



# KPNC CARDIOVASCULAR RESEARCH NEWSLETTER

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Jointly sponsored by KPNC's Division of Research Cardiovascular and Metabolic Conditions Research Section, DARE and TPMG Cardiovascular Service Line

## RESEARCH UPDATE

BY: IJAZ SHAH, MD



Ischemic heart disease commonly manifests as acute coronary syndrome (ACS) in older adults and is a leading cause of morbidity and mortality nationally. Randomized controlled trials frequently exclude older patients with significant multimorbidity, leading to a paucity of reliable data to guide more optimal revascularization strategies. We identified 3,871 Kaiser Permanente Northern California members  $\geq 65$  years presenting with ACS between 2010-2018 who subsequently underwent coronary artery bypass grafting (CABG) (N=1,575) or percutaneous coronary intervention (PCI) (N=2,296) for left main or multivessel CAD. We evaluated the association of revascularization strategy with outcomes using propensity score and inverse probability treatment weight modelling techniques to control for selection bias and potential confounding. The primary outcome was days alive out of the hospital. We observed more days alive and out of the hospital in patients undergoing CABG compared with PCI after 1 year (mean difference 6 days) with a widening of the difference over the follow-up period to approximately 131 days at 5 years. In conclusion, our "real-world" data suggests that older adults with ACS deemed eligible for coronary revascularization with CABG experienced good outcomes. Older adults should not be precluded from CABG solely based on chronological age.

[Link to Dr. Shah's Published Manuscript](#)

### REGISTER NOW!

7<sup>th</sup> Annual KPNC Cardiovascular Research Symposium

Friday, February 24, 2023 | 8:15 AM – 3:00 PM PST

Hybrid Event: Preservation Park in Oakland, CA or

Virtual by Microsoft Teams Webinar

Please RSVP here: [REGISTRATION LINK](#)

### Editors:

Andrew Ambrosy, MD, Matthew Solomon, MD, PhD, Alan Go, MD

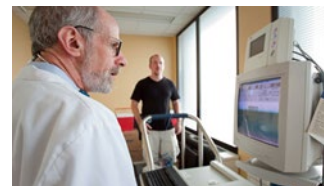
Managing Editor: Alicia Cruz

Endorsed by: Eric Au, MD and Howard Dinh, MD



## Celebrating DOR, CARDIA and Dr. Stephen Sidney

In continued celebration of the Division of Research's 60th anniversary, we would like to highlight Dr. Steve Sidney and the Coronary Artery Risk Development in Young Adults (CARDIA) Study. CARDIA began in 1985 with support from the National Institutes of Health and primarily the National Heart, Lung and Blood Institute. The original cohort included 5,115 Black and White men and women aged 18-30 from 4 Field Centers based in Oakland, CA; Birmingham, AL; Chicago, IL; and Minneapolis, MN. Participants have been followed longitudinally for over 35 years. CARDIA has produced over 900 original manuscripts, including seminal contributions to our understanding of cardiovascular risk factors, subclinical disease phenotypes, and natural aging. Dr. Sidney has been a Principal Investigator in CARDIA and has helped push forward virtually every aspect of the study, from operational leadership to scientific contributions. He will retire from TPMG in March 2023 after an incredible research career. We wish Dr. Sidney the very best, and we know he will take with him into retirement the same passion and grace that we were lucky enough to experience in all his years with us at DOR.



## INVESTIGATOR'S CORNER

ANKEET BHATT, MD



We are thrilled to welcome Dr. Ankeet Bhatt, who recently joined the organization as a Research Scientist at the Division of Research and faculty cardiologist at the KP San Francisco Medical Center. Ankeet completed fellowship training in cardiology and critical care medicine at the Brigham and Women's Hospital. Ankeet has interests across cardiometabolic health, including the design and execution of large pragmatic clinical trials, with a particular focus on evaluating the clinical utility of digital health, and the use of delivery science to improve care. He also serves on the leadership of several national clinical trials, including the TRANSFORM initiative sponsored by the American College of Cardiology. He will assume the role of Principal Investigator of the CARDIA Study following the historic leadership from Dr. Steve Sidney and is looking forward to expanding its impact. We hope you will soon have the chance to meet and collaborate with Ankeet across the section and the service line.

## HONOR(S)

The Dr. Steve Sidney Retirement Symposium/KUSP (Kaiser Permanente & UCSF Stroke Program) Reunion

## AWARD(S)

[American Heart Association honors Kaiser Permanente researcher with award for best publication](#)

Erica Gunderson, PhD and KPNC colleagues recognized for study on blood pressure patterns during pregnancy and cardiovascular and other complications

[Kaiser Permanente Vohs Quality Regional Award presented to DOR Research Scientist](#)

Stroke EXPRESS Program led by Dr. Mai Nguyen-Huynh to reduce door-to-needle time for treatment of acute ischemic stroke across KPNC honored at Kaiser Permanente National Quality Conference

## KPNC CVM-RELATED PUBLICATIONS: October 1, 2022 to January 10, 2023

**Adverse pregnancy outcomes: the missing link in discovering the role of lactation in cardiovascular disease prevention.** Lane A, Lewis CE, [Gunderson EP](#). *J Am Heart Assoc*. 2022 Oct 18;11(20):e027707. PMID: 36250661.

**Association of thoracic aortic aneurysm size with long-term patient outcomes: The KP-TAA Study.** Solomon MD, Leong T, Sung SH, Lee C, [Allen JG](#), [Huh J](#), [LaPunzina P](#), [Lee H](#), [Mason D](#), [Melikian V](#), [Pellegrini D](#), [Scoville D](#), [Sheikh AY](#), [Mendoza D](#), [Naderi S](#), [Sheridan A](#), [Hu X](#), [Cirimele W](#), [Gisslow A](#), [Leung S](#), [Padilla K](#), [Bloom M](#), [Chung J](#), [Topic A](#), [Vafaei P](#), [Chang R](#), [Miller DC](#), Liang DH, [Go AS](#); Kaiser Permanente Northern California Center for Thoracic Aortic Disease. *JAMA Cardiol*. 2022 Nov 1;7(11):1160-1169. PMID: 36197675.

**High-sensitivity troponin I is associated with cardiovascular outcomes but not with breast arterial calcification among postmenopausal women.** [Iribarren C](#), Chandra M, Lee C, Sanchez G, [Sam DL](#), Azamian FF, Cho HM, Ding H, Wong ND, Molloy S. *Int J Cardiol Cardiovasc Risk Prev*. 2022 Nov 1;15:200157. PMID: 36573194.

**Acute myocardial infarction in young adults with chronic kidney disease.** Gyurjian K, Schweis F, Patel S, Hammershaimb B, Chiu S, [Nadadur M](#), Chen A, Wu YL, Lee MS. *Coron Artery Dis*. 2022 Nov 1;33(7):553-558. PMID: 35942623.

**Prevalence of sleep-related problems and risks in a community-dwelling older adult population: a cross-sectional survey-based study.** [Gordon NP](#), Yao JH, Brickner LA, [Lo JC](#). *BMC Public Health*. 2022 Nov 8;22(1):2045. PMID: 36348296.

**Predicting short-term outcomes after transcatheter aortic valve replacement for aortic stenosis.** Savitz ST, Leong T, Sung SH, Kitzman DW, [McNulty E](#), [Mishell J](#), [Rassi A](#), [Ambrosy AP](#), [Go AS](#). *Am Heart J*. 2022 Nov 11;256:60-72. Epub ahead of print. PMID: 36372246.

**A large genome-wide association study of QT interval length utilizing electronic health records.** Hoffmann TJ, Lu M, Oni-Orisan A, Lee C, Risch N, [Iribarren C](#). *Genetics*. 2022 Nov 30;222(4):iyac157. PMID: 36271874.

**Time in therapeutic range with vitamin K antagonists in congenital heart disease: a multicentre study.** Basmaji S, Samuel M, Shohoudi A, Hamilton RM, Aboulhosn J, Broberg CS, Chaix MA, Cohen S, Cook S, Dore A, Fernandes SM, Fortier A, Fournier A, Guertin MC, Kay J, Mondésert B, Mongeon FP, Opatowsky AR, Proietti A, [Ting J](#), Zaidi A, Khairy P. *Can J Cardiol*. 2022 Nov;38(11):1751-1758. PMID: 35964887.

**Racial and ethnic differences in risk factors and outcomes in adults with acute myocardial infarction.** Hammershaimb B, Goitia J, Gyurjian K, Chiu S, [Nadadur M](#), Chen A, Lee MS. *Perm J*. 2022 Dec 4;1-9. Epub ahead of print. PMID: 36464782.

**A case report of cold drinks and food as a trigger of paroxysmal atrial fibrillation.** Lien IC, Vinson DR, Ramalingam ND, Nicole Tran H, [Liu TI](#). *Perm J*. 2022 Dec 19;26(4):110-113. PMID: 36336673.

**CTEPH: A Kaiser Permanente Northern California Experience.** [Kong J](#), Hardwick A, Jiang SF, Sun K, Vinson DR, [McGlothlin DP](#), [Goh CH](#). *Thromb Res*. 2023 Jan;221:130-136. Epub 2022 Dec 22. PMID: 36566069.

**Performance of the pooled cohort equation in South Asians: insights from a large integrated healthcare delivery system.** [Mantri NM](#), Merchant M, [Rana JS](#), [Go AS](#), [Pursnani SK](#). *BMC Cardiovasc Disord*. 2022 Dec 23;22(1):566. PMID: 36564709.

**Investigating the association between telemedicine use and timely follow-up care after acute cardiovascular hospital encounters.** Tang M, Holmgren AJ, McElrath EE, [Bhatt AS](#), Varshney AS, Lee SG, Vaduganathan M, Adler DS, Huckman RS. *JACC Adv*. 2022 Dec;1(5):100156. PMID: 36620529.

**Evaluating implementation approaches in heart failure: ripe for rEVOLUTION** [Bhatt AS](#), [Slade JJ](#). *JACC Heart Fail*. 2023 Jan;11(1):15-18. PMID: 36599544.

**Echocardiographic estimation of pulmonary vascular resistance in advanced lung disease.** DesJardin JT, [Svetlichnaya Y](#), Kolaitis NA, Hays SR, Kukreja J, Schiller NB, Zier LS, Singer JP, De Marco T. *Pulm Circ*. 2023 Jan 1;13(1):e12183. PMID: 36618711.

**A comparison of thirty-day clinical and echocardiographic outcomes of patients undergoing transcatheter vs. surgical aortic valve replacement for native aortic insufficiency.** Koch R, Inci E, Grubb K, Leshnowar B, Paone G, Ueyama H, Devireddy C, Gleason P, Xie J, Wei J, Rainer K, Ceretto-Clark B, Byku I, Greenbaum A, Babaliaros V, [Perdoncin E](#). *Cardiovasc Revasc Med*. 2023 Jan;46:85-89. PMID: 35965211.

## NEW CLINICAL TRIAL LAUNCHED

**Study Title:** ALLIANCE - Safety and Effectiveness of Balloon-Expandable Bioprosthetic SAPIEN X4 Transcatheter Heart Valve

**Principal Investigator:** Jacob Mishell, MD

**Summary:** To evaluate if the SAPIEN X4 Transcatheter Heart Valve (THV) is beneficial for patients with symptomatic, severe, calcific aortic stenosis.

**Appendix:** List of Regional CVM-Related Publications, 2020-2022



Regional  
CVM-Related Publications