Primary Aldosteronism: A Retrospective Case Series from Hospital Sultan Abdul Halim, Kedah, Malaysia

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Background:

Primary aldosteronism (PA) is a significant yet often overlooked cause of secondary hypertension. Early diagnosis and targeted treatment are essential to mitigate long-term cardiovascular risks. This case series examines the clinical characteristics and management of PA patients at Hospital Sultan Abdul Halim, Kedah.

Objective:

To describe the clinical presentation, diagnostic modalities, and treatment outcomes of patients diagnosed with PA in our tertiary referral center.

Methods:

We conducted a retrospective review of eight patients diagnosed with PA between 2022 and 2024. Data extracted from medical records included demographics, clinical features, biochemical parameters (aldosterone-renin ratio (ARR)), confirmatory tests, imaging findings, treatment strategies, and clinical outcomes.

Results:

The median age at PA diagnosis was 50.5 years (range 34-73), with a median duration of 6 years (range 2-16) from hypertension onset to PA diagnosis. All patients presented with resistant hypertension, six with hypokalemia, and two with adrenal incidentalomas. ARR was elevated in all cases, with non-suppression on confirmatory testing in six patients. Two patients had a history of repeated hypokalemia without further investigation. Adrenal imaging revealed adenomas in seven cases. Adrenal venous sampling (AVS) was performed in four, confirming lateralization in two. Two patients underwent adrenalectomy, resulting in minimal or no antihypertensive medication requirement. Four patients refused surgery and were managed with mineralocorticoid receptor antagonists (MRA). One patient succumbed to end-stage renal failure (ESRF) complications before definitive PA treatment, and one defaulted follow-up post-referral for surgery.

Conclusion:

This case series highlights the diverse clinical presentations of PA, including resistant hypertension and hypokalemia. Delays in diagnosis, as evidenced by the repeated hypokalemia without investigation, underscore the need for increased awareness. Adrenalectomy demonstrated excellent outcomes in selected patients, while MRA therapy effectively control blood pressure among others who declined surgery.



08



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Glucose

Parameters	Levels ¹
Fasting or pre-meal	4.4 mmol/L - 7.0 mmol/L
Post-meal	4.4 mmol/L - 8.5 mmol/L
HbA _{1c}	<7.0% (for most) ; ≤6.5%***



Lipids

Parameters	Levels ^{1,2}
Triglycerides	≤ 1.7 mmol/L
HDL-C	Male: > 1.0 mmol/L Female: > 1.2 mmol/L
Moderate CV Risk	≤ 2.6 mmol/L*
High CV Risk	≤ 1.8 mmol/L and >50% ↓ from baseline
V High with established CVD	< 1.4 mmol/L and >50% ↓ from baseline

Blood Pressure

Parameters	Levels ¹
SBP 130-139 mmHg / DBP 70-79 mmHg	

Target SBP to 130 - 139 mmHg -< 130 mmHg if tolerated in individuals without pre-existing coronary heart disease and who are at higher risk of stroke or DKD, but not to < 120 mmHg. Target DBP to 70 - 79 mmHg, but not < 70 mmHg.



** Measured at least 90 minutes after meals.

***HbA_{1c} ≤6.5% is advocated for patients with a shorter duration of T2DM, no evidence of significant CVD and longer life expectancy, and have minimal risk of hypoglycemia. +Consider monotherapy in low-risk grade 1 hypertension and in patients aged > 80 years or frail²

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Cost-effective in hypertension treatment³



Better protection against cardiovascular events and new-onset diabetes^{2,4}



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Bioequivalent to the originator⁵



Perindopril tert-butylamine 4 mg is equally effective as perindopril arginine salt 5 mg in reducing blood pressure for mild to moderate hypertension.⁶



References:

1. Poulter NR, Dolan E, Gupta AK, O'Brien E, Whitehouse A, Sever PS. Efficacy and Safety of Incremental Dosing of a New Single-Pill Formulation of Perindopril and Amlodipine in the Management of Hypertension. *Am J Cardiovasc Drugs*. 2019;19(3):313-323. doi:10.1007/s40266-018-00314-4. 2. Dahlöf B, Sever PS, Poulter NR, et al. Prevention of cardiovascular events with an antihypertensive regimen of amlodipine adding perindopril as required versus atenolol adding bendroflumethiazide as required, in the Anglo-Scandinavian Cardiac Outcomes Trial-Blood Pressure Lowering Arm (ASCOT-BPLA): a multicentre randomized controlled trial. *Lancet*. 2005;366:895-906. 3. Lindgren P, Buxton M, Kahan T, et al. Economic Evaluation of ASCOT-BPLA: Antihypertensive treatment with an amlodipine-based regimen is cost-effective compared to an atenolol based regimen. *Heart*. 2008;94:e4. 4. Michel E. Perindopril/amlodipine combination: an optimal synergy for cardiovascular protection. *Eur Heart J Supplements*. 2009;11E22-E25. https://doi.org/10.1093/eurheartj/sup019. 5. A randomized, open-label, single dose, two period, crossover bioequivalence study comparing Perindopril tertbutylamine/ Amlodipine 8/10 mg tablets (Adamed Sp. z o.o.) to Prestarium 10 mg tablets (Les Laboratoires Servier) and Norvasc 10 mg tablets (Pfizer Europe MA EEIG) in healthy volunteers under fasting conditions. (Internal document). 6. Qi L, Zhao S, Li H, Guo Y, Xu G, Ge J, Wu S, Miao P, Jin Y, Yang J, Wu K, Ma C, Xu D, Luo J, Wang B, Li G, Wang F, Shen F, Shi H, Huo Y. [Efficacy comparison between 5 mg perindopril arginine salt and 4 mg perindopril tert-butylamine salt for patients with mild to moderate essential hypertension]. *Zhonghua Xin Xue Guan Bing Za Zhi*. 2015 Oct;43(10):663-7.

Further information is available upon request.

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