

Symposium of 2024 Guidelines of the TSO on the Primary Prevention of Atherosclerotic Cardiovascular Disease

時間: 14:00-17:00, March 3, 2024

地點: 台北花園大酒店 2F 百合廳(台北市中正區中華路二段 1 號)

Time	Topic	Speaker	Chair
14:00-14:05	Opening Remarks		陳文鍾
14:05-14:20	Development of this Guidelines: Why, When, How, and What?	趙庭興	陳文鍾
14:20-14:35	HT: Impact, Preventive Strategies, and Interventions	鄭浩民	林彥宏
14:35-14:50	Gender, HRT, and Erectile Dysfunction	吳彥雯	林彥宏
14:50-15:05	Dyslipidemia: Impact, Preventive Strategies, and Interventions	黃金洲	黃柏勳
15:05-15:20	Panel Discussion		黃柏勳
15:20-15:35	Healthy Break		
15:35-15:55	Obesity: Impact, Preventive Strategies, and Interventions	鄭正一	鄭書孟
15:55-16:10	Metabolic Syndrome and Hyperuricemia: Impact, Preventive Strategies, and Interventions	張獻元	鄭書孟
16:10-16:25	Dietary Pattern for General and Specific Population	陳珮蓉	柯毓賢
16:25-16:40	Alcohol Beverages/Coffee/Tea	吳懿哲	柯毓賢
16:40-16:55	Panel Discussion		王宗道
16:55-17:00	Closing Remarks		王宗道

Name: 趙庭興(Chao Ting-Hsing)

甲、現職：

- 1、中山醫學大學醫學院醫學系內科教授兼中山醫學大學附設醫院副院長。
- 2、國立成功大學醫學院醫學系內科教授兼心臟血管科主治醫師。
- 3、行政院衛生福利部醫院評鑑委員、緊急醫療能力評定委員。
- 4、財團法人醫院評鑑暨醫療品質策進會「疾病品質照護認證」委員、「國家醫療品質獎」委員、「台灣臨床成效指標」小組委員、冠狀動脈疾病指標工作小組召集人。
- 5、中華民國心臟學會第 28 屆副理事長；台灣心臟基金會董事。
- 6、台灣高血壓學會第 9 屆理事、台灣醫療品質協會第 11 屆理事。

乙、經歷：

- 1、國立成功大學醫學院附設醫院主任秘書、門診部主任、公共事務室主任、健康管理中心主任。
- 2、國立成功大學醫學院附設醫院品質中心副主任、心臟血管科主任、斗六分院副院長兼品管中心主任、斗六分院醫務秘書兼內科主任。
- 3、內科專科訓練醫院訪視委員、財團法人醫院評鑑暨醫療品質策進會「醫院品質績效量測指標系統與落實品質改善計畫」稽核委員。
- 4、台灣介入性心臟血管醫學會第 5、6 屆理事、第 7 屆監事暨公共醫療政策委員會召集人；台灣醫療品質協會第 9、10 屆理事。
- 5、台灣高血壓學會第 6、7、8 屆理事、中華民國心臟學會第 22 屆副秘書長及第 27 屆秘書長、中華民國血脂及動脈硬化學會副秘書長、雲林縣醫師公會理事、健保署南區分局西醫健保審查心臟血管召集人。

丙、學歷：台北醫學大學醫學士。

丁、海外進修：日本國立京都大學大學院醫學研究部研究員。

戊、專科醫師：內科醫學會、心臟學會、急救加護醫學會(重症)、介入；高階醫品師。

己、專科指導醫師：內科醫學會、心臟學會。

庚、榮譽及受獎：

- 1、第 30、31 屆及第 38 屆中華民國心臟醫學會(TSOC)年會最佳海報獎。
- 2、93、105、106、111 年國立成功大學醫學中心內科部主治醫師最佳研究獎。
- 3、國立成功大學醫學院(94、95、96 年度)最佳教學主治醫師。
- 4、97、99 及 100 年國立成功大學醫學中心醫療科技研究計劃成果海報獎。
- 5、2010、2015、2017、2022 TSOC 高血壓治療指引編撰委員。
- 6、2013 年美國心臟學院(ACC)年會最佳海報論文獎。
- 7、FACC、FESC 及 FAPSC；2014 年台灣內科醫學會最佳海報論文獎。
- 8、2017 年中華民國血脂及動脈硬化學會血脂治療指引編撰委員。
- 9、2018、2020 年 TSOC 糖尿病心血管藥物治療共識編撰委員。
- 10、2021 年 TSOC Fabry' s Disease 診斷治療共識編撰委員。
- 11、2023 年 TSOC 慢性冠心症治療指引編撰委員。
- 12、2023 年 TSOC 心衰竭藥物治療專家共識編撰委員。
- 13、2023 年 TSOC Cardiac Amyloidosis 診斷治療共識編撰委員。
- 14、2024 年 TSOC Primary Prevention of ASCVD 指引編撰委員會主席。

辛、專長：醫療品質管理；心導管介入治療；高血壓；動脈硬化基因學；血管新生；幹細胞研究。

壬、論文：期刊論文 155 篇，會議論文 115 篇。科學雜誌審查委員及特刊編輯召集人：國際期刊 50 餘本。

癸、全球性多中心大型臨床研究國家總聯絡人、總計劃主持人、主持人：30 餘個。其中，擔任全國 T-FORMOSA study Steering Committee Chair。

鄭浩民醫師畢業於國立陽明交通大學醫學院醫學系，畢業時獲得優異成績書卷獎的肯定，後來至澳洲阿德萊德大學進修，獲得醫學博士學位。鄭醫師有超過 18 年心臟科專業經驗的心臟病專科醫師，擅長心血管血流動力學及介入性心手術。

教學方面，作為國立陽明交通大學的教授，他多次獲得陽明交通大學臨床教學卓越獎，並且獲得國立陽明交通大學琉璃獎座的肯定。他現任台北榮民總醫院教師發展中心主任，曾任台北榮民總醫院實證醫學中心主任，並開設實證醫學的訓練課程，連續七年獲得優良課程的肯定。

學術方面，他的研究重點在心血管血流動力學、高血壓和實證醫學，已在同儕評審期刊上發表了 250 多篇文章，並在美國、日本和台灣取得了多項專利。同時，他是 Systematic Reviews、BMC Cardiovascular Disorders、JBI evidence synthesis 和 Frontiers in Cardiovascular Medicine 的編輯，並參與了許多國際 SCI 期刊的編輯和同儕評審工作。為了實現更好的患者照護目標，他開發了與心血管血流動力學相關的創新技術，並努力促進從研究到產業的技術轉移。此外，他是 JBI Evidence Synthesis 編輯、BMC Cardiovascular Disorders 的副主編、Blood Pressure Monitoring 的副主編、Systematic Reviews 的副主編、American Journal of Hypertension、Journal of clinical Hypertension、Hypertension Research 的編輯委員會成員。

臨床服務方面，過去在擔任實證醫學中心主任的任內，曾獲得醫策會的卓

越中心及生策會國家醫療品質獎的標章肯定。除了提供以實證為基礎的臨床照護以外，鄭醫師是中華民國心臟學會的高血壓委員會的副主委(連任超過四屆)、台灣高血壓學會的常務理事及教育委員會主委、台灣原發性醛固酮症學會的常務理事。為了推廣高血壓防治，鄭醫師長期協助國健署的高血壓防治，主持多項國健署的計畫，並與藥師公會聯合會合作，共同推廣台灣高血壓的血壓篩檢、血壓控制、以及居家血壓管理模式的推廣。鄭醫師並且擔任世界高血壓學會 (international society of hypertneison) 亞太區之諮詢委員 (ISH APAC Regional Advisory Group)，對於台灣及全球的高血壓防治與學術發展貢獻心力。此外，因應台北榮民總醫院智慧醫療的發展，鄭醫師也參與智慧醫療委員會的工作，曾任醫學教育組的組長，目前則擔任智委會的執行秘書。參與全院的智慧病歷及結構化病歷的發展，同時也擔任北榮電腦化推動委員會結構化病歷推動小組組長。

講師基本資料表

姓 名	吳彥雯			
最高學歷	畢業年度：民國 98 年(2009) 學校：國立台灣大學 科系：臨床醫學研究所博士班 級別： <input checked="" type="checkbox"/> 研究所（博士） <input type="checkbox"/> 研究所（碩士） <input type="checkbox"/> 大學（學士） <input type="checkbox"/> 技術學院 <input type="checkbox"/> 大專			
學經歷及專長	服務單位	職稱	起訖年/月	總年資
現 職	亞東醫院心臟血管醫學中心	主任	2020年 07月~迄今	3年
	亞東醫院心臟內科/核子醫學科	主治醫師	2012年 03月~迄今	11年
	國立陽明交通大學醫學院醫學系	兼任教授	2018年 08月~迄今	5年
	元智大學醫學研究所	兼任教授	2022年 08月~迄今	1年
	台大醫院核子醫學部/心臟內科	兼任主治醫師	2012年 03月~迄今	11年

經 歷	亞東紀念醫院心臟血管醫學中心	副主任	2015年 07月 ~2020年 06月	5年
	亞東紀念醫院心臟血管內科	主任	2012年 08月 ~2022年 06月	10年
	亞東紀念醫院核子醫學科	主任	2012年 03月 ~2015年 06月	2年
	陽明大學醫學院醫學系	教授	2017年 08月 ~2018年 07月	1年
	陽明大學醫學院醫學系	副教授	2013年 02月 ~2017年 07月	4年
	臺大醫院核子醫學部/心臟內科	主治醫師	2004年 07月 ~2007年 10月, 2018年 11月 ~2010年 02月	5年
	臺灣大學醫學院放射線科	臨床助理教授	2008年 02月 ~2012年 02月	4年

	臺灣大學醫學院放射線科	兼任助理教授	2008年 02月 ~2009年 02月, 2012年 03月 ~2013年 02月	2年
	台大醫院新竹分院影像醫學部	主任	2010年 03月 ~2012年 02月	2年
	台大醫院雲林分院核子醫學科	主任	2007年 11月 ~2008年 10月	1年
	日本京都大學/日本北海道大學/附設醫院核醫學分野	Foreign Collaborate Investigator	2005年 11月 ~2006年 11月	1年
專 長	<ul style="list-style-type: none"> ● Internal Medicine, Cardiology ● Nuclear Medicine, Cardiovascular Functional Imaging, Biomarkers ● Atherosclerosis, Heart Failure 			
特 殊 成 就	<ol style="list-style-type: none"> 1. Asian Cardiology Section, Gold Prize. 61st Annual Scientific Meeting of the Japanese Society of Nuclear Medicine (JSNM), Nagoya, Japan, Nov 4-6, 2021. 2. 111年度第二十一屆(2022)中華民國血脂及動脈硬化學會傑出研究論文獎(2022/09/17-18) 3. 2023年中華民國心臟學會丁農獎(2023/05/20-21) 4. 未來科技獎「One Model Fit All: 心肌灌注掃描免常模一站式冠狀動脈狹窄預測系統」(2023/10/14) 5. 第二十屆國家新創獎-學研新創獎「One Model Fit All: 心肌灌注掃描免常模一站式冠狀動脈狹窄預測系統」(2023/12/27) 			

CURRICULUM VITAE

基本資料:

姓名: 黃金洲 Chin-Chou Huang, MD, PhD
地址: 台北市北投區石牌路二段 201 號臺北榮民總醫院
E-mail: cchuang4@vghtpe.gov.tw
huangchinchou@gmail.com

目前職位:

國立陽明交通大學內科學科教授
國立陽明交通大學藥理學科教授
臺北榮民總醫院內科部心臟內科主治醫師
中華民國血脂及動脈硬化學會副秘書長
台灣血脂術教協會理事
台灣醫學教育學會副秘書長
財團法人心臟醫學研究發展基金會副秘書長
高級心臟救命術指導員 (ACLS instructor)
中華民國心臟學會專科指導醫師
中華民國重症醫學會專科指導醫師

學歷:

國立陽明大學醫學系醫學士
國立陽明大學藥理研究所博士

經歷:

臺北榮民總醫院內科部住院醫師
臺北榮民總醫院內科部心臟內科總醫師
德國柏林心臟醫學中心 (German Heart Institute Berlin) 研究員

鄭正一 Cheng-I Cheng MD, PhD

20230611

教育訓練

1. 高雄醫學大學醫學系畢業 (1990.09~1997.06)
2. 哈佛大學進修研究 (2008.9~2010.8)
3. 長庚大學臨床醫學研究所博士班畢業 (2006.09~2012.06)

現職

1. 高雄長庚紀念醫院教授級主治醫師 (2023.07 至今)
2. 長庚大學兼任副教授 (2017.02 至今)

經歷

1. 高雄長庚紀念醫院心臟內科主任 (2017.07~2022.06)
2. 高雄長庚紀念醫院內科部副主任 (2015.07~2017.06)
2. 高雄長庚紀念醫院健檢中心主任 (2013.10~2017.09)
3. 高雄長庚紀念醫院心臟內科主治醫師 (2003.08 至今)
4. 高雄長庚紀念醫院心臟內科研究員 (2001.08~2003.07)
5. 高雄長庚紀念醫院內科部住院醫師 (1997.07~2000.06)

教職 部定副教授 (2017.08)

專業證照

1. 中華民國內科專科醫師 (內專醫字第 005655 號) (2000.12)
2. 中華民國心臟學會專科醫師 (92) 中心專醫字第 013 號 (2004.01)
3. 中華民國心臟學會心臟血管介入治療專科醫師第 0306 號 (2007.11)
4. 中華民國心臟學會專科指導醫師 (99) 中心專指醫字第 009 號 (2010.04)

榮譽

1. 中華民國心臟學會最佳論文第二名 (2008)
2. 中華民國心臟學會最佳青年研究獎第一名 (2012)

專長: 冠狀動脈介入治療、血管生物學、心臟衰竭

論文及研究: SCI 醫學論文 70 篇

專業學會: 台灣心肌梗塞學會理監事、中華民國心臟學會理事

公共事務: 醫策會健康檢查品質認證委員、衛福部醫審會鑑定委員、高雄地方法院調解委員

CURRICULUM VITAE
Hsien-Yuan Chang, MD

Current position

- 2019 ~ Attending Physician, Division of Cardiologist, Department of Internal
 Medicine, National Cheng Kung University Hospital, Tainan, Taiwan
- 2021~ Assistant Professor, Department of Internal Medicine, College of
 Medicine, National Cheng Kung University, Tainan, Taiwan

Education

- 2000 ~ 2007 MD, College of Medicine, National Cheng Kung University, Tainan,
 Taiwan
- 2015 ~ 2016 Master program, Institute of Clinical Medicine, College of Medicine,
 National Cheng Kung University, Tainan, Taiwan
- 2019~ Doctor program, Institute of Clinical Medicine, College of Medicine,
 National Cheng Kung University, Tainan, Taiwan

Relevant Experience

- 2009 ~ 2011 Residency, Department of Internal Medicine, National Cheng Kung
 University Hospital, Tainan, Taiwan
- 2012 ~ 2013 Fellowship in Cardiology, National Cheng Kung University Hospital,
 Tainan, Taiwan
- 2014 ~ 2017 Cardiologist, National Cheng Kung University Hospital,
 Dou-liou Branch, Yun-Lin, Taiwan
- 2018 ~ 2019 Chief of Cardiology, National Cheng Kung University Hospital,
 Dou-liou Branch, Yun-Lin, Taiwan
- 2020 中華民國心臟學會第廿七屆副秘書長
- 2022 臺灣介入性心臟血管醫學會第九屆周邊血管介入委員會委員
- 2023 中華民國心臟學會第廿八屆財務委員

Board certification

- 2008 Registered Physician – Taiwan
- 2012 Board of Internal Medicine – Taiwan
- 2014 Board of Adult Cardiologist – Taiwan
- 2016 Board of Interventional Cardiologist – Taiwan

Award

- 2020 Young Investigator Award of the Taiwan Society of Cardiology
- 2022 成大醫院內科 111 年度助理教授組最佳研究獎第二名

Publication and presentation

1. **Chang HY**, Chang WT, Liu YW. Application of transthoracic echocardiography in patients receiving intermediate- or high-risk noncardiac surgery. *PLoS One*. 2019 Apr 25;14(4):e0215854.
2. **Chang HY**, Hsu LW, Lee CH, Lin CC, Huang CW, Chen PW, Yang PK, Hsueh YC, Liu PY. Impact of platelet volume on the clinical outcomes of patients with acute coronary syndrome. *Acta Cardiol Sin*. 2019; 35:563-570
3. **Chang HY**, Chang WT, Chen PW, Lin CC, Hsu CH. Pulmonary thromboembolism with computed tomography-defined chronic thrombus is associated with higher mortality. *Pulm Circ*. 2020 May 1;10(2):2045894020905510
4. **Chang HY**, Lee CH, Su PL, Li SS, Chen MY, Chen YP, Hsu YT, Tsai WC, Liu PY, Chen TY, Liu YW. Subtle cardiac dysfunction in lymphoma patients receiving low to moderate dose chemotherapy. *Sci Rep*. 2021 Mar 29;11(1):7100.
5. Su YJ, **Chang HY**, Li YH. Endovascular therapy for venous thromboembolic diseases. *Acta Cardiol Sin*. 2021Nov;37(6):566-573
6. Yeh JK, Tsai YS, Chen YP, Roan JN, **Chang HY**. Right atrium angiosarcoma with feeding vessels from right coronary artery: a case report. *Eur Heart J Case Rep*. 2022 Jan 19;6(1):ytac025.

Pey-Rong Chen, RD. PhD

Dietitian, Dept. of Dietetics, National Taiwan University Hospital

陳珮蓉

台大醫院營養室營養師兼主任

學/經歷 (現任)

輔仁大學食品營養研究所博士

台北醫學大學保健營養學系兼任助理教授

臺北市立大學兼任助理教授

台灣營養學會常務理事

台灣心臟衰竭照護學會理事

營養師公會全國聯合會副理事長

Yih-Jer Wu (吳懿哲), M.D., M.Sc., M.PVD., Ph.D., FESC

Associate Professor, Department of Medicine, MacKay
Medical College, New Taipei, TAIWAN

High Commissioner, Superintendent Office, and Chief,
Pulmonary Hypertension Intervention Medicine, and Senior
Consultant Cardiologist, Cardiovascular Center, MacKay
Memorial Hospital, Taipei, TAIWAN



Education and Postdoctoral Training

1985.9 – 1991.6 M.D., School of Chinese Medicine, China Medical University, Taichung, Taiwan

1992.9 – 1994.6 M.Sc., Institute of Traditional Medicine, National Yang-Ming University, Taipei,
Taiwan

2003.9 – 2006.9 Ph.D., Bristol Heart Institute, University of Bristol, Bristol, United Kingdom

2014.9 – 2015.6 M.PVD. (Master of Pulmonary Vascular Disease), University of Bologna,
Bologna, Italy

Experience & Honors

1995-1999 Medical Residency & cardiology fellowship, Department of Internal Medicine, MacKay
Memorial Hospital, Taipei, Taiwan

1999-2003 Consultant Cardiologist, Cardiovascular Medicine and Coronary Care Unit, MacKay
Memorial Hospital, Taipei, Taiwan

2006 “Young Research Worker’s Prize (YRWP)”, British Society of Cardiology, UK

2016-2023 Chair, Department of Medicine, MacKay Medical College, New Taipei, Taiwan

2016-2023 Director, Department of Medical Education, MacKay Memorial Hospital, Taipei, Taiwan

Professional Societies or Association

2015-2017 Board of Supervisors, Taiwan Heart Rhythm Society

2016- Chair (2022-)/ Committee Member, Pulmonary Hypertension & Circulation Committee,
Taiwan Society of Cardiology

2020-2022 Deputy Chair, Medical Education Committee, Taiwan Society of Cardiology

2016- Fellow, European Society of Cardiology

2018- Executive Director, Taiwan Society of Lipid and Atherosclerosis

2018- Director, Taiwan Pulmonary Hypertension Association

Publications

Publications including over 100 articles on *Circ Res*, *ATVB*, *JMCC*, *Cardiovasc Res*, *Sci Rep*, *Plos One*, *Am J Cardiol*, *J Vasc Surg*,..., etc.

**Symposium of 2024 Guidelines of the TSOC on the Primary Prevention of
Atherosclerotic Cardiovascular Disease**

1. Scope, features, and key messages of the guidelines

2. Development of this guideline: Why, when, how, and what?

Ting-Hsing Chao (趙庭興), MD, FACC, FESC, FAPSC

Professor of Internal Medicine

National Cheng Kung University College of Medicine and Hospital

Chung-Shan Medical University Hospital; School of Medicine, Chung Shan Medical University, Taichung, Taiwan

1. The 2024 Guidelines of the Taiwan Society of Cardiology on the Primary Prevention of Atherosclerotic Cardiovascular Disease: for the first time in the society.
2. Novelties of the current guidelines: focus on ASCVD prevention; comprehensive but not wordy with going details in each factor or disease entity; covering local features (metabolic syndrome, hyperuricemia, hepatitis C, colon polyps, nephrolithiasis, and life medicine, etc); cite largely local studies; covering primordial prevention; logistic thinking approach.
3. In order to enhance medical education and health promotion not only for physicians but also for public, we proposed a slogan (2H2L) for primary prevention of ASCVD on the basis of the essential role of healthy dietary pattern and lifestyles: “Healthy Diet and Healthy Styles to Help Your Life and Save Your Lives”. We designed an acronym of the modifiable risk factors/enhancers and relevant strategies to facilitate memories: “ABC2D2EFG-I’M2 ACE”: Adiposity, Blood pressure, Cholesterol and Cigarette smoking, Diabetes mellitus and Dietary pattern, Exercise, Frailty, Gout/hyperuricemia, Inflammation/infection, Metabolic syndrome and Metabolic dysfunction-associated fatty liver disease, Atmosphere (environment), Chronic kidney disease, and Easy life (sleep well and no tension).

Today's talk will cover above issues.

Recent advances in hypertension management in 2024

Hao-min Cheng, M.D., Ph.D

^a Division of Faculty Development, Department of Medical Education, Taipei Veterans General Hospital, Taipei, Taiwan

^b Department of Critical Care Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

^c Institute of Clinical Medicine, National Yang Ming Chiao Tung University, Taipei, Taiwan

^d Center for Evidence-based Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

^e Division of Interventional Cardiology, Cardiovascular Center, Taichung Veterans General Hospital, Taichung, Taiwan

^f Institute of Public Health, National Yang Ming Chiao Tung University, Taipei, Taiwan

^g Cardiovascular Research Center, National Yang Ming Chiao Tung University, Taipei, Taiwan

Abstract

Hypertension is the primary controllable factor contributing to cardiovascular (CV) disease and mortality on a global scale. Although multiple epidemiological studies have shown a link between blood pressure (BP) levels and cardiovascular (CV) events, even at levels as low as 100/60 mmHg, the diagnostic criteria for hypertension and the thresholds and targets for antihypertensive therapy have mostly remained unchanged at 140/90 mmHg over the past three decades. The publication of both the SPRINT and STEP trials, which included more than 8,500 participants of Caucasian/African and Chinese descent, respectively, presented evidence that challenges the established belief of maintaining blood pressure at 140/90mmHg. Another tenet concerning the management of hypertension is the reliance on office (or clinic) blood pressure measurements. While standardized office blood pressure (BP) measurements have been extensively recommended and implemented in large-scale cardiovascular (CV) outcome trials, the actual practice of office BP measurements has never been optimal in real-world settings. Performing home blood pressure monitoring (HBPM) is simple, less likely to be affected by external factors or emotional stress, and allows for long-term documentation of blood pressure fluctuations. It is highly reproducible and reliable, and has a stronger correlation with hypertension-related organ damage (HMOD) and cardiovascular events compared to regular office blood pressure measurements. The 2022 Taiwan

Hypertension Guidelines, developed by the Taiwan Society of Cardiology (TSOC) and the Taiwan Hypertension Society (THS), challenge conventional beliefs by proposing a new definition of hypertension as a blood pressure reading of 130/80 mmHg or higher. Additionally, these guidelines advocate for a universal blood pressure target of less than 130/80 mmHg, which is determined using the standardized Home Blood Pressure Monitoring (HBPM) method following the 722 protocol. The 722 protocol entails obtaining duplicate blood pressure readings on each occasion ("2"), twice daily ("2"), for a duration of seven consecutive days ("7"). Flowcharts that cover assessment, adjustment, and HBPM-guided hypertension management are provided to make it easier to implement the guidelines. Other important points to note are as follows: 1) Individuals with high blood pressure and hypertensive patients should adopt lifestyle modifications, represented by the mnemonic S-ABCDE, to reduce the overall burden of blood pressure throughout their lifetime. 2) The five major classes of antihypertensive drugs (angiotensin-converting enzyme inhibitors [A], angiotensin receptor blockers [A], beta-blockers [B], calcium-channel blockers [C], and thiazide diuretics [D]) are recommended as the first-line treatment for hypertension. 3) For patients whose blood pressure is more than 20/10 mmHg above the target, initial combination therapy, preferably in the form of a single-pill combination, is recommended. 4) A hierarchical approach to treatment targets (home blood pressure monitoring [HBPM] followed by office blood pressure monitoring [HMOD] and ambulatory blood pressure monitoring [ABPM]) should be considered to optimize hypertension management. This means that the HBPM target should be achieved first, followed by maintaining or reducing HMOD, and if necessary, ABPM can be used to guide further treatment adjustments. 5) Renal denervation may be regarded as an alternative approach to lower blood pressure following thorough clinical and imaging assessment.

2024 Primary Prevention

Yen-Wen Wu

Far Eastern Memorial Hospital

Sleep Disorders/OSA

The incorporation of sleep as a cardiovascular health metric of the American Heart Association's Life's Simple 7 (LS7), akin to other health behaviors, may enhance cardiovascular diseases (CVD) primordial and primary prevention efforts. A good sleep health recommends 7 to 9 hours of sleep per night. However, sleep disturbances are common and underdiagnosed among middle-aged and older adults, and the prevalence varies by race/ethnicity, sex, and obesity status. Obstructive sleep apnea (OSA) is highly prevalent and may be linked to CVD in a bidirectional manner. Approximately 34% and 17% of middle-aged men and women meet the diagnostic criteria for OSA. Sleep disturbances or abnormal sleep durations are associated with increased cardiovascular risk. In patients with obesity, hypertension, metabolic syndrome, ASCVD, atrial fibrillation or heart failure, screening for sleep problems especially obstructive sleep apnea is recommended.

The assessment of OSA included sleep history taking, physical examination, and questionnaires including the STOP-Bang, and in-lab or home polysomnography (PSG) or home sleep apnea testing. Treatment of OSA includes behavioral interventions (alcohol abstinence, sleep hygiene, and stress reduction), weight loss, mechanical therapy, continuous positive airway pressure (CPAP), mandibular advancement device and surgical procedures. Proper diagnosis and management of cardiovascular and cerebrovascular comorbidities, including the metabolic syndrome, type 2 DM, asthma, COPD, and cancer are important. Ultimately, the specific patient care strategy should be judged by clinicians on an individual basis, including risk stratifications and control.

Gender, HRT, and Erectile Dysfunction

Cardiovascular disease (CVD) is the leading causes of death among both men and women, posing a greater burden for women than men especially in the aging population. Women are less likely to be diagnosed appropriately, receive preventive care, or be treated aggressively for CVD. We recommend that in women with a history of preeclampsia, pregnancy-induced hypertension, gestational DM or polycystic ovary syndrome, periodic screening for hypertension and/or DM should be considered. periodic screening for CV risk factors may be considered in women with a history of pregnancy-associated conditions and adverse pregnancy outcomes. History of premature menopause (before age 40 y) increase later ASCVD risk. In women with migraine with aura, avoidance of combined hormonal contraceptives may be considered. In addition, post-menopausal hormone replacement therapy should not

be used for primary prevention of ASCVD.

Sexual health has a fundamental role in overall health and well-being, and a healthy and dynamic sex life can make an important contribution to a good quality of life. Erectile dysfunction (ED) has a multi-factorial cause. Sexual dysfunction, and especially erectile dysfunction in men, is highly prevalent in patients with CVD. Men with ED have an increased risk of all-cause mortality. We recommend assessing CVD risk in men with ED.

Dyslipidemia: Impact, Preventive Strategies, and Interventions

黃金洲

國立陽明交通大學醫學院內科學科/藥理學研究所

臺北榮民總醫院內科部心臟內科

- 針對血脂異常患者的動脈硬化性心血管疾病初級預防，需要根據個體的共病症和其他危險因子進行危險分層。
- 初級預防的三個高風險族群的患者，包括糖尿病患者、尚未需要透析的慢性腎臟病患者或低密度脂蛋白膽固醇(LDL-C) ≥ 190 mg/dL 的患者屬於高風險族群，應立即進行血脂治療，低密度脂蛋白膽固醇目標為 < 100 mg/dL。
- 若非上述三個高風險族群的患者，應依據危險因子個數決定低密度脂蛋白膽固醇目標，分別是兩個危險因子 (< 115 mg/dL)、一個危險因子 (< 130 mg/dL) 或無危險因子 (< 160 mg/dL)。Non-HDL-C 可以當次要標的，目標數值為低密度脂蛋白膽固醇加 30 mg/dL。
- Statins 為第一線治療，起始先用中等強度 statins 為合理選擇，如果未達目標再增加到高強度 statins。如果治療未達目標或者無法耐受 statins 可考慮使用 ezetimibe。如果使用高強度或最大耐受 statins 和 ezetimibe 仍無法達到目標，可考慮使用 PCSK9 抑制劑。

Obesity: Impact, Preventive Strategies, Interventions

20231216

Cheng-I Cheng M.D. Ph.D.

**Division of Cardiology, Department of Internal Medicine
Kaohsiung Chang Gung Memorial Hospital**

Obesity is strongly linked to an increased risk of various cardiovascular diseases (CVDs), including hypertension, diabetes, dyslipidemia, metabolic syndrome, and sleep apnea. It is recognized as a major risk factor for the development of atherosclerotic cardiovascular disease (ASCVD). The National Health Promotion Administration of Taiwan has been utilizing specific diagnostic cut points for overweight and obesity since 2013, taking into account the degree of comorbidity, overall mortality rate, and public health epidemic screening. These cut points are based on body mass index (BMI) measurements, with a BMI of ≥ 24 kg/m² being considered overweight, and a BMI of ≥ 27 kg/m² indicating obesity. The proportion of individuals with a normal BMI ($18.5 \leq \text{BMI} < 24$ kg/m²) gradually declined over time, from 58.1% in the first wave to 51.5% in the second wave and further decreasing to 49.2% in the third wave of the Taiwan National Nutrition and Health Change Survey (2013-2016). Based on the data of National Health Interview Survey collected in 2013, it is estimated an 18% reduction in CVDs could be achieved if obesity/overweight can be prevented. The pathogenesis of obesity is complex and multifactorial, involving energy imbalance, hormone disorder, genetic disease, gut microbiota and medications. Targeting a weight loss of 5-10% is recommended as an initial goal, as this has been shown to yield significant health benefits in the context of metabolic syndrome and cardiovascular disease. This talk aims at giving an introduction into obesity in CVD, with special focus on definition, prevalence, pathogenesis and management. The details of impact, preventive strategies, interventions will be discussed.

Hyperuricemia/Gout and Metabolic Syndrome

張獻元

Measuring serum uric acid levels can serve as a valuable means of identifying individuals who may be at an elevated risk of developing ASCVD. Weight control and increased physical activity remain cornerstone among lifestyle modification for prevention of hyperuricemia. However, for primary prevention of ASCVD, routine use of urate-lowering therapy in subjects with hyperuricemia or gout is not recommended.

Metabolic syndrome is considered as a risk enhancer and should be included in the risk assessment of ASCVD. Healthy lifestyle such as physical activity and healthy dietary pattern is recommended to prevent it. To reduce body weight and mitigate the risk of ASCVD, it is recommended to establish a comprehensive weight loss plan that incorporates exercise training and diet control. These interventions aim to promote healthy habits and encourage individuals to lose approximately 5-10% of their body weight. To attain the desired weight loss, a low carbohydrate diet ranging from 1200-1600 Kcal/day should be generally preferred over a very low carbohydrate diet (<800 Kcal/day) when considering long-term calorie restriction. A ketogenic diet or a very low-calorie diet may be considered in terms of short-term benefits and rapid initial weight loss under the supervision of medical professionals and might not be utilized as long-term dietary nutrition interventions due to various considerations. Pharmacotherapy is recommended as a treatment option for obese patients with a BMI equal to or exceeding 30 Kg/m². Liraglutide, orlistat, or naltrexone/bupropion ER is recommended to assist in weight management for these individuals. Bariatric surgery is recommended for obese patients who have a BMI equal to or exceeding 37.5 kg/m² or a BMI equal to or exceeding 32.5 kg/m² in the presence of related comorbidities such as type 2 DM.

Pey-Rong Chen, RD. PhD

Dietitian, Dept. of Dietetics, National Taiwan University Hospital

陳珮蓉

台大醫院營養室營養師兼主任

演講摘要

Assess energy requirement to achieve and maintain healthy body weight. Eat a balanced and diverse diet composed of recommended amounts of six food groups: grains/tubers/roots, vegetables, fruits, protein foods, nuts/seeds/oil, and dairy at one's personalized energy level as recommended by the Taiwanese food guide and preferentially Mediterranean or DASH diet patterns. Those who with hyperglycemia, hypertension, hyperlipidemia and hyperuricemia should be referred to registered dietitians and follow medical nutrition guideline for individualized nutrition plan.

Alcohol beverages, coffee and tea

Yih-Jer Wu

1. Department of Medicine, MacKay Medical College, New Taipei, Taiwan
2. Cardiovascular Center, Department of Internal Medicine, MacKay Memorial Hospital, Taipei, Taiwan

Abstract

high prevalence (~40-50%) of carrying *ALDH2* dysfunctional allele or having alcohol intolerance has been found in Taiwanese people. The alcohol consumption level that minimized health loss was "zero." It is not recommended for people who do not have a habit of alcohol consumption to start drinking for any reason. Alcohol consumption should be limited to < 100 g/week (14 g/day or 1 drink⁺/day) in men and < 50 g/week (7 g/day or 0.5 drink⁺/day) in women without the *ALDH2*2* dysfunctional allele. Whereas, Alcohol consumption limit should be reduced to < 64 g/week (9 g/day or 4 drinks⁺/week) in men and < 28 g/week (4 g/day or 2 drinks⁺/week) in women with the *ALDH2*2* dysfunctional allele. Although moderate coffee consumption is associated with reduction of CVD, a more recent evidence warns that it (≥ 2 cups/day) may increase CV mortality among people with severe (grade 2-3) hypertension. It is also shown that habitual tea drinking (≥ 3 times/week) reduces risk of ASCVD and all-cause mortality.