



KPNC CARDIOVASCULAR RESEARCH NEWSLETTER

APRIL 2023, ISSUE 02

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

Highlights from the 7th Annual CV Research Symposium

By: Andrew P. Ambrosy, MD, Alan S. Go, MD, Paradi Mirmirani, MD and Matthew D. Solomon, MD, PhD



We started the day with introductory remarks from Dr. Maria Ansari (TPMG CEO & Executive Director-Elect) and Eric S. Au (Regional Director, KPNC Cardiac Service Line) underscoring the importance and value of clinician-investigators and site-based research to improving access, quality, and outcomes for our KPNC members. Dr. Mikhail Kosiborod (Vice President of Research at Saint Luke's Health System) gave a spectacular keynote address on the development and expanding role of SGLT2 inhibitors across the spectrum of cardiovascular, renal, and metabolic conditions. Dr. Steve Sidney (Sr. Research Scientist, DOR) next described the past, present, and future of the landmark NIH-funded CARDIA Study which has made numerous invaluable contributions to our understanding of the life course of cardiovascular health including (1) lifestyle determinants, (2) subclinical ASCVD, and (3) clinical ASCVD. Finally, we rounded the morning out with stellar presentations on asymptomatic carotid disease (Drs. Mai Nguyen-Huynh and Robert Chang), heart disease in South Asians (Dr. Seema Pursnani), adult congenital heart disease (Drs. Alison Meadows and Jennifer Ting), and implementation science (Drs. Ankeet Bhatt and Justin Slade). Thank you to all in-person and virtual attendees for making this year's Cardiovascular Research Symposium a resounding success.

In the afternoon, Alan Go, MD, moderated the panel discussion "*Getting Started and Excelling in Research at KPNC*" which included Paradi Mirmirani, MD (Assistant Medical Director, Clinical Trials Program), Joan Lo, MD (Sr. Research Scientist, DOR), Erica Gunderson, PhD (Sr. Research Scientist, DOR), Carlos Iribarren, MD, PhD (Sr. Research Scientist, DOR), Richard Grant, MD (Sr. Research Scientist, DOR), and Ashok Krishnaswami, MD (Clinician Researcher). In a video recording, Matthew Solomon, MD, PhD (TPMG Physician-Researcher Program) shared opportunities for research through the Delivery Science and Applied Research (DARE) program (www.kp.org/dare). DARE aims to support research that can directly impact operations



and patient care. Funding mechanisms range from the smaller Targeted Analysis Program, Rapid Analytics Unit, and Community Health grants (all 6-12 month projects) to larger Delivery Science Grants (2-year projects). DARE also offers additional travel and publication support up to \$2000. Important information was shared about the regional Clinical Trials Program (CTP) which conducted >345 clinical trials in NCAL last year and supported >180 compassionate use cases. The CTP provides resources for successful implementation of studies including feasibility assessments, and financial, regulatory, quality monitoring and staffing support and tools. The CTP aims to expand to more therapeutic areas by growing and developing subregional research hubs. More information on active clinical trial protocols can be found at <https://kpstudysearch.kaiser.org/>

Additional recommendations from the panel included:

- When reaching out to DOR scientists for potential collaborations/partnership, lay the groundwork by writing out the background, rationale, and clinical problem; a focused research question; and proposed methods.
- Studies using currently existing data sets or registries have a greater chance of funding and success.
- Identify mentors who can help you focus your career goals and areas of interest.

If you missed or would like to view any of the 2023 CV Symposium presentations, please click on the following link: [2023 KPNC CV Research Symposium](#)

Please note: These videos are only viewable within the KP network. You must be connected to VPN if accessing remotely.



Research Update

By: Joan Lo, MD and Nancy Gordon, ScD



Poor quality sleep is linked to excess risks for cardiometabolic complications such as obesity, diabetes, and hypertension, as well as future CVD complications and reduced quality of life and functional status. Lower quality sleep can be characterized based on duration, sleep problems (e.g., insomnia, sleep disordered breathing, fragmented sleep), and associated symptoms (e.g., excessive daytime sleepiness and lower cognitive performance). We analyzed self-reported data from KPNC Member Health Surveys conducted in 2017 and 2020 to provide contemporary information on sleep-related challenges within a community-based sample of older adults aged 65-79 years. Respondent data (N=5074) were weighted to the age-sex-racial composition of the KPNC membership. The weighted sample was over half female, nearly 25% aged 75-59 years, and ethnically diverse (7% Black, 9% Hispanic and 16% Asian or Pacific Islander), with >60% having CVD or a major CVD risk factor. We estimated that approximately 42% of adults had poor or fair sleep quality and 28% got <7 hours of sleep/day. Thirteen percent had frequent insomnia, 9% experienced frequent daytime fatigue, and 8% reported potential sleep apnea symptoms. Frequent insomnia and use of sleep aids were also more common in women, and potential sleep apnea symptoms were more common in men. Furthermore, only 1 in 10 patients had received advice about getting enough sleep from a health care professional. Our findings reveal important opportunities to increase identification of sleep-related problems and highlight the need for effective interventions for sleep-related disorders to improve symptoms and quality of life as well as to potentially lower CVD risk.

[Link to Published Manuscript](#)

Editors: Andrew P. Ambrosy, MD, Alan S. Go, MD and Matthew D. Solomon, MD, PhD

Managing Editor: Alicia Cruz

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

KPNC CVM-RELATED PUBLICATIONS (SELECT): January 10, 2023 to April 6, 2023

- Evaluating Implementation Approaches in Heart Failure: Ripe for rEVOLUTION.** [Bhatt AS](#), [Slade JJ](#). JACC Heart Fail. [2023 Jan](#);11(1):15-18. PMID: 36599544.
- 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. PMID: 36566069.
- 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. [2023 Feb](#);256:60-72. PMID: 36372246.
- Transcatheter Edge-to-Edge Repair in Patients With Anatomically Complex Degenerative Mitral Regurgitation.** [Hausleiter J](#), [Lim DS](#), [Gillam LD](#), [Zahr F](#), [Chadderdon S](#), [Rassi AN](#), [Makkar R](#), [Goldman S](#), [Rudolph V](#), [Hermiller J](#), [Kipperman RM](#), [Dhoble A](#), [Smalling R](#), [Latib A](#), [Kodali SK](#), [Lazkani M](#), [Choo J](#), [Lurz P](#), [O'Neill WW](#), [Laham R](#), [Rodés-Cabau J](#), [Kar S](#), [Schofer N](#), [Whisenant B](#), [Inglessis-Azuaje I](#), [Baldus S](#), [Kapadia S](#), [Koulogiannis K](#), [Marcoff L](#), [Smith RL](#); PASCAL IID Registry Investigators. J Am Coll Cardiol. [2023 Feb 7](#);81(5):431-442. PMID: 36725171.
- Sex- and ethnic-specific patterns in the incidence of hip fracture among older US Asian and non-Hispanic White adults.** [Lo JC](#), [Chandra M](#), [Lee DR](#), [Darbinian JA](#), [Gordon NP](#), [Zeltser DW](#), [Grimsrud CD](#), [Lee C](#). J Am Geriatr Soc. [2023 Feb 15](#). PMID: 36789920.
- Virtual Care Team-Guided Therapeutic Optimization During Hospitalization in Patients with Heart Failure: The IMPLEMENT-HF Study.** [Bhatt AS](#), [Varshney AS](#), [Moscone A](#), [Claggett BL](#), [Miao ZM](#), [Chatur S](#), [Lopes MS](#), [Ostrominski JW](#), [Pabon MA](#), [Unlu O](#), [Wang X](#), [Bernier TD](#), [Buckley LF](#), [Cook B](#), [Eaton R](#), [Fiene J](#), [Kanaan D](#), [Kelly J](#), [Knowles DM](#), [Lupi K](#), [Matta LS](#), [Pimentel LY](#), [Rhoten MN](#), [Malloy R](#), [Ting C](#), [Chhor R](#), [Guerin JR](#), [Schissel SL](#), [Hoa B](#), [Lio CH](#), [Milewski K](#), [Espinosa ME](#), [Liu Z](#), [McHatton R](#), [Cunningham JW](#), [Jering KS](#), [Bertot JH](#), [Kaur G](#), [Ahmad A](#), [Akash M](#), [Davoudi F](#), [Hinrichsen MZ](#), [Rabin DL](#), [Gordan PL](#), [Roberts DJ](#), [Urma D](#), [McElrath EE](#), [Hinchey ED](#), [Choudhry NK](#), [Nekoui M](#), [Solomon SD](#), [Adler DS](#), [Vaduganathan M](#). J Am Coll Cardiol. [2023 Feb 21](#):S0735-1097(23)04471-6. PMID: 36889612.
- Limited English Proficiency in Older Adults Referred to the Cardiovascular Team.** [Medrano FJ](#), [Fernandez AJ](#), [Sudore RL](#), [Kirkpatrick JN](#), [Benda NC](#), [Creber RM](#), [Goyal P](#), [Beavers C](#), [Maurer MS](#), [Rich MW](#), [Alexander KP](#), [Krishnaswami A](#) on behalf of the Geriatric Cardiology and Cardiovascular Team Councils of the American College of Cardiology. Am J Med. [2023 Feb 22](#):S0002-9343(23)00096-7. PMID: 36822259.
- Association between serum albumin and outcomes in heart failure and secondary mitral regurgitation: the COAPT trial.** [Feng KY](#), [Ambrosy AP](#), [Zhou Z](#), [Li D](#), [Kong J](#), [Zaroff JG](#), [Mishell JM](#), [Ku JA](#), [Scotti A](#), [Coisne A](#), [Redfors B](#), [Mack MJ](#), [Abraham WT](#), [Lindenfeld J](#), [Stone GW](#); COAPT Trial Investigators. Eur J Heart Fail. [2023 Feb 23](#). PMID: 36823954.
- Breast arterial calcification is associated with incident atrial fibrillation among older but not younger post-menopausal women.** [Iribarren C](#), [Chandra M](#), [Parikh RV](#), [Sanchez G](#), [Sam DL](#), [Azamian FF](#), [Cho HM](#), [Ding H](#), [Molloi S](#), [Go AS](#). Eur Heart J Open. [2023 Feb 28](#);3(2):oead017. PMID: 36992916.
- Research Opportunities in Stroke Prevention for Atrial Fibrillation: A Report From a National Heart, Lung, and Blood Institute Virtual Workshop.** [Go AS](#), [Al-Khatib SM](#), [Desvigne-Nickens P](#), [Bansal N](#), [Bushnell CD](#), [Fang MC](#), [Freeman JV](#), [Gage BF](#), [Hanke T](#), [Hylek EM](#), [Lopes RD](#), [Noseworthy PA](#), [Reddy VY](#), [Singer DE](#), [Thomas KL](#), [True Hills M](#), [Turakhia MP](#), [Zieman SJ](#), [Cooper LS](#), [Benjamin EJ](#). Stroke. [2023 Mar](#);54(3):e75-e85. PMID: 36848427.
- Prevalence of Albuminuria Among Adults With Diabetes and Preserved Estimated Glomerular Filtration Rate by Race and Ethnicity.** [Nwosu UA](#), [Darbinian JA](#), [Chen KK](#), [Zeng B](#), [Arzumanyan H](#), [Lo JC](#), [Zheng S](#). Diabetes Care. [2023 Mar 1](#);46(3):e78-e80. PMID: 36740980.
- Assessment of the Risk of Venous Thromboembolism in Nonhospitalized Patients With COVID-19.** [Fang MC](#), [Reynolds K](#), [Tabada GH](#), [Prasad PA](#), [Sung SH](#), [Parks AL](#), [Garcia E](#), [Portugal C](#), [Fan D](#), [Pai AP](#), [Go AS](#). JAMA Netw Open. [2023 Mar 1](#);6(3):e232338. PMID: 36912838.
- The prospective association of hyperandrogenism, oligomenorrhea and polycystic ovary syndrome with incident gestational diabetes: The coronary artery risk development in young adults women's study.** [Appiah D](#), [Hedderson MM](#), [Kim C](#), [Sidney S](#), [Sternfeld B](#), [Quesenberry CP Jr](#), [Wellons MF](#), [Gunderson EP](#). Diabetes Res Clin Pract. [2023 Mar 2](#):198:110593. PMID: 36868515.
- Extracting patient-level data from the electronic health record: Expanding opportunities for health system research.** [Farrand E](#), [Collard HR](#), [Guarnieri M](#), [Minowada G](#), [Block L](#), [Lee M](#), [Iribarren C](#). PLoS One. [2023 Mar 10](#);18(3):e0280342. PMID: 36897886.
- Approach to Multimorbidity Burden Classification and Outcomes in Older Adults With Heart Failure.** [Tisminetzky M](#), [Gurwitz JH](#), [Tabada G](#), [Reynolds K](#), [Smith DH](#), [Sung SH](#), [Goldberg R](#), [Go AS](#). Med Care. [2023 Mar 15](#). PMID: 36920167.
- Incident Atrial Fibrillation and Risk of Dementia in a Diverse, Community-Based Population.** [Bansal N](#), [Zelnick LR](#), [An J](#), [Harrison TN](#), [Lee MS](#), [Singer DE](#), [Fan D](#), [Go AS](#). J Am Heart Assoc. [2023 Mar 21](#);12(6):e028290. PMID: 36883422.
- Five-Year Follow-up after Transcatheter Repair of Secondary Mitral Regurgitation.** [Stone GW](#), [Abraham WT](#), [Lindenfeld J](#), [Kar S](#), [Grayburn PA](#), [Lim DS](#), [Mishell JM](#), [Whisenant B](#), [Rinaldi M](#), [Kapadia SR](#), [Rajagopal V](#), [Sarembok IJ](#), [Brieke A](#), [Marx SO](#), [Cohen DJ](#), [Asch FM](#), [Mack MJ](#); COAPT Investigators. N Engl J Med. [2023 Mar 5](#). PMID: 36876756.
- Multi-marker risk assessment in patients hospitalized with COVID-19: Results from the American Heart Association COVID-19 Cardiovascular Disease Registry.** [Bhatt AS](#), [Daniels LB](#), [de Lemos J](#), [Goodrich E](#), [Bohula EA](#), [Morrow DA](#); for the AHA COVID-19 CVD Registry Investigators. Am Heart J. [2023 Apr](#);258:149-156. PMID: 36669711.
- Electronic nudges to increase influenza vaccination uptake in Denmark: a nationwide, pragmatic, registry-based, randomised implementation trial.** [Johansen ND](#), [Vaduganathan M](#), [Bhatt AS](#), [Lee SG](#), [Modin D](#), [Claggett BL](#), [Dueger EL](#), [Samson SI](#), [Loiacono MM](#), [Køber L](#), [Solomon SD](#), [Sivapalan P](#), [Jensen JUS](#), [Martel CJ](#), [Valentiner-Branth P](#), [Krause TG](#), [Biering-Sørensen T](#). Lancet. [2023 Apr 1](#);401(10382):1103-1114. PMID: 36889332.

NEW CLINICAL TRIAL LAUNCHED

Study Title: Phase 2/3 Adaptive Study of VX-147 in Adults and Adolescents With APOL1-Mediated Proteinuric Kidney Disease

Principal Investigator: Anthony Alvarado

Summary: The purpose of this study is to evaluate the efficacy, safety, tolerability and pharmacokinetics (PK) of VX-147 in participants aged 12 years and older with apolipoprotein L1 (APOL1)-mediated proteinuric kidney disease. Certain people with variants in the APOL1 gene have a higher risk of kidney disease and the study drug VX-147 may be effective in treating APOL1-mediated Chronic Kidney Disease (CKD).

APPENDIX:



[Link to 2023 Regional CVM-Related Publications](#)

