

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

時間: 09:00-11:55, 4/21, 2024

地點: 嘉義耐斯王子大飯店 5 樓 吉野櫻廳 (嘉義市東區忠孝路 600 號)

Time	Topic	Speaker	Chair
09:00-09:05	Opening Remarks	陳文鍾	
09:05-09:20	Scope, features, and key messages of the guidelines	趙庭興	陳文鍾
09:20-09:35	Cigarette smoking: impact, preventive strategies, and interventions	丁革新	邱富群
09:35-09:50	Dyslipidemia: impact, preventive strategies, and interventions	林肇鋒	邱富群
09:50-10:05	CKD: impact, preventive strategies, and interventions	林維文	林庭光
10:05-10:20	Panel discussion	林庭光	
10:20-10:35	Healthy Break		
10:35-10:55	Obesity: impact, preventive strategies, and interventions	林柏霖	蔡翰林
10:55-11:10	The role of carotid ultrasound, PWV, CAC score and ABI	翁國昌	蔡翰林
11:10-11:25	Dietary pattern for general and specific population	潘文涵	鍾昌珉
11:25-11:40	Fatty acid/fish oil supplements, red yeast, and antiplatelet therapy	蘇峻弘	鍾昌珉
11:40-11:55	Panel discussion	鍾政達	
11:55-12:00	Closing Remarks	鍾政達	

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 慢性冠心病治療指引編撰委員。
- 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。

## 教師個人學經歷

一、姓名：丁革新

二、最高學歷：

學校：中山醫學大學

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畢業年度：104年

三、現職：

單位名稱：雲林基督教醫院

職稱：內科部主任、心臟導管室主任 實務：10年

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四、經歷：

(一)單位名稱：彰化基督教醫院

職稱：內科住院醫師 實務：4年

(二)單位名稱：彰化基督教醫院

職稱：心臟科總醫師 實務：3年

(三)單位名稱：雲林基督教醫院

職稱：心臟科主治醫師 實務：14年

(四)單位名稱：雲林基督教醫院

職稱：心臟導管室主任 實務：12年

(五)單位名稱：雲林基督教醫院

職稱：內科部主任 實務：10年

(六)其它：中華民國心臟血管介入專科醫師，中華民國心律醫學會會員，  
中華民國重症醫學會會員，中華民國醫用超音波醫學會會員

五、專長：

心臟疾病，一般內科疾病，冠狀動脈心導管檢查及治療，周邊血管檢查及  
治療，心臟電生理檢查及治療，心血管疾病及代謝症候群

六、發表文獻：

1. Ke-Hsin Ting, Kwo-Chang Ueng, Whei-Ling Chiang, Ying-Erh Chou, Shun-Fa Yang, and Po-Hui Wang Relationship of Genetic Polymorphisms of the Chemokine, CCL5, and Its Receptor, CCR5, with Coronary Artery Disease in

Taiwan.. Evidence-Based Complementary and Alternative Medicine Volume 2015, Article ID 851683,

2. Ke-Hsin Ting, Kwo-Chang Ueng, Shun-Fa Yang,, Po-Hui Wang, The association of YKL-40 genetic polymorphisms with coronary artery disease in Taiwan population, Int J Clin Exp Med 2016;9(2):4211-4221, www.ijcem.com /ISSN:1940-5901/IJCEM001637
3. Ke-Hsin Ting, Kwo-Chang Ueng, Shun-Fa Yang, Po-Hui Wang, The association of YKL-40 genetic polymorphisms with coronary artery disease in Taiwan population and diabetes subgroup, 11<sup>th</sup> IDF-WPR Congress 2016 & 8<sup>th</sup> AASD scientific meeting
4. Ke-Hsin Ting , Bei-Hao Shiu, Shun-Fa Yang, Pei-Lun Liao, Jing-Yang Huang ,Yin-Yang Chen, and Chao-Bin Yeh Risk of Mortality among Patients with Gastrointestinal Bleeding with Early and Late Treatment with Tranexamic Acid: A Population-Based Cohort Study, J. Clin. Med. 2022, 11, 1741. <https://doi.org/10.3390/jcm11061741>
5. Yi-Hung Sun, Ying-Hsiang Chou, Hsueh-Yu Tsai1, Yi-Hsuan Hsiao, Chung-Yuan Lee, Shun-Fa Yang, Ke-Hsin Ting, Po-Hui Wang Impact of Genetic Variants of Long Noncoding RNA Metastasis-Associated Lung Adenocarcinoma Transcript 1 on Uterine Cervical Cancer, 2022; 13(7): 2150-2158. doi: 10.7150/jca.70730
6. Kwo-Chang Ueng, Chern-En Chiang, Ting-Hsing Chao,Yen-Wen Wu,Wen-Lieng Lee, Yi-Heng Li, Ke-Hsin Ting, Chun-Hung Su, Hung-Ju Lin,Ta-Chen Su, Tsun-Jui Liu,Tsung-Hsien Lin,Po-Chao Hsu, Yu-Chen Wang, Zhih-Cherng Chen, Hsu-Lung Jen,Po-Lin Lin,Feng-You Ko, Hsueh-Wei Yen, Wen-Jone Chen and Charles Jia-Yin Hou 2023 Guidelines of the Taiwan Society of Cardiology on the Diagnosis and Management of Chronic Coronary Syndrome, Acta Cardiol Sin 2023;39:4-96
7. Bo-Yuan Wang , Shun-Fa Yang , Ke-Hsin Ting, Yu-Hsun Wang, Ming-Chih Chou and Chao-Bin Yeh, Evaluation of the Risk Factors for Cellulitis among Patients with Peripheral Artery Disease, Medicina 2023, 59, 933. <https://doi.org/10.3390/medicina59050933>
8. Ke-Hsin Ting, Yen-Ting Lu, Chung-Han Hsin, Chia-Yi Lee, Jing-Yang Huang, Shun-Fa Yang, Ming-Hong Hsieh, Correlation between coronary heart disease severity and subsequent chronic rhinosinusitis severity: A retrospective cohort study, Int. J. Med. Sci. 2023; 20(10): 1240-1246. doi: 10.7150/ijms.86601

## 林肇鋒醫師簡歷

<p>現職</p>	<p>馬偕醫學院醫學系副系主任  馬偕醫學院醫學系部定副教授  馬偕紀念醫院心血管中心/心臟內科資深主治醫師  中華民國血脂及動脈硬化學會副秘書長  台灣老人急重症醫學會教育暨學術委員會主委  台灣老人急重症醫學會官方雜誌(International Journal of Gerontology)執行編輯</p>
<p>臨床專長</p>	<p>心臟血管醫學  血脂醫學  心導管介入手術</p>
<p>學術研究</p>	<p>心肌梗塞基礎研究  心血管藥物研究  高血脂與動脈硬化研究  健保資料庫大數據分析研究</p>
<p>學歷</p>	<p>台北醫學大學癌症生物學與藥物研發博士  國立陽明大學醫學系學士</p>
<p>經歷</p>	<p>馬偕紀念醫院內科部住院醫師  馬偕紀念醫院內科部心臟內科總住院醫師  花蓮門諾醫院心臟內科主治醫師  衛生福利部雙和醫院心臟內科主治醫師  日本豐橋心臟中心研修複雜性心導管技術  日本鎌谷綜合病院研修複雜性心導管技術  臺灣介入性心臟血管醫學會編輯暨登錄委員會委員  中華民國心臟學會第二十七屆預防心臟學委員會委員</p>

## Curriculum Vitae

Submitted Date: Jun.1, 2021

Name: Wei-Wen Lin MD, PhD(林維文)

Medical Department, Chung Shan Medical University, Medical Degree

Life Science Department, Tung-Hai University, PHD

Section Chief of Heart, Cardiovascular center, Taichung Veteran Hospital.

Associated Professor of Life Science Department, Tung-Hai University,

中山醫學大學醫學系畢業

東海大學生命科學系博士班畢業

台中榮民總醫院 心臟血管中心 心臟衰竭科主任

教育部定副教授

### Education:

1986/07/01 ~ 1992/06/30 Medical Student ChungShanMedicalCollege,  
Taichung, Taiwan

1992/07/01 ~ 1994/06/30 Internship ChungShanUniversity H, Taichung,  
Taiwan

2003/07/01 ~ 2007/11/30 PH. D Life Science Department, Tung-HaiUniversity,  
Taichung, Taiwan

2007/12/1~2008/12/31 VisitingScholarUniversity of Connecticut, Regenerative  
Medicine Center, Connecticut, USA

2009/09/01~2009/11/30 Visiting Scholar Berlin Heart Center, Berlin, German.

### Employment Record:

1994/07/01 ~ 1997/06/30 Resident Internal Medicine,  
VeteransGeneralHospital, Taichung

1997/07/01 ~ 2001/06/30 Fellow Adult Cardiology, Cardiovascular  
center,

VeteransGeneralHospital, Taichung

2001/07/01 ~ present Attending Adult Cardiology, Cardiovascular  
center,

Cardiologist VeteransGeneralHospital, Taichung

### Board Certification:

1997/12            The Society of Internal Medicine, Taiwan. (M4767)  
2000/10            The Society of Emergency Medicine and Critical Care.  
2000/12            The Republic of China Society of Cardiology, Adult. (S758)

Research Interest:

1. Molecular mechanism of atherosclerosis, reverse cholesterol transport.
2. Echocardiography, non-invasive hemodynamic evaluation of heart function.
3. Embryonic stem cell and therapeutic cloning research
4. Cardiac Catheterization, percutaneous coronary intervention.

Pulbication:

Recombinant *Lactococcus lactis* Expressing Ling Zhi 8 Protein Ameliorates Nonalcoholic Fatty Liver and Early Atherogenesis in Cholesterol-Fed Rabbits. Lee MF, Chiang CH, Lin SJ, Song PP, Liu HC, Wu TJ, **Lin WW**. *Biomed Res Int*. 2020 Jan 27;2020:3495682. (correspondence author)

Ventricular divergence correlates with epicardial wavebreaks and predicts ventricular arrhythmia in isolated rabbit hearts during therapeutic hypothermia. Hsieh YC, Hsieh WH, Li CH, Liao YC, Lin JC, Weng CJ, Lo MT, Tuan TC, Lin SF, Yeh HI, Huang JL, Haugan K, Larsen BD, Lin YJ, **Lin WW**, Wu TJ, Chen SA. *PLoS One*. 2020 Feb 21;15(2):e0228818

Isolated Right Ventricular Metastasis in a Woman with Advanced Hepatocellular Carcinoma after Palliative Therapy. Fan CT, **Lin WW**, Chen MJ, Shiu SI. *Case Rep Gastroenterol*. 2019 Nov 28;13(3):487-497

Lauryl Gallate Induces Apoptotic Cell Death through Caspase-dependent Pathway in U87 Human Glioblastoma Cells In Vitro. Liu CC, **Lin WW**, Wu CC, Hsu SL, Wang CY, Chung JG, Chiang CS. *In Vivo*. 2018 Sep-Oct;32(5):1119-1127

Antitumorigenic Effects of ZAK $\beta$ , an Alternative Splicing Isoform of ZAK. Lee JS, Lin YY, Wang TS, Liu JY, **Lin WW**, Yang JJ. *Chin J Physiol*. 2018 Feb 28;61(1):25-34.

Inhibition of Curcumin on ZAK $\alpha$  Activity Resultant in Apoptosis and Anchorage-Independent Growth in Cancer Cells. Lee JS, Wang TS, Lin MC, **Lin WW**, Yang JJ.



Chin J Physiol. 2017 Oct 31;60(5):267-274.

H<sub>2</sub>O<sub>2</sub> induces caveolin-1 degradation and impaired mitochondrial function in E11 podocytes.

Chen YH, **Lin WW**, Liu CS, Su SL. Mol Med Rep . 2017 Nov;16(5):7841-7847.

Inhibition of Curcumin on ZAK $\alpha$  Activity Resultant in Apoptosis and Anchorage-Independent Growth in Cancer Cells. Lee JS, Wang TS, Lin MC, **Lin WW**, Yang JJ. Chin J Physiol . 2017 Oct 31;60(5):267-274.

Transcatheter device closure of postmyocardial infarction ventricular septal defect. Nie YL, Lin MC, **Lin WW**, Wang CC, Chen CP, Lin CH, Shyu TC, Quek YW, Jan SL, Fu YC.

J Chin Med Assoc . 2017 Jan;80(1):34-38.

Caveolin-1 Expression Ameliorates Nephrotic Damage in a Rabbit Model of Cholesterol-Induced Hypercholesterolemia. Chen YH, **Lin WW**, Liu CS, Hsu LS, Lin YM, Su SL. PLoS One. 2016 Apr 28;11(4):e0154210.

A Rare and Life-Threatening Complication of Infective Endocarditis: Pseudoaneurysm of the Mitral - Aortic Intervalvular Fibrosa. Wang CW, Yu CL, Pan HC, Chan SW, Wang KY, **Lin WW**. Acta Cardiol Sin. 2015 Jul;31(4):358-60. (correspondence author)

Wang KY, Lee MF, Ho HC, Liang KW, Liu CC, Tsai WJ, **Lin WW**. Serum Caveolin-1 as a Novel Biomarker in Idiopathic Pulmonary Artery Hypertension. Biomed Res Int. 2015;2015:173970. doi: 10.1155/2015/173970. (correspondence author)

Chen LJ, Chuang L, Huang YH, Zhou J, Lim SH, Lee CI, **Lin WW**, Lin TE, Wang WL, Chen L, Chien S, Chiu JJ. MicroRNA mediation of endothelial inflammatory response to smooth muscle cells and its inhibition by atheroprotective shear stress. Circ Res. 2015 Mar 27;116(7):1157-69

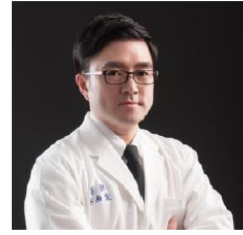
Po-Chi Liao, Shih-Rong Hsieh, Yu-Cheng Hsieh, Si-Wa Chan, Kuo-Yang Wang, Yen Chang, Wei-Wen Lin. Surgical Ligation of Bilateral Large Coronary Artery Fistulae to Pulmonary Artery.. JACC Cardiovascular Interventions. JACC Cardiovasc Interv. 2015 Oct;8(12):e203-4. (correspondence author)

## **Speaker Resume / Biography**

Name: Po-Lin Lin 林柏霖

Position/Affiliation: Attending physician, Division of Cardiology, Department of Medicine, Hsinchu MacKay Memorial Hospital, Taiwan

Address: Email: Berlin831@gmail.com



### **EDUCATION:**

1. MD, CHUNG -SHAN MEDICAL UNIVERSITY; 中山醫學大學醫學系
2. Master, Department of biomedical engineering, Chung Yuan Christian University  
中原大學生物醫學工程碩士
3. Ph. D., Department of Biological Science and Technology, National Yang Ming Chiao Tung University 陽明交通大學生物科技博士

### **PROFESSIONAL EXPERIENCES**

- 2011 Taiwan board of cardiac electrophysiology and intervention
- 2009 Taiwan board of interventional cardiologist
- 2008 Member of Taiwan Society of Geriatric Emergency & Critical Care Medicine
- 2008 Member of Taiwan Society of Echocardiography
- 2008 Taiwan board of cardiology
- 2006 Taiwan board of internal medicine

### **Selected Publication**

1. An Experience of Catheter-Induced Aortocoronary Dissection Complicated by Subtle Coronary Perforation. **Acta Cardiol Sin 2008; 24:164-168**
2. Prolonged Cardiopulmonary Resuscitation Process and Lower Frequency of Medical Staff Visit Predicts Independently In-hospital Resuscitation Success in the Elderly Population. **International Journal of Gerontology 6(2012)169-173**
3. Fractional Flow Reserve Assessment of a Significant Coronary Stenosis Masked by a Downstream Serial Lesion. **Case Reports in Cardiology Volume 2016(2016), Article ID 1987238, 4 pages.**
4. Non-pharmacologic Management of Structural Heart Disease. **J Intern Med Taiwan 2017; 28: 218-222**
5. Relations between baseline burden, maximum duration, and relative reduction of atrial fibrillation: Insights from continuous monitoring in rhythm control. **J Cardiovasc Electrophysiol 2019;1-5.**
6. Effect of Radiofrequency-Based Renal Denervation: The Impact of Unplanned Medication Change from a Systematic Review and Meta-Analysis. **Acta Cardiol Sin 2019; 35:14415** Effectiveness of a Non-Taped Compression Dress in Patients Receiving Cardiac Implantable Electronic Devices. **Acta Cardiol Sin 2019; 35:320-324**
7. Effectiveness of a Non-Taped Compression Dress in Patients Receiving Cardiac Implantable Electronic Devices. **Acta Cardiol Sin 2019; 35:320-324**
8. Preliminary study a non-invasion method on early cardiac energy defect based on Hilbert Huang Transform. **Med Hypotheses.2020 Nov;144:110205.**
9. Different left ventricular remodeling patterns and clinical outcomes between non-ischemic and ischemic etiologies in heart failure patients receiving sacubitril/valsartan treatment. **Eur Heart J Cardiovasc Pharmacother 2020 Oct 29; pvaa125. doi: 10.1093/ehjcvp/pvaa125.**

**醫師姓名：**翁國昌 Ueng, Kwo-Chang

**現職/教職**

心臟內科 主治醫師

中山醫學大學附設醫院尊榮醫療中心 主任

中山醫學大學醫學系 教授

**專長**

高血壓、糖尿病、高血脂症

冠狀動脈疾病(含心肌梗塞)、心律不整、心臟衰竭

心導管介入治療

(含冠狀動脈、週邊血管、頸動脈支架置放術)

心律不整電燒手術、心律調節器植入手術

**學經歷**

中山醫學大學附設醫院醫學教育部 副院長

中山醫學大學醫學院 院長

中山醫學大學醫學系 系主任

中山醫學大學附設醫院內科部 主任

中山醫學大學附設醫院心臟內科 主任

中山醫學大學臨床醫學研究所醫學博士

高雄醫學大學醫學系學士

**Wen-Harn Pan, PhD , FAHA, FIUNS**

**Distinguished Research Fellow**

**Institute of Biomedical Sciences, Academia Sinica**

Dr. Wen-Harn Pan obtained her PhD from Division of Nutritional Sciences, Cornell University in 1983 and then did her post-doctoral training in cardiovascular epidemiology, statistics, and nutrition at the Department of Preventive Medicine, Northwestern University, Chicago. She has joined IBMS since 1987 and is currently a distinguished Professor in IBMS.

Dr. Pan has established a community-based cardiovascular cohort study in Chu-Dong and Putze since 1989 and led the Nutrition and Health Survey in Taiwan since 1992.

Dr. Pan has more than 358 publications with regards to cardiometabolic diseases, obesity and nutrition and currently engages in nutrition-disease genomics and metabolomics research, dietary therapy for CVD and geriatric diseases, and worksite health body promotion programs.

She obtained Outstanding Research Award from Taiwan Society of Nutrition in 2004, Lifetime Achievement Award from Asia Pacific Society of Clinical Nutrition in 2010, and Outstanding Contributions in Science & Technology Award of Executive Yuan (equivalent to State Department), Taiwan in 2015. She is an international fellow of American Heart Association and a fellow of International Union of Nutritional Sciences. She is currently appointed as a member of EAT-Lancet commission 2.0 for Planetary Health Diet.

姓 名：蘇峻弘 英文名字：Chun-Hung Su

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現職單位：中山醫學大學附設醫院心臟內科主治醫師

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**專科學會：**

台灣內科醫學會 內科專科醫師 (91 年至今)

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中華民國重症醫學專科醫師 (94 年至今)

中華民國心臟學會 心臟內科專科醫師指導醫師 (100 年至今)

中華民國心臟學會 心臟血管介入專科醫師 (96 年至今)

中華民國心臟學會第 26 屆副秘書長 (107 年 5 月至 109 年 7 月)

中華民國心臟學會 心衰竭委員會委員 (106 年至 107 年)

中華民國心臟學會 預防醫學委員會委員 (111 年 7 月至今)

台灣介入性心臟血管醫學會第 8-9 屆副秘書長 (109 年 2 月至今)

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台灣心肌梗塞學會第 1 屆學術委員會委員 (110 年 3 月至今)

中山醫學大學醫學系內科學科主任(109 年 8 月至 110 年 7 月)

中山醫學大學醫學系專任教授(112 年 2 月至至今)

**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?**

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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).

## Abstract

Based on the previous epidemiology, tobacco use is one of the major health concerns worldwide, and it is responsible for over 6 million deaths annually—almost 12% of all deaths. Tobacco-attributable mortality is 10% to 30% analyzing all deaths from cardiovascular disease (CVD), this evidence is based on the Global Report of the World Health Organization. According to the 2019 report of Taiwan's Health Promotion Administration, 25000 people die of smoking-related heart disease every year in Taiwan, with 1 person dying of smoking-induced harm every 20 min. Additionally, the prevalence of smoking among people aged over 18 years was 21.9% in 2008 but it decreased to 14.0% in 2022, among whom 24.4% male and 3.7% female adults had a habit of tobacco smoking with peaking at ages ranged from 40-49 years old.

Secondhand smoke (SHS) is the combination of smoke from the burning end of a cigarette and smoke breathed out by smokers. A systematic review and meta-analysis<sup>18</sup> reported that pooled relative risks for never smokers exposed to SHS compared with those unexposed were 1.23 (95% CI: 1.16-1.31) for CVD and 1.18 (95% CI: 1.10-1.27) for all-cause mortality. Therefore, all patients should avoid SHS exposure to reduce CVD risk as the primary prevention by several guidelines.

E-cigarettes, which have the nomenclature of electronic nicotine delivery systems (ENDS), differ from cigarettes and other combustible tobacco products in that they do not produce smoke by burning tobacco. The Heat-not-burn tobacco (HnB) is heated with an electric blade at 350°C, lower than the conventional cigarette(684°C). Based on the new Taiwan's Tobacco Hazards Prevention Act<sup>4</sup>, complete ban on E-cigarettes is legislated and HnB tobacco products is controlled strictly.

For smoking cessation, physicians should follow the 5 A's: ask about smoking, advise to quit, assess readiness to quit, assist with smoking cessation, and arrange follow-up. Food and Drug Administration (FDA) has approved bupropion, varenicline, and 5 nicotine replacement therapy (NRT) products for smoking cessation. Pharmacotherapy combined with nonpharmacological behavioral treatment increased cessation rates by 50% to 300% compared with unassisted quitting.

## **Dyslipidemia: Impact, Preventive Strategies, and Interventions**

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### **Abstract:**

Although a plenty of studies has established elevated low-density lipoprotein cholesterol (LDL-C) as a strong risk factor for ASCVD, the rate of adequate LDL-C control remains depressingly low. Consequently, primary prevention strategies for dyslipidemia have become an imperative public health priority that requires prompt attention. Recently, the Taiwan Society of Lipids and Atherosclerosis provided recommendations for optimal plasma LDL-C levels in subjects without clinically significant ASCVD based on individual's risk or comorbidities. Lowering plasma LDL-C levels by statin, ezetimibe, and PCSK9 inhibitors has been shown to reduce the risk of ASCVD. However, most pharmacological therapies to raise HDL-C or lower TG, particularly on top of LDL-lowering treatment, failed to improve clinical outcomes. There are also other emerging treatments; nevertheless, the efficacies of these treatments need to be proved in the future.

## **CKD: Impact, Preventive Strategies, and Interventions**

**Wei-Wen Lin, MD, PhD**

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Chronic kidney disease (CKD) is an independent risk factor for the development of coronary artery disease (CAD), CKD share many same risks factor as CAD, such as age, DM, hypertension, hyperlipidemia. Many other nontraditional risk factors between CKD and CAD, including inflammation, oxidative stress, and abnormal calcium-phosphorus had been proposed. Combine these two diseases increased mobility and mortality of CAD, such as acute coronary syndrome, after percutaneous coronary intervention (PCI) with or without stenting, and after coronary artery bypass. In evaluating pathology of CAD in CKD patients died in CAD, incidence of plaque rupture across different stage of CKD is high. Highly association of calcification in both small and large artery, including coronary artery and aorta. Sudden death in CKD patients, including myocardial ischemia and arrhythmic are frequent finding. The association of CKD with CAD is driven by a high prevalence of CAD risk factors. The management of CAD should be also care about the modification of CKD, as well as comorbidity and risks of treatment side effects. Recent medication such as SGLT2i may be improved with better CAD and CKD outcomes, and development of better estimators of risk as opposed to increased focusing treatment of established and non-traditional risk factors is uncertain. Further understanding of the epidemiology, pathophysiology, diagnosis, and treatment of CAD in CKD are extremely important.



## **Fatty acid/fish oil supplements, red yeast, and antiplatelet therapy**

Lin Po-Lin 林柏霖

Omega-3 fatty acids, particularly eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), have been shown to have potential benefits for cardiovascular health, including reducing TG levels, lowering BP, and reducing inflammation. However, the use of omega-3 supplements for primary and secondary prevention of CVD has been a subject of debate among healthcare professionals due to conflicting evidence from clinical trials. Red yeast rice is a traditional Chinese nutritional supplement, made by fermenting rice with a type of yeast called *Monascus purpureus*. This lipid-lowering effect of red yeast rice is mainly due to monacolin K, a weak reversible inhibitor of 3-hydroxy-3-methyl-glutaryl-coenzyme A reductase. 2023 TSOC CCS guidelines recommended that red yeast rice could be considered for secondary prevention of ASCVD without background statin treatment .However, In terms of primary prevention of ASCVD, red yeast rice still lacked enough clinical evidence

## The Role of Carotid ultrasound, PWV, CAC Score and ABI

翁國昌

Vascular calcification, a hallmark of atherosclerosis, is influenced by factors such as hyperlipidemia and diabetes. Coronary Artery Calcium (CAC) quantification, indicative of disease severity, serves as a prognostic tool. Studies demonstrate CAC's superior utility in predicting future Atherosclerotic Cardiovascular Disease (ASCVD) events compared to traditional biomarkers. The current focus on primary prevention strategies, particularly statin therapy eligibility, involves using CAC in decision-making. ACC/AHA guidelines suggest considering CAC scores in asymptomatic individuals with borderline or intermediate ASCVD risk for statin initiation or postponement. While CAC is recommended as a risk modifier in low-moderate ASCVD risk, it is not recommended for high-risk asymptomatic individuals. Additionally, the role of Coronary Computed Tomographic Angiography (CCTA) in primary prevention remains uncertain, requiring further research. These recommendations underscore CAC's significance in risk assessment for ASCVD prevention.

The Ankle-Brachial Index (ABI) is a non-invasive test measuring the ankle-to-brachial blood pressure ratio, primarily used for diagnosis of peripheral artery disease (PAD). A value below 0.9 or equal to 1.3 or more indicates PAD. ABI is explored as a marker for Atherosclerotic Cardiovascular Disease (ASCVD) risk. Studies show low ABI correlates with increased cardiovascular mortality, myocardial infarction, and stroke risk. While ABI lacks sensitivity for screening, it enhances risk assessment in borderline or intermediate ASCVD risk individuals. Incorporating ABI into risk scores, especially for women, is cost-effective. Local data supports ABI's predictive power in specific populations, including diabetes patients and those undergoing hemodialysis. Recommendations include considering ABI as a risk enhancer for primary ASCVD prevention in borderline or intermediate-risk individuals and potential use in high-risk populations like diabetes or hemodialysis patients.

潘文涵

Dietary guideline for general and specific population

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 a strengthened DASH or Mediterranean diet-like medical nutrition guideline for individualized nutrition plan.

1. 熱量與飲食計畫以減重並維持健康體位
2. 均衡健康飲食、地中海飲食及得舒飲食等健康飲食之內涵
3. 心血管代謝疾病相關危險因子之飲食調整重點

## **Fatty acid/fish oil supplements, red yeast, and antiplatelet therapy**

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- For primary prevention of ASCVD, patients with elevated TG levels ( $\geq 150$  mg/dL) who are at high ASCVD risk and have not achieved their lipid-lowering goals with statin therapy alone may benefit from the addition of icosapent ethyl, a highly purified form of EPA, at a dose of 2-4 g per day (COR IIa, LOE B).
- Patients with very high TG levels ( $\geq 500$  mg/dL) regarding pancreatic risk may benefit from prescription-strength omega-3 fatty acid supplements, including EPA and/or DHA (COR IIa, LOE B).
- Routine use of fish oil or omega-3 supplements for primary prevention of ASCVD in patients with normal TG levels is not recommended (COR III, LOE A).
- Routine antiplatelet therapy for primary prevention of ASCVD among adults of any age is not recommended (COR III, LOE A).
- Aspirin 75-100 mg orally daily might be used for primary prevention of ASCVD among adults who are at high ASCVD risk and low bleeding risk (COR IIb, LOE A).
- Antiplatelet therapy is not recommended for primary prevention of ASCVD among adults with CAC score = 0 (COR III, LOE B).
- Aspirin 75-100 mg orally daily might be considered for primary prevention of ASCVD among adults with CAC 100-399 Agatston units and low bleeding risk (COR IIb, LOE B).
- Aspirin 75-100 mg orally daily might be indicated for primary prevention of ASCVD among adults with CAC score is  $\geq 400$  Agatston units or  $\geq 75$ th percentile and low bleeding risk (COR IIb, LOE B).