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Nebraska ACC

SUPPORTING PHYSICIANS, TRAINEES, AND CARDIOVASCULAR TEAM MEMBERS WITH EDUCATION, ADVOCACY, & NETWORKING OPPORTUNITIES

Chapter News

Welcome to the Nebraska ACC Newsletter! We are excited to bring you the latest updates, important announcements, and highlights from our chapter. Dive in to learn more about what is happening in our community.

Please see articles below for coverage of our recent participation at the annual ACC Leg Conference (Chief Fellows Drs. Asim Shabbir and Tushar Sharma) and the Nebraska ACC's 7th Annual Meeting (Drs. Nidhish Tiwari and Amrin Kharawala). Special thanks for their excellent reporting on the events.

We are also excited to start planning for the Nebraska ACC's 2nd Annual Joint Women in Cardiology & Cardiovascular Team Meeting, scheduled for spring 2025.

Mark your calendars for the ACC's 2025 Annual Meeting, ACC.25, taking place March 29-31 at McCormick Place, Chicago. Member registration is now open, and general early bird registration starts October 23. For those unable to attend in person, ACC.25@Home will stream late-breaking clinical science live. Click on the links below for registrations details and the schedule:

ACC.25 Date & Location: March 29-31, 2025, McCormick Place, Chicago
Registration and Housing Information
Schedule at a Glance

Newsletter Contributions: We Want to Hear from YOU!
·If you're interested in contributing to this newsletter, please reach out to Dr. Nidhish Tiwari. We feature four brief articles quarterly: Chapter News, Cardiology Update (by a cardiologist), FIT Corner (by a fellow in training), and CVT Corner (by a CV team member).

Stay Connected!

Please follow us on **X (formerly Twitter)** and **Facebook**!

*Anuradha Tunuguntla
MD, FACC, FSCAI
Governor, Nebraska ACC*

Nebraska
CHAPTER

CARDIOLOGY UPDATE
CORONARY CT ANGIOGRAPHY AND PLAQUE CHARACTERIZATION: THE FUTURE IS HERE

Kaveh Rezaei Bookani,
MD, FACC,
Associate Professor
Division of Cardiovascular
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Coronary CT angiography (CCTA) is a robust test for evaluating coronary artery stenosis severity. CCTA can guide the use of preventative therapies, improve event-free survival, and enhance the diagnostic yield of invasive coronary angiography1.

Beyond assessing stenosis severity, CCTA also enables non-invasive characterization and quantification of atherosclerosis with high accuracy when compared with intravascular ultrasound (IVUS). In most CCTA studies, the plaques are classified into calcified, noncalcified (soft), and mixed. Noncalcified plaques can further be subdivided into plaques with lipid core and fibrous plaques. Plaque features like necrotic core, spotty microcalcifications, positive remodeling, and napkin-ring appearance are considered "vulnerable" and associated with a higher risk of cardiac events. Besides that, total coronary plaque burden is an indicator of disease severity and predicts outcomes [1,2].

The other new development in CCTA is an assessment of adipose tissue parameters, including epicardial (EAT) and peri-coronary adipose tissue (PCAT) quantification, which could indicate inflammatory changes that play a key role in the development and progression of CAD and, more specifically active, more vulnerable plaque. More research is being conducted to assess its possible clinical utility as a disease biomarker[3].

Recent CCTA studies such as ICONIC (Incident Coronary Syndromes Identified by Computed Tomography), SCOT-HEART (Scottish Computed Tomography of the Heart), and PROMISE (Prospective Multicenter Imaging Study for Evaluation of Chest Pain) have demonstrated that qualitative and quantitative assessment of atherosclerosis provides independent predictive value for future ASCVD events in short- to intermediate-term follow-up. Based on these findings, a consensus statement from the quantitative cardiovascular imaging study group was published in 20232. However, semi-automated plaque quantification is time-consuming and requires high human expertise. Therefore, plaque quantification has been limited to research studies, and its implementation in real-world clinical practice has been challenging [4].

More recently, artificial intelligence (AI) and deep learning algorithms have been increasingly applied to CCTA to improve the efficiency and accuracy of image analysis, demonstrating high performance when compared with expert readers. A recent international multicenter study showed excellent agreement between deep learning and expert reader measurements of total plaque volume. There was also excellent agreement for deep learning total plaque volume and minimal luminal area compared to IVUS. Furthermore, the mean per-patient deep learning plaque analysis time was 6 seconds compared to 26 minutes taken by expert readers4. Another study showed that AI-derived plaque quantification had long-term prognostic value during a median follow-up of 10.3 years as patients with higher plaque volume and a higher percentage of noncalcified plaque had a more than 3-fold and 4-fold increased risk of MACE, respectively [5].

References
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3. van Assen, Marly, et al. "Artificial intelligence for advanced analysis of coronary plaque." European Heart Journal Supplements 25.Supplement_C (2023): C112-C117.
4. Lin, Andrew, et al. "Deep learning-enabled coronary CT angiography for plaque and stenosis quantification and cardiac risk prediction: an international multicentre study." The Lancet Digital Health 4.4 (2022): e256-e265.
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NEBRASKA ACC UPDATE

2024 ANNUAL SCIENTIFIC SESSION

Nidhish Tiwari, MD, FACC, FASE, FACP
Associate Professor of Medicine,
Associate Program Director of Cardiovascular Fellowship.
Director of Heart & Vascular Clinics, UNMC

The American College of Cardiology (ACC) Nebraska Chapter's recent annual meeting on October 2, 2024, held at the Happy Hollow Club in Omaha, themed "Highlighting the Path to Prevention," proved to be a resounding success. Led by Nebraska ACC Governor Anuradha Tunuguntla, MD, FACC, FSCAI, and expertly coordinated by Carmen Chinchilla, MA, this summit focused on the critical theme of prevention and lipids, featuring an insightful keynote by guest speaker Pamela Morris, MD, FACC, FAHA, FASPC, FESC, FNLA. This event drew an exceptional gathering of over a hundred of the brightest minds in cardiology, with the women leaders at the forefront, supported by their colleagues, fellows, residents, and cardiovascular team representatives, all united to keep Nebraska's torch of progress shining brightly.

The evening commenced with a dynamic session featuring research presentations by residents and fellows from the University of Nebraska Medical Center (UNMC) and Creighton University, even as far as the University of South Dakota. These presentations showcased the innovative work being done by the next generation of cardiologists, covering diverse topics ranging from unique case studies and meta-analyses to comprehensive original research. The competition was fierce, with a distinguished panel of judges- Dr. Scott Lundgren, MD, Dr. Christina Dunbar Matos, MD from UNMC, Dr. Toufik M. Haddad, MD, and Dr. Amjad Kabach, MD from Creighton University— facing the challenging task of selecting winners from the pool of exceptional presentations. Meanwhile, a lively "collect the stamps" game encouraged interaction with sponsors, providing an engaging way for attendees to learn about upcoming advancements in the field.

Following the abstract competition, attendees were captivated by a keynote address delivered by Dr. Pamela Morris, a renowned expert in hyperlipidemia. Her insightful talk provided a comprehensive overview of the latest advancements in lipid-lowering therapies, ongoing clinical trials, and the implications of current guidelines. Dr. Morris's succinct yet impactful presentation empowered providers to 'highlight the path of prevention' for our patients.

The meeting also included a chapter business session, where members received updates on key organizational matters, including membership trends, financial status, and legislative initiatives. The session also saw the nomination of Dr. Nidhish Tiwari and Dr. Selma F. Mohammed as candidates for the upcoming Nebraska ACC Governor election, signaling the chapter's commitment to leadership and growth. The excitement continued with announcements of upcoming events, which will provide attendees with ample opportunities to stay connected and engaged with the ACC Nebraska Chapter.

Amrin Kharawala, MBBS,
First-Year Cardiology Fellow, UNMC

The evening concluded on a high note with the announcement of the winners of the FIT abstract competition, recognizing outstanding research contributions by Drs. Amrin Kharawala, Mansi Oberoi, and Sai Vikram Alampoondi Venkataramanan from the University of Nebraska Medical Center and Dr Ali Abdul Jabbar from Creighton University. A vibrant photo session capped off the night, capturing the camaraderie and shared passion for cardiovascular health among all attendees that permeated the event.

Until the next time!

NEBRASKA ACC GOES TO WASHINGTON

NEBRASKA CARDIOLOGISTS ADVOCATE FOR PATIENTS AT ACC LEGISLATIVE CONFERENCE

Tushar Sharma, MBBS
Chief Cardiology Fellow
UNMC

The 2024 American College of Cardiology (ACC) Legislative Conference in Washington, DC, proved a powerful experience for Nebraska cardiologists, offering a unique blend of education, advocacy, and networking. This immersive conference provided a platform for attendees to delve into critical issues impacting cardiovascular health and patient care while fostering collaboration and communication among colleagues from across the nation.

The Nebraska delegation, comprising Dr. Anuradha Tunuguntla, Dr. Joseph Thibodeau, Dr. Asim Shabbir, Dr. Tushar Sharma, and Dr. Surya Aedma, actively engaged in the conference's diverse agenda. The first day was focused on education, with small group sessions highlighting key advocacy issues such as the need for expanded telehealth access, the prevention of Medicare physician reimbursement cuts, and increased accessibility of automated external defibrillators (AEDs). The highlight was the Legislative Conference Advisor Meetup, where participants engaged in insightful Q&A sessions with advisors on legislative priorities—the day concluded with the HeartPAC Dinner, fostering camaraderie among cardiologist representatives from each state.

The second day shifted focus to equip attendees with the tools and knowledge to advocate for change effectively. Dr. William Van Decker, Chair of the Health Affairs Committee, opened the day, followed by the ACC President's address and a thought-provoking panel discussion on the regulation of artificial intelligence in healthcare. A dedicated session by ACC's Congressional Affairs team gave attendees essential talking points and strategies for successful meetings on Capitol Hill. The Health Policy Open House session was particularly enlightening for first-time attendees, featuring various stalls like Champion Access to Care for All, Establish Sustainable Payment Practices, Value-Based Care, Health Equity, and Patient Advocacy, where members of ACC's advocacy team answered questions. Later, the Nebraska delegation rehearsed questions for senators and their aides, ensuring a unified and impactful message when advocating for our patients.

Asim Shabbir, MBBS
Chief Cardiology Fellow
UNMC

NEBRASKA ACC GOES TO WASHINGTON (CONTINUED)

The final day, aptly dubbed "Show Time," saw the Nebraska delegation, armed with well-prepared talking points and a clear agenda, engage in meaningful discussions with congressional staff and senators' aides. Conversations centered on crucial issues such as expanding telehealth access, reducing prior authorization burdens, increasing community access to AEDs, and preventing further cuts to the Medicare Physician Fee Schedule. These discussions underscored the importance of physician involvement in shaping healthcare policies.

The conference proved invaluable for understanding the intersection of cardiology and policy. It provided firsthand experience in advocating for patients and highlighted the crucial role of advocacy in shaping the future of healthcare. Collaboration with organizations like HeartPAC empowers effective communication with policymakers, and the ACC's resources, such as travel grants, encourage FIT participation in this crucial dialogue.

Ultimately, the conference served as a potent reminder that advocacy is an integral part of clinical practice, essential for ensuring high-quality care and addressing systemic barriers that threaten healthcare accessibility and equity. The Nebraska delegation's participation underscores the importance of advocacy in shaping the future of cardiovascular health and, above all, keeping patients' interests first and foremost.

ACC CV TEAM NEWSLETTER

Did you know? The ACC has a monthly newsletter for CV Team Members.
Click on the link below to learn more about what is happening on the national stage!

Read the ACC CV Team Newsletter **here**!

SAVE THE DATE!
NEBRASKA MEDICAL ASSOCIATION 2025 ADVOCACY BREAKFAST

The Nebraska Medical Association's Annual Advocacy Breakfast will take place on Thursday, February 6th, 2025 from 7:30am-10:00am at Hruska Law Center, located 635 S. 14th Street in Lincoln. Join us for an opportunity to speak with the Nebraska state senators and help advocate for physicians and patients in Nebraska.

ACC.25-CHICAGO

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